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# PERSPECTIVES

## Improving human resources for health planning in developing economies

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There is a universal consensus that human resources represent the heart and soul of effective health systems everywhere. However, despite this consensus, human resource planning in low income countries remains a neglected, often poorly implemented and ineffective component of health-system development. The planning exercises that do take place are often inefficient, use inappropriate planning models or fail to adequately prioritize human resource investment decisions. This article briefly discusses possible reasons why this failure occurs and describes four key steps that can help health system planners more effectively prioritize and link human resource for health investment decisions to health system strategy and programmatic initiatives. Implications for human resource development practice and national human resource development are discussed.

**Keywords:** human resource planning; human resources for health; health system planning; national human resource development

### Introduction

This article takes a narrow focus on human resource planning in the health sector in low income countries. It briefly reviews current human resources for health (HRH) planning models typically employed in these countries, notes inefficiencies in these models and outlines a process for prioritizing HRH investments according to their capacity to address high priority health system goals and outcomes.

This restricted perspective has value from a practical perspective because it allows for the presentation of a set of tools useful for human resource planning and development. However, the implicit themes underlying this focus are much broader. Put simply, human resources have emerged as the most important factor in responding to what is widely regarded as a national health crisis in many low income countries (WHO 2006). It is also one of the greatest challenges: There are not enough health personnel in these countries; the skill mix is often misaligned with the disease burden and population health needs; skill imbalances are compounded by poor geographical distribution, serious morale problems, poor management and supervision, ineffective training and outmigration of qualified personnel to more prosperous countries. This has led to an increasing need for effective human resource planning which can align human resources (people and skills) in the health sector with institutional, regional and national health goals, strategies and resources. Thus, two themes – human resource planning and its application to national health needs – have implications for the field of HRD both at the strategic level and

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through the emerging concept of national HRD. A brief discussion of these implications is presented at the conclusion of the article.

## Background

Low income countries (i.e., countries with a gross national income of less than US $1035 per capita) face a number of challenges related to HRH: insufficient numbers of health care providers, attrition of high skills health workers, complex disease burdens reflected in high rates of communicable diseases (tuberculosis, malaria, respiratory infections and HIV/AIDS), infant, child and maternal mortality and morbidity, low life expectancies, insufficient access to clean water and poor nutrition, to name a few. As a result of these often daunting problems, health systems – whether at the local, regional or national level – struggle to maximize the effectiveness of limited resources. A key aspect of this struggle, and one of the biggest challenges these health systems face, is effective HRH planning. That is, identifying and getting the right people in the right places to do the things that need to be done to address critical health needs and meet health system goals.

However, HRH planning in many low income countries remains a neglected, often poorly implemented and ineffective component of health system development. The planning exercises that take place rarely implement systematic processes for identifying and prioritizing the jobs or expertise required by health system strategies and programmatic initiatives. There are a number of reasons for this. First, a wide range of approaches and planning models have been developed over the years to improve the planning, development and distribution of health system personnel. These include approaches based on estimates of future needs, demand or service utilization, required workforce-to-population ratios or service targets (O'Brien-Pallas, Baumann, and Donner 2001). A common feature of all these approaches is an attempt to project HRH requirements (i.e., numbers of health personnel) based on various criteria or indicators. For example, needs-based approaches typically convert projected service needs to job and person requirements using established productivity standards and expert judgment. Utilization-based approaches estimate future job and person needs based on current service usage and future demographic projections. Service-delivery approaches extrapolate from service delivery targets to identify HRH requirements. Population-ratio approaches use norms, typically drawn from other countries, to identify desirable physician/population, nurse/population or some other ratio. Because these approaches work backward from health service needs, service usage and demographic trends, service delivery targets or hypothesized norms to project human resource investment and development needs, it is easy to neglect how these investments and developments decisions connect to national health strategy implementation needs.

Second, although there are a variety of HRH planning models, nearly all have been developed in and for the complex health systems of more economically advanced countries. Since none of these models were created to specifically address the context in low income countries, most have been criticized as inappropriate to varying degrees given the health system strategy, structure, needs or conditions in these countries (Bloor and Maynard 2003; Sirikanokwilai, Wibulpolprasert, and Pengpaiboon 1998).

Third, the human resource planning process in low income countries is often implemented as an isolated technical or political exercise which is not closely aligned with national health policy, the disease burden affecting the country's population or to any

specific health outcomes (Dreesch et al. 2005). This can create a mismatch between ends and means. For example, I recently observed a politically fuelled HRH planning process in a sub-Saharan country in Africa that produced a strategic HRH plan proposing to heavily invest limited resources in the development of a small cadre of specialist physicians. In the view of many, this was totally at odds with the overwhelming disease burden in the country which centred on malaria, acute respiratory infections (tuberculosis, pneumonia), pulmonary infections and diarrhoea – diseases that affected a large proportion of the population. The ongoing burden of disease situation suggested for many the need for investment in other elements of the HRH system (nurses, midwives, community health workers) that could have a more immediate and far-reaching impact on the country's health outcomes. A major contributing factor in this situation, one common to health system human resource planning efforts in many low income countries, was that the planning process occurred with minimal or ineffective participation of key stakeholders, particularly ministry and government representatives, who were most attuned to current health system strategy and initiatives.

All these factors attenuate the link between HRH plans and health system strategy and can lead to the production of an HRH plan that is 'strategic' in name only. Making effective decisions about the development of HRH that will drive health system success requires basing those decisions on a human resource planning process that consciously links human resource projections to the strategy and the programmatic initiatives required to carry out the strategy. This is a fundamental principle of all strategic human resource planning. This article outlines a set of core elements of the human resource planning process that offers guidance in identifying strategically important health system jobs and prioritizing HRH investments and development plans to the most strategically critical jobs.

These efforts can be effective and lead to more efficient investment decisions when planners take steps to consciously link HRH requirements to high priority strategy and initiatives. Doing so means incorporating a small set of organizational best practices for identifying and prioritizing human resource investments. These practices are not overly complex nor do they require special planning skills or expertise in a particular planning projection model or approach. They do, however, require: (1) clarity about health system strategies and the programmatic initiatives designed to realize those strategies; (2) an ability to assess the value and contribution of various health system jobs vis-à-vis health system strategy and programmatic initiatives and (3) a willingness to prioritize HRH investments according to their capacity to deliver on high priority health system goals and outcomes. Attention to these factors, at any level of human resource planning, will provide a more effective and sustainable response to health workforce development needs. The remainder of this article describes a four-step process designed to account for these factors.

## A core process for identifying and prioritizing HRH investments

The core elements needed to link health system human resource planning to health system strategy are illustrated as a four-step process in Figure 1. A key assumption of this process is that HRH planners strive to make the most efficient use of the available HRH resources. In doing so, the human resource planning process strives to identify the jobs, skills and competencies most critical for promoting health system performance and achieving health system goals. The elements and steps are described below.


Figure 1. Core elements of the health system human capital planning process.

***Step 1: establish clarity and consensus about the most critical health system goals***

As noted earlier, conventional approaches to HRH planning in low income countries tend to focus on certain criteria or indicators to project health workforce shortfalls or surpluses. As a result, health system human resource planning often occurs in isolation from strategic choices (e.g., the range or type of services offered or population needs addressed) and outcomes. To be effective, answering questions about getting the right jobs in the right places must be developed in the context of a thorough understanding and consensus about what the health system goals and desired outcomes are. Everything in the human resource planning process should be designed to flow from health system goals and desired outcomes. However, strategy is as much political as it is technical. Strategic choices depend on political choices and commitments as well as the social, cultural and economic values surrounding health and the structure and function of national health systems. It is therefore vitally important that those involved in the HRH planning process clearly articulate and reach consensus on the strategies and desired outcomes that are the focus of the current planning process. Strategies and outcomes form the boundary conditions for the human resource planning process and HRH plans should be continuously checked and evaluated against these boundary conditions.

Therefore, for each HRH planning effort, the critical, high priority health system goals and outcomes must be articulated and clearly understood by everyone involved in the human resource planning process. Vital questions to ask include:

- *What are the high priority goals of the health system over the next three to five years?*
- *What are the high priority outcomes associated with these goals?*

Goals specify the direction the health system is taking to address current and future health system needs. Outcomes are performance metrics and represent the indicators that progress is being made in addressing those needs. Clarity on both provides the critical foundation and boundary conditions for human resource planning. Although many HRH plans are oriented to a three to five year frame, this often varies. So, it is also important to

understand the time frame during which the goals are to be achieved as well as any significant milestones that must be met along the way.

### *Step 2: identify the strategies and programmatic initiatives needed to reach critical health system goals/outcomes and the strategic capabilities (technology, information and expertise) needed to implement the strategies/programmatic initiatives*

This step requires determining what strategies and programmatic initiatives are needed to realize health system goals and outcomes. Vital questions to ask include:

- *What key health system challenges must be addressed to realize high priority health system goals?*
- *What strategies and programmatic initiatives must be successfully executed to address these challenges?*
- *What capabilities (technology, information and expertise) are needed to implement the critical strategies and programmatic initiatives?*

Answering the first two questions will enable health system human resource planners to take a close look at the direction in which the health system is moving and the current and planned health system strategies to move the health system in the desired direction. The third question, identifying needed capabilities, leads to the identification of key jobs and expertise needed for strategy and programmatic implementation. For example, if reducing the costs of health services is a health system goal, one strategy might be a 'low-cost' service approach. Implementing such a strategy could include a cutting-edge logistics system and the expertise to run it to more efficiently to manage drug and other material availability; a state-of-the-art hospital information system and associated expertise to more efficiently manage patient care and an emphasis on health centre cost reduction by improving administrative and managerial skills and efficiency.

The first two process steps, identifying goals and the initiative and capabilities needed to reach those goals, are standard human resource planning elements. The next two steps allow decision-makers to prioritize HRH investment decisions based on a rational analysis of where these investments can have the greatest impact in terms of health system goals and performance.

### *Step 3: identify the jobs or job groups crucial for activating the required strategic capabilities*

This step starts from the assumption that there are no inherently strategic jobs in a particular health system. For example, from the human resource planning perspective, the most highly skilled or highly paid are not necessarily the most strategically important. Strategic jobs are as variable as the systems and strategies in which they are imbedded. Different health systems with the same goals can employ substantially different strategies to pursue those goals, strategies that require different capabilities. As a result, critical jobs will vary from one health system to the next.

In order to identify the most important jobs or positions, an effective human resource planning process works forward from health system strategy. This process starts by evaluating and categorizing health system jobs relative to their importance to the high priority health system strategies and outcomes. Cutting edge human capital planning models (Bennet and Brush 2007; Boudreau, Ranstad, and Dowling 2003, 63–99) suggest

implementing a job classification process which categorizes jobs along various dimensions:

- Strategic jobs. These are the jobs or groups of jobs that are crucial to implementing the strategies and initiatives the health system is using to pursue its goals. Strategic jobs, relative to other health system jobs, have a disproportionate influence on the health system's ability to implement the strategies and initiatives being used to pursue key health system goals. To identify strategic jobs ask:
  - *What jobs will have the greatest impact on advancing the health system toward its 3–5 year high priority goals?*
  - *What jobs do or should possess the unique capabilities that will allow the health system to successfully implement the strategies and programmatic initiatives needed to realize its goals?*
- Core jobs. These are the jobs that are important to the health system either because they deliver important services or because they support strategic jobs in important ways. In many cases, these jobs are important for maintaining the effective functioning of the health system. Key questions to ask include:
  - *What jobs are essential to consistently delivering high quality health services and producing desired outcomes?*
  - *What jobs will support or influence the ability of the strategic jobs to have an impact on strategy and programmatic initiative implementation?*
- Non-core jobs. These are jobs that include capabilities or skill sets that are either impacted by strategy or do not align with the health system's key goals and strategies. Key questions concerning these jobs include:
  - *Could this job be staffed differently to reduce costs but maintain service and outcome quality?*
  - *Can this job be outsourced to make more efficient use of health system resources?*
  - *Is the function and capability of this job no longer aligned with the strategic goals of the health system?*

This categorization process enables HRH planners to better understand the value of different health system jobs vis-à-vis current strategy and initiatives and provides a basis for making more effective human resource investment decisions. Table 1 provides a summary overview of this approach to strategic job categorization.

The HRH planning process does not require that all jobs in a health system be classified along these lines. The focus should be on those jobs that represent capabilities that will have the biggest impact on health system strategies and the performance of programmatic initiatives for the current planning period. Of key importance in the categorization process are the dialogue, decision-making and information generation that should occur regarding health system goals, direction and strategies and the jobs and expertise needed to realize those goals.

### *Step 4: identify and prioritize strategic jobs*

It is extremely rare that health systems anywhere but particularly in low income countries can invest equally in all strategic jobs. There simply are not enough resources. In addition,

Table 1. Strategic, core and non-core jobs.

| Jobs that influence strategy | | Jobs influenced by strategy |
|---|---|---|
| Strategic jobs | Core jobs | Non-core jobs |
| What jobs will have the greatest impact on advancing the health system toward its 3–5 year high priority goals?<br>What jobs do or should possess the unique capabilities that will allow the health system to successfully implement the strategies and programmatic initiatives needed to realize its high priority goals? | What jobs are essential to consistently delivering high quality health services and outcomes?<br>What jobs will support or influence the ability of the strategic jobs to have an impact on strategy or programmatic initiative implementation? | Could this job be staffed differently to reduce costs but maintain service and outcome quality?<br>Can this job be outsourced to make more efficient use of health system resources?<br>Is the function and capability of this job no longer aligned with the strategic goals of the health system? |

effective HRH investment decisions must consider the variable nature of strategy implementation, the dynamics of expertise development and the timing of the impact that a job or group of jobs can have on strategy or programmatic implementation. The question then is, given a set of strategic jobs, how can investments be prioritized to most efficiently pursue current health system goals and desired performance outcomes? Addressing the following four questions can help HRH planners to develop a prioritized HRH investment strategy.

- *Is the job or job group crucial to the implementation of a key strategy or achievement of an important programmatic initiative?* This question relates back to the issue of disproportionate influence that was discussed in Step 3 and is very important because it insures the HRH investments are targeted on those jobs most crucial to implementing the strategies or programmatic initiatives key to health system goals.
- *What is the estimated lead time needed to fill the job or job group with adequate expertise?* This question relates to issues of acquiring expertise (e.g., outside hires) versus developing people and the time required to do so.
- *What is the estimated timing of the job or job group's impact on the implementation of strategy or achievement of performance outcomes associated with an important programmatic initiative?* In other words, will the job have an impact on strategy or programmatic initiative during the early, mid or later phases of implementation?
- *What is the 'upside potential' of the job or job group?* This question addresses the performance variability of a job and seeks to determine if there is a large spread or range in the performance or productivity of people currently operating in a strategic job. Although largely absent in current HRH planning models, addressing this question is critical because a wide variation in current performance or productivity in a strategic job represents the potential for large performance/productivity gains per investment dollar (Huselid, Beatty, and Becker 2005). In other words, the most effective HRH investments are often in strategic jobs with a big upside potential.

When there is a big difference in the performance or productivity of high performers and low performers currently in a strategic job it means that there is a large potential for improvement if the average performance of individuals in those jobs can be raised.

Given the preceding criteria, it is possible to prioritize health system investments using a decision matrix (see Table 2). A decision matrix such as this can help decision-makers structure and find direction for HRH investment decisions by:

- Specifying and prioritizing their needs with a list of criteria such as those suggested above.
- Evaluating, rating and comparing the different human capital options across selected criteria.
- Selecting the best matching solution(s) given strategic goals and programmatic initiatives.

This sample matrix presented in Table 2 uses rating scales (1–5) and allows decision-makers to rate and weight each of the criteria. Members of the HRH planning team would be likely candidates for making the ratings. The resulting data provides a 'score' for each strategic job/job group based on the ratings and weights. The information is laid out in a two-dimensional decision matrix with the scores for each job or group of jobs computed with the following formulas:

$$Job\ Score = Rating \times Weight$$

$$Total\ Score = Sum\ of\ the\ separate\ scores$$

This decision matrix can be applied within a health organization, at the district level, health sector by health sector or at the national level to HRH planning as a whole to help identify HRH priorities. Clearly, the criteria can be changed as can the weights applied to

Table 2. Sample decision matrix for HRH investments.

| | | | Strategic job or job groups | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Job/Job group 1 | | Job/Job group 2 | | Job/Job group 3 | |
| Criterion | Rating scale | Weight | Rating | Total score | Rating | Total score | Rating | Total score |
| Importance to strategic initiatives | 1 = Low<br>5 = High | **4** | 4.5 | 18 | 4 | 16 | 4 | 18 |
| Upside potential | 1 = Low<br>5 = High | **3** | 4 | 12 | 3.75 | 11.25 | 3 | 9 |
| Impact timing | 1 = Short Term<br>5 = Long Term | **2** | 4 | 8 | 2 | 8 | 2 | 4 |
| Lead time | 1 = Short<br>5 = Long | **4** | 3 | 12 | 1 | 3 | 1 | 2 |
| | Total score | | 50 | | 38.25 | | 33 | |

Note: In the above example, it is assumed the ratings were provided by multiple decision-makers so that the 'Rating' score reflects the mean rating across all raters.

each criterion. Also, in many cases the rating applied to a particular criterion for a specific job or job group will not be clear-cut. Rather, depending on perspective and contextual conditions, the answer may well vary across health system planners. But, as a decision-making tool, the matrix's use should spur important discussions about strategy-critical jobs and the roles they play in furthering the goals of the health system.

## Conclusion

There is a universal consensus and evidence confirming that human resources are the heart and soul of effective health system performance (Anand and Barnighausen 2004). However, despite this consensus, HRH planning in low income countries remains a neglected, often poorly implemented and ineffective component of health-system development. The planning exercises that do take place rarely implement systematic processes for identifying and prioritizing the jobs or expertise required by health system strategies and programmatic initiatives. However, these efforts can be effective and lead to more efficient investment decisions when planners take steps to consciously link HRH requirements to high priority strategy and initiatives. Doing so means incorporating a small set of organizational best practices for identifying and prioritizing human capital investments. These practices are not overly complex nor do they require special planning skills or expertise in a particular planning projection model or approach. They do, however, require: clarity about health system strategies and the programmatic initiatives designed to enable those strategies; an ability to assess the value and contribution of various health system jobs vis-à-vis health system strategy and programmatic initiatives and a willingness to prioritize HRH investments according to their capacity to deliver on high priority health system goals and outcomes. Attention to these factors, at any level of health system strategic human resource planning, will provide a more effective and sustainable response to health workforce development needs.

From a broader perspective, the preceding discussion has implications for the field of human resource development because it represents the nexus of two expansive issues that are becoming increasingly important to the HRD profession. One of these issues is the current crisis in the global health workforce, often referred to as the crisis in human resources for health. It is a glaring and substantial problem, particularly in countries with developing economies, 'there are not enough health workers, they do not have the right skills or support networks, they are overstretched and overstressed, and often they are not in the right places' (Joint Learning Initiative 2004, 18). Chronic underinvestment in health system human resource development, poor workforce planning, challenging working conditions, the HIV/AIDS crisis coupled with dramatic increases in chronic non-communicable health problems and the accelerating migration of health workers from poor to richer countries are some of the key drivers of this problem. Although new investments in health systems integrated with broad development compacts, such as the United Nations Millennium Development Goals and the President's Plan for AIDS Relief (PEPFAR), have moved HRH development up the priority chain, large human resource development challenges remain.

The second issue is human resource planning. Although human resource planning technologies have been around for decades, it remains a pervasive challenge at the local, regional and national levels in transitioning economies. It is also an area in which HRD can and should provide expertise. Human resource planning addresses two important work system needs. First, it aligns human resource development plans and programmes

with strategic priorities and emerging programmatic initiatives. Second, it establishes a medium to long-term approach for acquiring, developing, supporting and retaining the expertise needed to achieve strategic priorities and programmatic goals. In short, human resource planning integrates human resource development with strategy and is therefore a crucial component for improving performance and enabling work systems at all levels to reach their goals. It is a key way in which HRD professionals can become truly strategic partners (Torraco and Swanson 1995).

Both of these issues – the crisis in HRH and human resource planning – have received little notice in the HRD scholarly literature; neither are mainstream nor even peripheral issues for the field at this time. Nevertheless, both are system-level issues that are increasingly critical in a more interconnected world. They have pervasive effects on local, regional and national health systems the results of which affect the health, development and security of all of us in today's globally interdependent world. Thus, in a very real way, these two issues represent concrete indicators of an expanding role for HRD in an emerging national human resource development (NHRD) agenda. They point to what McLean calls a ' … dramatic shift … that continues the evolution of HRD from an individual focus in training, to an organizational and process focus in organization development, to the emerging applications to communities, regions, nations, and national consortia. This is a huge shift for our field. We no longer are solely responsive to organizations … ' (Byrd and Demps 2006, 555).

## References

Anand, S., and T. Barnighausen. 2004. "Human Resources and Health Outcomes: Cross-Country Econometric Study." *Lancet* 364: 1603–1609.

Bennett, D., and M. Brush. 2007. "The Annual HR Strategic Planning Process: Design and Facilitation Lessons from Corning Incorporated Human Resources." *Organizational Development Journal* 25 (3): 87–93.

Bloor, K., and A. Maynard. 2003. *Planning Human Resources in Health Care: Towards an Economic Approach. An International Comparative Review.* Ottawa: Canadian Health Services Research Foundation.

Boudreau, J., P. Ranstad, and P. Dowling. 2003. "Global Talentship: Toward a Decision Science Connecting Talent to Global Strategic Success." In *Advances in Global Leadership*, edited by W. Mobley and P. Dorfman, 63–99. Stamford, CT: JAI Press.

Byrd, M., and E. Demps. 2006. "Taking a Look at National Human Resource Development (NHRD): Interviews with Gary McLean and Susan Lynham." *Human Resource Development International* 9 (4): 553–561.

Dreesch, N., C. Dolea, M. Dal Poz, and A. Goubarev. 2005. "An Approach to Estimating Human Resource Requirements to Achieve the Millennium Development Goals." *Health Policy and Planning* 20: 267–276.

Huselid, M. A., R. Beatty, and B. E. Becker. 2005. "'A Players' or 'A Positions?': The Strategic Logic of Workforce Management." *Harvard Business Review* 83 (12): 110–117.

Joint Learning Initiative. 2004. *Human Resources for Health: Overcoming the Crisis*. Cambridge, MA: Harvard University, The President and Fellows of Harvard College.

O'Brien-Pallas, L., A. Baumann, and G. Donner. 2001. "Forecasting Models for Human Resources in Health Care." *Journal of Advanced Nursing* 33: 120–129.

Sirikanokwilai, N., S. Wibulpolprasert, and P. Pengpaiboon. 1998. "Modified Population-to-Physician Ratio Method to Project Future Physician Requirement in Thailand." *Human Resources for Health Journal* 2 (3): 197–209.

Torraco, R. J., and R. A. Swanson. 1995. "The Strategic Roles of Human Resource Development." *Human Resource Planning* 18 (4): 10–21.

World Health Organization (WHO). 2006. *The World Health Report 2006: Working Together for Health*. Geneva: WHO.