

within and across countries

in this chapter				
135	Catalysing knowledge and learning			
143	Striking cooperative agreements			
143	Responding to the health workforce crisis			
147	Moving forward together			
151	Joint steps to the future			

There are five broad areas of concern that impel countries to look beyond their borders

and work together with others in order to address issues of human resources for health more effectively:

- The profound lack of information, tools and measures, the limited amount of evidence on what works, and the absence of shared standards, technical frameworks and research methodologies are all imperatives for regional and international collaboration.
- The scarcity of technical expertise available to develop better metrics, monitor performance, set standards, identify research priorities, and validate methodologies means that a collective global effort is the only way to accelerate progress in these areas.
- The changes in demographics, demand for care, and technological advances cut across borders and are manifested in increasingly global labour markets. Cooperative arrangements and agreements between countries are essential to manage these flows and minimize adverse effects.
- The reality that a violent conflict, an outbreak of an infectious disease, or an unexpected catastrophic event can lay waste even to the most well-prepared national health system demonstrates that no country will ever have the human

- resource capacity to be able always to mount an effective response entirely on its own.
- The enormous workforce crisis that constrains health development so profoundly in the world's poorest countries requires an international response.

This chapter focuses on the rationale for working together and concludes with a plan of action that is based on national leadership and global solidarity.

CATALYSING KNOWLEDGE AND LEARNING

As has been pointed out in this report, basic information on the workforce that is required in order to inform, plan and evaluate resources is in very short supply in virtually all countries. The scant information that does exist is difficult to aggregate and compare over time and across sources and countries (1–4). This limitation is reflected not only in the challenges inherent in coordinating information flows across sectors – education, health, labour/employment – but more

136

fundamentally in the absence of agreed frameworks and standards for health workforce assessment. Investment should be made in developing these frameworks and standards so that better tools to understand and respond to health workforce challenges can be made widely available more quickly and at lower cost.

A firm foundation for information

An important first step towards strengthening the foundations of information about health workers is to develop a clear conceptual framework that describes the boundaries and make-up of the workforce. Encouragingly, there is a global effort under way to develop a common technical framework (see Box 7.1). Even with such a framework, however, there remain a number of fundamental challenges related to health workforce information that must be taken up.

One problem area is the classification of the health workforce. Until 2006, WHO reported only on health professionals – doctors, nurses, midwives, pharmacists and dentists – thus rendering invisible other important service providers as well as all health management and support workers (who account for around one third of the workforce). This oversight reflects the shortcomings of using instruments whose primary purpose is not the collection of information on the health workforce. It underlines the need to develop special health workforce classification tools that can be more effectively integrated into existing census, survey and occupational reporting instruments.

Another important information need is for metrics to assess performance. Policy-makers and donors are increasingly demanding evidence showing that their decisions and investments are indeed strengthening the health workforce. In the area of health information systems, a performance assessment instrument has been developed that permits cross-country comparisons (see Figure 7.1). A similar instrument for human resources could lead to more and wiser investments in the health workforce. Among the indicators that can be used in the development of health workforce performance metrics are sufficient numbers, equitable distribution, good competencies, appropriate sociocultural and linguistic background, responsiveness to clients, and productivity.

Human resource information is also needed to understand global labour markets, migratory flows of health workers, and the activities of multinational companies that

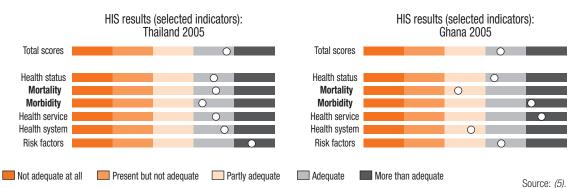


Figure 7.1 Health information system (HIS) performance

Box 7.1 Seeking a common technical framework for human resources for health: a public good useful to all countries?

Could a common technical framework help governments and national planners understand the myriad and complex problems of human resources for health – and find feasible solutions? Could such a framework address all sides of the issue in a comprehensive manner, be collaboratively developed, and be universally used – a public good of benefit to all countries?

A common framework would have several benefits. First, it would define the key dimensions of technical competence needed to develop and implement a strategy for human resources. This is particularly important given the limited pool of expertise available globally. Second, it would help inform the growing number of groups interested in this area of the complexities of the health workforce and prevent the spread of simplistic and limited views on what is involved (e.g. that developing human resources for health is simply about training and increasing salaries). Third, it would be a common reference point for all health workforce stakeholders and save policy-makers, implementers, donors, academics and others the effort of "re-inventing the wheel".

An attempt to develop a common technical framework began in December 2005, when WHO and USAID invited 35 representatives from multilateral and bilateral agencies, donor countries, nongovernmental organizations and the academic community to meet at the Pan American Health Organization in Washington, DC. They drew on 11 technical frameworks that had been developed over the years by researchers and human resources professionals in various parts of the world. Some of these applied to very specific contexts; others offered broad conceptual roadmaps for

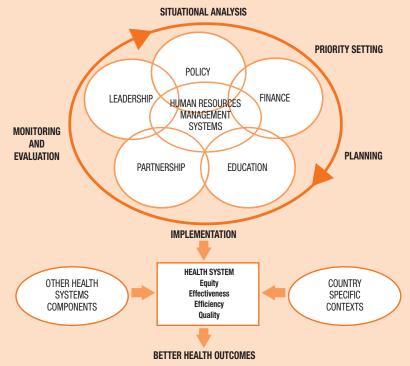
thinking through the issues. Many focused on just one aspect of the health workforce, for example human resources planning.

The participants agreed that the desired common framework needed to be scientifically-based, operationally useful (field-tested), and useful in a multisectoral and multi-stakeholder context. It had to capture the content and processes involved in developing and implementing a national strategy for human resources for health, be simple but comprehensive, and show the interdependencies among the various players, institutions and labour markets involved in the health workforce.

The figure below shows the framework that was produced at the meeting. All seven interlinking thematic areas – human resource management systems, policy, finance, education, partnership and leadership – must be taken into account in dealing with health workforce development, and this calls for multisector involvement. However, the diagram shows only the upper layer of a conceptual orientation that also has underlying secondary and tertiary levels.

Work continues to develop and complete the framework. The goal is to produce an interactive CD-ROM that will convey the detailed content and processes underlying each thematic area. In the meantime, more information on the elements in each thematic area, on action that can be taken, and on the overall process for using the framework to develop a national strategy can be found in the WHO publication *Tools for planning and developing human resources for HIV/AIDS and other health services* (available at: http://www.who.int/hrh/tools/en/).

Human resources for health technical framework: achieving a sustainable health workforce



numan resources for nealth								
			Total					
Title of Cochrane systematic review	Research guestion	Number of studies (initial/final)	number of subjects	Results				
Substitution of doctors by nurses in primary care	To investigate the impact of nurses working as substitutes for primary care doctors on:	4253 articles initially	Not applicable	No difference in quality of care and health outcomes between appropriately trained nurses and doctors				
	health outcomes			Nurses tend to provide more health advice and achieve higher levels of patient satisfaction, compared with doctors				
	process of care	25 articles, relating to 16 studies, met inclusion criteria		Even though using nurses may save salary costs, nurses may order more tests and use other services, which may decrease the cost savings of using nurses instead of doctors				
	resource use costs							
Lay health workers (LHWs) in primary and community health care	To assess the effects of LHWs' interventions in primary and community health care on health care behaviours, patients' health and wellbeing, and patients' satisfaction with care	8637 abstracts initially 400 potentially eligible	210 110 consumers	LHWs show promising benefits in promoting immunization uptake and improving outcomes for acute respiratory infections and malaria, when compared to usual care. For other health issues, evidence is insufficient to justify recommendations for policy and practice. There is also insufficient evidence to assess which LHW training or intervention strategies are likely to be most effective.				
		43 eventually included						
Audit and feedback: effects on professional	effective in improving professional practice and health and health effective in improving professional practice	85 randomized controlled trials	> 3500 health professionals	Audit and feedback can improve professional practice, but the effects are variable.				
practice and health care outcomes		Only 10 of the 85 included studies to be of high methodological quality		When it is effective, the effects are generally small to moderate.				
				The results of this review do not provide support for mandatory or unevaluated use of audit and feedback.				

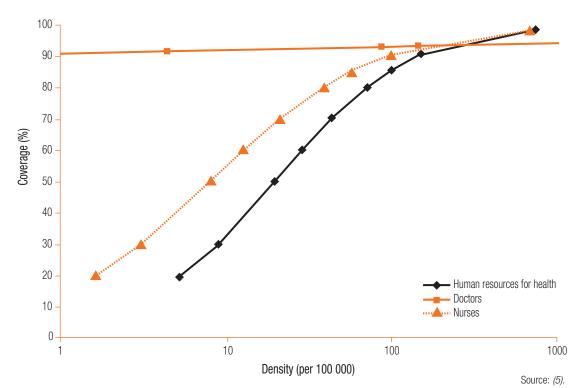
Source: (10).

employ significant numbers of health workers. In addition to good country data, an accurate, consistent and coherent view of the big picture also requires effective regional and global aggregation and analytical capacities. Reaching agreement on what information will be collected, how data will be aggregated and the necessary institutional arrangements is an important priority for concerned international partners.

Generation and management of knowledge

Strongly linked to building a foundation for health workforce information are challenges related to both the generation and management of knowledge. Given that close to half of health expenditure is spent on the health workforce, it seems incredible that there is so little research investment or solid evidence in this area. The evidence base within and across countries related to the health workforce is perilously weak, especially when compared with the strength of evidence in other domains of the health sector (6). The absence of a formal designation of the health workforce as a research priority has resulted in a patchy knowledge base. There is considerable research on curricula and teaching methods (see Box 3.8), rural retention schemes and various aspects of health worker management, but large subject areas related to health training institutions, recruitment, management of incentives and attrition lack a critical research mass. Moreover, the existing knowledge base is largely skewed towards high income countries, medical doctors, and descriptive reports as opposed to intervention studies or best practice assessments (7-9). The paucity of research in general is reflected in the fact that there are only 12 systematic reviews on human resource issues available through the Cochrane Collaboration (10). Table 7.1 presents details of three of the most recent systematic reviews on human resources for health.

Figure 7.2 Immunization coverage and density of health workers



Although the knowledge generation agenda is most important at the country level and in specific workplaces, the return from well-designed and rigorous research cross-nationally should not be discounted. For example, simply assessing the relationship of the health workforce to key health outcomes across countries has helped to identify very important relationships such as that between nurse density and immunization coverage (11). Figure 7.2 shows that to achieve wider immunization coverage, the density of nurses and other health workforce staff is more important than the density of doctors – simply because in many countries it is nurses, and not doctors, who administer vaccinations. Scaling up and effectively deploying community health workers as a common response to critical shortages in the health workforce would benefit from insights into a number of important questions (see Box 7.2).

In an attempt to draw attention to this neglected area of investigation, the Mexico Summit on Health Research, in 2004, identified health systems research into subjects such as the health workforce as one of three priorities for global action (12), echoing the recommendations emerging from an international gathering in Cape Town (13) and the work of a WHO-convened task force (14).

In general, preference for research activities should be given to the following:

- a better balance between primarily descriptive studies and more conceptual or fundamental policy and operations research;
- more international comparative research, drawing on multiple contexts such as the African migration study (15) and the European nursing exit study (16);
- the integration of research into specific health workforce interventions and more general health sector reforms, so as to document experiences across countries more systematically.

This last point underlines the importance of developing more systematic mechanisms to disseminate and share knowledge once it is generated. As stressed in Chapters 2 and 6, in the context of tackling urgent health needs or pursuing ambitious national programmes, there is significant "micro-innovation" that, if critically assessed, could help to accelerate the identification of more effective strategies for human resources. Regional and national observatories are potential mechanisms for harvesting and disseminating new knowledge, provided they effectively engage the full range of stakeholders and their institutions (see Box 6.2).

Box 7.2 Research priorities related to community health workers

- Recruitment and retention what factors and policies enhance recruitment of community health workers and reduce attrition?
- Roles if community health workers do better with specific roles, how many roles can they undertake with a given level of training and support? How can these be integrated with other community level work and with other levels in the health system?
- Improving performance, incentive systems and remuneration – what level and method of remuneration and types of non-financial incentives maximize cost effectiveness but are sustainable? What are the other effective approaches to improving performance?
- Referral linkages how can referral linkages be operationalized, especially if communications and transport systems are weak?
- Communications can mobile technologies be used to improve communications with community health workers and to help improve health outcomes in isolated communities?
- Routine supplies how can basic supplies be made regularly available, and what is the best mix of social marketing, community-based distribution and strengthened health system logistics to ensure equitable access?

Pooling of expertise

Effective technical cooperation relies on being able to draw on appropriate expertise and on having a set of tools that corresponds to the diverse challenges of the health workforce. Global collaboration can improve access to quality tools and expertise. There is a general lack of awareness of the range of tools available as well as uncertainty about which ones work best in specific situations. Consequently, a working group of international specialists is developing a compendium of tools to facilitate their greater and more appropriate use (see Box 7.3).

Much can also be done to improve the way expertise is managed and used. Countries rely on technical cooperation for three distinct purposes, depending on their particular needs. First, there are quite a number of countries that can benefit from outside opinion to refine their diagnostic overview, ranking and determination of the nature of the country's human resources for health problems, with their entry, workforce and exit dimensions. Second, countries may have a need for expert collaboration in developing and planning the implementation of human resource policies, especially where the task of scaling up health systems is substantial. There may be a need, for example, to design and monitor financial solutions to increase coverage, as well as to build scenarios based on production and retention projections. Third, there may be specific sub-areas where highly specialized technical skills are needed (see Box 7.4).

Box 7.3 Tools for health workforce assessment and development

Reliable tools have been developed to strengthen technical inputs in the planning, management and development of human resources in health. However, a Joint Learning Initiative report (7) pointed out that many practitioners are unaware of the large number of such aids available, or have difficulty in choosing those appropriate to their need. A working group of international human resources specialists was therefore established in June 2005 to put together a compendium of tools consisting of guidelines, models and analytical methodologies.

Known as "THE Connection", the group identifies new tools which are then reviewed by at least two people using a simple protocol developed by the group. If accepted for inclusion in the compendium, a short review is written up in standard format for each tool, with a section called "Will it work?" (information on testing and users' experiences). Reviews are organized in a colour-coded system around two general topics: tools for a comprehensive analysis of the human resources situation, and those that are specific to particular workforce functions.

By December 2005, 15 reviews had been completed and at least a further 10 are expected to be available by mid-2006. The compendium is constantly evolving as new tools are developed, new reviews added and existing reviews updated. To facilitate this process, the compendium is available as a CD-ROM and also on the Internet (available at: http://

www.who.int/hrh/tools/en/), where users can see the range of tools with a brief description; a detailed review is also available, with a link to access the tool (mostly as documents in pdf format). All those reviewed so far are free, and all but one are available on the Internet.

In preparing the compendium, researchers have found some areas with several tools to choose from, but no tools in other areas such as recruitment/retention and employee relations/change management. If indeed none exist THE Connection will request funding bodies to support the development of new ones to fill these gaps. The group is well aware that many management tools never get used or even distributed to the appropriate users, and is trying to establish what works in the process of developing and disseminating tools. It will pass on this information to developers.

One of the key aims of THE Connection has been to establish a network of human resources practitioners. The interaction between members of the working group – some of whom have never met personally – and the inclusion of other individuals in the process has already expanded that network. Including a feedback mechanism on the reviews, the tools themselves and the identification of important gaps should stimulate an even wider dialogue among practitioners, facilitating greater technical cooperation in this challenging area of work.

Whatever the specific needs that technical cooperation is responding to, it has to be organized in such a way that it becomes an instrument for institutional and individual capacity building: this implies that technical cooperation has to shift from assistance and gap-filling to exchange and joint learning. Countries can adopt a number of measures to facilitate this shift. The first relates to how expertise and technical cooperation are sourced: for example, pooling funds with transparent sourcing rules; avoiding sourcing from tied funds; sourcing through technical partners that can act as honest brokers; and going through global mechanisms and networks that help to identify quality expertise. Second, countries can keep track of expertise that is provided and set up mechanisms to evaluate systematically its cost and effectiveness, including capacity building. Third, they can accelerate the shift from passive use of expertise towards exchange of experience on a regional and subregional basis, engaging their own experts and institutions in technical networks. As an illustration, in a Memorandum of Understanding between Uganda and its development partners in 2005, the Government of Uganda said it would request technical assistance on a demand-driven basis according to the needs and priorities of the Government in consultation with development partners. Use of Ugandan regional consultants would be encouraged where expertise is available (17). Lastly, countries can rationalize the way they negotiate technical cooperation, for example by establishing codes of conduct.

In countries with severely constrained capacities of their own, the most promising avenue for a structural improvement is to federate and expand regional and national observatories and networks of resources (see Box 6.2). Open collaborative structures will make it possible to pool existing knowledge and skills, to set standards and to assess effectiveness in collaboration with countries: a virtuous circle of improved access to possibilities for collaboration, exchange and joint learning that will also lead to an expansion of the global expertise base.

Box 7.4 Technical skills for human resource policy-making

The development of policy for human resources for health in national health workforce planning requires a diversity of expertise in the following areas:

- Policy and planning: policy development and/or analysis, workforce planning, medical demographics and modelling, public health priorities, policy implementation, scenario building.
- Institutional and management development: change management; change processes analysis and monitoring; partnership and consensus building; leadership and team building; sociology of organization and professions.
- Legal frameworks and policies: laws/regulation/ conditions of work, strategy development, regulation of professions.

- Health workforce economics: labour economics, labour market analysis, workforce financing.
- Education: scope of education: public health, medical, nursing, pharmacy, dentistry, community; educational process: curricula, pedagogy, technology; educational stages: pre-service/prior to work, continuous/in-service; governance: accreditation, financing, administration.
- Workforce management systems and tools: data collection and analysis; information systems design; monitoring and evaluation of workforce development; guidelines development; operational research; technology development; performance of workforce; costing tool development.
- Professionally focused workforce development: medicine, nursing, midwifery, pharmacy, dentistry.

STRIKING COOPERATIVE AGREEMENTS

In planning their health workforce strategies, countries cannot overlook the dynamics of the global labour markets affecting health workers. Pushed by population trends towards ageing, changes in consumer expectations and technological innovations, the health sector globally continues to defy expectations in terms of its rate of growth. Demand for service providers will escalate markedly in all countries — rich and poor (18, 19). The workforce shortfalls identified in this report would pale in comparison with *total shortages* if all health workforce demands for all countries were projected into the future (20). Demographic changes in Europe and Japan are such that, were the health

workforce to remain at its present share of the total workforce, the ratio of health workers to citizens over 65 years of age would drop by 38–40% by 2030. In contrast, were the health workforce to continue to grow at its present rate, its share of the total workforce would more than double (21).

These trends are likely to accelerate the international flow of health workers, thus raising the importance of global cooperative mechanisms to minimize the adverse affects of migration. As discussed in Chapter 5, managing migration entails rules that protect the rights and safety of individual workers as well as multilateral principles and bilateral agreements related to recruitment. The emergence of an export and import industry in health workers, the growth of medical tourism, and the volume of workers moving back and forth between countries will increase the need for international arrangements related to accreditation, quality assurance and social security. As in other areas related to the health workforce, the capacity of interested institutions and the ability of processes to be sufficiently inclusive of key stakeholders will be important determinants of the ability to reach cooperative agreements.

Beyond the increasing demands emerging from the market, human conflicts, epidemics and natural disasters (such as avian influenza, SARS and the tsunami of December 2004) raise further demands for effective health workforce cooperation across countries (see Chapter 2). Global training centres for specific categories of workers, standardized curricula and codes of practice for volunteers are among the types of agreement that will facilitate more effective international responses.

RESPONDING TO THE HEALTH WORKFORCE CRISIS

The severity of the health workforce crisis in some of the world's poorest countries is illustrated by WHO estimates that 57 of them (36 of which are in Africa) have a deficit of 2.4 million doctors, nurses and midwives. The exodus of skilled professionals from rural areas to urban centres or other nations is one of the factors that have led to severe shortages, inappropriate skill mix and gaps in service coverage in poorer countries. Other factors include the HIV/AIDS epidemic and the policies of resource-poor governments that have capped public sector employment and limited investment in education. Paradoxically, insufficiencies in workforce requirements often coexist with large numbers of unemployed health professionals. Poverty, flawed private labour markets, lack of public funds, bureaucratic red tape and political interference are partly responsible for the underutilization of skilled workers.

Given the projections for high attrition rates attributable to illness, death and accelerated migration, it seems likely that the crisis of health care providers in many poorer countries will worsen before it gets better. In the WHO African Region, where

Demand for service providers will escalate markedly in all countries – rich and poor

The crisis requires nothing short of an outstanding global response

the shortage of health workers stands at about 1.5 million, there are many countries where the annual outflows caused by worker deaths, migration and retirement exceed the inflows of newly trained doctors and nurses (22).

An extraordinary global response is needed

The dire situation provoked by the global health workforce crisis requires nothing short of an outstanding global response. International action necessitates: coalitions around emergency national plans for health care providers; health worker-friendly practices among global partners; and sufficient and sustained financing of the health workforce.

Coalitions around emergency plans

The first imperative – emergency national plans for the health workforce – must combine credible technical input across the spectrum of human resource issues with intrepid and innovative strategies to make significant changes in the short term as well as in the medium and longer terms. As explained in Chapter 6, engaging diverse stakeholders across sectors in a clear process at the outset of strategy development will help to forge shared ownership of the coalition. The conditions for developing these strategies in the crisis countries are suboptimal because of the scarcity of expertise, inadequate public sector capacity to lead a complex process, and the difficulties of convening stakeholders in the midst of multiple competing priorities. High-level political support both nationally and internationally is necessary to ensure priority attention to the development of these plans. Malawi's Emergency Human Resources Plan benefited from close involvement of the ministers of health and finance as well as from visits from heads of international bilateral and multilateral agencies (23).

Towards more worker-friendly practices

There is no longer any question that the massive international efforts under way to treat people living with HIV/AIDS and to achieve the Millennium Development Goals (MDGs) must start dealing with workforce constraints more directly. If not, the billions of dollars that are being poured into these programmes are at risk of being wasted. For their part, countries have identified human resources as the area of the health system most in need of investment (5) (see Figure 7.3).

Current practices among international stakeholders for supporting the health workforce tend to be antiquated in terms of content, ad hoc with respect to process and unintentionally adverse as regards impact. All multilateral, bilateral and civil society actors involved in health development in countries with a health workforce crisis could benefit enormously from a thorough review and impact assessment of their activities in this direction. They should ensure that their practices embrace the working lifespan approach of entry, workforce and exit, in order to decrease the risk of focusing too narrowly on single issues such as on-the-job training. Any direct investments by partners in workforce-related issues should be based on a clear rationale of comparative advantage relative to pooling support to national emergency plans for health care providers.

Directing support to countries in crisis defies a single approach, and no such process should be seen as exempt from incorporating a dimension to strengthen the health workforce. This includes – but is not limited to – sector-wide approaches, poverty reduction strategies, medium-term expenditure frameworks, and instruments

such as the country coordinating mechanisms of the Global Fund to Fight AIDS, Tuberculosis and Malaria and the national control programmes for HIV/AIDS. All of these processes should be brought into line with national emergency plans for human resources, and mechanisms should be identified to put the cooperation into place. The decision by the Global Alliance for Vaccines and Immunization (GAVI) to support a health systems strengthening strategy inclusive of the health workforce is now being translated through country applications with principles, requirements and minimal criteria summarized in clear guidelines. Importantly, the strategy seeks to ensure that GAVI's prospective assistance to the health workforce (and other elements of health systems) in a country is aligned with existing strategies for strengthening the workforce. As the experience of sector-wide approaches and poverty reduction strategies has shown, the promise of more effectively integrating policies for the health workforce is constrained by insufficient numbers of adequately supported national staff (24). This underlines the need to develop national capacities for strategic intelligence (see Chapter 6) and to facilitate access to technical cooperation.

The imperative of sufficient, sustained financing

Overcoming the workforce shortage will require substantial financial commitments to train and pay the additional health workers. The cost of very rapid scaling up of training aimed at eliminating the shortfall by 2015 – the target date for achieving the goals of the Millennium Declaration – was shown in Chapter 1 to be about US\$ 136 million per year for the average country. The additional cost of paying health workers once the shortage has been met is just over US\$ 311 million per country at current salary levels (25).

Assuming that scaling up takes place over a 20-year period – which many observers might argue is more realistic – the required annual investment in training is US\$ 88 million per country. Additional salary costs when the workforce is fully

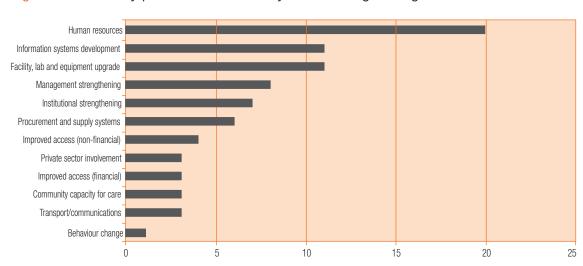


Figure 7.3 Country priorities for health systems strengthening

Number of proposals to the Global Fund for Tuberculosis, HIV/AIDS and Malaria, round 5

Source: (5).

staffed would be higher under this scenario (because the population will increase substantially between 2015 and 2025 and so will the need for health workers), reaching in excess of US\$ 400 million per country.

Translating the figures into per capita expenditure in health for the average country gives further perspective on the costs of scaling up the health workforce. To meet the investment costs for training over a 20-year period, the average country would need to increase its overall level of health expenditure per capita by about US\$ 1.60 each year. By 2025, a minimum increase of US\$ 8.30 per capita would be required to pay the salaries of the appropriate workforce.

While such costing models are indicative rather than precise, they do reveal important issues. Firstly, scaling up the health workforce on either a 10-year or 20-year trajectory will require very significant dedicated funding. Next, these estimates of the training and salary costs of scaling up are based on doctors, nurses and midwives. Although there are no data, strategies that depend on lower paid cadres with less formal training may be more affordable and therefore merit serious consideration. Finally, the results are sensitive to the age of retirement of health workers, their mortality rates, and the extent to which they remain in the country and choose to be employed in the health sector after training. Policies to improve workers' health, extend retirement age and increase retention may reduce the numbers that need to be trained and may result in cost savings.

It is clear from the above that a major expansion of the health workforce has both immediate and long-term cost implications. Understandably, governments with few financial resources may be reluctant to commit to such long-term costs without clear signals of support from the international donor community. As the nature and magnitude of the health worker crisis comes into greater focus and national strategies to scale up the workforce emerge, now is the time to clarify the role of international financial assistance.

A global guideline for financing

The financing challenge has two distinct aspects: generating sufficient volume to cope realistically with the crisis, and sustaining adequate levels of funding over time. Mobilizing the sizeable funds required for the financing of the health workforce must be carried out through a combination of improved government budgets and international development assistance. There are some promising signs. For example, the recent dedication of funds for strengthening health systems amounting to US\$ 500 million, budgeted by GAVI over five years, indicates how the health workforce is becoming one of the priority areas for systems support. Similarly, the Emergency Health Workforce Plan in Malawi has dedicated US\$ 278 million over six years through a coalition of country and global partners.

While bottom-up budgeting around emergency plans is the optimal way to proceed, there is nonetheless a need for a financing guideline that can ensure that the response is commensurate with need and around which the international community can mobilize. With respect to the total flows of international development assistance for health, approximately US\$ 12 billion per annum in 2004 (26), this report recommends a 50:50 principle — that 50% of this financing be directed to health systems strengthening, of which at least half is dedicated to supporting emergency health workforce plans. The rationale for this proportional investment relates to the reliance of health workers on functioning health systems and the need for dedicated financing of workforce strategies above and beyond the human resources activities that may be inherent in specific priority programmes of global health organizations.

In so far as the proposed expansion is publicly financed – through taxes, social health insurance or international solidarity – it is subject to the rules of public financing. In an effort to preserve macroeconomic stability and fiscal sustainability, international finance institutions and ministers of finance use criteria such as the public expenditure:GDP ratio to set ceilings. The most visible consequences for the health sector are the ceilings on recruitment and the stagnant salaries of health workers in public employment. Hiring moratoriums are limiting the expansion of health services and creating unemployment of health workers, particularly in sub-Saharan Africa. Poverty reduction strategies, for example, often refer explicitly to such restrictions. Authorities in Kenya, Mozambique, Zambia and many other countries are thus refraining from hiring health workers because they cannot find a way around these stipulations (27).

Greater attention to this issue has produced a menu of options to manage better within current public sector financing rules. Examples include effective outsourcing as a means of lowering costs and eliminating ghost workers (28, 29). Although such efficiency measures would be helpful, they are unlikely to be sufficient on their own. Recognition of the need to expand fiscal space (i.e. make more budget room for health) calls for a status of exception to be accorded to public financing of health and its workforce. Negotiating fiscal space safeguards for the health workforce will require the health development world to engage productively with ministries of finance, international finance institutions and major international stakeholders. Strengthened evidence on the health and economic returns on investment in the health workforce may assist in these negotiations. At the same time, the moral and political rationales related to placing the people's health first and pursuing universal access can help to achieve a health workforce exception.

Part of the concern in public financing of workforce expansion relates to the ability of governments to pay for staff throughout the length of their careers. Because countries are reluctant to expose themselves to a potentially unsustainable public debt, they need predictability of donor back-up over the long term (30). Donor funds, however, are expressions of current government priorities, and mechanisms for long-term reassurance or guarantees of support are generally not forthcoming. The challenges of funding the scaling up of the health workforce in the longer term, therefore, cannot be separated from the broader dilemma of resource mobilization for health. Bold commitments and new mechanisms may help to provide greater predictability of global aid flows (31). These must be complemented by national strategies that build towards sustainable financing of the health sector.

MOVING FORWARD TOGETHER

Over the last decade much has been done to raise the awareness that, unless problems of the health workforce are dealt with squarely, health systems are going to founder. There are still huge gaps in knowledge about the extent of the fundamental drivers that shape the human resources predicament, and the range of solutions that can be suggested. There is, however, a way out of the crisis.

By working together through inclusive stakeholder alliances – global as well as national – problems that cross sectors, interest groups and national boundaries can be tackled: limited expertise can be pooled, and opportunities for mutual learning, sharing and problem-solving can be seized. Global solidarity will make it possible to exploit synergies between the specific inputs of bodies such as WHO, international finance institutions, academia and professional associations. It is particularly

important to monitor carefully the effects of these inputs so as to build up gradually a critical mass of evidence – and to share this knowledge with all who might benefit from it.

There is not a country in the world that is not facing major health workforce challenges — challenges that affect its health system, its economy and its obligations towards its citizens. All countries need to build or strengthen their institutional capacities to deal with their own predicaments and problems of human resources for health. Some countries need a significant amount of external assistance to succeed in doing so; if such support is not forthcoming, they will fall even further behind because the global forces that drive health workforce development will accelerate distortions. From a global perspective, this would mean an exacerbation of inequalities as health workers move to countries where policy-makers are more responsive to their concerns. From a national perspective, it would mean rising political tensions as citizens' rightful expectations fail to materialize.

Momentum for action has grown steadily over recent years. Member States of WHO, spearheaded by health leaders from Africa, adopted two resolutions at recent World Health Assemblies calling for global action to build a workforce for national health systems, including stemming the flow of unplanned professional emigration. Europe and Latin America have promoted regional observatories in human resources for health, and the WHO South-East Asia and Eastern Mediterranean Regional Offices have launched new public health training initiatives. One hundred global health leaders in the Joint Learning Initiative recommended urgent action to overcome the crisis of human resources for health. Calls for action have come from a series of High-Level Forums for the health-related MDGs in Geneva, Abuja and Paris, and two Oslo Consultations have nurtured a participatory stakeholder process to chart a way forward. A clear mandate has emerged for a global plan of action bringing forth national leadership backed by global solidarity.

National leadership

Strong country strategies require both solid technical content and a credible political process. This involves embracing the breadth of issues inherent in the entry—workforce—exit framework while cultivating trust and brokering agreements through effective engagement of stakeholders in planning and implementation. In addition, national strategies are likely to be more successful if they adopt three priorities: acting now, anticipating the future and acquiring critical capabilities.

- Acting now for workforce productivity by cutting waste (such as eliminating ghost workers and absenteeism) and improving performance through compensation adjustments, work incentives, safer working conditions, and worker mobilization efforts. Better intelligence gathering is crucial, in order to understand national situations and monitor progress or setbacks.
- Anticipating the future by engaging stakeholders to craft national strategic plans through evidence-based information and scenarios on likely future trends. Significant growth of private education and services should be anticipated, necessitating the targeting of public funds for health equity, promotion and prevention. Public action in information, regulation and delegation are key functions for mixed public and private systems.
- Acquiring critical capacities by strengthening core institutions for sound workforce development. Leadership and management development in health and other related sectors such as education and finance are essential for strategic

planning and implementation of workforce policies. Standard setting, accrediting

and licensing must be effectively established to improve the work of worker unions, educational institutions, professional associations and civil society.

Global solidarity

National strategies on their own, however well conceived, are insufficient to deal with the realities of health workforce challenges today and in the future. Strategies across countries are similarly constrained by patchy evidence, limited planning tools and a scarcity of technical expertise. Outbreaks of disease and labour market inflections transcend national boundaries, and

the depth of the workforce crisis in a significant group of countries requires international assistance. National leadership must therefore be complemented by global solidarity on at least three fronts: knowledge and learning; cooperative agreements; and responsiveness to health workforce crises.

- Catalysing knowledge and learning. Low-cost but significant investments in the development of better metrics for the workforce, agreement on common technical frameworks, and the identification of and support for priority research will accelerate progress in all countries. Effective pooling of the diverse technical expertise and breadth of experiences can assist countries in accessing the best talent and practices.
- Striking cooperative agreements. The growing international nature of the health workforce related to the flows of migrants, relief workers and volunteers calls for cooperative agreements to protect the rights and safety of workers and to enhance the adoption of ethical recruitment practices. The current global situation regarding avian influenza is indicative of a more fundamental need for effective international capacity to marshal the requisite human resources for acute health and humanitarian emergencies.
- Responding to health workforce crises. The magnitude of the crisis in the world's poorest countries cannot be overstated and requires an urgent, sustained and coordinated response from the international community. Donors must facilitate the immediate and longer-term financing of human resources as a health systems investment. The costs of scaling up the workforce over a 20-year period corresponds to an annual increase of about US\$ 1.60 in per capita expenditure on health. A 50:50 guideline is recommended, whereby 50% of all priority initiative funds are devoted to health systems, with half of this funding devoted to national health workforce strengthening strategies. Development financing policies must find ways to ensure that hiring ceilings are not the primary constraint to workforce expansion. All partners should critically evaluate their modalities for supporting the workforce with a view to shedding inefficient practices and aligning more effectively with national leadership.

National leadership and global solidarity can result in significant structural improvements of the workforce in all countries, especially those with the most severe crises. Such advances would be characterized by universal access to a motivated, competent and supported health workforce, greater worker, employer and public satisfaction, and more effective stewardship of the workforce by the state, civil society and professional associations.

National leadership and global solidarity can result in significant improvements in all countries

Plan of action

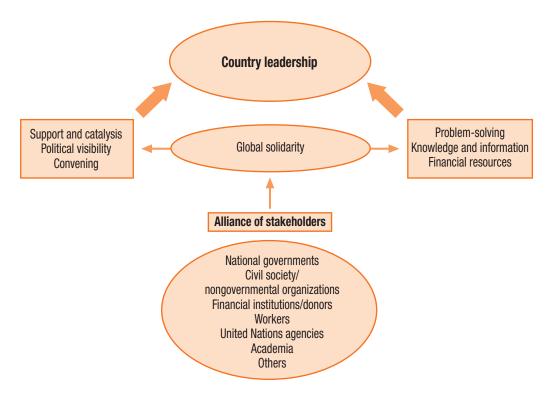
National leadership must urgently jump-start country-based actions and sustain them for at least a decade. Table 7.2 summarizes targets in the plan of action over the decade 2006–2015.

- Immediate actions over the next few years should consist of lead countries pioneering national plans for scaling up effective strategies, increasing investments, cutting waste, and strengthening educational institutions. Global support should accelerate progress in countries, with immediate policy attention given to intelligence, technical cooperation, policy alignment of fiscal space and migration, and harmonization of priority initiatives and donor assistance.
- At the decade's mid-point, over half of all countries should have sound national plans with expanded execution of good policies and management practices concerned with workforce incentives, regulation and institutions. Global advances will include shared norms and frameworks, strong technical support, and improved knowledge management. Responsible recruitment and alignment of priority programmes and development instruments to support the health workforce should be in place.
- The decade goal in all countries is to build high-performing workforces for national health systems to respond to current and emerging challenges. This means that every country should have implemented national strategic plans and should be planning for the future, drawing on robust national capacity. Globally, a full range of evidence-based guidelines should inform good practice for health workers. Effective cooperative agreements will minimize adverse consequences despite increased international flows of workers. Sustained international financing should be in place to support recipient countries for the next 10 years as they scale up their workforce.

Table 7.2 Ten-vear plan of action

		2006	2010	2015	
		Immediate	Mid-point	Decade	
Country leadership	Management	Cut waste, improve incentives	Use effective managerial practices	Sustain high performing workforce	
	Education	Revitalize education strategies	Strengthen accreditation and licensing	Prepare workforce for the future	
	Planning	Design national workforce strategies	Overcome barriers to implementation	Evaluate and redesign strategies, based on robust national capacity	
Global solidarity	Knowledge and learning	Develop common technical frameworks	Assess performance with comparable metrics	Share evidence-based good practices	
		Pool expertise	Fund priority research		
	Enabling policies	Advocate ethical recruitment and migrant workers' rights	Adhere to responsible recruitment guidelines	Manage increased migratory flows for equity and fairness	
		Pursue fiscal space exceptionality	Expand fiscal space for health	Support fiscal sustainability	
	Crisis response	Finance national plans for 25% of crisis countries	Expand financing to half of crisis countries	Sustain financing of national plans for all countries in	
		Agree on best donor practices for human resources for health	Adopt 50:50 investment guideline for priority programmes	crisis	





JOINT STEPS TO THE FUTURE

Moving forward on the plan of action necessitates that stakeholders work together through inclusive alliances and networks – local, national and global – across health problems, professions, disciplines, ministries, sectors and countries. Cooperative structures can pool limited talent and fiscal resources and promote mutual learning. Figure 7.4 proposes how a global workforce alliance can be launched to bring relevant stakeholders to accelerate core country programmes.

A premier challenge is advocacy that promotes workforce issues to a high place on the political agenda and keeps them there. The moment is ripe for political support as problem awareness is expanding, effective solutions are emerging, and various countries are already pioneering interventions. Workforce development is a continuous process that is always open for improvement. However, immediate acceleration of performance can be attained in virtually all countries if well-documented solutions are applied. Some of the work should be implemented immediately; other aspects will take time. There are no short cuts and there is no time to lose. Now is the time for action, to invest in the future, and to advance health – rapidly and equitably.

REFERENCES

- 1. Dubois C-A, McKee M. Cross-national comparisons of human resources for health. What can we learn? Health Economics, Policy and Law, 2006, 1:59-78.
- 2. Moore J, Karnaukhova J, McGinnis S, Ricketts T, Skillman S, Paul E et al. Human resources for health: options for analysis and monitoring (unpublished document, 2005).
- 3. Diallo K, Zurn P, Gupta N, Dal Poz MR. Monitoring and evaluation of human resources for health: an international perspective. Human Resources for Health, 2003, 1:3.
- 4. Human resources of European health systems: final report. Paris, Organisation for Economic Co-operation and Development, 2001.
- 5. Opportunities for global health initiatives in the health systems action agenda. Geneva, World Health Organization, 2005 (Making health systems work, Working Paper No.4).
- 6. Report on WHO Workshop on Formulating a Global Research Agenda for Human Resources for Health, Cape Town, 6-8 September 2004. Geneva, World Health Organization, 2004.
- 7. Human resources for health: overcoming the crisis. Cambridge, MA, Joint Learning Initiative, 2004.
- 8. Hongoro C, McPake B. How to bridge the gap in human resources for health. Lancet, 2004, 364:1451-1456.
- 9. Black N. Health care workforce: how research can help. Journal of Health Services Research and Policy, 2004, 9(Suppl. 1):1-2.
- 10. Cochrane Database of Systematic Reviews (available at: http://www.mrw.interscience. wiley.com/cochrane/cochrane_clsysrev_articles_fs.html, accessed 12 February 2006).
- 11. Anand S, Bärnighausen T. Human resources for health and vaccination coverage in developing countries (unpublished document, Oxford University, 2005).
- 12. Report from the Ministerial Summit on Health Research: identify challenges, inform actions, correct inequities. Geneva, World Health Organization, 2005.
- 13. Cape Town recommendations for scaling up research on human resources for health. World Health Organization Workshop on Formulating a Global Research Agenda on Human Resources for Health, 6 to 8 September 2004, Cape Town, South Africa. (http://www.who.int/reproductive-health/tcc/meeting documents/cape town recommendations.pdf, accessed 26 February 2006).
- 14. Report of the Task Force on Health Systems Research. Geneva. World Health Organization, 2005 (http://www.who.int/rpc/summit/Task Force on HSR 2.pdf, accessed 12 February 2006).
- 15. Awases M, Nyoni J, Gbary A, Chatora R. Migration of health professionals in six countries: a synthesis report. Brazzaville, World Health Organization Regional Office for Africa, 2004.
- 16. Hasselhorn H-M, Tackenberg P, Müller BH. Working conditions and intent to leave the profession among nursing staff in Europe: NEXT – nurses early exit study, 2003. Stockholm, National Institute for Working Life, 2004.
- 17. Ministry of Health, the Government of Uganda (http://www.health.go.ug/, accessed 26 February 2006).
- 18. Towards a society for all ages. Employment, health, pensions and intergenerational solidarity. Brussels, European Commission, 1999 (Conference Paper, European Symposium; available at: http://europa.eu.int/comm/employment_social/soc-prot/ ageing/vienna/vienna_en.pdf, accessed 26 February 2006).

- Jobs of the future. Accenture/The Lisbon Council, 2005 (available at: http://www.accenture.com/Global/Research_and_Insights/Policy_And_Corporate_Affairs/JobsFuture.htm, accessed 26 February 2006).
- 20. Cooper RA, Getzen TE, McKee HJ, Laud P. Economic and demographic trends signal an impending physician shortage. *Health Affairs*, 2002, 21:140–154.
- Matthews Z, Van Lerberghe W. Notes on workforce implications of demographic change (background paper for The world health report 2006; available at: http://www.who. int/hrh/documents/en/).
- Kinfu Y, Mercer H, Dal Poz MR, Evans DB. Estimating inflows and outflows of health service providers in sub-Saharan Africa. Geneva, World Health Organization, 2005 (background paper prepared for The world health report 2006; available at: http://www. who.int/hrh/documents/en/).
- Palmer D, United Kingdom Department for International Development
 – Malawi, personal communication.
- PRSPs: their significance for health second synthesis report. Geneva, World Health Organization, 2004 (document WHO/HDP/PRSP/04.1).
- Verboom P, Tan-Torres Edejer T, Evans DB. The cost of eliminating critical shortages in human resources for health. Geneva, World Health Organization, 2005 (background paper prepared for The world health report 2006; available at: http://www.who.int/hrh/en).
- 26. Michaud C. Development assistance for health (DAH): recent trends and resource allocation. Paper prepared for the Second Consultation Commission on Macroeconomics and Health, World Health Organization, Geneva, 29–30 October, 2003 (http://www. who.int/macrohealth/events/health_for_poor/en/dah_trends_nov10.pdf, accessed 26 February 2006).
- 27. Human resources for health strategic plan 2006–2010. Lusaka, Ministry of Health Zambia, 2005.
- Heller PS. Finding sustainable "fiscal space" for the health sector. Paper presented at: High Level Forum on the Health MDGs, Paris, November 2005 (http://www. hlfhealthmdgs.org/November2005Mtg.asp, accessed 12 February 2006).
- Vujicic M. Macroeconomic and fiscal issues in scaling up human resources for health in low-income countries. Washington, DC, The World Bank, Human Development Network, 2005 (background paper for *The world health report 2006*; available at: http://www.who. int/hrh/documents/en/).
- Williams G, Hay R. Fiscal space and sustainability from the perspective of the health sector. Background paper for the High Level Forum on the Health MDGs, Paris, November 2005 (http://www.hlfhealthmdgs.org/November2005Mtg.asp; accessed 12 February 2006).
- 31. Foster M. Fiscal space and sustainability towards a solution for the health sector.

 Background paper for the High Level Forum on the Health MDGs, Paris, November 2005 (http://www.hlfhealthmdgs.org/Documents/FiscalSpaceTowardsSolution.pdf, accessed 26 February 2006).