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Rethinking human resources: an agenda for the millennium

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Health care reforms require fundamental changes to the ways in which the health workforce is planned, managed and developed within national health systems. While issues involved in such transition remain complex, their importance and the need to address them in a proactive manner are vital for reforms to achieve their key policy objectives. For a start, the analysis of human resources in the context of health sector appraisal studies will need to improve in depth, scope and quality by incorporating functional, institutional and policy dimensions.

Introduction

Only a decade or two ago human resource development seemed a straightforward task in most developing countries. Governments needed to produce the numbers and types of health staff that would match the rapid expansion of health services. This was neither easy nor cheap but, generally speaking, the efforts paid off and today many developing countries produce, even export, large numbers of health staff.

In the 1980s, as health workers were becoming available in most cities and in selected (more accessible) rural health facilities, it became apparent that health services were not always meeting the needs of the people (Newell, in WHO 1975). New emphasis on primary health care meant that new skills for better planning and managing health services were required. Because the new skills were needed, efforts made in some countries to modify training curricula went hand in hand with a mushrooming of management training. Improved management, it was said, could bridge the gap between policy and implementation (WHO 1990).

More recently, managerialism has given way to the efficiency culture and to health care reforms. Under this new scenario, having the right type of properly trained staff in the right places was not enough: efforts to reduce the burden of disease needed to go hand in hand with ensuring that services were effective, and that these were provided in the most cost effective ways. For this to happen, structural changes aimed at reducing wastage and maximizing output were advocated and attempted in health systems from both developed and developing worlds.

All these developments were part of a broader policy environment and have been simplified to some extent in order to facilitate a focus on key human resource features. The effects of all these changes on human resource development practitioners have been very significant. And yet, there are still far too many health systems paying only lip service to the importance of human resources, investing large sums in the production of inadequately prepared cadres of health workers and compromising the future of millions of health service workers and users.

In the past, human resource development (HRD) experts in ministries of health used to be concerned mainly with the production and distribution of staff, leaving the higher profile policy development issues to more senior colleagues and to influential politicians. This led to some sort of divorce between the broader health policies and the more specific human resource interventions required to achieve them. Lessons emerging from some European health systems suggest that the traditional separation between health policy makers and human resource practitioners is both unnecessary and dangerous, and that more integration between broader health sector and personnel policies is essential. As a result the pre-

viously underrated personnel function has incorporated new dimensions and increased its decision-making share at the senior policy level. Taking the experience in the United Kingdom just as an example, the British National Health Service reforms of the early 1990s dramatically changed the role and status of personnel managers from 'officers' to key components of the NHS Management Executive (Buchan and Seccombe 1994).

In the first part of this article (sections 1–4) we review the relationship between human resources and health care reforms as a means to explore what the management of human resources should involve today. The second part of the article (section 5) explores how developing countries and the donor community can incorporate these expanded human resource management practices into reforming health systems. The first step, it will be argued, requires that health sector appraisal studies improve the ways in which human resources are analyzed. For example, the focus on numbers and types of health staff will need to be matched with an equal emphasis on the various institutional arrangements through which they are managed, and on the way such arrangements are likely to change and evolve in the context of reforms. The emphasis throughout will remain on how to move away from the usual rhetoric of people being the most precious resource of any organization to the reality of the often underpaid, poorly motivated and increasingly dissatisfied and sceptical health workforce in many developing countries. It is not a coincidence that, (largely) due to poor communication and consultation, human resources are often the greatest threat to the success of reforms in many developing countries.

A review of current issues

The human resource aspects of health care reforms are critical in both what is to be achieved (better distribution of staff, improved or different skills, changed working practices etc.) and how the changes are to be implemented. Staff salaries are the largest part of the recurrent budget (typically between 65 and 80 %), and are therefore a major object of reforms related to funding of health services and resource allocation (Saltman and von Otter 1995). Changing staff behaviour is also a major factor in improving the quality of services delivered. Better staff performance arises both from overt changes, such as improving current skills or acquiring new ones; from changed working practices; and also from more subtle changes, such as staff commitment to the success of the reforms and improved morale generally. Staff are often resistant to change (Collins 1994), but without their support reforms are difficult to introduce and may even fail.

Making changes and maintaining subsequent high levels of performance cannot be achieved in any organization without good human resource (HR) management. This calls for a focused effort in many countries to improve HR management practices as part of the reform process. This is especially important where decentralization is an objective of the reforms and mid-level managers, hitherto under direct and detailed control from the centre, are given new areas of responsibility and authority.

Good health service performance depends not only on the location, skills and motivation of staff, but also on the buildings, equipment and materials they require to do their job. Because all the different resources are interdependent parts of a single health service delivery system, performance is not entirely in the hands of those managing the workforce: a posting policy designed to improve equity in staff distribution also affects development opportunities and career prospects; secondments designed to improve staff development also affect facility staffing levels; increasing intakes to meet staffing targets also affects career structures, and so forth. Work on improving HRD when implementing reforms in the health sector must take account of the systemic nature of the health service as a whole and the personnel within it.

For convenience of discussion the most important human resource issues relating to health care reforms are grouped under four main headings (see Box 1):

1) reducing costs and increasing efficiency,

2) improving staff performance,

3) improving equity in the distribution of services,

4) development of HRD policy and planning capacity (to facilitate 1–3).

1. Reducing costs and increasing efficiency

The reduction in the numbers of the workforce as a whole, or the more efficient use of staff through the

Box 1. Summarizing key human resource issues

The most important human resource issues can be grouped under four main headings:

1. Reduction of costs and increasing efficiency

The following factors can contribute to the above objective:

- Accurate information on the staffing situation.
- Management incentives to reduce salary costs.
- Methods of determining staffing needs in terms of numbers and types.
- Coordination between supply (training) and demands of the health sector.
- More flexible employment arrangements.
- An expanding and unregulated private sector.

2. Improving staff performance

This requires consideration of the following options:

- Providing attractive rewards whilst maintaining overall cost reductions and understanding the perceived value of different pay and conditions packages.
- Information and culturally appropriate tools for managing staff performance, as well as authority to use the performance management tools.
- Changes requiring new sets of skills and working practices, in turn requiring new mechanisms for developing these.
- The impact of certain types of reform, such as decentralization, on traditional career paths, and the need for new forms of career development.

3. Improving equity in the distribution of services

The nature of the distribution of staff has a direct impact on the equity of the distribution of health services. Important issues here are:

- Effective mechanisms for staffing facilities in remoter areas.
- The level and nature of control of the centre at a national level, especially where reforms require decentralization of control and accountability.
- The freedom of decentralized service units to use additional resources to attract and retain staff, with the danger that this might lead to greater inequity in staff distribution.

4. Development of HR policy, planning capacity

To make changes required by reforms happen, ministries of health require the following in relation to HR policy and planning:

- Effective structures using groups with different but complementary roles at various organizational levels; the structures may need to change during the process of reform.
- Staff with the necessary skills at each level; again, skill requirements may change during the process of reform.
- Information on the staffing situation for planning and monitoring purposes.

reallocation of tasks (changing the staffing patterns and skill mix) or by changing the way in which staff are employed, are options often considered whenever health reforms aim at efficiency savings or overall cost reduction. These approaches, and their implications, are now discussed.

Reducing the number of staff

With the salary bill by far the largest item on the recurrent budget, it is an obvious target for government-wide reforms aimed at reducing costs. Targets may be set for staff reductions across the board. For example, Nepal's Administrative Reforms of 1992 aimed at a reduction of the civil service by 25% over three years. Many other reforming health systems have avoided making staff reductions a visible part of reforms while still making staff cuts or freezing the hiring of new staff to replace those who leave the service.

When aiming at such targets many governments will be handicapped by the lack of accurate information about the number of staff currently in service. This is further complicated in some cases (for example Nepal and Zambia) by a lack of knowledge of what the sanctioned strength should be, so shortfalls (or excesses) are difficult to determine. Lack of accurate information often means that when cuts are made, there is no clear idea of whether those units affected will be able to continue to function or not. Without some reasonably accurate information on the numbers, location, qualifications and activities of staff it is impossible to administer, manage or plan the staffing of the country's health services in any effective way. This is perhaps why, often, cuts in the numbers of staff are done with limited understanding of their potential impact on the health system as a whole.

One of the reasons why salary costs have risen to such a high proportion of the budget is that the government's ability to pay for extra staff is often not considered when making staffing plans (Abel-Smith 1986). Health (and other departments') staffing may be determined less by the requirements of health service delivery than by national socioeconomic policies (e.g. reducing the overt unemployment level) or by civil service recruitment procedures operating wholly independently from education and training timetables (e.g. in Nepal and Indonesia new graduates may wait months or years for their government posts and take other employment instead). In fact, an incentive rarely exists at the level of service ministries for them to reduce costs. This is because decisions on staffing numbers and pay often fall within the domain of Ministries of Finance and Civil Service ministries, with the service ministries playing only a marginal role in decision-making. For example, the Ministry of Finance's rules on virement between budget heads may require any savings in salary costs to revert to the General Fund instead of being reallocated to operational costs. Frequently the reverse does not apply and shortfalls in the salary budget are made up from other budget heads (drugs, materials, transport etc.), thus reducing the overall effectiveness of the service and increasing the proportion of the health budget that is consumed by salary costs.

In an effort to achieve more rational and objective estimates of health staffing requirements, an increasing number of developing countries are moving away from population ratios and standard patterns of facility staffing, towards requirements based on actual workloads (given by annual service statistics) and standard work rates set for each health cadre.

In recent years several developing countries have begun to face a problem of over-supply of certain categories of staff (Frenk 1993). This is often due to a rapid expansion of training capacity in the 1960s and 1970s, to meet the needs of primary care services, that was not followed by a cutback in recruitment of trainees once demand was largely satisfied (World Bank 1993). The financial concern here is for the government as a whole rather than the Ministry of Health, as the training of new graduates who cannot be subsequently absorbed into their intended professional service is a very poor investment. At least part of the problem is usually the notorious lack of liaison between higher education and service departments, including Health.

Staff mix/skill mix

Cost savings (both in training and salary costs) may be made by using different staffing mixes to provide services. For example, the training of a physician may cost three times more than that of a nurse (World Bank 1993). Yet there has been a strong dependence on outdated and inappropriate staffing norms (Kolehmainen and Shipp 1990) which may be more in the interest of individual cadres (for maintaining numbers and professional status) than the service users (Cassels 1995). Whilst changes in staffing mix may be an important strategy for reducing costs, there has been little evaluation of the cost-effectiveness of skill-mix changes.[1]

More flexible employment arrangements

Flexibility in employment arrangements[2] can be of two types: time-based, to match staffing to workload (use of different shift patterns, working hours etc.); or contract-based, for organizational flexibility (use of temporary staff and fixed-term contract staff, and even contracting-out whole sections of the service). Contracting-out ancillary services in hospitals has recently become common in the UK (Whitbread and Hooper 1993), but commercial cleaning and catering organizations are not available in most developing countries. Also, it is not yet clear whether this process actually saves money, as additional time of core employees is taken up with the process of managing contracts. Contracting of services provided by professional staff[3] will be met by stiff opposition from the professional associations and unions that may have a considerable power base.

In some countries parts of the planned health services are provided by NGOs (e.g. by the Family Planning Association in Kenya or by church organizations in Kenya, Ghana, Guatemala and many more countries). Employing professional health staff on a casual basis to cater for unexpected staff shortages or annual peak activity periods ('agency work') is largely unknown, although some countries are considering long-term part-time employment where the law permits government employees to undertake private practice; this is usually an attempt to regularize situations in which the time devoted to an individual's government post each day is subordinated to the demands of private practice.

An expanding and unregulated private sector

There is increasing evidence that some countries are still targeting efforts at increasing the presence of health services provided by the public sector in areas where the private sector is well established. In these cases, where alternative service providers are present, there is scope for integration of public and private services under what has been called a public/private mix of health providers. This topic is too complex to be analyzed in this overview but important enough to be considered during sector appraisal studies.

2. Improving staff performance

Of course, the performance of the health system is not entirely in the hands of those managing the human resources, but it is highly dependent on the effectiveness of its staff. This in turn is heavily influenced by the basic rewards the staff get for their contributions; the mechanisms both for rewarding performance over and above the basic requirement and for applying sanctions when performance drops below the norm; and, finally, the freedom for managers to use these mechanisms.

Pay and conditions

A prerequisite for achieving the minimum level of acceptable performance is an adequate reward package, such as a living wage (otherwise personnel must devote their energies to 'moonlighting' in order for them and their families just to survive) or improvements in other conditions of service, e.g. job security, housing, vacations, pensions, sick and maternity leave, etc. For government-employed personnel these conditions of service should be sufficiently better than those offered in the private sector (to offset the higher salaries offered), include free or preferential health services to the whole family, and in some countries, where public esteem is valued, an enhanced social status in the locality.

Although the importance of an acceptable level of salary is well recognized, many countries offer little more than a subsistence salary, and increasing it is extremely difficult within the constraints of the public sector. Small increases in the form of special allowances for particular health cadres are occasionally obtained on the grounds of health being a special case (for example, the 1992 Magna Carta for Health Workers in the Philippines). Generally the individual sectors are compelled to wait until more substantial pay rises are made across the civil service. Given many governments' need to contain overall public expenditure, this does not happen very often. Alternatively, pay increases may barely keep up with inflation. Health personnel are therefore forced to seek other forms of income augmentation, e.g. undertaking other forms of paid employment either after or within official working hours, charging for giving or expediting services, use of government equipment (e.g. transport) for private purposes, charging for government-provided commodities, theft, etc.

An alternative option is to take the health sector out of the civil service and establish new and better conditions of service (e.g. in Ghana and originally planned for the Zambian reforms). Where salary increases are made, efficiency savings or staff cuts will be necessary if overall expenditure levels are not to rise. There is a danger when employment is taken out of the civil service that the government, which is

trying to reduce overall public sector spending, loses the normal controls of the civil service (Cassels 1995). A further difficulty in transferring from employment through the civil service is that though the civil service salary may be low, the perceived value of other conditions of service, the reward package mentioned above, may be overlooked initially and an assumption made that a higher salary will compensate for the loss of many of these perks. Recent experience in Zambia seems to have shown that compensation for the loss of government conditions of service needs to be very high.

Though the aim of retrenchment in the public service is to reduce overall operating costs, it is frequently said that with fewer people on the payroll it should be possible to pay remaining staff higher salaries. However, there is little evidence of this happening. Given the overall shortage of funds in the public sector, it would be quite understandable if governments reinvested any savings in other underresourced operational areas.

Managerial issues in improving staff performance

In many traditional civil service organizations there is little incentive for staff to perform well. The systems to reward good performance, and to punish staff who break rules or perform poorly, are usually in place but are ineffective for two main reasons.

The first reason is the delay factor. The manager (or supervisor) who is closest to the individual worker, and therefore can make the best judgement about his or her performance, does not have the actual power to take appropriate action. Recommendations for penalties may have to be referred several levels up before being sanctioned. Even if some form of punishment is finally sanctioned, the delay in the process is such that it may not be perceived as being clearly linked to the original wrong-doing, and therefore does not serve as an effective future deterrent. The same applies for the use of rewards.

The second reason is the political factor. Patrons can be enlisted to change or even override decisions made on technical or objective grounds. This makes the actual dismissal of staff almost impossible. The reward and sanctions systems therefore become delinked from actual performance and consequently ineffective, and possibly even harmful, as a management tool. In these circumstances the use of the reward and sanction system to affect positive change on employee behaviour undermines managerial authority, and consequently the system is rarely used for its intended purposes.

Where the requisite authority to implement reward and sanction systems exists, the problem may lie with the information on performance that is available to managers. There is a move away from appraisal systems based mainly on personal characteristics towards a review of outputs of an individual, preferably against targets or objectives set[4]. This can work only if the organization has effective ways of planning and managing schedules of work, and if the work is not entirely subsumed in or dependent on team activities. The 'output' of a surgeon depends on the performance of the operating theatre team, and vice versa. And both are limited by the supply of anaesthetics, surgical materials and equipment, and by the management of waiting lists, to mention just a few.

Health service managers are generally not skilled in the practices of HR management. Staff at the centre need assistance in designing and implementing practical administrative systems, e.g. staff appraisal systems based on results or outputs, career management, HR planning, etc. Also, managers at all levels need appropriate training in how to make the most effective use of this and other HR information, in timely and culturally appropriate ways, in the day-to-day management of staff. Where possible, local consultants should be employed for short periods to carry out specific tasks or to help the organization develop in-house skills. To do this, managers need the authority, information networks and recruitment skills to get the right organizations or individuals to help with their HRD needs and to make the most of the skills and experience of consultants. In organizations where recruitment is more concerned with rank than specific skills, this requires that a new approach be adopted.

Staff development

Good performance requires, among other things, a willingness to perform well (motivation) and the capability (or requisite skills) to do the job. Reforms demand new skills that will often be management-related, but the emphasis of new jobs is likely to be about taking initiatives and becoming accountable for decisions made, often through the development of management or service agreements as is increasingly the case throughout Latin America. Existing training providers may not have adequate expertise in such an approach to management (and thus, if used for skills

development for the reforms, their teaching may be counterproductive to the process). Many of the changes required by the reforms will need to be implemented according to a strict and tight timetable in order to be effective. Traditional training providers may not have the capacity to cater for such a heavy and intensive training load. For these two reasons special mobile 'capacity building' teams may need to be established (as in Zambia, the Philippines or Colombia) to provide people with new skills. Such an intensive form of skills development by people seconded from other posts is impossible to sustain and will eventually need to be institutionalized.

There also needs to be a management development plan showing how and when the retraining workload is to be handed over from the initial capacity-building teams to training staff, and when training for the new skills will have been integrated into regular training courses, so that special retraining activities are no longer required. If the new training is radically different to what was previously provided, the previous training providers may not be the most appropriate. New approaches to skills development may be required, including management development approaches based on more thorough organizational development plans (Mapplebeck 1995).

A feature of many reforms in the health sector is that the political pressure for action overtakes the natural speed of the planning process, and implementation starts without a detailed blueprint and without some of the main problems having been addressed or even recognized (e.g. legal basis of employment, in Zambia; regional management skills, in Swaziland; employment of vertical programmes staff, in Nepal; functions and authority of the Ministry of Health, in Papua New Guinea). As policy changes, there needs to be good communication between policy-makers and the capacity-building teams in order to ensure that policy-makers are in touch with the reactions of operational staff and that new policies are feasible.

Apart from training for new skills required to implement the reforms successfully, all the major aspects of the basic training programme (accommodation, materials, curriculum) frequently need to be reviewed and updated. The techniques for doing this are well known and widely used, although training bodies often find it difficult to design curricula appropriate to the actual conditions of the country rather than to the standards and content of corresponding courses in developed countries. For example, many doctor posts in rural health facilities, and some junior doctor posts in hospitals, could be filled by any Assistant Medical Officers/Medical Assistants with a shorter and less demanding training covering the major components of morbidity in the country. This is cheaper to operate, more stable (since the qualifications are not accepted by other countries) and makes medical posts in rural areas easier to fill. A similar approach can be adopted for nurses and midwives. However, in most countries this is strenuously opposed by the professional associations, even where there is still a severe shortage of such staff at all levels in all districts.

Career structures

Career structures have a two-fold purpose: they provide the organization with a mechanism to produce sufficient staff with the necessary levels of skill and experience to undertake the higher level functions in the organization as posts fall vacant; and they allow individuals to satisfy their need for progress, improvement and achievement. The main problems experienced in developing countries are:

- *Lack of a career structure*. While there are always multi-level career structures for doctors and nurses, there is usually only a very modest structure for other health cadres, e.g. technicians, and little or nothing at all for other staff. This may meet the service requirements of the organization, but it condemns individuals to a very small possibility, or even none at all, of more than one promotion in the whole of their working life. On the other hand, there are countries where it is theoretically possible to enter the lowest skilled grade at the legal minimum age for employment and achieve the highest grade in the service just before retirement.[5] A further problem is found in areas such as public health and health management, because as the career prospects are markedly less attractive to the equivalent clinical tracks, it is difficult to attract people into these areas.
- *In-service training*. Apart from doctors and nurses, there is little or no assistance for most staff to achieve the extra skills and qualifications that will merit promotions.
- *Selection for promotion*. Promotion rules based on age and/or seniority do not necessarily produce the most effective managers, but more flexible (judgement-based) selection procedures can be subject to pressures of patronage.

Career progression is so important to many individuals that it can be used as a tool to alleviate some problems elsewhere in the health system, e.g. in many countries a minimum length of service in rural and remote areas is a necessary condition for applying for further professional training.

3. Improving equity in the distribution of services: over- and under-supply

Policies and systems managed by the centre to ensure equitable distribution of staff, despite the use of incentives (such as remote area allowances, subsidized housing), are often ineffective. Even where there is a substantial surplus of staff because of a lack of planning (Morocco, Sri Lanka) or because of a deliberate policy with the aim of pressuring staff to take long-vacant posts (S Korea, India), some of the more marginal posts are filled but health facilities in rural areas remain severely understaffed. Where there are national staff shortages, the facilities in or near the major conurbations tend to be more fully staffed at the expense of those elsewhere. This still represents an inequitable distribution of the available staff. The usual situation is that staff prefer to work in urban areas where they have better facilities for their families, and some have the possibility of supplementing low government salaries with private practice. Consequently the remoter rural areas are still poorly served.

The problems of inequitable distribution have haunted health planners for decades and remain a major issue even in countries with strong central planning structures, stringent regulations and apparently rigorous staffing norms (e.g. India, Pakistan and Nepal). There is increasing evidence that facility planning and the planning of human resources generally need to be much more closely linked. Much more sophisticated management systems at the local level are required, incorporating incentive mechanisms and taking into account the existence of private providers as alternative sources of care. In locations where certain categories of staff who make up the standard team are consistently in short supply, alternatives have been sought. These include the use of less trained workers,[6] changing the role of existing workers,[7] or even contracting out services in certain areas to NGOs, such as is happening in Kenya. If there are many rural health facilities where workloads are low and do not occupy the available capacity of the standard team that staffs the facility, amalgamating the functions of some categories is an attractive possibility.

The situation is not necessarily improved by decentralizing operational responsibilities. In Tanzania, health officials at the local level did not have influence over the allocation of staff in PHC facilities (Gilson et al. 1994), as this was managed by local government. Following decentralization in Papua New Guinea some province-level health managers became very skilled in planning and lobbying for extra staff, resulting in provinces with managers less skilled at this losing out, and a greater inequity in staffing in country (Kolehmainen-Aitken 1992).

A similar problem arises when income generated by the decentralized units can be used to employ more staff or for better retention measures, since those capable of generating their own resources simply attract staff from those that cannot (Martínez 1996; Cassels 1995). The dilemma for central government is how much to intervene in this kind of situation, given that one of the guiding principles of decentralization is to devolve responsibility. Central government must monitor this kind of situation very closely, since even the most sweeping decentralization leaves the centre with responsibility for maintaining national minimum standards in several areas, e.g. professional practice, legal requirements for registration and dispensing, etc. The extent of staff imbalances between more and less affluent areas can be limited by adjusting the minimum standards in relation to the total numbers available in the country. In countries where health services are intended to be available to meet need, irrespective of ability to pay, and the necessary conditions for a free market in health staff do not exist, some central controls must be available if the national objective is to be achieved.

4. Development of HR policy and planning capacity

The final part of this review of current issues covers the development of human resource policy and planning capabilities. This is discussed here in the context of health sector reforms. It must be reiterated that the human resource area (that we and other authors call HRD) is often mistakenly equated largely with training. Whilst training is certainly an important component of HR management, without strategic HR planning, HR policy development and HR management, good performance in the health system will not be achieved.

In the last few decades many ministries of health have been wholly occupied with the day-to-day problems

of setting up new services (e.g. for primary health care), as well as maintaining and expanding hospital services in the face of static or contracting budgets. Although these problems are by no means solved and many reforms are aimed primarily at continuing the improvement of the coverage and quality of service delivery, they frequently include extra components designed to achieve more coherence both with other government departments and within the health system itself. They also address other longer term and higher level issues, all in an attempt to move beyond reacting to particular problems as they arise with an *ad hoc* fix which does little more than alleviate the presenting symptoms.

As with other management functions in the health sector, reforms are likely to require HR management to move from the personnel administration function that usually does some simple human resource planning, to a function with a much more strategic approach.[8] The HR management tasks will continue to involve the monitoring of the staffing situation, but will also demand the development of strategic choices based on information from the monitoring process.[9] The tasks will also include these aspects:

- Liaising much more closely with other ministries such as education regarding training (supply); with local government, if involved in decentralization; with finance and establishment, concerning the balance between salary and non-salary costs and changes to established posts etc.
- Liaising and negotiating with professional bodies and unions, especially where the reforms involve changing conditions of service, job roles or initial training.
- Where the HR management is being decentralized, the establishment of new management systems (e.g. recruitment, performance appraisal, local pay bargaining) and the provision of skills for staff to operate them.
- The development of new roles for central and regional/provincial HR personnel as the reforms are implemented (these may need to change several times during the process of reform as systems become established and service units require more of a consultant/advice input).
- Overseeing changes in organizational structures and staffing levels from a human resources aspect to ensure that essential parts of the system continue to function.[10]

These functions may be carried out by different groups. The Human Resource Unit[11] based in the ministry is quite common. There may also be a body (e.g. Steering Committee) with a mix of senior staff from the health ministry, other key ministries and other relevant bodies. In industry, and increasingly in the public sector (Storey 1989), it is being recognized that the human resource function needs to be represented at the highest levels of the organization. Indeed in the UK's National Health Service (NHS) the Personnel Director is considered by some to be the number two to the Chief Executive. The location of the HR Unit in the hierarchy and/or the link to an influential Steering Committee is of vital importance for it to be effective (Buchan and Seccombe 1994).

The type of staffing of an HR Unit is important to its ability to function effectively. At least one senior staff member needs to have been exposed to strategic thinking about HR management and have the ability to lead others (Collins 1995). This may mean bringing key personnel in on secondment, as it is unlikely that a Ministry of Health, particularly where key posts are held by physicians, will have this expertise.[12] The transformation of an existing unit with an HR-related function (e.g. management of fellowships or a training and development unit) may be problematic. Unless strong, clear leadership is provided and new technical expertise is brought in, it may be difficult for staff to make the necessary conceptual shift towards the new, broader HR function required, let alone acquire specific skills for the job.

Developing capacity needed for HR management at decentralized levels may also cause difficulties. Whilst it may be possible to find suitable staff from other sectors to staff central HR units, at decentralized levels there may not be a full-time job for an HR specialist. It may therefore be necessary to extend the repertoire of skills of people with existing managerial responsibilities. Even in the UK the HR function was amalgamated (from medical and nursing staff) and integrated with planning at district level, as a result of the Griffiths reforms in the NHS. For this to be successful, HR management skills need to be built into the capacity building package along with other components such as planning and financial management.

Finally, the strategic aspects of HR management must be based on reasonably accurate information about different aspects of the HR situation at all levels. To

begin with, countries should aim at up-to-date statistical information, such as numbers of staff by location, type of facility, cadre, grade, sex, etc., compiled at the lowest practicable level and progressively consolidated at each succeeding higher level. There must also be an associated plan to train managers at all levels to use this information to best effect. A computerized personnel record system, containing details of each individual employed, is a much more powerful tool that can provide a much wider range of information of all types, but requires much greater effort and investment to design, implement and operate successfully.

5. Mapping out human resource issues and priorities: a new perspective

Health care reforms demand that the traditional emphasis on production and distribution of staff is matched by efforts to tailor health staff to more responsive, user-orientated health services. The former cannot be achieved unless HRD becomes integrated within policy and planning processes so that human resource issues are discussed in a proactive way. The often observed practices of separating Human Resource Development from broader policy changes, and of housing personnel units away from where strategic planning takes place within ministries and departments of health, should be abandoned. The challenge is that of designing and developing health care organizations which provide their staff with the right incentives to work, and with the means to be accountable for their performance (Martínez and Martineau 1996).

More strategic HR planning requires, as a first step, improved analysis of human resource issues within national health systems. The importance of Human Resource Development is often not matched by the level and quality of information which country governments and donor agencies need for strategic planning. Human resources are almost taken for granted in many sector appraisal studies, or are more of an afterthought once 'higher' policy issues have been defined. This second part of the article introduces a framework for analysis which, by encouraging the analyst to keep the broader picture in sight, helps to deliver appropriate outputs.[13]

The framework for analysis

In order to take a more strategic approach to influencing the human resource situation, a broad view is required, which puts human resources in the context of wider developments in the health sector but which is able to maintain the specificity and focus of the analysis on the health workforce. This will reduce the risk of important human resource issues becoming diluted or lost within the broader sector analysis.

The analysis of human resources ought to highlight the major influences both on and resulting from the human resource domain. We propose that these areas should include:

- The different mechanisms used for managing and changing the human resource situation, which shall be referred to as the human resource development functions, or *HRD functions*.
- The groups or individuals who can bring about those changes, referred to as the *institutional actors*.
- The general direction of change, both within the health sector and within the wider context (socio/political/economic) in which the health sector is operating, to be referred to as the *policy context*.

The HRD functions

The HRD functions are the core functions and tasks to be performed as part of the planning, management and professional development of human resources within a health system. There is no single agreed way of categorizing the HRD functions. Four core functions are presented in Table 1.

Within each category the functions range from the strategic (setting salary levels to attract or retain staff) to the operational (salary administration), so these functions will influence all levels of the organization.

The institutional actors

Human resources are arguably the single most valuable asset within health systems and this may explain the emphasis that traditional HR analyses place on looking at individual cadres of health workers: their numbers, their flows, their career structures and so forth. However, from a health systems development perspective, analysis of health cadres *per se* contributes little to understanding how these cadres are organized and managed (institutional arrangements), and how changes can be effected at this level. Even a look at broader institutions such as ministries or departments of health fails to explain why certain aspects of human resources are planned or organized the way they are. Human resource analyses therefore

Table 1. Core HRD functions

A. Staff Supply	Ensuring that the health system obtains an adequate supply of staff to achieve its objectives within agreed budget constraints. This includes using staff from the existing labour pool in the most cost-effective way, or influencing the production of different types of staff to those currently available.
B. Performance Management	Optimizing productivity and quality of work of the workforce. This includes designing or adapting performance management and performance appraisal systems.
C. Personnel Administration and Employee Relations	Setting pay levels and conditions of service; career structures; incentive systems; structuring, managing and harmonizing relations between employers and staff. This includes managing labour relations and finding ways for effective involvement and communication between employers and staff, including their representing bodies.
D. Education and Training	Producing appropriately skilled personnel for the labour market. This includes interventions on curriculum design and enforcement of training standards on the basis of a process of continuous appraisal of needs generated within the labour market.

need to incorporate all the key actors involved in shaping the human resource sub-system. In this framework these are referred to as institutional actors (see Cassels 1995). Institutional actors are those groups or individuals who influence, or have the potential to influence, changes in the human resource domain because of their control or influence over one or more human resource functions.

Institutional actors include: those connected directly with the employment of health personnel (employers); those who make or influence employment policy (the state/national oversight agencies, the unions and the professional associations); those who regulate employment practices (the regulators, such as the public services commission and the unions); those who prepare health workers for employment (the producers, such as training institutions); and so on. It is accepted that the categorization of the institutional actors is problematic. In some situations, particularly in developing countries, the institutional actors will not always be organizationally separate, or may only be separate on paper. For example, in some countries the regulators and the professional associations may effectively be one single body. In more complex situations it is even more important to clarify the nature of the linkages between the different institutional actors.

The roles of institutional actors will change from one country to another, and their responsibilities over different HR functions may not always be clear-cut and straightforward. The critical issue though is that health systems change is unlikely to occur without the direct or indirect involvement of these actors because of the HR functions they control or influence, and because of the effects changes may exercise over their own status quo. A list of possible institutional actors with particular (or potential) interests or responsibilities over HRD is presented in Table 2.

Institutional actors constitute the *second dimension* of the framework for analysis. In human resource appraisals, as important as the identification of the key actors will be the identification of the objectives (explicit and implicit), interests, power and potential of each individual actor. It will also be essential to illustrate how different actors relate to each other. These attributes of the institutional actors will determine the dynamics within the HR domain. It is important to note that this type of analysis, adapted from political sciences and social anthropology, is relatively new for a number of public health and management consultants (for examples of political mapping see Reich 1994; Gustafson and Ingle 1992; Crosby 1992a & 1992b).

The policy context

The HR domain is both embedded in and intertwined with a broader policy context. The policy context could be separated, for descriptive purposes, into two layers: policies relating to the health sector in general; and the wider context (socio/political/economic) in which the health sector is operating. Because of the huge variety of possible issues in the policy context dimension, we have not attempted to list or categorize them as with the HRD functions and the institutional actors.

Table 2. Institutional actors in Human Resource Development

Institutional actors	Examples
A. The state/national oversight agencies	government ministry/department for: — health (central, regional/provincial, peripheral) — civil service — local government — finance — labour — pensions controller and accountant general independent auditors public service commission legislature health service agencies/purchasers
B. Employers	central government local government semi-public agencies private companies voluntary organizations self-employed
C. Producers	medical and nursing schools technical colleges vocational training schemes sub-contracted (by state) agencies other public or private agencies department/ministry of (higher) education
D. Regulators	statutory bodies (medical, nursing councils) professional associations training authorities
E. Service providers	health personnel including: doctors (GPs and consultants), nurses, health assistants, midwives, auxiliaries, multipurpose workers, technicians, others support services personnel
F. Representative bodies	Unions professional associations
G. Consumers	individual service users consumer groups
H. External funders	development banks multilateral/bilateral aid agencies NGOs

The health sector specific policies have increasingly been dominated by programmes of reform. It might therefore be useful to start with a review of some of the broadest objectives of such reforms: for example, ensuring appropriate levels of financing of the health sector; equitable distribution of benefits of publicly funded services; more efficient use of resources; increasing the influence that users have over the form and content of services; and assurance that people will be covered by services in case of serious accident or illness. One could then go on to look at the strategies or components of the programme that will be, or are being, used to achieve those objectives.

The broader policy environment – beyond the health sector – is equally vast and complex. Major policies

Table 3. Policy context of health sector change

Health sector specific policies	Broader policy environment
Restructuring the Ministry of Health?	Civil service reform?
Health systems decentralization?	Public sector/state-wide reform?
Creation of independent hospital boards?	Political devolution or managerial decentralization?
Partnerships with the private sector?	Structural adjustment?
Broadening health financing options?	Budget restrictions across the board?
Purchaser/provider split?	Focus on regulation and governance?
Introduction of managed competition?	Reforms in other sectors (e.g. education)?
	Changes in the political scenario?

might be concerned with areas such as: the devolution of political power; stabilization or national reconciliation in the aftermath of war or conflict; improving the performance of government through civil service reform; public sector administrative and/or economic reforms; the expansion of the private sector; decreasing unemployment; achieving greater equity in resource distribution. Some examples of the policy context of health sector change are given in Table 3.

Conclusion

Health care reforms require fundamental changes to the ways in which the health workforce is planned, managed and developed within national health systems. While issues involved in such transition remain complex, their importance and the need to address them in a proactive manner are vital for reforms to achieve their key policy objectives. For a start, the analysis of human resources in the context of health sector appraisal studies will need to improve in depth, scope and quality by incorporating functional, institutional and policy dimensions. Only then will human resources become, in practice, the most valuable resource within any national health system.

Endnotes

[1] At least in the UK (Buchan and Seccombe 1994).

[2] Saltman and von Otter (1995) claim that 'flexibility in the use of labour, and in payment systems and levels, is one of the most sought after effects of the entire health reform process' (p. 13).

[3] This includes changing the employer from central government (civil service) to local employers (local government, district or hospital boards etc).

[4] Not only are targets needed, but also procedures and tools for helping people meet those targets.

[5] For example, the 'step-ladder' system in the Philippines, which allows someone to start as a community level worker and eventually become a doctor.

[6] For example, the MCH Worker to replace the Auxiliary Nurse Midwife in remote areas in Nepal; Medical Assistants have replaced doctors for the provision of certain services in Tanzania.

[7] For example, in Zambia, plans for the amalgamation of Clinical Officer, Nurse and Environmental Health Officer into Public Health Practitioner.

[8] Tyson and Fell (1986) describe different forms of human resource management through the use of their 'building site' metaphor. The three different roles are: *clerk of works* (administration with minimal managerial and no strategic input); *contracts negotiator* (trouble-shooter; short-term tactical approach; no strategic input); *architect* (responsible for creating the vision and for making long-term strategic choices). Reforms tend to need more of the architect role.

[9] See also Collins (1995) on the role of the HRM Unit in the Ministry of Health (pp. 201–2).

[10] The initial cuts at central level in Nepal were so severe that essential functions like the Expanded Programme on Immunisation and even HR management were paralysed due to shortage of staff .

[11] This may have many different names: Manpower Development Section (Nepal); Human Resource Development Division (Ghana); Human Resource Development and Policy Unit (Zambia); the term 'HR Unit' will be used in this document.

[12] This should not be confused with expertise in medical education, of which there is more around, as it tends to be biased to supply issues and those related to particular professions.

[13] The framework for analysis is just introduced in this section. A more detailed discussion of its contents and possible use can be found in Martineau & Martínez (1996).

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