Managing Health Professionals in the Context of Limited Resources: a Fine Line Between Corruption and the Need for Moonlighting

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Introduction

It is fashionable to blame governments and civil servants for the public sector’s dismal performances as a health care provider. Doctors and nurses in government employment are labelled ‘unproductive’, ‘poorly motivated’, ‘inefficient’, ‘client unfriendly’, ‘absent’ or even ‘corrupt’. The moralistic connotations of these simplistic characterisations do not help. The widespread ‘demotivation’ is said to be due to ‘unfair public salaries’ which are presented as the de facto justification of ‘inevitable’ predatory behaviour and public-to-private brain-drain (1-6). In many countries, developed and developing alike, this has eroded the implicit psychological and social contracts that underlie the civil service values of well-functioning public organisations (7). There is a stark contrast between the apparent easiness of victim blaming and the reluctance of official discourse to face up to the problem.

This paper reports on income generation among civil servants in the health sector. It approaches the subject of corruption in general and the strategies that have been suggested and/or tried to deal with them. It then looks at organised crime and corruption in the health sector. It goes on to argue that many of the current coping strategy practices of health personnel in many countries cannot be simplistically equated with corruption, although there is a fine line separating the two.

There is surprisingly little hard evidence about the extent to which health staff resorts to such coping strategies, about the balance of economic and other motives for doing so, or about the consequences for the proper use of the scarce public resources dedicated to health in developing countries. These personal coping strategies are, many times, a necessary means of trying to meet the survival needs of the health workers, reflecting the inability of health ministries and international development agencies to ensure adequate salaries and working conditions. They have obvious negative impacts that have to be addressed.

Theorizing on corruption

Corruption has been a long-standing concern in development circles. The literature is rich on theories ranging from macro-sociological analyses of socio-cultural processes to dyadic game theory modelling. Although impressive, this theorizing has not resulted in useful, empirically validated tools to redress the problem of corruption (8).

For these reasons, we prefer to understand this issue from the perspective of the conditions that ensure that health professionals are socialised in a context where, they themselves and society come to expect a standard of living that cannot be met by existing social systems, sometimes to a level where they cannot even satisfy their basic needs through their public sector salary. They then resort to strategies that we called coping strategies (3). One needs to distinguish between individual coping strategies and orchestrated activities, acknowledging, nevertheless, that they may be closely interrelated. For example, hospitals with limited budgets in Russia see illegal charges as the only way of financing medical supplies (9). Some of these orchestrated activities are part of legitimate union action; others can still be classified as organised crime. In Mozambique, for example, actual theft of drugs is reported as highly organised: “No one ever steals alone.
There are always third parties involved. There is also a distribution circuit. This involves cooking the books to eliminate all evidence of stolen goods, bribing those in charge of supervision, having reliable sales' outlets (at home, private pharmacies, private clinics, Dumbanengs, etc.). Recently there is even talk of «contracts» between private clinics and public sector health workers to ensure the steady supply of a certain type of medicines ... may even be carried across the border to neighbouring countries. These circuits may even be under the control of people not associated with the health care sector, but rather with the import/export business” (10).

The problem starts with the definition of corruption. Definitions widely accepted have many times ideological connotations. The definition of corruption as the “private use of public goods” is frequently associated with authors that, in the end, come to defend, a greater role for the private sector in the provision of public services such as education and health (as proposed by Van der Geest) (11), but without sufficient evidence of its effectiveness. They fail to acknowledge that corruption in the private sector may be a significant problem (12) and that liberalizations and transition from state control systems to systems where the market plays a greater role has, many times, resulted in more and not less corruption (13).

Another problem with current research is its treatment of corruption as something that would be the same everywhere, with essentially the same causes and implications wherever it occurs (14).

A third problem is that of the moralistic and criminal connotations of the word “corruption”. It should be kept in mind that not all that is illegal is corrupt and not all that is corrupt is illegal, and that also a distinction should be kept between immoral and corrupt transactions (12).

The literature tends to focus on the “corrupt”, failing to acknowledge that contexts that generate so-called corrupt behaviours, generate them across the whole spectrum of society, to the extent that it becomes an ingrained and acceptable part of society, a necessary evil to survive in a very harsh environment. This shift from focusing on the persons involved to the system in which the professionals are integrated, has taken place in other areas, such as in quality management (15) and in the prevention and control of industrial accidents (16) or medical errors (17). Sooner or later this is likely to happen with the corruption literature as well1.

Corruption has a negative impact on development in general. It hits the poor harder, directly and indirectly by, inter alia, reducing their access to public services such as education and health care (18,19). This impact is also felt in indicators of health status. There is an inverse relationship between indices of corruption and ratio of public health spending to GDP, and child mortality rates (20). As such, it cannot be ignored by health sector managers but, labelling is not only misleading and counterproductive, but also does not help to mobilise the coalitions necessary to address the problem.

1 Although our focus is mostly on developing countries in Africa, we acknowledge that the problem is not insignificant in developed countries, the transition economies of the former Soviet Union, Latin America, Asia and even in Europe. See examples from all these in the Global Corruption Report 2001 (18).
Corruption in the health sector

When compared with other sectors health is frequently classified as being of median to high level corruption, with sectors such as public works contracts and construction, arms and defence, energy and industry appearing as more corrupt (21).

The professional literature hardly touches on corruption in the health sector. It is anecdotal (Yudkin reports, from two Kenyan newspaper articles, that two ministry of health officials had been bribed to purchase sufficient quantities of two medicines made by one company to last the nation for more than 10 years, whereas at least one of the medicines would expire in two to three years) (22) (see also Baxter J 1998) (23), opinative, peripheral to the core issues (25) or lacking in empirical data. Empirical data are, nevertheless, available from a number of studies and reports (9, 11, 18, 23-29), most of which are reviewed in the next section under the umbrella of personal coping strategies of underpaid staff.

One of the earlier papers on this was by Van Der Geest (11). It made an attempt to explain why health services in south Cameroon functioned so inefficiently, with a special attention to the distribution of medicines. It calculated that the "elementary health centres received on the average about 65% of the medicines they should have received", this proportion increasing for the "more developed health centres" and even more for the hospitals. Once in the institutions, "many of the medicines which finally arrive .... and which should be distributed freely among patients is taken by health personnel for private use or distribution among friends and relatives. Medicines are also sold to petty traders or directly to patients visiting health workers in their private homes", resulting in a further loss of medicines of 30%, for health centres and of 40%, for hospitals. The main consequences of these practices were: underutilization of health services known to be without medicines; a very limited stock of medicines, which forced health professionals to treat patients with too small doses of medicines; referral of patients with prescriptions to expensive private pharmacies; and an increase in inequity, as rural populations were clearly at a disadvantage compared to urban populations. The author came to the reluctant conclusion that the root cause of the observed inefficiency was corruption, deeply embedded in socially accepted practices of "gift-giving, with the preponderance of traditional loyalties over obligations to the state, and with a proprietary view of public offices". The most important single factor encouraging corruption, was, however, "the position of the state as the main source of goods, services and employment and the relative under-development of the private commercial sector". In the end Van Der Geest reluctantly acknowledged that "suggestions to ameliorate the situation are hard to make".

The personal coping strategies of underpaid staff

Most would agree that public sector salaries are most often 'unfair'. For example, in 1999 a Mozambican nurse's salary was only 10-15% of what it had been 15 years before (30). In many countries health staff is going through similar experiences. In Russia, state doctors earn between US$15 and US$50 per month (9). In the Dominican Republic, in 1996, physicians with 20 years of experience earned the same as new medical graduates, rewards for good performance were impossible and personnel were paid regardless of whether they performed their duties (31). In such a context, 'demotivation', overall 'lack of commitment' and low productivity are to be expected.
To compensate for unrealistically low salaries, health workers rely on individual coping strategies (1-6, 9-11, 25, 26, 32-62). Many clinicians combine salaried public sector clinical work with a fee for service private clientele (3-6,33-37,40,46-49,52,53,56,61). Others resort to absenteeism (32,52,53), or predatory behaviour, asking under-the-counter payments for access to ‘free’ services (41,42,54) or goods and/or misappropriating drugs or other supplies (10,11,35,51,57) and referral of public sector patients to private practices (26). Another example is fee splitting, whereby a specialist shares a fee with the referring physician (26). In 1998, for example, a group of Italian general practitioners were suspended for accepting payments to send their patients to a particular private centre for radiology examinations (30). It is common practice in the United Kingdom for consultants to spend time in private clinics when they should be attending to their public duties (26). Patients and practitioners may collude to deceive a third agent: in Kazakhstan, for example, it is reported that doctors regularly provide false health reports, in return for a fee, so that patients can obtain driving licenses (26). A further form of fraud through misinformation is exemplified by the case of the English GP that forged consent forms for patient participation in medical trials in order to boost income (61). The problems these coping strategies create are increasingly recognised (6,46-48), although the subject remains taboo for many ministries of health and development agencies.

MISUSE OF PHARMACEUTICALS

Drugs are - in the current context of scarce resources, health care reform, promotion of generics, the HIV epidemic and of growing demand for health care - a sensitive issue, as in many low-income countries, pharmaceuticals makeup 50% or more of health care costs (63). With health sector reforms, private sector pharmacies are increasingly becoming the first and sometimes the only outlet for the delivery of health services (64,65,66,67). In this environment, and for several reasons - including the “business profession dilemma” in private pharmacy practice - irrational prescription can become a major problem (68,69,70,71). Antibiotics are often sold without a prescription (72,73). In other settings, hospitals and health centres, misappropriation is a widespread practice by all categories of professionals, infrequently explicitly acknowledged or documented, even in studies that have looked into the coping strategies of health professionals (3-5,36,37,49,52,53). But it has been documented in a number of African (10,11,35,51,57), and Latin American countries (25). Where documented it is perceived as common practice.

In Uganda, for example, misuse of pharmaceuticals was reported by facility health workers as well as by the District Health Teams and the Health Unit Management Committees; resale of drugs represented the greatest single source of income for health workers in most units (35,51). In many other developing countries the situation is supposed to be similar if not worse.

A key-informer survey of health workers from Mozambique and Cape Verde transmits the impression that misuse of pharmaceuticals for personal gain takes various forms – from outright stealing to requesting under-the-counter payments or overcharging (Box 1). “The porter was searched by the security people at the gate and they found several medicines in his handbag”, “in Nyassa a health centre worker removed antibiotics from his workplace to send them across the border to Malawi, in exchange for ... shoes, TV sets, video sets, hi-fi sets, etc. He opened his own shop in town on account of his dishonesty.” “the nurse replaced prescribed post-op pethidine with Diclofenac or Aspergic. He sold the pethidine to drug addicts afterwards”, “My mother went to a public hospital and the doctor prescribed injectables. At the hospital pharmacy, the
The pharmacy technician told us that the injections were out of stock and referred us to one nurse in one of the wards. We went there and the nurse sold us the injections. At times respondents would report ‘less objectionable’ practices: “The pharmacy technician overcharged the patients for drugs but kept only the difference for himself”. Promotion of undesirable prescribing patterns by representatives of the pharmaceutical industry was included among the ways pharmaceuticals are used as a way to generate personal income (10).

Box 1. Ways in which various types of health personnel allegedly misuse their access to and control over pharmaceuticals for personal gain

<table>
<thead>
<tr>
<th>Type of misuse</th>
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<tbody>
<tr>
<td>Stealing</td>
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<tr>
<td>Sale of prescription drugs without prescription</td>
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<tr>
<td>Prescription of unnecessary drugs</td>
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<tr>
<td>Sale of unnecessarily large amount of drugs to individual patients</td>
</tr>
<tr>
<td>Unnecessary prescription of injectables</td>
</tr>
<tr>
<td>Prescription of expensive brand names in lieu of generic drugs, particularly in private practice</td>
</tr>
<tr>
<td>Substituting generics with brand name drugs</td>
</tr>
<tr>
<td>Under-the-table payments for supplying supposedly free drugs</td>
</tr>
<tr>
<td>Overcharging</td>
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<tr>
<td>Selling free samples</td>
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A adapted from: 10,11,25,35,51,57,58,74

According to the respondents in the Mozambican/Cape Verdean studies, the range of unorthodox practices related to the handling of drugs in health facilities is the widest among doctors, and particularly those active in private practice. The finger is pointed at doctors and pharmacists, less at nurses, except for nurses in private practice or orderlies in private pharmacies who are said to over-prescribe. In both countries respondents said they had the impression that the phenomenon was generalised. “Everyone knows that stealing of medicines and other medical supplies by health personnel is a common practice in our society” “I think this is happening all the time in our country ... Let me tell you, this type of things has been going on for a long time and it is not going to end all that easily”, “Anyone going to the market or strolling down any street in town, can meet people selling medicines, usually not health workers, selling medicines. Other stuff such as IUD2 and other drugs find their way straight into private consulting rooms” (10).

Even in developed countries, pharmaceuticals’ associated practices, namely those used by the pharmaceutical industry to promote the prescription of their products have resulted in several investigations that resulted in indictments of the medical profession for being responsive to unethical marketing techniques. These represent not only financial and technical losses to the health care system, but also may result in a growing sense of mistrust and disrespect for the healing professions and their places of practice, hospital and health centres (3,4,10).

MOONLIGHTING

Health system managers have fewer opportunities for predatory behaviour than clinicians, but also have to face a working environment that does not live up to their expectations – financially and professionally, even when on top of their salaries they also have fringe benefits such as free housing (75), the use of an office-car (76) or both (77). Some may abuse their position for corruption or misappropriation; many resort to

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2 Intra-uterine devices.
teaching, consulting for development agencies, moonlighting in private practice, or even dabbling in non-medical work to provide extra income. Others manage to get seconded to non-governmental projects or organisations, or concentrate on activities that benefit from donor-funded per diems or allowances (78-80). For public health services managers the impact of moonlighting on their income is considerable and cannot be ignored (tables 1 and 2 and figure 1).

Figure 1 Distribution of income in US$PPP, with the increase from extra jobs, and compared to the distribution of potential income through consultancy work or private practice.

The box-plot chart represent for each variables, the maximum, percentile 75, percentile 25 and the minimum.

Source: 52,53

Table 1 Median and inter-quartile range of take-home salaries of civil servant health service managers.

<table>
<thead>
<tr>
<th></th>
<th>Low-income countries (61 respondents)</th>
<th>Middle-income countries (39 respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>In US$ at official exchange rate</td>
<td>3,802 (2,137-5,249)</td>
<td>11,253 (6,704-18,900)</td>
</tr>
<tr>
<td>In US$ corrected for purchasing power parity(18)</td>
<td>13,890 (9,411-20,956)</td>
<td>26,376 (18,416-38,931)</td>
</tr>
<tr>
<td>As % of the income of a 15 patients per day private practice</td>
<td>14% (10%-33%)</td>
<td>29% (22%-41%)</td>
</tr>
<tr>
<td>As % of the income of full-time consultancy work (250 days / year)</td>
<td>31% (23%-44%)</td>
<td>81% (45%-108%)</td>
</tr>
</tbody>
</table>

Source: 52,53
Table 2  Median and inter-quartile range of total income (salary plus extra activities) of civil servant health service managers.

<table>
<thead>
<tr>
<th></th>
<th>Low-income countries</th>
<th>Middle-income countries</th>
</tr>
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<tbody>
<tr>
<td>In US$ at official exchange rate</td>
<td>5,899 (2,712-8,137)</td>
<td>11,372 (6,000-23,040)</td>
</tr>
<tr>
<td>In US$ corrected for purchasing</td>
<td>21,438 (4,081-84,640)</td>
<td>39,377 (26,149-64,338)</td>
</tr>
<tr>
<td>power parity(18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>As % of the income of a 15 patients</td>
<td>26% (17%-52%)</td>
<td>42% (29%-64%)</td>
</tr>
<tr>
<td>a day private practice</td>
<td></td>
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<tr>
<td>As % of the income of full-time</td>
<td>49% (30%-96%)</td>
<td>115% (74%-172%)</td>
</tr>
<tr>
<td>consultancy work (250 days/ year)</td>
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</tbody>
</table>

Source: 52,53

Moonlighting allows a standard of living that is closer to what clinical doctors - still a rare resource in many situations - expect, and thus helps retain valuable elements in public service. Money is not, however, the only factor in retaining staff. Most could earn much more in private practice (tables 1 and 2 and figure 1), at the locally going rates, but remain in office. Many spend comparatively little or no time on private practice. It is unlikely that this is only for lack of opportunities - a saturated private health care market, or too much competition from the 'real' clinicians. There must be other sources of motivation to keep on managing public services. The involvement in (relatively unrewarding) teaching, or in unpaid NGO work shows that this other factors - social responsibility, self-realisation, professional satisfaction, working conditions and prestige - still play a significant role (3,4,52,53). Nevertheless, the gap between income and expectations makes it unavoidable that managers, as other health care workers, will seize opportunities that are rewarding, professionally and financially.

Together these practices constitute a set of individual “coping strategies”: the health professionals’ ways of dealing with unsatisfactory living and working conditions. In many countries their prevalence has increased over recent years. The notion of the full-time civil servant exclusively dedicated to his/her public sector job is disappearing. Were this without consequences for the performance of the public health sector, it would not be much of a problem. Not all of them can be characterised as predatory behaviour or corruption, and their effects on the way the health care system can be positive as well as negative. They cannot, however, be ignored as, in many, particularly the poorest countries, the situation has gotten out of hand, and there are consequences.

Explaining and justifying

Some are of the opinion that such practices, including theft, can at times be justified. Health workers in Mozambique and Cape Verde rationalise it: “People who steal medicines do not do it to get rich, but rather as a favour”, “... to help a sick neighbour”, “I can tell you what happened between an in-law of mine and an健康auxiliary. My in-law went to a consultation, where he was prescribed Brufen and Amoxicillin. But, as it was late, the pharmacy was closed. Therefore this health auxiliary told him that he had a small supply at home and he could sell him the necessary medicines”. They do to help patients “because there are patients that, on account of the long waiting times, do not go to the hospital, they will rather go to these persons in order to avoid wasting their time in the hospitals” (10).
Most, however, implicitly or explicitly condemn such practices while still attempting to explain and/or justify them in various ways. An obvious explanation is that of "serious lack of motivation" and insufficient salaries: "economic reasons, and low salaries ... those are the reasons ... it is a means of surviving" (10).

Explaining these practices on the basis of the low salaries does not preclude moral condemnation. "I do think that it is mostly because of dishonesty and irresponsibility", "... vanity, is often what drives people", "I do think that it depends on the conscience of each one, even when the salary is very low, those who carry out their work honestly do not do these things", "In my opinion it just reflects the bad attributes of people ...", "lack of morals and of civic sense". These personal shortcomings are then related to a general breakdown of norms in society that is associated with liberalisation; "the increase over the past five past years ... is due to the liberalisation of the market", "nowadays medicine is seen as a commercial activity" where it is possible to exploit the ignorance of our people. Most, however, do not focus on the behaviour of individuals as much as on service organisation and its management, that provides the opportunity for misappropriation and misuse. "... lack of effective control", "lack of authority", "low salary, lack of incentives, lack of control systems, lack of inspections, absence of systems to receive and keep the daily income resulting from drug sales", "the lack of organisation of the pharmacies makes it easy to steal", "Defective organisation and lack of knowledge about the management systems by managers makes it easy for the prevaricators". Combined with Lack of penalties, disciplinary or legal this results in "people doing whatever they want because they know they will not be punished". All this takes place in an environment of laissez-faire: "everyone is trying to go on with their lives, therefore no one worries about disciplinary measures or about punishing the prevaricators", with lack of career structures, workloads and working conditions as attenuating circumstances (10).

**Money, time, conflicts of interest and brain drain**

It has long been considered politically incorrect to address these delicate issues explicitly. Recently however, there have been some (timid) attempts at bringing the debate out in the open, beyond public service rhetoric and ritual condemnations of 'unethical behaviour' (6). This provides a better understanding of how individuals create and take advantage of opportunities for pursuing their own interests - an understanding that is the key for developing adequate strategies to deal with the consequences. Competition for time and transfer of resources are compounded by the fact that the best trained and most competent officials are also the most likely to divert their time to other activities outside the health sector (a de facto brain drain). This in turn reinforces the attraction of what starts out as a job-on-the-side, and quickly becomes not only more rewarding financially, but also professionally and in terms of social prestige.

**PREDATORY BEHAVIOUR**

Predatory behaviour of clinicians is particularly strong in situations where market conditions, usually high physician supply, as it is the case of capital cities in Africa, and other urban more than rural areas, would otherwise reduce their incomes. In these situations clinicians use their authority to prescribe treatment for their patients to generate additional demand for their own services. This hypothesis, controversial for some practices such as caesarean sections, seems consensual regarding other surgical practices (81).
The predatory behaviour of individual clinicians constitutes, in many cases, a de facto financial barrier to access to health care (11). More important, on the long run, is that it delegitimises public sector health service delivery and jeopardises the necessary relation of trust between user and provider (10).

**MONEY**

With current salary levels in many countries, it is actually surprising that many people actually do remain in public service, even when they could earn much more in private practice. Money is clearly only one element, along with social responsibility, self-realisation, access to medical technology, professional satisfaction and prestige (3,4). Still, income remains fundamental. Individual income topping-up strategies allow professionals a standard of living that is closer to what they expect. In one study, these strategies more than doubled the median income of managers, and brought it up from 20 to 42% of that of a full time private practice (52,53) (tables 1 and 2 and figure 1). The upside is that income topping-up helps to retain valuable expertise in public service (83-85). But there is a downside too.

**CONFLICTS OF INTEREST**

A more insidious problem is that of conflicts of interest. Effects on the system can best be looked at separately for each type of side-activity. When health officials set up a business to improve their living conditions - or merely to make ends meet - this may not interfere with their work as civil servants (although it is likely to compete for time and to reinforce rural-to-urban migration). When they take up an extra job teaching, usually in public sector institutions, that may actually be beneficial to the public agenda as it reinforces the contact of trainees with the realities of the health services. For doctors who are basically managers, moonlighting in private practice presents less of a conflict of interest than for clinicians. The latter have to compete for patients with themselves, and thus an incentive (and the opportunities) to lower the quality of the care they provide in the public services. This is not the case for managers: involvement in NGO projects or work for donors can foster better co-ordination in the provision of services, but may constitute a conflict of interest when NGO or project policies are not necessarily congruent with national health policies or the agenda of the public service (4,52,53,60).

Other business activities, such as agriculture, are neutral towards health services, although they may constitute a de facto internal brain drain.

**BRAIN DRAIN**

Coping strategies are to a large extent a question of creating and making use of opportunities. The pursuit of such opportunities contributes also to brain drain. Brain drain of health professionals is often thought of only in terms of inter-country migration (86). However, failure to post and retain the right person at the right place is not merely a question of a Congolese doctor deciding to move to South Africa or a Philipino nurse to the US. It is also a question of internal - and at first rural-to-urban - migration.

Countries have attempted to retain and deploy professional staff in rural areas through a variety of instruments. They have decentralised the location of training institutions (87); introduced recruitment quotas to ensure that the most peripheral areas are represented among medical students (88); made rural field experience during medical
training compulsory (87,88); introduced incentives to promote rural public service after graduation (88,89); etc.. Ultimately the main constraint is the inequitable socio-economic development of rural compared to urban areas, and the social, cultural and professional comparative advantages of cities. But cities also offer more opportunities to diversify income generation (36,37). The need to make up for inadequate salaries – and for being in a setting where there are opportunities to do so – thus fuels rural-to-urban migration and resistance against redeployment (4,36,37). Professionals who have successfully taken advantage of these urban opportunities increase their market value over time, until they are ready for leaving public service. Rural-to-urban brain drain is then, later, compounded by public-to-private brain drain.

COMPETITION FOR TIME AND LIMITS TO ACCESS

Other (non predatory) coping strategies also affect access, but through competition for time. In many countries, civil servant medical staff is only nominally full-time available to fulfil their assigned tasks. This has been well described from Venezuela, Costa Rica and Colombia in South America. In Venezuela specialists and senior doctors missed about one third of their contracted services hours, while nurses were absent about 13% and 7% of the time respectively (55). In Peru 32% of doctors and nurses considered absenteeism common/or very common (32). In Costa Rica 65% of doctors and 87% of nurses felt that physicians were unjustifiably absent from work or, even if present at work, were many times seeing private patients on public time in public facilities (25). Absenteeism in the hospitals of Bogotá, Colombia, came to cost over US$1 million a year (43).

If the medical staff is moonlighting in private practice, or attending training sessions for the per diem this evidently limits access3. In the case of public sector personnel, all these correspond to a net flow of resources out of the public sector. In many countries low salaries thus, paradoxically, result in high costs per unit of output.

Competition for time is also something that concerns managers, whose coping strategies are often more oriented towards collaboration with development agencies (52,53).

Competition for time is a nagging problem for many development agencies and ministries of health. At times it is blatant. In Mali, for example, regional health staff was found to spend 34% of their total working time in (income generating) workshops and supervision missions supported by international agencies, and chief medical officers 48% (El Abassi and Van Lerberghe, unpublished data, 1995). The self-reported 73% of working time spent on official duties by the respondents to one of the surveys reviewed may well be an overly optimistic estimate (52,53).

Competition for time automatically results in a transfer of salary-resources out of the public sector through reduced availability – at least the equivalent of 27% of the salary mass (52,53).

3 Also important are findings from New York State that suggest that obstetricians may be performing excessive caesarean sections, not to enrich themselves, but to manage their time, which represents a less immediately apparent form of pursuing economic self-interest (81).
OUTFLOW OF RESOURCES

Besides competition for time, in many cases, the use of the public sector's means of transportation, office infrastructure and personnel represent additional hidden outflows of resources. The overall impact of this outflow of resources is hard to quantify in any country. Reports from Moscow suggest that up to 30% of the federal budget is not accounted for and, in the United Kingdom, estimates of 115 million pounds are given for prescription fraud alone (26).

The loss to the public sector associated with redirection of diagnostic and therapeutic resources, such as pharmaceuticals, to private practice or into the black market is a practice that is obviously difficult to assess. In Uganda, for example, it results in a significant loss to the public health facilities; in the median facility, drug leakage was estimated at 78% (35, 51). In the Dominican Republic, almost one third of total hospital expenditure remain unaccounted for, representing some combination of theft of materials and supplies, diversion of funds and gross mismanagement (45). In Panama high values medications where stolen on a daily basis with significant losses to the hospital (90). In Venezuela between 10-13% of all medical supplies and medications were stolen (55). In Costa Rica, 71% of doctors and 83% of the nurses reported that equipment and materials had been stolen in their hospital (25). In the United Kingdom it is estimated that pilfering, for example of bandages, medication and stationery, adds up to more than 15 million pounds annually and in an Andalusian hospital in Spain, it was estimated that pilfering of food supplies led to per capita catering costs that were higher than those of a good restaurant (26).

The impact of these coping strategies, particularly those associated with the misuse of medication, mainly its public services component, is seen as negative.

These strategies, therefore, weaken the public sector health structure and damage people's health - “The impact is always negative, not only for those who carry it out but also for the whole of society. This negative impact is visible in the weakening of the health structure, results in material damage and creates risks for the public's health”. “The impact is negative, because many times we see a patient who tells us that he took some medicine bought at Sucupira market. Therefore, these practices create stock breaks and also they result in lack of response to medicines later prescribed by the doctor as a result of inappropriate doses of the antibiotics taken without a medical prescription” - with consequences that go beyond the immediate health or financial implications, but touch on the symbolic and the political. “Cape Verde is a country where nobody pays for medicines because they have a social meaning. When these are stolen we are damaging the health units”, “the systematic stealing of medicines create a deficit in the public sector that results in serious damage to its already tarnished reputation”, and to the reputation of “the different professional groups: paramedics, nurses and porters”. “Patients may be believe there are thieves in the hospital”, and “the interaction patient-health personnel becomes a mere commercial interaction” (10).

Open discussion as a starting point

At the core of the reliance on individual coping strategies is a very strong motor: the gap between the professional's financial (but also social and professional) expectations and what public service can offer.
Most public responses to individual coping strategies fail to acknowledge the obvious: that individual employees are reacting individually to the failures of the organisations in which they work, and that these *de facto* choices and decisions become part of what the organisation is.

**WHAT DOES NOT WORK**

Pretending that the problem does not exist, or that it is a mere question of individual ethics, or approaching it as a mere problem of corruption does not make justice to the nature of the problem and it will not make it go away.

Prohibition is equally unlikely to meet with success, certainly if the salary scales remain blatantly insufficient. In situations where it is difficult to keep staff performing adequately for want of decent salaries and working conditions; those who are supposed to enforce such prohibition are usually in the same situation as those who have to be disciplined. As an isolated measure restrictive legislation, when not blatantly ignored, only drives the practice underground and makes it difficult to avoid or correct negative effects.

Closing the salary gap by raising public sector salaries to ‘fair’ levels may not be enough to break the vicious circle. It is not a realistic option in many poor countries. In the average low-income country, salaries would have to be multiplied by at least a factor of five to bring them to the level of the income from a small private practice (52,53). Doing this for all civil servants is not imaginable; doing it only for selected groups politically difficult.

Downsizing central bureaucracies and de-linking health service delivery from civil service (91) would make it possible to divide the salary mass among a smaller workforce, leaving a better individual income for those who remain. However, experience shows that such initiatives often generate so much resistance among civil servants that they never reach a stage of implementation (92). Where retrenchment becomes a reality it is rarely followed by substantial salary increases, so that the problem remains and the public sector is even less capable of assuming its mission.

Lastly, a mere increase in salary would not automatically reinstate the sense of purpose that is required to make public services function: as such it would not be enough to make moonlighting disappear spontaneously (93,94).

That does not mean that nothing can be done. Improvement is likely to come from a combination of small piece-meal measures that rebuild a proper working environment.

**REBUILDING A PROPER WORKING ENVIRONMENT**

A proper working environment may be influenced by many piece-meal measures, individually or in combination. There are few studies published that measure the effects of these approaches, and even fewer that look at the effects of combining them.
ADDRESSING THE PROBLEM OF MOONLIGHTING OPENLY

A pre-requisite is to address the problem of moonlighting openly. Where it is not realistic to expect health care workers to dedicate 100 percent of their time to their public service job, this should be acknowledged. That is the only way to create the possibility of containing and discouraging income generating activities that present conflicts of interest, in favour of safety valves with less potential for negative impact on the functioning of the health services. Besides minimising conflicts of interest, open discussion can diminish the feeling of unfairness among colleagues. It then becomes possible to organise things in a more transparent and predictable way. There are indications that the newer generations of professionals have more modest expectations and are realistic enough to see that the market for developing coping strategies is finite and to a large extent occupied by their elders. This gives scope for the introduction of systems of incentives that are coherent with the organisation’s social goals (95).

INCENTIVES

Where, for example, financial compensation for work in deprived areas is introduced in a context that provides a clear sense of purpose and the necessary recognition, this may help to reinstate lost civil service values (96). The same goes for the introduction of performance linked financial incentives (95). These can, in principle, address the problem of competition for working time, one of the major drawbacks of moonlighting. However, such approaches require well functioning and transparent bureaucracies, making the countries most in need also those where they are a priori most difficult to implement on a large scale (91,97).

IMPROVING WORKING CONDITIONS

It makes no sense to expect health workers to perform well in circumstances where the minimal working instruments and resources are blatantly deficient. Improving working conditions, however, is more than an adequate salary plus the right equipment. It also means developing career prospects and providing perspectives for training (93,94). Perhaps most important, it requires a social environment that reinforces a professional behaviour free from the clientelism and the arbitrariness prevalent in the public sector of many countries.

PROFESSIONAL VALUE SYSTEMS

However ill defined they may be, the value systems of the professionals are a major determinant in making the difference between a good service to the public and a bad one. It would be naïve to think that this could be achieved through mere bureaucratic regulation by governments or donor agencies. Without building up pressure from and on donors, from peers as well as from users, disinvestment by civil servants is more likely to increase than to diminish (93,94).

RECRUITMENT PRACTICES

International development agencies, even when they do not have formal, explicit policies regarding professional coping strategies, have become more sensitised to the problem over recent years. This has resulted in a number of recommendations to help minimise
the problem. To limit the brain-drain due to their own employment policies, organisations such as the World Bank, NORAD, GTZ or the World Health Organisation, in principle implement human resources recruitment policies that emphasise the employment of task-specific and short term consultants, with a commitment of national institutions to retain such staff (82-85).

**Educational Interventions**

Good knowledge is a prerequisite for, but not a guarantee of, good practice (71,74). In general, formal continuing medical education (CME) has been shown to be good for transferring information but not to lead to changes in individual and organisational performance, which are directed toward improving patient outcomes or health care. In a study of family practitioners Dunn et al (98) could not correlate quality of care with participation in traditional CME. Sibley et al (99) concluded that formal CME makes no difference whilst Stein (100) concluded that it does under certain conditions. Similarly, Lloyd and Abrahamson, (101), Bertram (102) Haynes et al (103) and Beaudry (104) report that sometimes it does, sometimes it does not. A review of 50 randomised controlled studies by Davis (105) concluded that, while there was some evidence that formal CME alters doctors’ competence, there was less solid evidence for the translation of these skills or knowledge into performance in practice. Another review (106) showed that didactic interventions do not change performance whilst interactive CME showed some evidence that it can effect change in professional practice and, on occasion, health outcomes.

What emerges from the studies measuring the impact of CME is that many variables affect change in professional behaviour and when some remain unaccounted for the impact on behaviour is absent or limited. If we extrapolate this to the objective of modifying coping strategies, then educational interventions are not likely to have a very relevant role except in special circumstances (70,71,74,107,108) but may, de facto, be abused, because of the associated financial incentives, particularly in developing countries, shifting personnel from their normal duties to the classroom to earn the associated per diem (3,39,52,53).

Training opportunities overseas, may result in a permanent loss of the migrating professional to the source country. In order to help to minimise this problem, the World Bank, for example, has made recommendations to tie the access to professional education to a commitment to practice a certain number of years in the country or else to reimburse the real costs of training; to limit the training opportunities abroad; or to finance professional education through loans to students which would not be reimbursable by those who accept to work in an under-served area (109).

**Peer pressure**

The social and professional culture within a profession may have a major impact on the practice (68,94,95). Peer-influence, building on the concept of group responsibility for self-education and monitoring, as well as multi-component interventions, have shown to be effective in improving professional practice in the public sector of high-income countries (110,111). The effect of peer pressure may be positive or negative. Pressure from local practice styles is particularly relevant in situations where there is most
professional uncertainty concerning the most appropriate treatment protocol (81)4. This can be changed through “peer influence meetings”, particularly if the change is seen as building up public reputation and status, once more showing that simple income topping up is not the principal driving force of professional behaviour (74). This points to the importance, in the absence of effective regulatory mechanisms, of the role of professional societies in ensuring peer-pressure mechanisms to reduce undesirable coping strategies.

A further possibility is workers forming peer pressure groups to reduce undesirable coping strategies. These groups could function to support members to maintain their personal stance as well as to inform the public of their rights. Making public the membership of such a group could be a way of identifying the non-members, an indirect way of increasing pressure (26).

A significant problem with individual coping strategies is the difficulty to assign individual responsibilities in situations where these are endemic. In these circumstances it might be relevant to introduce legislation that makes the head of an organization or department legally responsible for the actions of that body. This would be a further means of increasing peer pressure and accountability (26).

ADDRESSING THE MISUSE OF PHARMACEUTICALS

With regard to the specific problem of drug misuse, besides overall legal measures - “First of all to define what is or it is not legal”, “To enforce the law in the health system of Mozambique”, “To create conditions to make it possible to denounce these situations” - the solutions proposed by health workers themselves fall into four categories: improve the management of the health units “To implement a rigorous system of control and management”, “... to train the managers”, “To improve the management of the system”, “More controls not only in the public but also over the private sector ...”; focus on the conditions of employment and working conditions of the human resources “Give appropriate incentives to the personnel ... and improve their working conditions”, “Increase the number of trained pharmacists”, “To study measures to reinvest locally the funds generated by the local pharmacy ...”; inform the population “... if people were better informed by the government, through the media, may be then people would become aware that these practices are damaging those carrying them out as well as innocent bystanders”; and appeal to personal and professional values “Meet with the staff to discuss strategies to reduce these practices”, “Do it by giving the example of impeccable honesty”. Basically, the bulk of the claims are for better pay, more control and better management, but surprisingly nobody seems to think about prescriber-control “ the application of sanctions, real sanctions” (10).

The above opinions reflect insights some of which have been formally tried out by Chuc et al (71) and Chalker et al (74). In a randomly designed trial of private pharmacies in Hanoi, Vietnam, the authors were able to demonstrated a reduction in a number of coping strategies associated with the prescription of pharmaceuticals, by a sequential combination of interventions: regulatory enforcement, education and peer influence. This, for example, was reflected in a decrease of those who stated that they would sell a few antibiotic capsules without prescription, contributing then to contain the spread of antimicrobial resistance (Larsson et al 2000, Chalker 2001) and decreasing the side effects from the intake of unnecessary drugs.

4 This reflects the practice styles hypothesis of Wenberg et al 1982 (112).
Conclusions

Controlling coping strategies of health sector personnel is a complex task. It requires a clear separation of personal coping strategies from organised crime and institutional or group coping strategies. It implies the identification of the main underlying reason for the coping strategies observed. It calls for an understanding of the degree of endemicity of the practices observed: are they isolated individual cases, are they specific to the health sector, or are they widespread in other sectors of society? It is equally important to identify the impact of these practices, particularly the impact in terms of reduced access, inequity and other dangers for the health of the public.

Coping strategies have, in some countries, become so prevalent, that it has been widely assumed that the very notion of civil services ethos has completely – and possibly irreversibly - disappeared. But, some of the literature reviewed reflects, from the health workers themselves, a conflict between their self image of what it means to be an honest civil servant who wants to do a decent job, and the brute facts of life that make them betray that image. The manifest unease that this provokes is an important observation as such. It suggests that, even in the difficult circumstances observed in many countries, behaviours that depart from traditional civil servant deontology have not been interiorised as a norm. This ambiguity suggests that interventions to mitigate the erosion of proper conduct would be welcome. Some of these interventions were reviewed in the previous sections. In these conclusions, we complement the previous recommendations regarding interventions, with lessons from the literature on corruption. Also, because of the public/private-overlap so closely associated with individual coping strategies, some relevant regulatory principles are also addressed as well as the importance of pressure on donors and the importance of civil society pressure. The time to act is now, before small-scale individual coping grows into large-scale well organized crime.

The most relevant conclusion is that there is no single recipe for fighting predatory coping strategies. Their causes and logics vary, and the resulting differences among situations need to be taken into account in the design of corrective measures (115).

WHAT CAN BE LEARNT FROM ANTI-CORRUPTION INITIATIVES

It is increasingly recognised that for countries where corruption is endemic, a great deal can be done to reduce it. It is also recognised that it is not possible to do this from the isolated perspective of one sector within society and not even from the isolated perspective of one single country. Whatever measures are taken, they must contemplate reform of the “country's integrity system” itself. The need for collaboration of the three main actors in a country’s society – the government, the private sector and civil society – as well as the necessity for international cooperation is increasingly recognised. Independent regulatory bodies to support this, will not function effectively, unless supported by strong political will (115).

REGULATING THE PRIVATE SECTOR

The anti-corruption literature, without the necessary empirical evidence to support such claims, actually blames government monopoly of service provision as one of the key determinants of the emergence of some of the coping strategies reviewed above (18). It
has also been argued that the presence of a significant quasi-private system operating within the public sector, i.e. the form of private practice most common in transitional economies and in developing countries, is detrimental to the development of a strong private sector (26).

The claims for a greater role for the private sector in the provision of health care are based on a number of assumptions. These are not all based on empirical evidence and ignore that these private practices, in most developing countries, are notoriously unregulated. The fragmentary evidence shows that blanket recommendations regarding the role of the private sector are inappropriate (116). There is a case for public sector support of the private sector where this serves the public’s interest and allows redirection of scarce resources. If that is not the case, support has no rationale. Support, but also mere control, carries costs for the public sector administrative machinery. The costs of the “new” state responsibilities must be compensated for by savings resulting from gains in efficiency and from complementarity (110,116,117).

A key policy question, directly related to the coping strategies being addressed, is whether doctors should be allowed to work both in the public and private sectors. As discussed before, prohibition is unlikely to be effective. The real issue is what types of private practice should be allowed, in order to minimize conflicts of interest, and what forms of regulatory mechanisms can be introduced to isolate coping strategies that are mostly associated with lack of regulation rather than just as a result of low income (26). It seems that efforts should be undertaken to ensure multiple and independent channels of accountability, through penalties for not satisfying contractual obligations, through channels of accountability to professional councils and associations, and to the public.

Regulation is one important factor influencing the coping strategies that result from the interface with the private sector (66,110). Even when regulations exist, effective enforcement mechanisms are often absent in low and middle-income countries (111,118), resulting, for example in frequent violations of pharmaceutical regulations (119). But there is some evidence showing the beneficial effects of regulatory enforcement in improving pharmaceutical associated coping strategies (118). Therefore, good legislation is not enough. The state must have the means to enforce it. In India, for example, private clinics and mobile teams promote pre-natal sex examination by advertising in local newspapers, in spite of government prohibition of the practice (120).

PRESSURE ON DONORS

International collaboration is seen as particularly important regarding the support of international development agencies for: good governance interventions in specific domains; supporting methods to curb corruption, including policy dialogue, capacity building, documentation and analysis of best practices and support to national programmes; and making reformers aware of the importance of country conditions in programme development (115). Anti-corruption strategies have also been approached by donors with different objectives: to reduce poverty, to improve the functioning of democratic institutions, to sustain economic development, political stability and social justice. The lessons for the management of coping strategies is that international collaboration cannot be neglected as donors may be important inducers of coping strategies as well as essential partners in the search for solutions.
One way to increase donors' and governments' commitment to deal with the causes of individual coping strategies might be to include a formal “Human Resources Impact Assessment” as a condition for the approval of health projects or components of sector wide approaches. This could force governments and their partners to face up the problems caused by individual coping strategies and brain drain before they are part of the public organisation’s culture. This would not be a guarantee that it would be effectively dealt with, but might limit the damage (121).

PRESSURE FROM USERS

Civil society has a particularly important role, specifically in linking reform measures to the experiences and expectations of real people. But civil society must not be seen as a neutral body, particularly in developing countries where patron-client networks or kinship networks have a strong influence on the state and on the patterns of corruption and/or of coping strategies observed. In these situations the reform of civil society itself should be an objective of the interventions to correct such strategies.

In many countries, users/clients/patients are not protected against the consequences of the asymmetry of information they face - with health- and financial consequences. From the history of the workers movement in Europe and as the recent evolution in a number of middle income countries - such as Thailand’s National Forum on Health Care Reform (122) - points out, perhaps the most effective way to help the State to regulate the private sector is to increase pressure from civil society. From a public health point of view, privatisation only makes sense if the State and civil society are strong enough.

Creating opportunities for users to voice their discontent effectively implies that patient’s rights must be clear, channels for complaints must be simple, regulatory agencies must be strong and trusted by the public, processes must be explicit and transparent and the judiciary system must be strengthened (26).

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