



Original Article

Human Resources and the Success of Health Sector Reform

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Abstract

Though reforms in the health sector have recently been common around the world, their success has, for a variety of reasons, been mixed. The paper aims to examine and explain the importance of human resources (HR) to the success or failure of health reforms using case studies from Russia, Zambia and the United Kingdom.

Health sector reform often focuses on changes in financing or organisational structure, but neglects a key resource - the staff. This may result in inappropriately skilled staff for new tasks, poorly motivated staff, or even serious opposition to the reforms. Though reforms present many challenges in relation to the management of human resources, they also provide opportunities for alleviating long-standing staffing problems - such as the management of staff performance. Better staffing will contribute to the success of health reforms.

The complexity of managing staff is greatly increased at times of reforms and the reasons for failure to meet challenges and take up opportunities are many. However, based on experience of reforms around the world the authors suggest that the root of the problem is in the general lack of experience and relevant skills around managing HR in the context of reforms. The priority actions proposed are:

1. Awareness raising: creating better understanding of policy makers and managers of human resource management and planning, especially in relation to reforms.
2. Capacity building: creating the structures and capacities to implement appropriate HR strategies to support health reforms.
3. Adequate preparation of the workforce for changes due to reforms - especially where conditions of employment are affected.

Key words: human resources, health reform, human resource management, labour relations

Introduction

Health sector reform has generally focussed on changes in financing or organisational structure, often to the neglect of the key resource - the staff. A primary reliance on achieving reform through organisational restructuring can be self limiting in this labour-intensive sector. Form should follow function, and function is the delivery of health care, which depends on having the right mix of motivated staff in place. Staffing is a key input, but it is also the main cost in most health systems. Without effective staffing and committed staff, it is unlikely that health sector reform will be successful.

There has been much analysis of the successes and failures of health reforms in general. However, relatively little attention has been paid to the critical part that human resources (HR) will play in determining the success or failure of health reforms^(1,2).

The relationship between HR and health reforms (and wider public service reforms) is highly complex - more so than many other sectors because of labour intensity, well established separate professions and occupations with their own locus of practice and control, and the sheer scale of operations. This very complexity



of HR in health care is sometimes used as an excuse for neglecting it.

This paper examines the criticality of HR in healthcare reforms, using three key 'diagnostic' questions. These questions are applied to three case studies - in Russia (the Republic of Karelia), Zambia and the UK - at different stages of reforms in the health sector. Finally we present several fundamental messages regarding the planning stages of reforms in particular.

The Importance of HR to the Success of Health Reforms

Reform strategies will impact positively and negatively on staff employed in the sector and their management⁽³⁾. For example, restructuring service provision will have implications for numbers and types of staff. The feasibility of providing the right kind of staffing to support the new structure would need to be tested. Further or different training may be needed; or more or fewer staff. If there are serious labour constraints, and this can include opposition of the staff to changes, it may be decided that the proposed change in service provision should be revised or even abandoned. A focus on HR will assist reform programmes to meet their objectives, or if necessary, to identify how to modify them to more feasible objectives, given constraints of staffing and HR management capacity. The assumption here is that reforms are aimed at improving the performance of the health sector. This may not always be the case, especially where they are imposed from outside the health sector^(4,5).

Any form of change will present opportunities - including opportunities for improvements to effective management of HR. For example, where there is a devolved management structure, managers may have more choice in the way in which they staff their services, as they will no longer have to stick rigidly to inappropriate national staffing norms. They may have more

flexibility in how they manage and reward performance. Rigid staffing norms and lack of authority to manage staff performance often contribute to long-standing HR problems. Provided that the opportunities are recognised and taken up, reforms can help with the improvement of the HR situation.

Though the linkage between HR and reforms is extremely complex, we propose three basic diagnostic questions to help policy-makers and planners to identify some of the key HR-related issues when developing and implementing health sector reform.

1. Is HR an integral element of the reforms agenda, from pre-planning through to implementation and evaluation?

Is there any indication of commitment to HR and any understanding of the part it will play in the success or failure of the reforms? Is there any form of strategy for HR to ensure that the broad aims of the reforms will be supported?

If so,

2. Is there sufficient capacity to implement the necessary changes in HR, and to deal with the challenges that will arise?

'Capacity' here refers to both ability (skills, time and resources) and willingness to change. It must be present both at a strategic level and at operational level.

3. Does the health care workforce understand the need for the reforms? To what extent does it support the reform plan?

These questions must be answered both in general, and specifically regarding changes that affect the workforce and their terms and conditions of employment. Has a communication strategy been developed as part of the reform programme?

HR and Reforms: Three Case Studies

We now consider these three questions in the light of health reforms in three quite different settings, though in all cases a major part of the drive was from within the health services to improve service delivery. The case studies are largely based on data collected by the authors in the course of their work in these countries.

Background to the case studies

Karelia

The main thrusts of the health and social welfare reforms (involving the ministries of health care, social protection and education) that were started in 1998 in the Republic of Karelia, in north-west Russia, were:

- the shift from provision of care at secondary and tertiary levels to provision at the less expensive primary level and increased emphasis on preventive medicine;
- the development of better targeted social care and deliver it through open-care services;
- and the establishment of better integration in the provision of health and social services⁽⁶⁾.

The development of the reforms were supported by an EC-TACIS project for two and a half years.

The main HR implications of these reforms were:

- the re-orientation of a specialist medical workforce and a highly under-utilised nursing workforce to provide primary care services;
- a major attitude shift from provider-oriented to client-oriented services;
- and a significant increase in professional flexibility to ensure collaboration within

and between the health and social welfare sectors.

Apart from the massive retraining requirements, people's jobs would undergo substantial changes. In addition, new types of incentives would be needed to attract people into these new ways of working.

Zambia

The Zambian health reforms started around 1992 and aimed to develop a health system which would ensure equity of access to cost-effective quality health care. The key strategies included: the separation of policy making and operations through the reduction of the Ministry of Health and the creation of a Central Board of Health; decentralisation of management of health services to autonomous district and hospital boards; de-linkage of staff from the civil service⁽⁷⁾.

Apart from the obvious de-linkage from the civil service (which has still not yet been completed), major HR implications included the establishment of HR management structures and systems at decentralised levels, a massive management development programme and the re-profiling of health professionals - particularly at the primary care level, to provide more cost-effective services.

United Kingdom

In the UK a series of reforms of the National Health Service have been a central element of government policy over the last two decades. These reforms can be traced back to the implementation of "general management" in the 1980's, followed by the market based reforms of the Thatcher governments of the early and mid-1990s, and the more recent restructuring initiated by the Labour government post 1997. The most recent reform package is encapsulated in the "NHS Plan" for England, which was published in the summer of 2000.

The key features of the reforms in the three case study countries and the related HR issues are summarised in Table 1.

Table 1 Key features of reforms and related HR issues.

<i>Country</i>	<i>Key reform strategies</i>	<i>Key HR issues</i>
Karelia, Russia (from 1998)	<ul style="list-style-type: none"> • shift from specialist to primary care; • targeted social care delivered through open-care services; • better integration in the provision of health and social services. 	<ul style="list-style-type: none"> • re-orientation of health professionals to provide primary care services; • a major attitude shift from provider-oriented to client-oriented services; • development of professional flexibility to ensure collaboration within and between the two sectors; • development of new types of incentives to support new ways of working.
Zambia (from 1993)	<ul style="list-style-type: none"> • separation of policy from operations; • semi-autonomous district and hospital and district boards; • more appropriate and equitably provided health care. 	<ul style="list-style-type: none"> • establishing new employment systems and conditions of service; • decentralisation of HR management systems and capacity; • new skills mix at primary care level to implement essential package of services.
United Kingdom (1991-2000)	<ul style="list-style-type: none"> • decentralisation (but with maintenance of tight central financial control); • “competition” between providers (until 1997); • “collaboration”, integrated planning of services, performance management and accountability, “partnership” approach with staff (post 1997). 	<ul style="list-style-type: none"> • staff performance management; • designing/ implementing new pay/ career structures; • changing skill mix/ new roles for professions (e.g. nurse practitioner); • regulating the health professions; • HR planning in a decentralised system.

Application of the diagnostic questions

Each of the three diagnostic questions proposed earlier is answered below in the light of information available from the case studies. The results of the application of the diagnostic questions are also summarised in Table 2.

1. Is HR an integral element of the reforms agenda, from pre-planning through to implementation and evaluation?

Karelia

Initially HR in the broadest sense was not very high on the reforms agenda, and the HR component in the design of the TACIS project was more concerned with training. However, following the situation analysis in the inception phase⁽⁸⁾, HR was promoted up the reforms agenda, and was allocated a specific working group and a seat on the government level Project Supervisory Board. In addition, a special sub-group was established to develop a broad HR strategy to support HR in the reforms process;

Table 2 Summary of application of diagnostic questions.

<i>Diagnostic questions</i>	<i>Karelia</i>	<i>Zambia</i>	<i>UK (post 1997)</i>
1. Is HR an integral element of the reforms agenda, from pre-planning through to implementation and evaluation?	Strengthened position on the reforms agenda, but sustainability of the position is questionable.	Yes, initially; much lower priority later except for fire-fighting the industrial action.	Yes. NHS Plan is based on a series of linked HR components.
2. Is there sufficient management capacity to implement the necessary changes in HR, and to deal with the challenges that will arise a. at national level? b. at local level?	Enthusiasm at national level and in pilot areas, but technically very weak at both national and local levels.	Weak at the national level; not yet developed at local level.	Yes, at national level, but remains very variable at the local level.
3. Does the workforce a. understand the reasons for change/ reforms? b. support the reforms?	Good understanding and enthusiasm in pilots areas; situation less clear in remaining raions (districts).	Mostly still unsure about the impact of reforms on their jobs; initially supportive of overall objectives and possibility of higher remuneration; now many disillusioned.	“signed up” to Plan at national level; early stages of implementation suggest that medical staff may oppose some aspects of reform.

the strategy included a process for monitoring the changing relationship between HR and the reforms. As the project closed the question was raised about the sustainability of HR working group, and in particular, the HR strategy sub-group and its activities.

Zambia

It was recognised that a reformed health service would not work without effective professionals to staff it. Therefore to increase the flexibility of staffing and enable employers to pay more realistic rates in order to retain staff, the plan was to transfer employment from the civil service to health boards. HR was therefore very much on the agenda. The more detailed planning of how this would be operationalised (including the establishment of HR systems and capacity at decentralised levels) had not, however, been done. This gap was

identified in discussions between the Zambian and UK governments, and as part of a wider package of aid, a specific project to support the HR component of the reforms was developed. Despite this, HR slipped down the list of priorities in the reforms. It only re-emerged as a priority when industrial action was taken by the health professionals. A key indicator of the level of importance that has been afforded to HR is the staffing strength of the HR function at ministry and Central Board levels; this is discussed in more detail below.

United Kingdom

In the early 1990s HR was largely “hidden” on the reforms agenda. Elements of the reforms were about local management “freedom and flexibility” which were code words for achieving local control over staffing levels, mix, pay determination and employee relations. This

market-based approach achieved only limited success in changing HR policy and practice, mainly because of a lack of targeted resources, limited management capacity and the absence of a coherent overall plan for HR⁽¹⁾. The Labour government which took over in 1997 promoted a national HR strategy for the NHS (1998), a review of workforce planning (2000), and has initiated the current NHS plan (2000). This plan has HR explicitly front and centre in the reform process. It sets out new staffing targets (e.g. an increase in the number of nurses by 20,000 by 2004) and HR indicators (i.e. performance management)⁽⁹⁾. The development of the Plan, which has been supported by nearly all the major NHS staff organisations, illustrates that HR has become recognised by the Labour government as a crucial success factor in health sector reform

2. Is there sufficient capacity to implement the necessary changes in HR, and to deal with the challenges that will arise?

Karelia

There were virtually no professionally trained HR staff in any of the three ministries involved. Those carrying out personnel administration duties were usually low level personnel (for example in health, a former nurse). Despite the collection of much routine HR data, this was rarely in any useable form to support decision-making. However, with a small amount of guidance and the mobilisation of statisticians, it proved possible to produce a lot of useful data to help understand staffing dynamics such as age and geographical distribution. Under the auspices of the TACIS project there was a strong will and the possibility of developing some of the capacity necessary to support changes in HR due the reforms, but this project was only intended to kick start the process and as mentioned earlier there must be questions about the sustainability of this effort.

Zambia

Strategies that involve the change in employment status of civil servants involve many

different actors - for example, the Public Service Commission, the Ministry of Finance and Economic Development, in addition to actors within the health sector itself. The Ministry of Health had a personnel administration division dealing with routine matters of processing postings, etc., and a small Manpower Development Division, which dealt largely with the administration of fellowships. Hence the Ministry of Health itself was not adequately equipped for the kind of strategic planning required to coordinate with the above-mentioned actors, effect the transfer of at least 20,000 staff as well as develop and put in place all the personnel management systems needed at decentralised levels. In addition there was little expertise available to deal with the labour relations problems that subsequently arose. Negotiations for the UK government-funded project led to the employment of an HR professional in the Ministry of Health. However, even when the HR responsibility was transferred to the newly-created Central Board of Health it was desperately inadequately staffed to meet the challenges of the de-linkage and in addition the HR function became further distanced from high-level decision-making⁽¹⁰⁾.

United Kingdom

The local management capacity required to implement some of the HR components of the UK reforms under the Conservative governments of the 1990's, such as the use of local pay bargaining, was greatly underestimated by central government. It also failed to fund, or set out a clear and convincing rationale for these developments. Partly as a consequence of limited and varied local capacity, some of the main HR components were never properly implemented. On the other hand some of the pre-reform HR capacity, such as workforce planning, was lost in the structural changes (and is now having to be re-invented). Lack of additional resources to underwrite transition costs to local pay bargaining, limited management capacity, and "protected" employment rights for workers in the now autonomous NHS "trusts" all acted to constrain the achievement of the HR

components of the 1990 reforms. Recognising these shortcomings, the current (post 1997) government has refocused HR and workforce planning activities in the NHS, it has provided additional resources to fund more training places to increase staffing numbers, and it has initiated a new HR performance framework to which all provider units will have to comply. It must be noted that the period since 1997 has been one of financial stability and growth in the UK economy, which has enabled significant additional funding to be allocated to the NHS.

3. Does the health care workforce understand the need for reforms? Does it support the reform plan?

Karelia

During the project period it was difficult to make a judgement about the support of the overall workforce for the reforms, partly as the reform process was so new. The project worked in three pilot districts and it was clear some of the managers and staff became very engaged in the process of experimentation. Staff were facing difficulties of late payment of salaries and rising costs - especially after the crash of the Rouble in the summer of 1998. At the same time the unions were quite weak and professional associations almost non-existent (an attempt to set up a doctors association failed during this period). The project had a communications component to explain reforms, but despite suggestions from the HR group, this was more targeted at the general public than health personnel. Structures to ensure good labour relations were not generally in place and thus pose a risk of problems at a later stage, especially as and when reform strategies start to threaten job security.

Zambia

Initially a lot of information was provided about the need for and broad aims of the reforms. Information on the details of the reforms was probably less forthcoming.

The initial view in the Ministry of Health

back in 1993 was that the “unions were docile”. At a higher level there was an apparent attempt to deflect possible resistance to the de-linkage process by establishing an alternative health workers union to attract health personnel away from the civil service union. At first many staff thought they would actually benefit from better terms and conditions following the de-linkage, but by 1996 there was still “total ignorance and a lot of anxiety over how the de-linking process [would be] effected”⁽¹¹⁾. Industrial action - in large part due to uncertainties about what would happen to pensions accrued - followed later, significantly contributing to the slow pace of the reforms. Attempts at communication between management and staff through site visits and TV media were made, but this was sporadic and probably too late in the process. Because of the slow progress of the reforms and more particularly due to the potential impact on conditions of service, the workforce’s support for the reforms has been considerably diminished.

United Kingdom

Some of the health occupations in the UK, particularly the doctors and nurses, have well established and effective political lobbying and policy influencing capacity. Without their support (or tacit compliance) it is very difficult for a government to fully implement substantial change in the HR elements of health reform. At an operational level, management of medical staff has been a particular challenge to HR since the NHS was established in 1948, as doctors retain various employment freedoms. The current NHS Plan led reforms have been based on a “partnership approach” with the main trade unions and professional organisations “bound into” the process of developing the plan. The leaders of most of the main unions were signatories to the Plan document. The price of this support was target setting to increase the number of doctors, nurses and other professionals employed in the NHS, and a pledge of new pay structures and career structures. Major indicators in the new HR performance framework include indicators of staff well-being and access to training. The Plan is

only in its early stages of implementation and the biggest challenge will be to “sell” it to staff at the operational level. There are already signs that some medical professionals are unhappy about proposals to curtail their private practice and to implement mandatory performance appraisal.

Discussion

Despite the diversity of the Zambia and Karelia case studies, there is a significant correspondence in the outcomes of the diagnosis. There would also probably be much greater similarity to the situation in the UK case study prior to 1997. The NHS is now an ‘old hand’ at reforms and appears to have been able to learn from past experience. The current fiscal situation in the UK provides some advantage over the other two cases, particularly regarding ability to build capacity in HR.

Getting HR on the reform agenda

The very fact that the authors were involved in these three sets of reforms indicates that there was some recognition of the importance of HR in reforms. Though this is increasingly the case in other reforming health systems (e.g. in Malawi and Ghana), it cannot be taken as a given.

A major challenge is to ensure that HR is comprehensive and integrated with service delivery (it is sometimes perceived as being little more than training of health workers). It is also necessary to assess the potential impact of the current HR situation on reforms and vice versa, and hence develop an appreciation of HR as an important component of reforms. This was quite successfully achieved through various forms of advocacy in Karelia, partly due to access to higher level government ministries.

The question which remained at the end of the project supporting the Karelian reforms was that of the sustainability of the position of HR on the reforms agenda. Following an encouraging start, this has appeared to slip in Zambia. This is unsurprising given the number of com-

peting priorities - as in all reform programmes - that tend to force HR down the list of priorities, particularly if it does not have strong advocates. Reformers in the UK have now learnt - perhaps the hard way - that they must have HR firmly at the centre of the reform agenda.

Awareness-raising is needed to broaden the understanding of policy makers and managers (in all related sectors). They have to understand the scope of human resource management and planning and the importance of getting it right to support health reforms, and the consequences of getting it wrong. More documentation of success stories (and analysis of the reasons for failure) are needed to support the development of an evidence base in this area, and more information exchange (e.g. through study tours) is needed to enable planners learn from the practical experience of others.

Capacity

We have argued that commitment at the highest levels to HR is essential to the success of reforms. In addition, the translation of HR strategies into reality will almost certainly require substantial development of systems and skills (this is also the case with financial or information strategies). In Zambia and initially in the UK, the extent of the capacity building required (both in volume, e.g. number of districts/trusts, and the starting level of the HR skills base) was greatly underestimated. In addition in Zambia, in a crowded reform agenda, not enough time was devoted to HR at the strategic and operational levels.

Whilst one must be realistic about the multiple demands created by the implementation of reforms, at the planning stage it will help to:

- a. identify the scope of HR changes required to support the reforms, including an identification of critical success/ failure factors;
- b. carry out an assessment of current capacities for implementing HR changes;

- c. develop realistic strategies to develop these capacities within available means.

Increasingly international donors are recognising the importance of HR to the success of reforms (e.g. DFID support in Zambia and EU support in Karelia). Going through the three steps above for developing capacity building strategies will provide the basis of a strong negotiating stance for such support.

Support of the workforce

With the aforementioned crowded agenda that comes with the planning and implementation of reforms, unless the workers are already protesting on the streets, there is an understandable danger of ignoring them. 'Docile' unions in Zambia transformed into a powerful opposition to the reforms when their conditions of service were threatened; the Philippines experienced similar unexpected resistance to the devolution in the mid-nineties⁽¹²⁾. In Karelia, with high unemployment and almost non-existent health worker unions, resistance from the workforce seems unlikely, yet this is not an easily predictable phenomenon.

One of the reasons that HR is so firmly at the centre of the Labour government NHS reforms in the UK is that they recognised that a failure of the previous reforms was to keep HR issues "hidden" or subordinate. This was predicated on the assumption that changing the structure would in itself lead to culture change. The use of "partnership" has brought the workforce into the process of change - they have an input, but they are also implicated in the process of change.

Reform objectives are often characterised as getting more from less, with a negative impact employment stability and security. In addition, reforms tend to evolve, rather than start as a blueprint that is then implemented strictly in accordance with a pre-determined timetable. In Zambia and Karelia, as in many other reforms, there was little previous experience of reforms to draw on. Officials were trying to feel their way, and particularly in relatively autocratic situ-

ations, this is not a situation that lends itself to openness and sharing of uncertainties (especially those that might impact on employment) with the workforce.

Whatever the direction and fine details of health sector reform, there is a need to be able to be aware of and monitor changes in mood of the workforce; and to establish capacity (mechanisms and skills) for effective dialogue.

Conclusion

In this short paper we have highlighted some of the issues surrounding HR and the success (or failure) of health reforms. From the application of key diagnostic questions to our three case studies we propose a few straightforward messages that we hope will find a home in the crowded agenda of senior officials and other stakeholders involved in planning and implementing health reforms.

1. Awareness raising about HR as a critical success factor in the success of health reforms

It is imperative to broaden and deepen the understanding of policy makers and managers (in all related sectors) on the wide scope of human resource management and planning and the importance of getting it right to support health reforms. If this is properly appreciated, HR will be on the initial reforms agenda, and its position and level of priority is more likely to be sustainable throughout the reform process.

2. Capacity building to support HR changes

Having established the scope of the HR changes required, an assessment of current capacity (skills, time, willingness) to implement the changes will reveal key areas for intervention and for capacity building. These must be considered at both the strategic and operational levels. At the strategic level there is a need for HR planning to be integrated with service planning, to ensure that the broad focus of reforms is achievable given staffing levels and management capacity. At the operational level, there is

a need to ensure that HR management is sufficiently skilled and confident to manage a process of organisational change.

3. Workforce support

Reforms are about change, and in general people tend to resist change, especially if there is some perceived threat to their jobs. Preventing the development of active and organised opposition from the workforce is better than having to treat the problem with fire-fighting actions. This requires an appreciation of the possible impact of reforms on jobs and the likely reaction of staff, and the establishment of effective communication systems between employer and employees.

These suggestions have been developed from an analysis of cases where reforms were driving largely from within the health sector. They would apply equally to externally driven reforms, but would meet much greater challenges, and perhaps the greatest amount of energy should be devoted to the awareness raising item. The suggestions come with no caste-iron guarantee, but we believe they should be central components in the process of planning if health reforms in the 21st century are to achieve their objectives of improved health care.

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References

1. Buchan J. Health sector reform and human resources: lessons from the United Kingdom *Health Policy and Planning* 2000;15:319-25.
2. Martínez J, Martineau T. Re-thinking human resources: an agenda for the millennium. *Health Policy and Planning* 1998;13:345-58.
3. Martineau T, Martínez J. **Human resources in the health sector: guidelines for appraisal and strategic development.** Health and Development Series: Working Paper No.1, Brussels: European Commission, 1997.
4. Kolehmainen-Aitken RL. Decentralisation and human resources: implications and impact. *HRDJ* 1998;2:1-16.
5. Collins C. **Management and organization of developing health systems.** Oxford: OUP, 1994
6. TACIS project. Report of the outcomes of the TACIS project "Support to the implementation of social and health care reforms in the Republic of Karelia, Russian Federation". Petrozavodsk, 1999. (unpublished document).
7. Lake S, Musumali C. Zambia: the role of aid management in sustaining visionary reform. *Health Policy and Planning* 1999;14:254-63.
8. Martineau T, Räisänen A. Human resource development: inception report for TACIS project. Report on Assignment in the Republic of Karelia, Russia for HEDEC, Finland, 1996. (unpublished document).
9. NHS. **The NHS Plan: a plan for investment, a plan for reform.** London: Secretary of State for Health, 2000.
10. Godfrey N, Axe J, Daura M, et al. **Mid-term output to purpose review of the Zambia health and population sector aid programme (ZHPSA): Report to the UK Department for International Development.** London: Institute for Health Sector Development, 1998.
11. Huddart J, Mbao E. Chapter 5: Human Resources. In: **Independent Review of the Zambian Health Reforms** Vol II: Technical reports. Lusaka: Ministry of Health, Government of the Republic of Zambia, 1996:2.
12. Perez J. Employee relations to facilitate sectoral reforms. In: Martineau T, Martínez J, eds. **Workshop on human resources and health sector reforms: research and development priorities in developing countries.** Liverpool: Liverpool School of Tropical Medicine, 1996.