

overview

for health

WHY THE WORKFORCE IS IMPORTANT

In this first decade of the 21st century, immense advances in human well-being coexist with extreme deprivation. In global health we are witnessing the benefits of new medicines and technologies. But there are unprecedented reversals. Life expectancies have collapsed in some of the poorest countries to half the level of the richest – attributable to the ravages of HIV/AIDS in parts of sub-Saharan Africa and to more than a dozen “failed states”. These setbacks have been accompanied by growing fears, in rich and poor countries alike, of new infectious threats such as SARS and avian influenza and “hidden” behavioural conditions such as mental disorders and domestic violence.

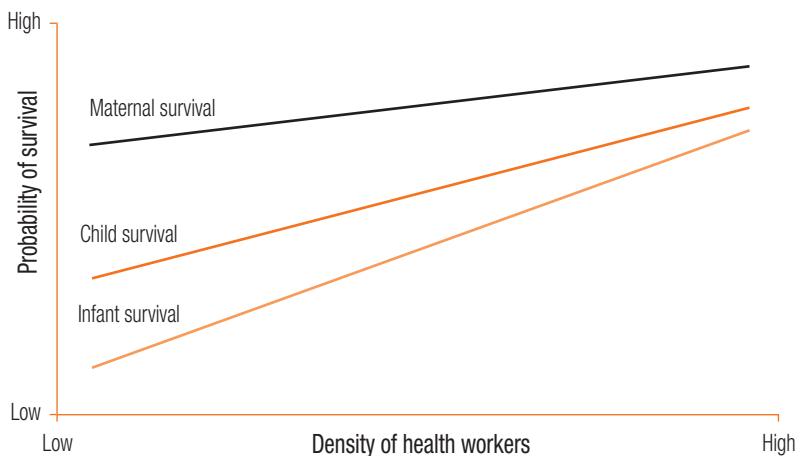
The world community has sufficient financial resources and technologies to tackle most of these health challenges; yet today many national health systems are weak, unresponsive, inequitable – even unsafe. What is needed now is political will to implement national plans, together with international cooperation to align resources, harness knowledge and build robust health systems for treating and preventing disease and promoting population health. Developing capable, motivated and supported health workers is essential for overcoming bottlenecks to achieve national and global health goals. Health care is a labour-intensive service industry. Health service providers are the personification of a system’s core values – they heal and care for people, ease pain and suffering, prevent disease and mitigate risk – the human link that connects knowledge to health action.

“We have to work together to ensure access to a motivated, skilled, and supported health worker by every person in every village everywhere.”

LEE Jong-wook
High-Level Forum, Paris, November 2005

At the heart of each and every health system, the workforce is central to advancing health. There is ample evidence that worker numbers and quality are positively associated with immunization coverage, outreach of primary care, and infant, child and maternal survival (see Figure 1). The quality of doctors and the density of their distribution have been shown to correlate with positive outcomes in cardiovascular diseases. Conversely, child malnutrition has worsened with staff cutbacks during health sector reform. Cutting-edge quality improvements of health care are best initiated by workers themselves because they are in the unique

Figure 1 Health workers save lives!



position of identifying opportunities for innovation. In health systems, workers function as gatekeepers and navigators for the effective, or wasteful, application of all other resources such as drugs, vaccines and supplies.

Picture of the global workforce

All of us at some stage work for health – a mother caring for her child, a son escorting his parents to a hospital, or a healer drawing on ancient wisdom to offer care and solace. This report considers that “*Health workers are all people primarily engaged in actions with the primary intent of enhancing health*”. This is consistent with the WHO definition of health systems as comprising all activities with the primary goal of improving health – inclusive of family caregivers, patient–provider partners, part-time workers (especially women), health volunteers and community workers.

Based on new analyses of national censuses, labour surveys and statistical sources, WHO estimates there to be a total of 59.2 million full-time paid health workers worldwide (see Table 1). These workers are in health enterprises whose primary role is to improve health (such as health programmes operated by government or nongovernmental organizations) plus additional health workers in non-health organizations (such as nurses staffing a company or school clinic). *Health service providers* constitute about two thirds of the global health workforce, while the remaining third is composed of *health management and support workers*.

Workers are not just individuals but are integral parts of functioning health teams in which each member contributes different skills and performs different functions. Countries demonstrate enormous diversity in the skill mix of health teams. The ratio of nurses to doctors ranges from nearly 8:1 in the African Region to 1.5:1 in the Western Pacific Region. Among countries, there are approximately four nurses per doctor in Canada and the United States of America, while Chile, Peru, El Salvador and Mexico have fewer than one nurse per doctor. The spectrum of essential worker competencies is characterized by imbalances as seen, for example, in the dire shortage of public health specialists and health care managers in many countries. Typically, more than 70% of doctors are male while more than 70% of nurses are female – a marked gender imbalance. About two thirds of the workers are in the public sector and one third in the private sector.

Table 1 Global health workforce, by density

WHO region	Total health workforce		Health service providers		Health management and support workers	
	Number	Density (per 1000 population)	Number	Percentage of total health workforce	Number	Percentage of total health workforce
Africa	1 640 000	2.3	1 360 000	83	280 000	17
Eastern Mediterranean	2 100 000	4.0	1 580 000	75	520 000	25
South-East Asia	7 040 000	4.3	4 730 000	67	2 300 000	33
Western Pacific	10 070 000	5.8	7 810 000	78	2 260 000	23
Europe	16 630 000	18.9	11 540 000	69	5 090 000	31
Americas	21 740 000	24.8	12 460 000	57	9 280 000	43
World	59 220 000	9.3	39 470 000	67	19 750 000	33

Note: All data for latest available year. For countries where data on the number of health management and support workers were not available, estimates have been made based on regional averages for countries with complete data.

Data source: World Health Organization. *Global Atlas of the Health Workforce* (<http://www.who.int/globalatlas/default.asp>).

Driving forces: past and future

Workers in health systems around the world are experiencing increasing stress and insecurity as they react to a complex array of forces – some old, some new (see Figure 2). Demographic and epidemiological transitions drive changes in population-based health threats to which the workforce must respond. Financing policies, technological advances and consumer expectations can dramatically shift demands on the workforce in health systems. Workers seek opportunities and job security in dynamic health labour markets that are part of the global political economy.

The spreading HIV/AIDS epidemic imposes huge work burdens, risks and threats. In many countries, health sector reform under structural adjustment capped public sector employment and limited investment in health worker education, thus drying up the supply of young graduates. Expanding labour markets have intensified profes-

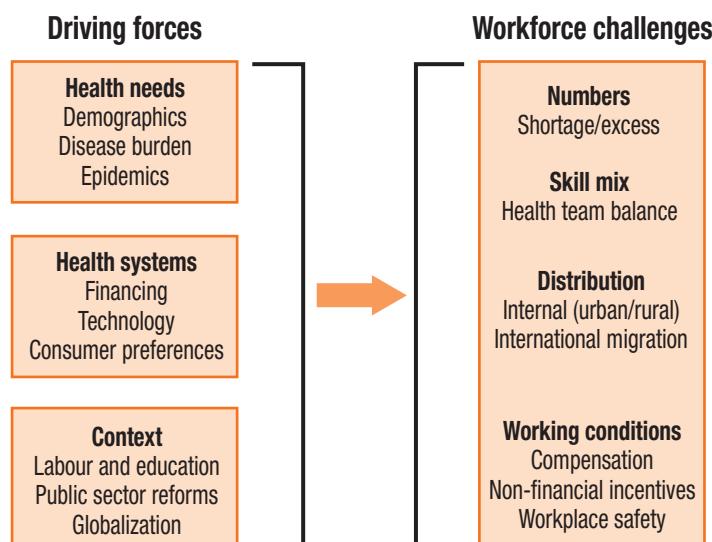
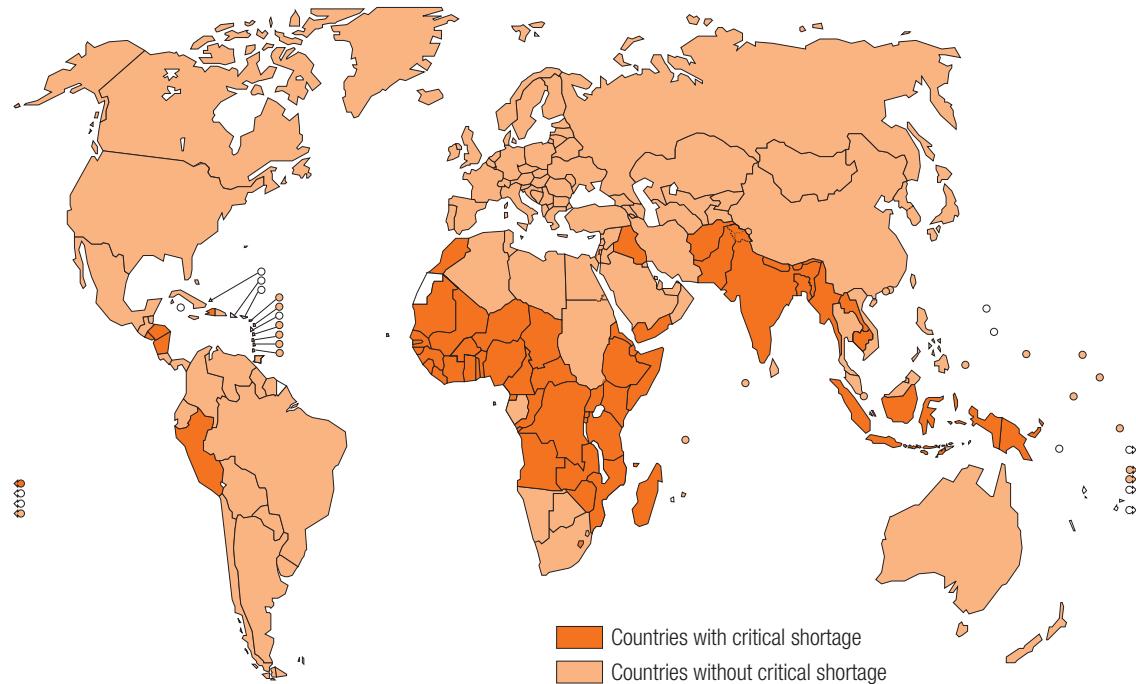
Figure 2 Forces driving the workforce

Figure 3 Countries with a critical shortage of health service providers (doctors, nurses and midwives)



Data source: World Health Organization. *Global Atlas of the Health Workforce* (<http://www.who.int/globalatlas/default.asp>).

sional concentration in urban areas and accelerated international migration from the poorest to the wealthiest countries. The consequent workforce crisis in many of the poorest countries is characterized by severe shortages, inappropriate skill mixes, and gaps in service coverage.

WHO has identified a threshold in workforce density below which high coverage of essential interventions, including those necessary to meet the health-related Millennium Development Goals (MDGs), is very unlikely (see Figure 3). Based on these estimates, there are currently 57 countries with critical shortages equivalent to a global deficit of 2.4 million doctors, nurses and midwives. The proportional shortfalls are greatest in sub-Saharan Africa, although numerical deficits are very large in South-East Asia because of its population size. Paradoxically, these insufficiencies often coexist in a country with large numbers of unemployed health professionals. Poverty, imperfect private labour markets, lack of public funds, bureaucratic red tape and political interference produce this paradox of shortages in the midst of underutilized talent.

Skill mix and distributional imbalances compound today's problems. In many countries, the skills of limited yet expensive professionals are not well matched to the local profile of health needs. Critical skills in public health and health policy and management are often in deficit. Many workers face daunting working environments – poverty-level wages, unsupportive management, insufficient social recognition, and weak career development. Almost all countries suffer from maldistribution characterized by urban concentration and rural deficits, but these imbalances are perhaps most disturbing from a regional perspective. The WHO Region of the Americas,

with 10% of the global burden of disease, has 37% of the world's health workers spending more than 50% of the world's health financing, whereas the African Region has 24% of the burden but only 3% of health workers commanding less than 1% of world health expenditure. The exodus of skilled professionals in the midst of so much unmet health need places Africa at the epicentre of the global health workforce crisis.

This crisis has the potential to deepen in the coming years. Demand for service providers will escalate markedly in all countries – rich and poor. Richer countries face a future of low fertility and large populations of elderly people, which will cause a shift towards chronic and degenerative diseases with high care demands. Technological advances and income growth will require a more specialized workforce even as needs for basic care increase because of families' declining capacity or willingness to care for their elderly members. Without massively increasing training of workers in this and other wealthy countries, these growing gaps will exert even greater pressure on the outflow of health workers from poorer regions.

In poorer countries, large cohorts of young people (1 billion adolescents) will join an increasingly ageing population, both groups rapidly urbanizing. Many of these countries are dealing with unfinished agendas of infectious disease and the rapid emergence of chronic illness complicated by the magnitude of the HIV/AIDS epidemic. The availability of effective vaccines and drugs to cope with these health threats imposes huge practical and moral imperatives to respond effectively. The chasm is widening between what can be done and what is happening on the ground. Success in bridging this gap will be determined in large measure by how well the workforce is developed for effective health systems.

These challenges, past and future, are well illustrated by considering how the workforce must be mobilized to address specific health challenges.

- The MDGs target the major poverty-linked diseases devastating poor populations, focusing on maternal and child health care and the control of HIV/AIDS, tuberculosis and malaria. Countries that are experiencing the greatest difficulties in meeting the MDGs, many in sub-Saharan Africa, face absolute shortfalls in their health workforce. Major challenges exist in bringing priority disease programmes into line with primary care provision, deploying workers equitably for universal access to HIV/AIDS treatment, scaling up delegation to community workers, and creating public health strategies for disease prevention.
- Chronic diseases, consisting of cardiovascular and metabolic diseases, cancers, injuries, and neurological and psychological disorders, are major burdens affecting rich and poor populations alike. New paradigms of care are driving a shift from acute tertiary hospital care to patient-centred, home-based and team-driven care requiring new skills, disciplinary collaboration and continuity of care – as demonstrated by innovative approaches in Europe and North America. Risk reduction, moreover, depends on measures to protect the environment and the modification of lifestyle factors such as diet, smoking and exercise through behaviour change.
- Health crises of epidemics, natural disasters and conflict are sudden, often unexpected, but invariably recurring. Meeting the challenges requires coordinated planning based on sound information, rapid mobilization of workers, command-and-control responses, and intersectoral collaboration with nongovernmental organizations, the military, peacekeepers and the media. Specialized workforce capacities are needed for the surveillance of epidemics or for the reconstruction

of societies torn apart by ethnic conflict. The quality of response, ultimately, depends upon workforce preparedness based on local capacity backed by timely international support.

These examples illustrate the enormous richness and diversity of the workforce needed to tackle specific health problems. The tasks and functions required are extraordinarily demanding, and each must be integrated into coherent national health systems. All of the problems necessitate efforts beyond the health sector. Effective strategies therefore require all relevant actors and organizations to work together.

STRATEGIES: WORKING LIFESPAN OF ENTRY–WORKFORCE–EXIT

In tackling these world health problems, the workforce goal is simple – *to get the right workers with the right skills in the right place doing the right things!* – and in so doing, to retain the agility to respond to crises, to meet current gaps, and to anticipate the future.

A blueprint approach will not work, as effective workforce strategies must be matched to a country's unique history and situation. Most workforce problems are deeply embedded in changing contexts, and they cannot be easily resolved. These problems can be emotionally charged because of status issues and politically loaded because of divergent interests. That is why workforce solutions require stakeholders to be engaged in both problem diagnosis and problem solving.

This report lays out a “working lifespan” approach to the dynamics of the workforce. It does so by focusing on strategies related to the stage when people enter the workforce, the period of their lives when they are part of the workforce, and the point at which they make their exit from it. The road map (see Figure 4) of training, sustaining and retaining the workforce offers a worker perspective as well as a systems approach to strategy. Workers are typically concerned about such questions as: How do I get a job? What kind of education do I need? How am I treated and how well am I paid? What are my prospects for promotion or my options for leaving? From policy and management perspectives, the framework focuses on modulating the roles of both labour markets and state action at key decision-making junctures:

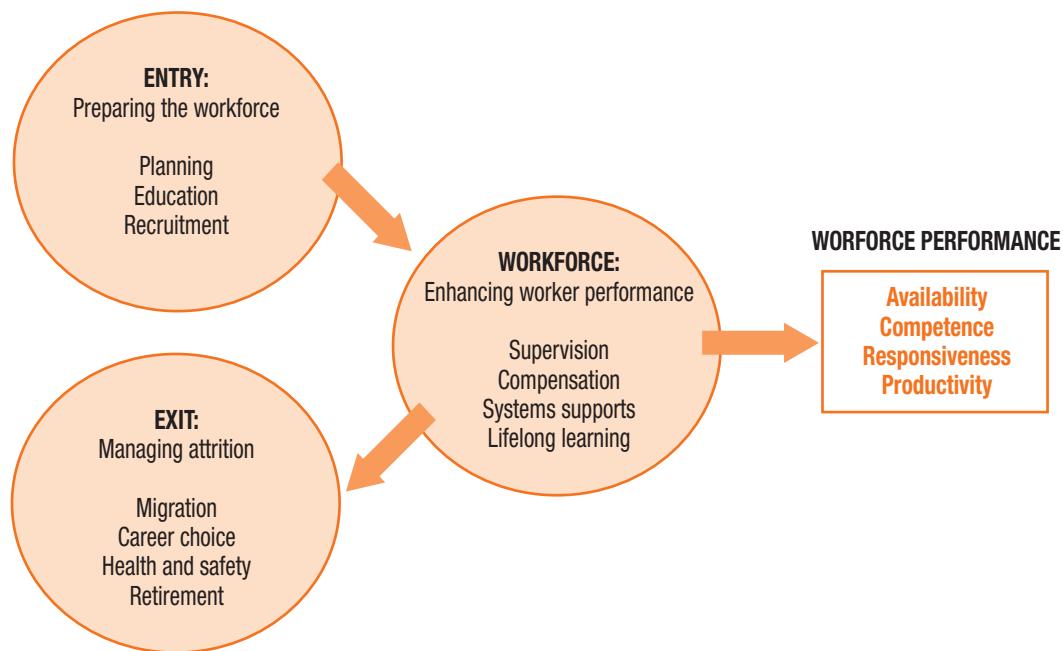
- Entry: preparing the workforce through strategic investments in education and effective and ethical recruitment practices.
- Workforce: enhancing worker performance through better management of workers in both the public and private sectors.
- Exit: managing migration and attrition to reduce wasteful loss of human resources.

Entry: preparing the workforce

A central objective of workforce development is to produce sufficient numbers of skilled workers with technical competencies whose background, language and social attributes make them accessible and able to reach diverse clients and populations. To do so requires active planning and management of the health workforce production pipeline with a focus on building strong training institutions, strengthening professional regulation and revitalizing recruitment capabilities.

- **Building strong institutions** for education is essential to secure the numbers and qualities of health workers required by the health system. Although the variations are enormous among countries, the world's 1600 medical schools, 6000

Figure 4 Working lifespan strategies



nursing schools and 375 schools of public health in aggregate are not producing sufficient numbers of graduates. Addressing shortfalls will require building new institutions and ensuring a more appropriate mix of training opportunities – for example, more schools of public health are needed. Commensurate with the shift in expectations of graduates from “know-all” to “know-how”, improving education calls for attention to both curricular content and pedagogical learning methods. Teaching staff, too, require training as well as more credible support and career incentives so that a better balance with the competing demands of research and service can be achieved. Greater access to education at lower cost can be achieved by regional pooling of resources and expanding the use of information technologies such as telemedicine and distance education.

- Assuring educational quality involves institutional accreditation and professional regulation (licensing, certification or registration). Rapid growth of the private sector in education calls for innovative stewardship to maximize the benefits of private investments while strengthening the state’s role in regulating the quality of education. Too often lacking or ineffective in low income countries, structures for regulation are rarely developed sufficiently to ensure quality, responsiveness and ethical practice. State intervention is necessary in order to set standards, protect patient safety, and ensure quality through provision of information, financial incentives and regulatory enforcement.
- Revitalizing recruitment capabilities is necessary in order to broker more effectively demands from the labour market that often overlook public health needs. Recruitment and placement services should aim not only to get workers with the right skills to the right place at the right time but also to achieve better social compatibility between workers and clients in terms of gender, language, ethnicity

and geography. Institutional weaknesses related to recruitment information and effective deployment of health workers merit serious attention, especially where there are expectations in scaling up the health workforce.

Workforce: enhancing performance

Strategies to improve the performance of the health workforce must initially focus on existing staff because of the time lag in training new health workers. Substantial improvements in the availability, competence, responsiveness and productivity of the workforce can be rapidly achieved through an array of low-cost and practical instruments.

- **Supervision makes a big difference.** Supportive yet firm – and fair – supervision is one of the most effective instruments available to improve the competence of individual health workers, especially when coupled with clear job descriptions and feedback on performance. Moreover, supervision can build a practical integration of new skills acquired through on-the-job training.
- **Fair and reliable compensation.** Decent pay that arrives on time is crucial. The way workers are paid, for example salaried or fee-for-service, has effects on productivity and quality of care that require careful monitoring. Financial and non-financial incentives such as study leave or child care are more effective when packaged than provided on their own.
- **Critical support systems.** No matter how motivated and skilled health workers are, they cannot do their jobs properly in facilities that lack clean water, adequate lighting, heating, vehicles, drugs, working equipment and other supplies. Decisions to introduce new technologies – for diagnosis, treatment or communication – should be informed in part by an assessment of their implications for the health workforce.
- **Lifelong learning** should be inculcated in the workplace. This may include short-term training, encouraging staff to innovate, and fostering teamwork. Frequently, staff devise simple but effective solutions to improve performance and should be encouraged to share and act on their ideas.

Exit: managing migration and attrition

Unplanned or excessive exits may cause significant losses of workers and compromise the system's knowledge, memory and culture. In some regions, worker illness, deaths and migration together constitute a haemorrhaging that overwhelms training capacity and threatens workforce stability. Strategies to counteract workforce attrition include managing migration, making health a career of choice, and stemming premature sickness and retirement.

- **Managing migration of health workers** involves balancing the freedom of individuals to pursue work where they choose with the need to stem excessive losses from both internal migration (urban concentration and rural neglect) and international movements from poorer to richer countries. Some international migration is planned, for example the import of professionals into the Eastern Mediterranean Region, while other migrations are unplanned with deleterious health consequences. For unplanned migration, tailoring education and recruitment to rural realities, improving working conditions more generally and facilitating the return of migrants represent important retention strategies. Richer countries receiving migrants from poorer countries should adopt responsible recruitment policies, treat migrant health workers fairly, and consider entering into bilateral agreements.

- **Keeping health work as a career of choice for women.** The majority of health workers are women and “feminization” trends are well established in the male dominated field of medicine. To accommodate female health workers better, more attention must be paid to their safety, including protecting them from violence. Other measures must be put in place. These include more flexible work arrangements to accommodate family considerations, and career tracks that promote women towards senior faculty and leadership positions more effectively.
- **Ensuring safe work environments.** Outflows from the workforce caused by illness, disability and death are unnecessarily high and demand priority attention especially in areas of high HIV prevalence. Strategies to minimize occupational hazards include the recognition and appropriate management of physical risks and mental stress, as well as full compliance with prevention and protection guidelines. Provision of effective prevention services and access to treatment for all health workers who become HIV-positive are the only reasonable way forward in the pursuit of universal access to HIV prevention, treatment and care.
- **Retirement planning.** In an era of ageing workforces and trends towards earlier retirement, unwanted attrition can be stemmed by a range of policies. These policies can reduce incentives for early retirement, decrease the cost of employing older people, recruit retirees back to work and improve conditions for older workers. Succession planning is central to preserving key competencies and skills in the workforce.

MOVING FORWARD TOGETHER

An imperative for action

The unmistakable imperative is to strengthen the workforce so that health systems can tackle crippling diseases and achieve national and global health goals. A strong human infrastructure is fundamental to closing today’s gap between health promise and health reality and anticipating the health challenges of the 21st century.

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 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 is 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 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 workforce crises.** The magnitude of the health workforce 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. A 50:50 guideline is recommended, whereby 50% of all international assistance 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.

Plan of action

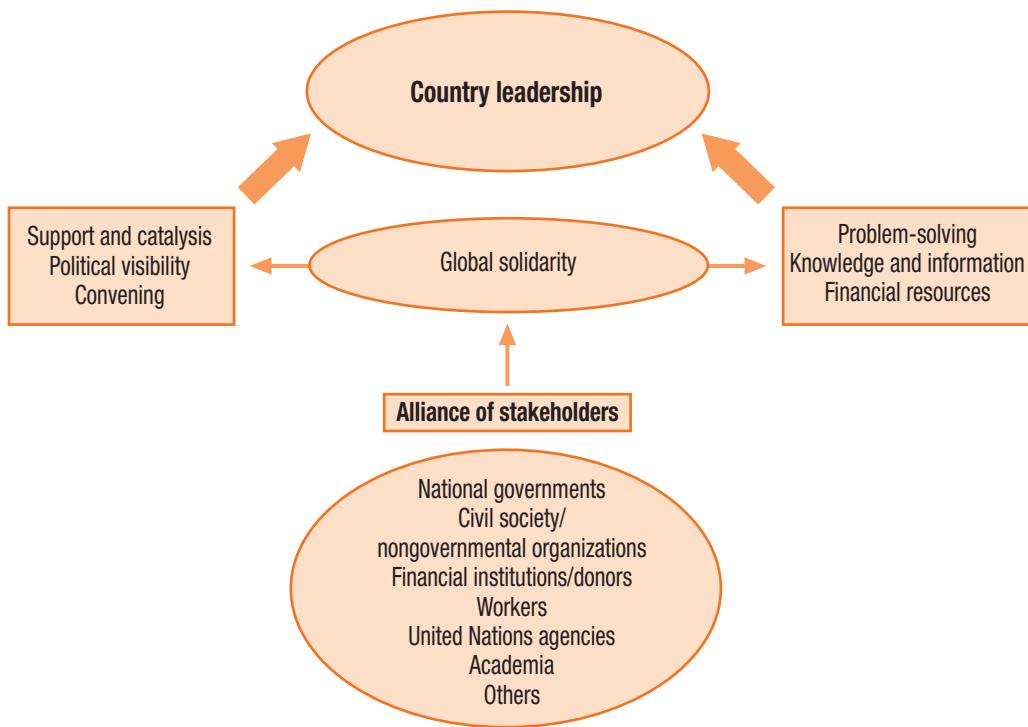
National leadership must urgently jump-start country-based actions and sustain them for at least a decade. Table 2 summarizes targets in the plan of action over the decade 2006–2015.

- 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,

Table 2 Ten-year plan of action

		2006 Immediate	2010 Mid-point	2015 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 crisis
		Agree on best donor practices for human resources for health	Adopt 50:50 investment guideline for priority programmes	

Figure 5 Global stakeholder alliance



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.

Moving forward together

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 5 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.