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Abstract

Corruption in the health sector is a critical problem in developing and transitional economies where government resources are already scarce. In Central Europe, 81% of survey respondents reported the need to offer gifts to doctors in order to receive treatment, while procurement kickbacks and absenteeism are frequent problems in Latin American hospitals. This paper describes important areas of vulnerability to corruption within the health sector and identifies approaches for prevention. Two areas of special focus include the supply of drugs and medical equipment, and informal economic activities of health providers. These areas account for large losses in resources and have direct effects on health by reducing quality of care and access to services, especially for the poor.

Corruption in drug and equipment supply includes unethical promotion affecting registration and selection of drugs; bribes and bid rigging during procurement; and diversion of health commodities and budgets. In addition to overall reforms of government procurement, approaches for preventing corruption include promotion of essential drug lists; enforceable codes of ethics for drug marketing; better market intelligence and competitive systems for procurement; and indicator-based monitoring to promote accountability.

Corruption affecting provider-patient interactions includes under-the-table payments, absenteeism, private practice in public facilities, and pocketing of official fee revenue. Approaches for prevention discussed in the paper include encouraging private alternatives to care; legalizing user charges; changes in provider payment systems and performance-based financing.

Preventing corruption in the health sector should be linked with overall anti-corruption strategies at the national level. It will also be important to build commitment by demonstrating how reducing corruption can result in better health outcomes, improved quality and expanded access. The paper concludes with an agenda for further research.
Table of Contents

Acknowledgements........................................................................................................................................ ii
Abstract ......................................................................................................................................................... iii
1. Introduction.................................................................................................................................................. 1
2. Problems of Corruption and Health ........................................................................................................ 3
   Table 1: Types of Corruption in the Health Sector .................................................................................... 4
3. Procurement and Management of Medicines, Equipment and Supplies ............................................. 7
   Selection ...................................................................................................................................................... 8
   Promotion .................................................................................................................................................... 9
   Table 2: Drug Selection and Promotion: anti-corruption measures .................................................. 11
   Procurement .......................................................................................................................................... 11
   Table 3: Drug and Equipment Procurement: anti-corruption measures ............................................ 15
   Distribution ............................................................................................................................................. 15
   Table 4: Drug Distribution: health reforms with anti-corruption effects ...................................... 18
4. Informal Economic Activity of Health Personnel .............................................................................. 18
5. Health Reform and Global Funds ......................................................................................................... 25
6. Comprehensive Anti-Corruption Strategies: How Does Health Fit in? ......................................... 28
7. Conclusion .............................................................................................................................................. 29
References .................................................................................................................................................. 33
1. Introduction

Corruption is a concern in all countries, but it is an especially critical problem in developing and transitional economies where public resources are already scarce and inadequate management or corrupt systems can cripple growth and development. The purpose of this paper is to describe areas of vulnerability to corruption within the health sector and to identify tools and approaches for preventing corruption, drawing on existing program experience and examples. The paper will be used as input to USAID anti-corruption strategy formulation.

Development economists agree that health is an essential goal of development, and a country need not have high income to achieve better health.¹ In the health sector, the government has an important role in promoting equitable access to services, assuring sustainable financing for health objectives, and preventing the spread of disease. But too often, governments fail to perform these functions, leading to inadequate and unequal access, poor quality of care and inefficient services. In many cases, government failure is linked to corruption.

Corruption has been defined as abuse of public roles and resources or the use of illegitimate forms of political influence by public or private parties.² Corruption in health may involve bribes from a private supplier to win a government procurement contract, misappropriation of public resources for private gain, or government employees who extort under-the-table payments from patients.

The health sector is particularly vulnerable to corruption for several reasons, including the diversity of services and outlays, the scale and expense of

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procurement, and the nature of health care demand. There are many kinds of processes and expenditures occurring in the health sector, from expensive construction and high tech procurement, with attendant risks of bribery, collusion and ex-post corruption, to frontline services being offered within a provider-patient relationship marked by imbalances in information and inelastic demand for services.³

The resulting corruption in health can have great social costs. In many countries economic conditions since the late 1980s have resulted in less government financing for health services, which in turn has translated into ruptures in supply of medicines and inadequate salaries or non-payment of salaries for health workers. Within this environment, corruption becomes a survival strategy for government workers and patients alike. As health services fail, people end up having to pay out-of-pocket for services that are supposed to be free, with the burden falling disproportionately on the poor.⁴,⁵,⁶

Different countries can have divergent perceptions about corruption, given their history and the balance of political and economic opportunities and interest groups.⁷ For example, studies have shown that the health sector is seen as one of the least corrupt sectors of government in several Latin American countries, even though up to 40% of patients reported having to make informal payments to receive care.⁸ Yet in Central Europe, survey respondents consistently pointed to hospitals as one of the most corrupt government institutions, with 81% reporting

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³ I am grateful to Michael Johnston for raising these ideas in comments to an earlier draft.
⁷ Michael Johnston, 76.
the need to offer gifts to hospital doctors in order to obtain services to which they were legally entitled. Strategies for preventing corruption within a given country must consider these kinds of differences.

Research to document the costs of corruption in the health sector, and especially to test strategies for corruption prevention, is scarce. Some recent studies have documented the problem of informal economic activity or informal payments of health workers, defined as payments received that are outside of official policy, as will be discussed later in the paper. Even so, it is interesting to note that this practice is often not called corruption, though it clearly fits the definition of abuse of public roles or resources. In part this reflects the fact that corruption is not yet widely recognized among health professionals as a controllable problem or one that can be openly discussed.

2. Problems of Corruption and Health

Table 1, below, shows some of the areas or processes that are vulnerable to corruption, describing the types of problems that are likely and the outcomes that result.

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10 Omar Azfar summarizes evidence regarding the relationship between corruption and health outcomes in his paper “Corruption and the Delivery of Health and Education Services,” preliminary draft, limited circulation (College Park, MD: IRIS Center, University of Maryland, no date). While many methodological problems exist, Azfar reports that some studies have shown a significant negative impact of corruption on health indicators such as infant and child mortality, even after adjustments for income, female education, public health spending and urbanization.
### Table 1: Types of Corruption in the Health Sector

<table>
<thead>
<tr>
<th>Area or Process</th>
<th>Types of Corruption and Problems</th>
<th>Indicators or Results</th>
</tr>
</thead>
</table>
| Construction and rehabilitation of health facilities | Bribes, kickbacks & political considerations influencing the contracting process  
Contracts fail to perform and are not held accountable | High cost, low quality facilities and construction work  
Location of facilities that does not correspond to need, resulting in inequities in access  
Biased distribution of infrastructure favoring urban- and elite-focused services, high technology |
| Purchase of equipment & supplies, including drugs | Bribes, kickbacks, & political considerations influence specifications and winners of bids  
Collusion or bid rigging during procurement  
Lack of incentives to choose low cost and high quality suppliers  
Unethical drug promotion  
Suppliers fail to deliver and are not held accountable | High cost, inappropriate or duplicative drugs and equipment  
Inappropriate equipment located without consideration of true need  
Sub-standard equipment and drugs  
Inequities due to inadequate funds left to provide for all needs |
| Distribution and use of drugs and supplies in service delivery | Theft (for personal use) or diversion (for private sector resale) of drugs/ supplies at storage and distribution points  
Sale of drugs or supplies that were supposed to be free | Lower utilization  
Patients do not get proper treatment  
Patients must make informal payments to obtain drugs  
 Interruption of treatment or incomplete treatment, leading to development of anti-microbial resistance |

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11 This table is adapted from Taryn Vian, “Corruption, accountability and decentralized health systems: keeping the public’s trust” (Presentation prepared for the 130th Annual Meeting of the American Public Health Association, Philadelphia, November 13, 2002), with added components from interviews conducted for this paper. Klitgaard, Maclean-Abaroa and Lindsey use a similar format to present issues of corruption in procurement at the municipal government level in their book *Corrupt Cities: A Practical Guide to Cure and Prevention* (Washington, DC: World Bank Institute, 2000).
<table>
<thead>
<tr>
<th>Area or Process</th>
<th>Types of Corruption and Problems</th>
<th>Indicators or Results</th>
</tr>
</thead>
</table>
| Regulation of quality in products, services, facilities and professionals | ☐ Bribes to speed process or gain approval for drug registration, drug quality inspection, or certification of good manufacturing practices  
☐ Bribes or political considerations influence results of inspections or suppress findings  
☐ Biased application of sanitary regulations for restaurants, food production and cosmetics  
☐ Biased application of accreditation, certification or licensing procedures and standards | ☐ Sub-therapeutic or fake drugs allowed on market;  
☐ Marginal suppliers are allowed to continue participating in bids, getting government work  
☐ Increased incidence of food poisoning;  
☐ Spread of infectious and communicable diseases  
☐ Poor quality facilities continue to function;  
☐ Incompetent or fake professionals continue to practice |
| Education of health professionals | ☐ Bribes to gain place in medical school or other pre-service training  
☐ Bribes to obtain passing grades  
☐ Political influence, nepotism in selection of candidates for training opportunities | ☐ Incompetent professionals practicing medicine or working in health professions  
☐ Loss of faith and freedom due to unfair system |
| Medical research<sup>12</sup> | ☐ Pseudo-trials funded by drug companies that are really for marketing  
☐ Misunderstanding of informed consent and other issues of adequate standards in developing countries | ☐ Violation of individual rights  
☐ Biases and inequities in research |

<table>
<thead>
<tr>
<th>Area or Process</th>
<th>Types of Corruption and Problems</th>
<th>Indicators or Results</th>
</tr>
</thead>
</table>
| Provision of services by frontline health workers | - Use of public facilities and equipment to see private patients  
- Unnecessary referrals to private practice or privately owned ancillary services  
- Absenteeism  
- Informal payments required from patients for services  
- Theft of user fee revenue, other diversion of budget allocations | - Government loses value of investments without adequate compensation  
- Employees are not available to serve patients  
- Reduced utilization of services by patients who cannot pay  
- Impoverishment as citizens use income and sell assets to pay for health care  
- Reduced quality of care from loss of revenue  
- Loss of citizen faith in government |

Two areas where there is great potential for corruption and where corruption is a recognized concern in most countries include procurement of drugs and equipment, and informal economic activities engaged in by health providers (e.g. informal payments, private practice on government time, etc.). The rest of the paper will focus on what is known about these two areas. This is not to say that the other issues raised in Table 1 are not important; however, it is beyond the scope of this paper to treat all topics in detail and the areas chosen appear to have critical impact on health status.

Measures to prevent corruption are discussed within the USAID anti-corruption three-prong approach of limiting government authority, improving

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13 Diversion of budgets and resource-flow problems have been documented by Riitva Reinikka and Jakob Svensson in the World Bank-supported study “Assessing Frontline Service Delivery” (Washington, DC: World Bank, Development Research Group, Public Services. Draft, January 23, 2002). Reinikka and Svensson use data from two types of surveys, the public expenditure tracking survey (PETS) and the quantitative service delivery survey (QSDS) to quantify resource leakage and other problems in Uganda, Tanzania, Ghana and Honduras. Findings include 41% leakage of the non-wage health budget in Tanzania as it passes from the central level down to the facility level; in Ghana the situation was even worse with only 20% of non-wage health spending reaching the frontline facilities where it was intended to be spent.

14 Peter Berman refers to these issues more broadly as “health care delivery rent seeking and pursuit of opportunities for private profit through or as part of public service.” (personal interview, October 31, 2002)
accountability and improving incentives. Several other conceptual models exist that are also helpful for categorizing anti-corruption measures, including the TAAPE model (transparency, accountability, awareness, prevention and enforcement), which several USAID Europe & Eurasia health programs are already using to analyze corruption issues; development economist Robert Klitgaard’s heuristic model (Corruption = Monopoly + Discretion – Accountability); and Giedion et al.’s framework to summarize hospital corruption by type of relationship (doctor-patient, hospital-payer, and hospital-supplier). The paper concludes by discussing some of the corruption-related implications of health reforms and financing trends currently being adopted in many countries, and presenting recommendations for further research.

3. Procurement and Management of Medicines, Equipment and Supplies

Outside of salaries, pharmaceuticals represent the largest category of recurrent health expenditure in most government budgets. The total value of pharmaceuticals changing hands in the developing world is estimated at $44 billion. Government budgets make significant contributions to public sector drug financing, often allocating 20-50% of the government health budget to

15 USAID Center for Democracy and Governance, “USAID Handbook on Fighting Corruption” (Washington, DC. 1999) Several reviewers noted that the USAID model requires some nuanced interpretation, especially the approach of reducing government’s role and authority through privatization initiatives, and reducing discretion of health authorities. For example, an expanding private sector may actually require a stronger government role, as discussed in section 4 of this paper. In addition, limiting discretion may be a volatile issue in policy areas dominated by physicians and can have negative effects on quality of care. It may even be necessary to increase government discretion for some health reforms such as the transformation of large government hospitals into parastatal organizations with better management incentives.


17 Klitgaard, Maclean-Abaroa and Lindsey.


procure drugs. Medical equipment is also an area where large sums of money may be involved and corruption is a danger.

In this section, I will discuss drug and equipment supply issues according to the functional areas of selection, promotion, procurement, and distribution, showing where corruption is likely to occur and what options exist for prevention.

Selection

In the last twenty-five years, many countries have adopted drug policies and essential drug lists in an effort to limit the selection of drug products. By limiting choice, essential drugs lists (EDL) of generically named products help health systems to achieve expanded access to a smaller number of appropriate drugs. About 150 countries have essential drugs lists. The movement toward essential drugs lists has been critical in helping countries to increase the objectivity and transparency of the pharmaceutical selection process.

Recent efforts of WHO have promoted changes in the composition of the committees who develop and modify essential drugs lists. In the past, national expert committees made decisions about drug lists based on WHO principles for designating essential drugs, the WHO “model list,” and country preferences for certain products. One danger in this type of process is the potential for members of the selection committee to have a conflict of interest, or to be susceptible to bribes. More recently, WHO is urging countries to develop EDLs starting from

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21 Management Sciences for Health, *Managing Drug Supply: the Selection, Procurement, Distribution, and Use of Pharmaceuticals*, 2nd ed. (Boston, MA: Management Sciences for Health, 1997). MSH discusses promotional activities of pharmaceutical companies as one factor influencing drug use (p. 450-463). I have pulled out this topic as a separate function, due to the strong potential for undue influence and corruption.
evidence-based clinical treatment guidelines, rather than expert opinion. This trend will help strengthen transparency and limit the discretion of the national committee. While essential drug lists and selection processes also exist at other levels of the health system, they are usually less well developed.

Promotion

Unethical promotion of medicines is a significant problem, not only in developing countries but also throughout the world. Studies have shown that industry hospitality (e.g. all expense-paid trips to luxury resorts), gifts, and free samples all can affect physicians’ judgement. Other potential causes of conflict of interest include physicians who have financial stake in pharmaceutical or medical device companies, or receive honoraria for speaking engagements, referrals, or participation in clinic-based research. The pharmaceutical industry is “not merely a provider of drugs, but…a substantial purveyor of information and persuasion,” according to a recent report published in The Lancet. In 1999, the industry spent $8 billion on direct sales visits to physicians and exhibits at medical conferences.

27 Coyle, 397.
29 Coyle, 396.
WHO and the International Federation of Pharmaceutical Manufacturers Associations (IFPMA) have created ethical guidelines on medicines promotion, though the effectiveness of such guidelines is not well established. It is often difficult to tell when marketing ends and corruption begins. For example, there is anecdotal evidence of influence used during development of WHO clinical guidelines on hypertension. An additional problem is pharmaceutical companies promoting clinical trials that are really for marketing purposes.

One option used in U.S. hospitals to make drug selection processes more transparent is Pharmacy and Therapeutics (P&T) Committees, multidisciplinary groups who recommend policies regarding selection and use of drugs, as well as assisting with continuing education of medical staff on matters related to drugs. Indicator-based assessments and monitoring are other ways to promote rational selection and supply management by providing objective and comparable indicators that can be used to detect unusual differences in practices compared to standards, holding managers more accountable. Programs to monitor corruption, such as the Drug and Commodity Transparency Program proposed for the USAID E & E Bureau, may also help increase awareness of the problem and could help reduce corruption by increasing the risks of exposure.

Table 2 summarizes anti-corruption measures for drug selection and promotion and their likely effects.

31 Coyle, 400.
32 I Heemink et al., “Review of the Functioning of P&T Committees in Boston Area Hospitals, Parts 1 and 2” Pharmacy and Therapeutics (May-June 1999)
35 Duncan, 5-6.
Table 2: Drug Selection and Promotion: anti-corruption measures

<table>
<thead>
<tr>
<th>Action</th>
<th>Likely Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of Essential Drugs Lists (EDL) at national and sub-national levels</td>
<td>Limits influence of interest groups Limits discretion of drug selection committees</td>
</tr>
<tr>
<td>Using standard treatment guidelines as a basis for EDL</td>
<td>Promotes transparency and accountability</td>
</tr>
<tr>
<td>Enforceable codes of ethics in marketing promoted through trade and professional associations</td>
<td>May reduce unethical promotion activities</td>
</tr>
<tr>
<td>Pharmacy &amp; therapeutic committees at facility level</td>
<td>Provides vehicle for public oversight, increasing accountability</td>
</tr>
<tr>
<td>Indicator sets and indicator-based assessments, monitoring programs like the Drug and Commodity Transparency Program</td>
<td>Detects unusual selection and purchasing patterns in comparison with needs Comparative data, benchmarking, and public dissemination of information can increase transparency, incentives and motivation</td>
</tr>
</tbody>
</table>

Procurement

New trends in the financing of health commodities may have an impact on corruption. These trends have included increasing use of “basket financing” mechanisms whereby donors and the government pool their resources for financing health services, increased use of development bank credits and loans, and the introduction of global funds for specific commodities such as vaccines and TB or HIV/ AIDS drugs. These developments allow recipient agencies more opportunity to manage and disburse external resources within government systems, along with national budget allocations. With more money flowing through government systems, there are greater potential gains from corrupt procurement and distribution practices. Several authors have noted a lack of government capacity for managing procurement processes for health commodities.

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37 Woodle.
Drug regulation and quality assurance are also problems for some countries, and failure to enforce quality standards has resulted in a surge in counterfeit drugs in some parts of the world. The regulatory process for “fast-tracking” approval and licensing of drugs may be influenced by bribes. In addition, drug inspection is a process that is susceptible to corruption. Two specific areas that are worth special attention include methods of payment for inspectors, and the public release of inspection findings.

Klitgaard (2000) notes three types of corruption that are especially likely in procurement: collusion in bidding, leading to higher prices; kickbacks from contractors/suppliers, which reduce competition and influence selection; and bribes to officials responsible for regulating performance of the winning contractor, resulting in possible cost overruns and low quality. Studies of competitive contracting as a way to improve efficiency in government have noted that strong public management skills are required to write specifications, supervise and measure contract performance. Although competitive contracting in theory results in more efficient provision of services, it requires preconditions such as an adequately sized private sector, strong government, and sophisticated procedures for financial analysis and information management.

40 Association of International Pharmaceutical Manufacturers, “AIPM Position Paper on Counterfeit Drugs in Russia” (Moscow, Russia: AIPM, April 2001)
In health-related procurements, particular problems may arise in the specification of needs, as some medical equipment will require very technical specifications. Government officials concerned with procurement may not have the expertise to set these specifications. If the specifications are made too detailed and rigorous, it may limit competition, but if the specifications are too loose or vague, there may be more discretion for officials and therefore more opportunity for bribes to influence the selection. Procurement of consumable commodities can present an added danger for corruption because it is difficult to document whether the drugs or supplies were delivered. Klitgaard (2000) notes that important conditions must be in place to fight corruption in procurement, including a well-delineated civil service system (merit-based and adequately paid) and law enforcement services that can investigate problems. These conditions point to the need for health services to work with overall national-level anti-corruption and good governance programs.

Bribes, bid-rigging and other types of corruption can vary according to the type of procurement process followed, e.g. open tender, restricted tender, negotiated competition, or direct procurement. With open tender, corruption can occur when confidential information on what different suppliers have bid is selectively shared, allowing some bidders inside information. There can also be corruption in the adjudication of tenders, where the assessment of quality and reliability are unfair and influenced by bribes. With negotiated competition there can be opportunities for extortion and bribery during the back-and-forth price discussions with firms. And although direct procurement is effective with

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45 Rose-Ackerman presents arguments by Steven Kelman, former director of the U.S. Office of Federal Procurement Policy during the Clinton administration, who favored negotiated procurement with increased flexibility and outcome-based accountability for procurement officials. While Rose-Ackerman believes that the U.S. experience may have some lessons for developing countries, she notes that Kelman’s reforms may not work in a climate of “grand” (high level) corruption. According to Rose-Ackerman, approaches
known and reliable suppliers, it requires excellent market intelligence (up-to-date price information) and is often expensive.

The World Bank and WHO both promote a move from open tender to restricted-tender with pre-qualification of suppliers.\(^{46,47}\) Here, corruption tends to happen during the pre-qualification process, with firms paying bribes to get on the list of approved bidders or to restrict the length of the list.\(^{48}\) The World Bank recently produced a procurement manual providing specific guidance for procurement using World Bank credits and loan funds, and WHO has produced a separate manual for procurement of vaccines.\(^{49,50}\) USAID has assisted governments in Moldova and Zimbabwe to improve need estimation and procurement operations.\(^{51}\) Yet, more interventions are needed to promote good procurement practices, including hands-on job training, professional development, and systems redesign assistance.

Activities that can help promote transparency in procurement include the development and dissemination of performance-ratings of suppliers, and readily available and current price information. International agencies or individual countries could maintain rosters of bidders with information on past performance ratings.\(^{52}\) A more limited “white list” of reliable and pre-qualified suppliers is another way to share market intelligence. Price lists such as the MSH

\(^{48}\) Rose-Ackerman, 27.
\(^{49}\) World Bank, “Technical Note: The Procurement of Health Sector Goods.”
\(^{50}\) World Health Organization, “Guidelines for the international procurement of vaccines and sera” (Geneva: World Health Organization, Global Programme for Vaccines and Immunization, Vaccine Supply and Quality, 1998)
\(^{51}\) Woodle, 125-126.
\(^{52}\) Rose-Ackerman, 64, citing Kelman.
International Price Guide\textsuperscript{53} and a WHO web page with links to web sites with medicine pricing information\textsuperscript{54} put downward pressure on prices bid by suppliers and help to reduce opportunities for bribes. Table 3 summarizes anti-corruption measures and their effects for drug and equipment procurement.

**Table 3: Drug and Equipment Procurement: anti-corruption measures**

<table>
<thead>
<tr>
<th>Action</th>
<th>Likely Effects</th>
</tr>
</thead>
</table>
| Technical assistance to help develop governments' capacity to manage competitive procurements | Limits and clarifies authority of government officials  
Promotes competition |
| Changes in how procurement officers and quality inspectors are held accountable or paid | Provides better incentives, linked to performance |
| Public disclosure of inspection findings | Increases transparency |
| Rosters with performance ratings or white lists of suppliers, greater availability of price information | Improves accountability by increasing access to information  
Limits discretion |

**Distribution**

In the past most countries used central government procurement offices and central medical stores (CMS) to purchase and distribute commodities. The health reforms in the 1980s and 1990s have created more variations on this theme, most including some elements of privatization or contracting services. These new initiatives have been designed to improve efficiency, though in theory they may reduce the monopoly power of government and therefore prevent corruption as well. Some countries that have implemented these changes—with mixed results — include Tanzania, Zambia and Ghana.\textsuperscript{55} It will be especially

\textsuperscript{53} Management Sciences for Health and WHO, “International Drug Price Indicator Guide” (Boston, MA: Management Sciences for Health, 2001)


\textsuperscript{55} Vian and Bates.
important to evaluate these structures from the point of view of preventing corruption.

Transportation systems are an essential part of supply distribution, and are used for direct health services delivery as well. Corruption can occur when vehicles are appropriated for personal use (transporting goods to market, for example), and when fuel is stolen or diverted for non-health related uses. Recent work has documented innovative control systems to measure efficiency and effectiveness of transportation systems, also recommending public contracting of private services, or internal transfer pricing systems as ways to increase accountability.\(^{56,57}\)

Finally, the problem of theft, diversion and resale of drugs has been documented in many countries.\(^{58,59,60,61}\) Corruption at this level may include:

- theft without falsification of records, i.e. physical inventory does not match recorded stock;
- drugs dispensed to “ghost patients” who did not really attend;
- drugs recorded as dispensed to real patients who do not receive them;
- Drugs dispensed to real patients who pay for them, and the health care provider keeps the funds, contrary to government policy.

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56 Abt Associates Inc. SAFI Program, “Transport in Primary Healthcare: a Study to Determine the Key Components of a Cost Effective Transport System to Support the Delivery of Primary Health Services” (Bethesda, MD: Abt Associates Inc. SAFI Program, 2001)
57 S Nancollas, “From Camels to Aircraft: the Development of a Simple Transport Management System Designed to Improve Health Service Delivery” (Paper Prepared for the WHO TECHNET Meeting, 1999)
59 Killingsworth et al.
60 Lewis.
61 Di Tella and Savedoff.
Analyzing data from health centers in Uganda, McPake et al. (1999) estimated that over two-thirds of drugs meant for free distribution through the public sector were lost due to theft and “leakage”. An estimated 68-77% of revenues from formal user charges were misappropriated or pocketed by workers. McPake et al. believe that these practices contributed to observed low rates of utilization due to shortages of drugs and reduced financial accessibility. The authors also noted stories of deaths and abuse resulting from services withheld from people who couldn’t afford to pay. Although mostly unverifiable, these accounts were seen to demonstrate a profound lack of trust between the community members and health workers. It is unclear whether the effects documented by McPake et al. are typical of formal user fee systems in other countries besides Uganda. This is an important area for further study.

USAID projects that have focused attention on the management systems and incentives needed to prevent these types of corruption include the bilateral Kenya Health Care Financing project, the Niger Health Sector Support Program, and systems-building activities of the Rational Pharmaceutical Management (RPM) and RPM Plus projects. Local budgeting and cost recovery systems with strong financial control systems that may reduce problems, and inventory control systems associated with essential drugs programs may also be effective. But these efforts only provide technical solutions; to create incentives to implement these solutions may require additional actions such as involvement of community oversight groups or public dissemination of information to raise the risks of corrupt behavior. In Kenya, clarifying the role of District Health Management Boards and providing training for Board members helped increase accountability.\textsuperscript{62} Letters of commendation and national awards ceremonies were

also used to provide praise and recognition for employees who achieved good program results.\textsuperscript{63}

Table 4 summarizes health reforms and changes that have been implemented and their possible impact on corruption prevention.

\textbf{Table 4: Drug Distribution: health reforms with anti-corruption effects}

<table>
<thead>
<tr>
<th>Action</th>
<th>Likely Effects for Preventing Corruption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central medical stores reforms to privatize and introduce business-like incentives</td>
<td>Clarifies lines of authority Increases accountability and incentives</td>
</tr>
<tr>
<td>Transportation contracting and resource management systems, transfer pricing</td>
<td>Increases accountability and improves incentives</td>
</tr>
<tr>
<td>Improved drug management logistics information systems, indicator-based assessments</td>
<td>Increases accountability where systems are used (not just a technical solution, but requires the will to implement)</td>
</tr>
<tr>
<td>Financial management systems</td>
<td>Increases accountability where systems are put into use</td>
</tr>
<tr>
<td>Local health boards, community oversight</td>
<td>Limits discretion Improves accountability and transparency</td>
</tr>
</tbody>
</table>

4. Informal Economic Activity of Health Personnel

\begin{small}“The main drawback and cornerstone to everything in health care is the inability of government to properly remunerate people working in health care. And corruption comes in because someone earning so little is given a lot of money to take care of. Reforms have to deal with avoiding the incentives to steal. All other factors [affecting quality of care] won’t be taken care of until this is improved.”

District Health Manager, Kenya (Vian 2001)\end{small}

Besides drug and equipment procurement and management, another key area of vulnerability to corruption is health services personnel at the service delivery point (SDP) level. Health officials in many governments are paid meager salaries, with few rewards for exceptional performance. Political patronage and delays in decision-making due to lack of local authority for personnel decisions make it difficult for managers to reward staff for good performance or sanction non-

\textsuperscript{63} Ibid.
performers. Penalties for corruption, if they exist at all, are rare. Under these conditions, many workers engage in other economic activities during working hours or pursue opportunities for private gain through public service, including the practice of informal payments.

It should be noted that opinion is mixed on this topic: some condemn the practice of under-the-table payments and call on governments to put a stop to it, while others express sympathy and acknowledge that this is a necessary strategy for survival during times of economic crisis. Governments and medical professional associations may provide mixed messages about the acceptability of such practices, as has been documented in Hungary. This ambivalence creates a difficult environment for policy making. Yet, as Lewis (2000) makes clear, tacit acceptance of informal payments “reduces [the government’s] effectiveness as manager of the overall system, and undermines its credibility as both guarantor and regulator of the health care system.”

Recent literature has begun to document the growing problem of under-the-table payments for supposedly free health care services, and other illicit economic activities engaged in by health workers (e.g. various drug theft or diversion schemes described above, using public facilities to engage in private medical practice, working less than full-time at a full-time public job, etc.). Studies have documented these problems in Uganda, Eastern Europe and Central Asia, Russia, Bangladesh, Vietnam, and Latin America.

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65 Lewis.
66 McPake et al.
67 Lewis.
69 FG Feeley, IM Sheimann and SV Shiskin, “Health Sector Informal Payments in Russia” (Boston: Boston University Department of International Health, 1999)
70 Killingsworth et al.
Lewis (2000) defines informal payments as “payments to institutions or individuals in cash or in kind made outside official payment channels for services that are meant to be covered by the public health system.” These types of payments are increasingly common: in CIS countries, more than 60% of those surveyed reported making informal payments, while in Armenia the figure topped 90%. McPake et al. (1999) observed that informal payments were sometimes five to ten times as high as formal user charges in Uganda. In Bolivia, 44% of doctors surveyed in municipal hospitals reported that informal payments occur “always”.

One problem in documenting this type of corruption is that it is difficult to draw the line between bribes and gift giving, the latter of which may be a culturally accepted practice for creating “webs of relationships based on mutual obligations.” For example, in Kazakhstan the word syilyq refers to feast gifts and counter-gifts from host to guest given during a feast; however, it also may be used to refer to a watch or suit given to a doctor in exchange for better medical treatment. In Kyrgyzstan, 55% of respondents thought it was permissible for a

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73 Di Tella and Savedoff.
74 Informal payments are considered separately from the theft or diversion and re-sale of drugs (mentioned in the previous section), though in practice it can sometimes be hard to distinguish these types of corruption.
75 Lewis.
78 Werner.
The Rise of Informal Payments in Russia

The Situation in 1990
Before the transition, Russian government could expand the size/employment in the health care system to levels that are not sustainable in a market economy. Russia boasted more doctors per capita than most Western countries, and doctors could be paid low wages because many items were subsidized (housing, food) and few other consumer goods were available to buy. Government produced all pharmaceuticals and could subsidize production at the source. There were only a few drugs per therapeutic class, so essentially no distinction between brand name and generic existed. With prices subsidized, it was possible to charge affordable prices for outpatient drugs.

After 1991
The creation of a market economy meant that the Russian Government could no longer subsidize the factors of medical production at source. Health care personnel had to pay rising prices for necessities. The drug market was opened to international competition, and brand name drugs came on the market. The Government’s weak tax collection systems could not sustain the level of total health expenditures seen under the Soviets. Salaries (if paid) to health personnel were inadequate to maintain their accustomed standard of living. At the same time, more consumer goods were available and more visible as private sector workers were able to purchase them. The Government refused to recognize that it could not support the health establishment it inherited; it would neither downsize, redefine the package of free services, nor institute formal fees that might be managed in such a way to reduce the impact on the sickest and poorest. Patients were forced to pay market prices for drugs now prescribed by brand name. Surveys show that drug costs are now particularly regressive, and many patients go without the prescribed drugs because of inability to purchase. Under-the-table payments for medical services have soared as health providers try to assure themselves a living wage, and patients try to obtain the care they need.

Source: Communication with F. Feeley, Boston University School of Public Health (October 28, 2002)

Informal payments reduce access to services. They have been associated with delays in seeking care in Poland, declines in prenatal care in Tajikistan, and decreases in household assets in the Kyrgyz Republic. Informal payments with large reductions in use of services, due to financial inaccessibility of care. The burden of informal payments was shown to be regressive in Romania, with poor households paying twice as much as medium-income households, and medium-income households paying twice as much (proportionately) as high-income households. Informal payments also reduce trust in government and in health workers, feeding feelings of hopelessness and

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80 Lewis, 25.
81 World Bank, “Diagnostic Surveys of Corruption in Romania.”
alienation, particularly among the poor. The text box describes the factors that led to the increase in the level of informal payments in Russia.

Informal payments are a survival strategy for both under-paid professionals and patients, and may have root causes in inadequate overall rates of compensation for health workers, overstaffing in the public health work force, and provider payment systems with inadequate performance incentives. Some of the solutions being considered for dealing with informal payments include downsizing of the public system, changing payment systems for health care providers, legalizing cost sharing, and improving accountability through performance-based management and financing systems. In theory, downsizing government can allow increases in individual salaries without increasing total salary expense presumably resulting in a more livable wage, albeit for fewer personnel. In practice, there is little evidence of this occurring however.

Another positive effect, in theory, is the gains in accountability that can result from moving doctors from salaried civil service status to a contractual relationship (either with payment per service, or per capita, or other types of reimbursement contracting). These types of service arrangements acknowledge that providers often engage in both private and government service, whether this practice is legal or not. For example, in Bangladesh, an estimated 80% of government doctors engage (legally) in private practice as well, and most at least double their government salary this way.

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82 Ibid, 20.
83 The increase in informal payments in Russia is a problem that must be seen in the broad context of economic and health sector reform, including problems of oversupply of physicians, low wages, and very low levels of health spending. See Cashin and Feeley 2002 for more on this topic.
84 Martinez and Martineau.
85 Gruen et al.
In practice, the effects of changes in provider payment mechanisms are mixed and depend on many things including how changes are communicated, values in society, and whether there is enough money in total being spent on reimbursing providers. In Poland, the introduction of fee-for-service and capitation payment systems has not had much effect on the practice of informal payments; yet in Colombia similar changes in payment systems have been successful in decreasing the incidence of under-the-table payments. In the Czech Republic, informal payments have all but disappeared; however, in addition to changing provider reimbursement mechanisms the government has also greatly increased the total amount of spending in the health system and has communicated those changes in a systematic way.

Moving from salaried civil service status to contractual relationships with key employees may increase accountability, but the state will still have a difficult role to play in regulating such a system. For example, in Northern European countries such as Finland, Sweden and Great Britain health reforms have shifted health care provision from fixed-budget bureaucratic institutions to contract payments based on performance. While this has increased operating efficiency, it has also required the State to play a more sophisticated role in regulating services. The move from direct control of service provision to contracting actually increased regulatory action, rather than reducing the role of the State. Similar findings have been noted in the Czech Republic, Estonia and Slovakia. Government regulation is needed to avoid problems such as diverting of patients to private practice when they could have been treated in the public sector,

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86 Peter Berman, personal communication October 31, 2002.
87 Ibid.
89 Saltman.
conflict of interest where physicians own government-contracted ancillary services, and supplier-induced demand.\textsuperscript{90}

Table 5 summarizes anti-corruption measures for dealing with informal payments and other human resources management issues. There is need for more research to determine the effects of these strategies in practice.

Table 5: Informal payments and personnel: anti-corruption measures

<table>
<thead>
<tr>
<th>Action</th>
<th>Likely Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downsize government and pay workers higher wages</td>
<td>Improves incentives, though politically difficult</td>
</tr>
<tr>
<td>Promote government contracting for payment of private providers rather than civil service; encourage private alternatives</td>
<td>Increases accountability and improves incentives</td>
</tr>
<tr>
<td></td>
<td>Competition from private providers increases clients’ exit options\textsuperscript{91}</td>
</tr>
<tr>
<td>Develop performance-based management systems and provider payment systems</td>
<td>Increases accountability and provides better incentives, since performance is rewarded</td>
</tr>
<tr>
<td>Legal cost sharing</td>
<td>Reduces opportunities for extorting payments</td>
</tr>
<tr>
<td>Increase role of community committees, local health board activism</td>
<td>Improves accountability by providing ways for users to voice approval and disapproval, increases chances corruption will be caught</td>
</tr>
<tr>
<td>Report cards for public services\textsuperscript{92}</td>
<td>Improves accountability and incentives</td>
</tr>
<tr>
<td>Analysis and dissemination of results of surveys and data collection (such as standards of living surveys, PETS, QSDS, and DHS)\textsuperscript{93}</td>
<td>Improves transparency and accountability; helps detect gaps between what the service statistics say and what patients report</td>
</tr>
</tbody>
</table>

\textsuperscript{90} Gruen et al.

\textsuperscript{91} Gray-Molina, Perez de Rada and Yanez.


\textsuperscript{93} PETS (public expenditure tracking survey), QSDS (quantitative service delivery survey), DHS (demographic and health survey). Reinikka and Svensson note that when survey data from Uganda documenting leakages of funds became public knowledge, government officials implemented a number of reforms including the publishing of monthly transfers of public funds to the districts in the mass media, and requiring facilities to post information on inflowing funds, thus increasing transparency and public accountability (p. 21).
5. Health Reform and Global Funds

Health reform involves changing government institutions and policies in purposeful, fundamental and sustained ways. Countries adopt health reforms in response to external and internal drivers for change, including economic crisis, inequitable resource distribution, gaps in quality, changing health needs and changing societal norms. Health reforms have taken different directions, but some important movements have included decentralization, privatization, health insurance and user fee systems, changes in provider payment systems, and restructuring of tertiary and secondary levels of care.

USAID has provided enormous support for countries undergoing health reform. Through multilateral projects such as Partners for Health Reform Plus (and its predecessors) and through bilateral assistance projects such as the Russia Legal and Regulatory Health Reform Project, USAID has collected data, conducted research, and informed policy decisions at many stages and levels. The relationships that have been developed through this process are a significant resource for the promotion of anti-corruption strategies. As institutions and structures are changing, there are many opportunities to incorporate corruption prevention into new policies and designs, or to highlight the anti-corruption benefits in practices that are already being supported through health reform. For example, health insurance fund and hospital reform efforts in Kyrgyzstan and Romania, funded with USAID assistance, have included the design of new reimbursement methods that can improve accountability and reduce opportunities for corruption. USAID’s work in promoting National Health

94 Peter A Berman and Thomas J Bossert, “A Decade of Health Sector Reform in Developing Countries: What Have We Learned” (Boston, MA: Data for Decision Making Project, Harvard School of Public Health, 2000)
95 Web site: http://www.phrproject.com/
96 Web site: http://dcc2.bumc.bu.edu/RussianLegalHealthReform
97 Duncan.
Accounts can also be used as a springboard for the construction of spending standards and comparison of expenditure patterns to improve accountability and transparency.\textsuperscript{98}

Another recent development in international health has been the creation of public-private partnerships channeling financial assistance through global funds. These funds pose a huge opportunity and challenge for anti-corruption strategy, especially due to the conscious structuring of global funds to circumvent national bureaucracies and speed the process of disbursement. The Global Alliance for Vaccines and Immunization (GAVI) has committed over $600 million for vaccines and vaccine program-related expenses, while the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM, or Global Fund) plans to disburse $600-800 million in the year 2002 alone.\textsuperscript{99} The Global Fund has solicited proposals from Country Coordinating Mechanisms (committees of individuals from communities, churches, government and the private sector) who decide where the funds are to go. The Global Fund then intends to use accounting agencies as Local Fund Agents rather than channeling funds through slower bureaucracies such as national governments or international organizations like the World Bank, WHO or UNDP. One of the first proposals accepted was $12 million for the Tanzanian National Malaria Control Program; however, the grant has been delayed due to accounting problems as described in a recent National Public Radio report.\textsuperscript{100} It seems that the government’s accounting procedures allow grants to flow only through the Ministry of Finance. Questions about flows of funds have arisen in South Africa and Uganda as well.\textsuperscript{101}

\textsuperscript{99} Vian and Bates.
\textsuperscript{101} Ibid.
Because the Global Fund to Fight AIDS, TB and Malaria is just beginning to give funds, the responsibilities of Local Fund Agents vis-à-vis the Country Coordinating Mechanisms used to develop the proposals are not yet clear, and this may create problems for accountability. In addition, approved proposals are not available to the public, signaling a lack of transparency in the process.

The real strategy being used to assure accountability for global funds (both GAVI and the GFATM) is performance-based grant mechanisms, which means that after the initial grants countries will only be able to receive additional funding based on the achievement of performance benchmarks. Performance-based incentives have the potential to increase accountability, but the incentives for false reporting are also clear, and costs of monitoring can be significant.\textsuperscript{102,103} GAVI’s measures for performance are targeted increases in vaccination coverage; the Global Fund’s indicators for performance are yet to be decided.

If global funds are wasted or lost to corruption, this huge new source of international support for the needs of poor countries may be lost, as trust is broken and the public-private partners become disillusioned. The risk is real, as indicated by recent reports of diversion of donated anti-retroviral drugs from the public sector to the private sector, and from poor countries to developed country markets.\textsuperscript{104,105} Additional costs are involved in extending models of performance-based financing throughout the health care management system in ways that are sustainable. USAID has had some experience in implementing

\begin{itemize}
\item \textsuperscript{102} R Brugha, M Starling, and G Walt, “GAVI, the first steps: lessons for the Global Fund” \textit{Lancet} 359 (2002):435-438
\item \textsuperscript{103} A Heaton and R Keith, “A long way to go: a critique of GAVI’s initial impact” (United Kingdom: Save the Children Briefing Analysis, Revised edition March 2002)
\item \textsuperscript{104} George Kibumba, “Donated fluconazole stolen in Uganda,” \textit{E-drug Listserv}, October 4, 2002
\item \textsuperscript{105} James Love, “Plan to curb illicit medicines trade,” \textit{IP-Health Digest}, Vol 1 #976, October 29, 2002
\end{itemize}
performance-based grant systems in the Philippines and Haiti\textsuperscript{106,107,108} More should be done to share the lessons learned from these programs.

6. Comprehensive Anti-Corruption Strategies: How Does Health Fit in?

An important element of strategy formulation is evaluating the external environment. For corruption and health, this means assessing what are the anti-corruption strategies going on at the national level--or even international level--and how does health fit into these movements. Also, what are the directions other donors are taking, and how can USAID’s approach be complementary and coordinated, to gain most benefit from all resources directed at this challenge.

Because there will be many anti-corruption strategies taking place outside the health sector, the health sector strategy must inform stakeholders at all levels of how health fits into overall anti-corruption strategy and policies. Much of the corruption found in the health sector is a reflection of general problems of governance and public sector accountability. Thus, the strategy for preventing corruption in the health sector will need to include education of health professionals about overall government anti-corruption measures such as civil service management reform, changes in public accounting practices, and anti-corruption agencies, to promote better understanding of how these initiatives may benefit the health sector. The planned study of corruption sponsored by the USAID Europe & Eurasia Bureau incorporates this type of inter-sectoral sharing and collaboration\textsuperscript{109}. It is also important to increase understanding of the costs of

\textsuperscript{106} Management Sciences for Health, “Lessons Learned from the Family Planning Management Development Project” (Manila, Philippines: MSH, 1993)

\textsuperscript{107} Management Sciences for Health. Using Performance-based Payments to Improve Health Programs. The Manager 10 (2001)

\textsuperscript{108} Rena Eichler, Paul Auxila and John Pollock, “Performance Based Reimbursement to Improve Impact: Evidence from Haiti” (Presentation to the Commercial Market Strategies Project, Washington DC, October 2002)

\textsuperscript{109} Duncan.
corruption in health and convey the sense that something can and ought to be done about it.

Donor coordination of approaches is also essential. Where improved financial management or inventory management systems are to be tested, donors should agree on a common approach and support it fully. A strategy of increasing the participation of civil society in oversight structures, for example, holds more chance of success if multiple donors support the initiative and share the costs of developing capacity and evaluating implementation.

Finally, any corruption prevention strategy must plan on conducting promotional activities to build commitment and support. To do this, USAID and other donors must first show commitment to rooting out corruption and corrupting influences in their own agencies. For example, some issues USAID might want to address directly are financial management and procurement corruption, potential dangers of nepotism from relying on local nationals as agents, and favoritism toward certain contractors. The World Bank has included self-analysis as one of the central tenets of its corruption prevention strategy. To demonstrate commitment to an anti-corruption strategy, USAID must show a willingness to examine its own practices in a similar fashion. Other promotional strategies could include educational seminars and dissemination of research findings.

7. Conclusion

This paper has suggested specific areas within the health sector that are most vulnerable to corruption. Priority areas of concern include procurement and distribution of drugs and equipment, and informal economic activities of health workers. These areas not only account for large losses in resources, but also have
the most direct effects on health in terms of reductions in quality of care and access to services, especially for poor segments of the population. The paper has also argued that corruption prevention strategies in the health sector should link with health reforms and initiatives in other sectors, and efforts must be made to convince health policy decision makers and frontline health workers that something can be done about corruption.

Finally, the paper has revealed several areas where further research is needed, as described below. It is hoped that this list will provoke more discussion among health and governance staff and ultimately result in an agenda for research that will be an important part of the USAID anti-corruption strategy for the health sector.

- **Assessing Corruption in the Health Sector.** More research should be done to develop tools and methods to assess corruption in the health sector. For example, World Bank corruption surveys and other data sources could be mined for health-specific findings regarding the disproportionate impacts of corruption on the poor. The refined methods and tools could be used to document the extent and costs of corruption in accreditation systems, food and drug regulation, and other areas described in Table 1 (not covered in this paper) and to broaden and deepen the analysis of the two areas included in this paper (i.e. procurement and informal payments).

- **Corruption and user fees.** Misappropriation of fee revenue was estimated to be 68-77% in Uganda. Is this range typical of what most user fee systems experience? What role do improved accounting systems and civic oversight structures play in reducing revenue loss? How scaleable are these types of solutions?
National Health Accounts and other data sets as anti-corruption tools. How can National Health Accounts data be used to improve accountability and transparency in health sector spending, identify problem areas or set standards? What other sets of data exist, and how have they been used to detect and draw attention to resource allocation/ misallocation concerns? What are the technical and political issues that must be addressed before NHA or other data sets can be used as an anti-corruption tool?

Performance-based financing mechanisms. The health sector seems to raise particular challenges in applying performance-based mechanisms. For example, there is a risk that performance-based financing for health result in health care needs not being met, or too much focus on easy-to-quantify indicators to the exclusion of important health activities that are harder to measure. How can performance-based financing mechanisms be structured to minimize negative health effects while retaining incentives for achievement? Can low-cost verification systems be made corruption-resistant? How have these challenges been managed in practice?

Global Funds and Corruption. Global funds are already having a large impact on the budgets of the poorest countries and will need special vigilance. What are countries doing now to address the potential for corruption in these large-scale public-private partnerships? How are Country Coordination Mechanisms increasing transparency and accountability in practice, and how will they interact with Local Fund Agents? What measures should be used to evaluate the effectiveness of these different initiatives over time?

Targeting and Sequencing of anti-corruption strategies. What do we know about effective targeting and sequencing of strategies for preventing and
curing corruption in the health sector? Should anti-corruption strategies be targeted to the youth who may be more willing to change? What are the key factors that influence people's behavior vis-à-vis corruption and adopting anti-corruption behaviors? Behavioral change models can be used to identify how much people are influenced by personal beliefs, perceptions of what others are doing, and beliefs about personal control. This information can then inform the targeting and sequencing of anti-corruption efforts.
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