

African

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Crisis in Human Resources for Health in the African Region

- ◆ Migration of skilled health workers
- ◆ Investing in Human Resources for Health
- ◆ Strengthening Human Resources for Health in Africa
- ◆ The Economic Cost of Health Professionals Brain Drain in the African Region

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Please address all correspondence to:

Samuel T. Ajibola - Editorial Coordinator
African Health Monitor
WHO Regional Office for Africa
P.O. Box 6, Brazzaville, Republic of Congo
Tel: + 47 241 39378; - Fax: +47 241 39503
E-mail: ajibolas@afro.who.int

Message of the Regional Director on the occasion of World Health Day 2006

“Working Together For Health”

For the first time ever, WHO is organizing a World Health Day entirely devoted to human resources for health, the people who significantly contribute to establish, restore and maintain our health. We should seize this opportunity to create a momentum that compels governments and communities to develop and implement a health workforce policy that enhances equity in health - universal access to essential health care. The World Health Day calls upon the governments, civil society, individuals and entire international community, to better understand and take action to plan for production of skilled health workers and improve the working environment and well-being of health workers.

In our daily struggle against various global health crises, less attention has been paid to the people who actually deliver health care. For too long, the health workforce has been ignored, left to toil and trudge on in silence. This cannot continue. The rate of progress towards achievement of internationally agreed development goals, including those contained in the Millennium Development Goals (MDGs), depends mainly on our health workers. That is the price of equitable health for all.

An unprecedented crisis in human resources for health plagues Africa, leading to a health crisis whereby the survival gains achieved after a century of the most spectacular health advances in human history are fast eroding. Indeed, Africa possesses 14% of the world population, harbors 25% of global disease burden and has only 1.3% of global health workers. It is known that 2.5 health workers per 10,000 inhabitants are needed to achieve the Millennium Development Goals. The health workers/population ratio in Africa is currently 0.8 health workers per 10,000 inhabitants. Obviously, very little progress can be achieved if the situation remains unchanged and Africa needs immediately at least 1 million more health workers to enable noticeable improvement.

A number of factors underlie the human resources for health crisis. They include financing arrangements, weak planning of

health workforce in countries and migration. Inadequate fiscal space and financial arrangements and ceilings on recruitment make it difficult to scale up production of health workers, recruit them and implement appropriate motivation and retention schemes. Weak planning of the health workforce leads to a paradoxical situation whereby some countries are producing more medical doctors than midwives. One of the most negative combined effect of these two factors resides in unemployment of many health workers in Africa while there are still not enough health workers to deliver health care in countries in general and in rural or remote areas in particular. Migration of health workers from African countries to developed world has reached the extent that there are more health workers from African countries working in identified large cities of developed countries than in their countries of origin. Rates of health workers who have migrated range from 8% to as high as 60% in countries in Africa.

Old causes are now compounded by new dimensions. The HIV/AIDS epidemic has further compounded the situation. It has led to distortions in global and national health worker markets and chronic under-investment and overall weak health system. The consequences

are complex, raising issues of worker shortages and mal-distribution, public sector reform, health sector reform, donor behaviour as well as issues of policy and governance.

Several initiatives have been launched to meet the challenges posed by the major health workforce crisis in Africa. We recall the joint World Bank/WHO conference in January 2002 which gave impetus to a new partnership of health professionals and main stakeholders in human resources development and enabled documentation of the magnitude of the crisis through the work of the Joint Learning Initiative. This conference was followed by many other regional and international fora including High Level Forum on the MDGs, African Union Heads of States and Government Meetings, World Health Assembly, and G8 Summit in 2005. All these fora underscored the need to strengthen health system and human resources for health which constitute its main asset.

The regional stakeholders consultation on human resources for health in Brazzaville in 2005 was a milestone in this endeavour. The consultation urged countries to involve governments, the private sector, civil society and partners in human resources for health development and identified regional mechanisms for follow up action. Awareness on human resources for

health issues has raised remarkably and they have been put high on political agenda of African and world leaders.

These efforts at regional and international level complement action taken at country level. Indeed, individual African countries developed and are implementing sound HRH policies and plans. Some countries came up with incentives packages able to retain health workers in rural areas. A few countries were able to establish new modalities of recruitment and employment including contracting based on performance and flexible working arrangements. Evaluation of health sciences training institutions and implementation of training curricula reforms are being progressively undertaken. Finally, a set of countries are using the framework of global health initiatives such as Global Alliance for Vaccines and Immunization (GAVI) and Global Fund to fight HIV/AIDS, Tuberculosis and Malaria, Highly Indebted Poor Countries (HIPC) as well as Poverty Reduction Strategy Papers (PRSPs) to scale up training and recruitment of health workers.

Despite these efforts, human resources for health situation remain of concern mainly due to the piecemeal approaches and fragmented action taken by different stakeholders in the same countries. We need to cast solutions to HRH issues in the context of strengthening of health system and the overall socio-economic development. Time has come for Africa to turn today's dramatic health reversals by investing massively in the health workers. This will call for a dynamic, concerted, integrated and comprehensive action from countries and their partners. Countries should revitalize their national health system using primary health care approach as they undertake their health sector reforms. They should strive to prioritize their spending and better use the available resources including the health workforce. For sake of sustainability, they should augment their national level of investment in health system and human resources as more external resources are accrued from macroeconomic initiatives. The central issue of migration should be addressed both through bilateral agreements and reaching global consensus on key aspects such as ethical recruitment of health workers from developing countries and aid from developed

countries to mitigate its adverse effects. Particular attention should be paid to implementation of salary schemes able to motivate and retain health workers. Partners who expressed their solidarity and willingness to reinforce African health system are committed to continue their support to and supplement the action of African countries.

The human resources crisis is complex, multifaceted and further weakens an already feeble health system. Overcoming the crisis requires sustainable solutions adapted to country specific contexts. All stakeholders should be brokered to this end.

The Year 2006 provides each of us an opportunity to remind the world that we need sufficient skilled, ethical, motivated and well-supported health workforce that forms the bedrock of healthy nations. I would like on the occasion of the World Health Day 2006, to pay special tribute to existing health workers in the

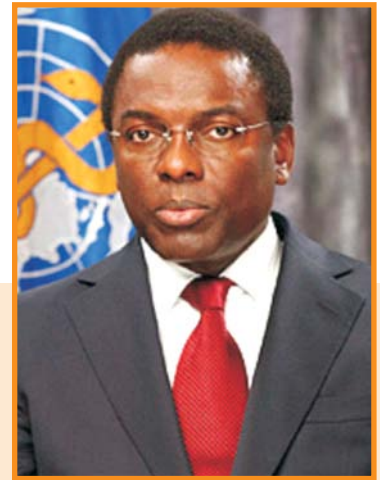
African Region who have contributed greatly to the health of hundreds of millions of Africans each year, often at great personal cost.

WHO will continue working closely with all governments, professional organizations, civil societies, non governmental organizations and other development partners to improve availability of the skilled and motivated health workers.

Let us therefore “Work together for Health” of Africa’s peoples.

From the Regional Director's Desk

The Human Resources for Health Crisis in Africa



Dr Luís Gomes Sambo

Most African countries are challenged by a double crisis of fragile health systems and weak human resources, the latter being an essential component of effective service delivery. Although Africa has only 1.3% of the world's health workforce, it carries 25% of the world's disease burden. The workforce density is 0.8 per 1000 population, compared to a world average of 4.2. The health worker shortage is further exacerbated by inequitable spatial distribution of health workers thus resulting in severe urban–rural imbalances.

All these combine with the growing challenge of mass exodus of health professionals to make the issue of human resources for health a matter of grave concern for the governments and people in the African Region.

Africa's leaders have reflected their recognition of the critical importance of human resources for health (HRH) in a number of recent decisions and actions. For example, the HRH crisis and migration issues constituted action points agreed at the Abuja High-Level Forum on health-related Millennium Development Goals (MDGs). They were the subject of resolutions passed at recent sessions of the WHO Regional

Committee for Africa, the World Health Assembly and the Fourth Ordinary Session of the Assembly of the African Union.

While it is true that people produce their own health, the effectiveness of health services depends upon health workers and support systems. Put otherwise, money and medicines apart, health achievements depend on the frontline health workers who connect people and communities to services and technologies. Health systems cannot operate without the people who run them. In other words, health personnel are the people “who make health happen”.

Africa's health workforce crisis goes much deeper than the shortage and migration of health professionals. Faltering health systems are further strained by the HIV/AIDS pandemic which is claiming the lives of already overburdened health personnel and resulting in more and more people in need of treatment, care and support.

In spite of a projected continuing shortfall of tens of thousands of health professionals, training institutions are not stepping up production of trained and qualified health personnel. Thus, we have a myriad of challenges -- in the areas of staff training, deployment, motivation and retention; in the inequitable spatial distribution of health workers resulting in severe urban-rural imbalances; in poor monetary and non-financial incentives; in generally difficult working conditions and the lack of technical competence. A chronic under investment in human resources for health underpins the problem.

Without adequate numbers of trained health personnel, both the quality and quantity of health services that our region's health care systems can deliver are drastically reduced, limiting the number of people who receive care, and diminishing the quality of care for those who are able to afford it. Africa is literally engaged in a war against diseases and health challenges of all descriptions—old, neglected, emerging and re-emerging diseases. This war cannot be fought without soldiers!

As noted above, it is gratifying to note that African ministries of health have played a key role in propelling the HRH challenge from hitherto neglected to the top of the international agenda. In a number of African countries, an exciting body of evidence

is emerging and demonstrating that effective interventions can make a difference. Now, therefore, is the time to move from policy design and formulation to implementation.

This issue of the *African Health Monitor* sets out the evidence and makes recommendations on how Member States should treat, train and retain health workers for the benefit of the 736 million people in the Region. I recommend it to you all.

Strategic Orientations for Improving Human Resources for Health in the African Region



* Dr Paul-Samson Lusamba-Dikassa

Introduction

Africa has been facing an unprecedented human resources for health (HRH) crisis for years.

Indeed, Africa possesses 14% of the world population, harbors 25% of global disease burden and has only 1.3% of global health workers. There would be need for 2.5 health workers per 1000 inhabitants to achieve the Millennium Development Goals. However, the current health workers/population ratio in Africa is only 2.3 health workers per 1000 inhabitants. Out of 57 countries experiencing critical HRH shortages in the world, 36 are located in Africa.¹ In some countries, these insufficiencies paradoxically coexist with large numbers of unemployed health workers. The HIV/AIDS epidemic which negatively affects health workers has compounded human resources shortages and maldistribution.

Among the most pressing concerns are the migration and growing shortage of skilled health workers. Rates of migration are as high as 60% in some countries.² Chronic underinvestment in health, weak planning, poor working conditions, inadequate incentive systems, frustrating out-of-date

regulations and management approaches have resulted in serious brain drain of skilled health staff.

Training and education of health workers has been so far mainly hospital-centred at the expense of production of health personnel more oriented towards delivery of comprehensive care, including promotive, preventive and curative care. Health sciences training programmes and institutions are not often evaluated which may in the long run jeopardize quality of education of health workers.

While a few countries have well-established systems, most human resources development departments in ministries of health are poorly structured, ill-equipped and lack the status to influence policy directions favourably. Furthermore, many lack policies and plans to guide human resources development actions in support of the health sector. Finally, human resources development issues have been addressed in a piecemeal and fragmented way by countries and partners.

The orientations proposed are based on the Regional Strategy for Human Resources for Health Development adopted by the Regional Committee in 1998³ and the document “Human Resources Development for Health: accelerating implementation of the Regional Strategy”.⁴ The orientations were updated in light of new

¹ World Health Organization, 2006. Working together for health. World Health report, Geneva, Switzerland.

² World Health Organization, 2002. Human resources for health: accelerating implementation of the regional strategy. AFR/RC52/13, Regional Office for Africa, Brazzaville, Congo.

³ World Health Organization. Regional strategy for development of human resources for health. AFR/RC48/10, Regional Office for Africa, Brazzaville, Congo.

⁴ World Health Organization, 2002. Human resources for health: accelerating implementation of the regional strategy. AFR/RC52/13, Regional Office for Africa, Brazzaville, Congo.

developments in health systems and interactions of the Regional Office with countries and partners at regional and international forums.

Strategic orientations

The strategic orientations include the core principles for action, selected priority actions, roles and responsibilities of countries, WHO and other partners as well as monitoring and evaluation of actions. They are organized around the three main components of human resources for health development, namely policy formulation and planning, education, training and skills development, and management, which are linked to the health system and overall socioeconomic development.⁵

Core principles

Country-led action. Owing to the variations in country situations, the plans to respond to the crisis should emerge from country level, and this should be supported by political commitment, appropriate allocation of resources and partner solidarity.

Regional, global responsibility and collective solidarity. The paramount importance of regional and international partners requires that they be engaged in the HRH resources for health participatory process to ensure its success.

Learn from experience and build on it. Experience gained by some countries in the continent in addressing HRH issues/challenges and promising practices should be documented systematically and shared with other countries.

Go beyond the health sector in seeking solutions. Given that the HRH crisis is closely associated with the overall socioeconomic environment, the interventions hitherto limited to the health sector should span that sector through policy dialogue with and involvement of major public and private sector as well as civil society stakeholders.

Seize opportunities. All political and social opportunities capable of helping to raise awareness on the HRH crisis should be pursued. Due attention should be paid to macroeconomic initiatives, including creating fiscal space and health global initiatives.

Attract skilled persons from the diaspora. A mechanism needs to be put in place to attract some skilled persons from the diaspora back to their countries and/or provide them an opportunity to support the on-going efforts to address the HRH crisis in their countries.

Train, retain and sustain our health workers. Africa needs to train the suitable health workers in appropriate numbers and quality and put in place sustainable systems for their motivation and retention.

Priority actions

Formulation of human resources policy and plan

Countries should establish mechanisms that give room for dialogue with ministries for health, education, finance, etc., the private sector, nongovernmental organizations, training institutions, health professionals and professional associations from the very early stages of policy formulation

⁵ World Health Organization, 2003. The people who work for our health. Placing the health workers at the heart of health services delivery in Africa. Regional Office for Africa, Brazzaville Congo.

to ensure ownership and optimal contribution by health workers during implementation. Evidence-based human resources policies and strategic plans should be developed. Adequate projections of requirements for human resources for health in line with health sector development plans should serve this purpose. Plans for human resources for health need to be supported with financial resources. A pool of African and external experts should be established, oriented and supported to advise and support countries in the implementation of strategies on human resources for health.

Education, training and skills development

Training institutions should in their philosophy embrace issues of their social responsibilities, and show commitment to quality, equity and relevance with emphasis on public or community health. Guidelines for reforming health sciences education and reorienting health worker education and practice should be made available to ensure the availability of adequate numbers of competent health workers and the responsiveness of the education sector to evolving health care delivery strategies. This should be followed by the review and development of appropriate curricula and a reassessment of the scope of practice. The content should include conditions that are major determinants of health in

the Region, such as HIV/AIDS, malaria, management of pregnancy and childbirth, and management of the sick child. The capacity of national, sub regional and regional health training institutions should be built to ensure that a critical mass of health workers with the appropriate skill mix is produced and available. Special attention should be paid to other types of practitioners who can do multi-purpose work in remote areas. Countries should explore innovative training approaches, such as distance education.

Human resources management

As part of human resources policies, countries need to put in place national management systems and employment policies based on healthy and safe working environments and conditions and on equitable rewards, gender sensitivity and recognition of competencies in order to foster motivation and retention of health professionals. Clear and flexible career paths should be developed for all levels of health care providers. Incentives to staff that work in unpopular places such as rural areas, unpopular specialties such as mental health and public health, should be considered. Countries should develop and adopt appropriate legislation and regulations to guide health worker education, training, development and practice. Countries should also strengthen the capacity of national human resources departments.

Managing the migration of skilled health personnel

Countries should urgently develop retention strategies to reverse the brain drain. Research in countries to provide evidence for best management practices and solutions regarding factors contributing to poor motivation should be undertaken. They will ensure an enabling sociopolitical environment for the provision of health services and conducive working conditions in terms of availability of drugs, supplies, equipment and infrastructure required by health workers to do their work. Moral and ethical considerations in the recruitment of health workers from developing countries by developed countries should be put on the international agenda. While upholding human rights of the individual, source, in collaboration with recipient countries, need to agree on a code

of good practice in international recruitment which recognizes the need for compensation for investment made in training by the country source.

Advocacy

Countries need to advocate for the valuing of health workers and putting HRH at the centre of health policy and development plans, and also promote corporate professional values by recognizing professional associations as partners in health policy formulation and implementation. HRH issues should feature highly on national and international agendas, including those of the Summit of African Union Heads of State and other meetings of African ministers of health to maintain the momentum.

Resource allocation

Countries should mobilize financial resources from their national budgets and global health initiatives, and increase allocations to human resources for health with the participation of other stakeholders, including communities. Debt relief should be promoted and the resources accrued should be used in health and education sectors, including improving salaries and working conditions. Investing in staff accommodation, equipment, supplies and drugs, especially for rural area facilities and staff, should be part of development assistance programmes.

Roles and responsibilities

Countries are urged to review their macroeconomic policies, prioritize their spending and make the best of available resources, including health workers. They should translate the priority actions into realistic national action plans and appropriate operational plans. They should undertake advocacy and translate political commitment into action in order to ensure adequate allocation of financial resources and human resources issues as part of national health development plans. Countries should take action to foster the return and retention of health professionals. A multisectoral

body comprising senior officials should be established to oversee the effective implementation of the strategy.

The World Health Organization will provide technical support for planning and implementing the proposed actions and advocating for support from other sectors and partners, both nationally and internationally. Support will also be provided to countries for resource mobilization. WHO will advocate for countries to address issues that include the review of government policies impacting on human resources, the valuing of health workers and stewardship. WHO will ensure that human resources for health issues remain high on the agenda of African and world leaders.

Partners and multilateral agencies should support countries in resource mobilization, capacity-building, and brokering and respecting international agreements such as the code of good practice in the recruitment of skilled health staff and investment in staff retention.

Monitoring and evaluation

In countries, an institutional arrangement will be established to assist government in monitoring implementation of proposed actions. At the regional level, WHO will coordinate the implementation of actions for

accelerating the implementation of the regional strategy. The set of indicators identified in the regional strategy will be updated and used to monitor the progress of implementation. Regional and country human resources for health observatories will be established to facilitate the process.

Conclusion

Since the adoption of the Regional Strategy for Development of Human Resources for Health eight years ago, there has been a significant increase in awareness of human resources for health issues. The realization by

countries of the need to strengthen health service delivery and adopt a strategic approach to human resources development gave impetus to implementation of some of the current orientations. Albeit some success stories, the overall implementation of these orientations remain far from the desired level.

Celebrations of World Health Day 2006 “Working Together for Health” devoted to human resources for health clearly highlighted what should be done to achieve better health outcomes, including the Millenium Development Goals. The human resources for health agenda as well as its main strategies and interventions are known. While refining strategies and strengthening partnerships to address the human resources crisis in Africa, there is urgent need to implement the current orientations in a steady and comprehensive fashion for better health of Africa’s people.

** Dr Lusamba-Dikassa is the Director of Programme Management, WHO Regional Office for Africa, Brazzaville, Republic of Congo.*

Human Resources for Health Development in the African Region: The Journey so Far



* Dr Alimata. J. Diarra-Nama

Introduction

Some journeys are short, easy, and straightforward on a good road, and one can quickly reach the destination. Others are long, difficult with bumpy rides on a road not so smooth. However, a journey can also be exciting along the way because the challenge with each step means being closer to the destination. The human resources for health (HRH)¹ development journey in the WHO Africa Region is a long and complex one. At country level some components such as education and training have received better attention while others such as HRH management including motivation and retention have had little attention. At regional level HRH development has moved from an obscure programme issue in terms of priority to being on the global agenda. In general, whilst there was always general recognition of the importance of the role of health workers in the implementation of health service delivery, evidence has shown that in policy and practice, the fate of HRH development in Africa has been largely left to chance with grave consequences.

The purpose of this paper is to share how long and complex this journey has been and continues to be, yet with some exciting prospects that can lead to reaching the destination becoming more of a reality than a vision. The method involved review of the available documents on the subject within and outside the region on the process and progress made for HRH development in Africa in general and the WHO Africa Region in particular.

Where we are coming from

Health workers have been part and parcel of the health system especially known for being key consumers of the public health sector recurrent budget. Over time, countries have been challenged to reduce the numbers of personnel in the health sector as part of the overall public service as a way of reducing the cost of public expenditures. Apart from the broader macroeconomic issues this is partly due to the fact that for a long time insufficient evidence has been given to show the link between health workers and health

systems performance. Thus, until recently, health workers have been viewed as a recurrent expenditure as opposed to an investment with a potential return. The reduction of maternal mortality figures in the presence of skilled attendants is one such example.² The other example is the successful reaching of immunization targets (and subsequent reduction in morbidity and mortality rates). In both instances, availability of health workers, including temporary workers such as volunteers, and appropriate motivation to do the job have been crucial.

Training of health workers was and continues to be the major HRH development activity in countries. Up to now, HRH development has been perceived as almost synonymous with training. Development partners have contributed to this because most of their health development bilateral agreements with countries have either

¹ Health workers (HRH) have been defined as "all persons who work directly or indirectly to support and create health and well being and embodies not only the technical expertise directly responsible for creating and sustaining health, but also the skills needed by support systems and the linkages that facilitate the application of the technical skills."

² WHO (2005) Health and the Millennium Development Goals" Keep the Promise. Geneva, Page 19.

been contribution to scholarships or direct short term workshop-type of training while, HR management is restricted to routine administrative processes such as payroll management and little else. Only in recent years have the other components of HR development emerged as pertinent issues, largely due to the global realisation that there is a health workforce crisis with sub-Saharan Africa being the worst affected region.³

The impact of the HIV/AIDS pandemic on the population and on the health workers themselves has contributed to the escalating of what is now considered as a major workforce crisis in sub-Saharan Africa. The commitment to achieving the health-related Millennium Development Goals (MDGs) has further underscored the need for sufficient skilled workers to deliver the health care services required or else the attainment of these goals remains elusive.

Working with countries

With increasing acceptance that without sufficient health workers in place to deliver health care services, better health outcomes, even with increased investment of other resources, will remain an illusion, WHO and other partners have intensified efforts to support countries as they grapple with this challenging issue. This is evidenced by coordinated joint technical country support and partnerships.

It is now also recognized that unless all components of HRH development are addressed, the HRH crisis will continue unabated. These components include policy, planning, training and skills development, HR management and action oriented research into HR interventions for service delivery. In 1998 the regional strategy for the development of HRH was adopted⁴ by the ministers of health. Furthermore, an acceleration strategy,⁵ enunciating the importance of tackling the different components of the HRH development including recruitment, utilization, retention, mitigation of brain drain and migration of skilled health personnel. It has become a routine practice of the annual Regional Committee meetings was also adopted in 2003 to debate HRH development issues.

Policy and planning for the health workforce

In the area of HRH policy and planning, countries have been supported in their development/review within the context of health systems. The comprehensive plans to implement these policies are a priority process in the regional strategy. For many of the countries, it has been a matter of harnessing the existing elements scattered in the different sectors and departments and coordinate them, while in others implementation has been going on without the direction of a written policy thereby making evaluation and impact assessment difficult. The status of HRH policy and plan based on the survey conducted in 2004/05 shows that 13 countries have both HR policies and plans, 17 have policies and 18 have plans only. Guidelines for policy and planning including situation analysis were developed in 2004 and are used by countries.

Training and continuing professional education

In the area of education, training and skills development, the priority has been to support the evaluation of health sciences training programmes (medical, nursing and other health cadres) for relevance, appropriateness and capacity development. The guidelines for this process have been developed and are used in countries. Strengthening of regulatory bodies and professional

³ High-Level Forum on the Health MDGs (December 2004). Addressing Africa's Health Workforce Crisis: An avenue for action. Abuja.

⁴ WHO. (1998): Regional Strategy for the Development of Human Resources for Health. Report of the Regional Director. AFR/RC/48/10.

⁵ WHO (2003) Human Resources for Health: Accelerating Implementation of the Regional Strategy. Report of the Regional Director. AFR/RC52/13.

associations is also considered a priority as they influence the standards, accreditation, licensing and promotion of professional ethics. This as an aspect requiring strengthened support to countries as it remains weak.

Another key successful activity has been the provision of WHO fellowships to countries to train in various health or health-related programmes. The records show a total of 4338 fellowships awarded from 1996 to 2005 and 91% of the placements were in African training institutions. However, the impact of this investment has been derailed by the weak retention capacities of countries.

Working with regional training institutions and collaborating centres

Regional training institutions and WHO collaborating centres continue to provide training and other HR development activities such as capacity development in HR management and research. The current regional training and collaborating centres are:

Table 1: Current WHO regional training institutions and collaborating centres

Regional training centres	Collaborating centres
1. Institut Régional de Santé Publique (IRSP) Benin: training in public health	1. University of Botswana: Development of community nursing and midwifery care
2. Centre de Formation en Santé Publique (CFSP) Togo: training for mid level cadres	2. University of Natal, South Africa: educating nurses and midwives in community problem-solving
3. Instituto Superior de Enfermagem (ISE) Angola: Midwifery training /distance education	3. University of South Africa (UNISA): Postgraduate distance education and research in nursing and midwifery development
4. Centro Regionale de Desenvolvimento Sanitario (CRDS) Mozambique: training in public health	4. University of Ilorin (Nigeria): research in human resources development and community-based medical education
5. Centre Africain d'études supérieures en Gestion (CESAG) Senegal: training in management	5. Université Nationale de Bénin: Recherche en matière de Développement des Ressources Humaines pour la santé
	6. University of the Western Cape, School of Public Health: research and training in HRH development

While the viability of the training institutions is varied, they all require financial and technical strengthening in one way or the other for them to fulfil their mandate for national and regional HR activities, and WHO continues to collaborate with them.

Building HRH management capacity

It is believed that managing HRH is one of the weakest links in the HRH development chain as well as being complex. For instance, matters affecting the recruitment and utilization of the health workers in countries are influenced by national and international macroeconomic policies and practices. There are aspects that are beyond what ministries of health or countries can do. However, improving internal HR management capacities, rational and appropriate utilization, including retention issues based on evidence, can go a long way in improving availability and performance at country level. Countries are being encouraged and supported to invest into strategic planning and implementation of HRH management (as opposed to routine personnel administration).

At intersectoral levels, creating and maintaining a critical mass of team players dedicated to improving the HRH situation in their countries. Generating HRH evidence starting from up-to-date databases of HRIS to establishing national and regional observatories is a critical part to the process.

Brain drain and migration of HRH

The issues of brain drain, and internal and external migration have their roots in the valuing of health workers

at home evolving into more complex issues of globalization and market forces. The challenge in the local management context is to assess and address the management issues that can contribute to redressing the current crisis levels of migration, especially for health workers who are still working in the country and are probably contemplating to leave their job, area, or the country altogether. WHO is currently taking an active role to strengthen country capacity to manage this process through advocacy, equipping with tools and information.

Research in HRH interventions

On the issues of HR research and documentation, a lot remains to be done. The focus is now to document and widely disseminate promising and good practices, including those at localized scale in countries for possible replication and adaptation. Efforts to study and document challenges or pitfalls that have been experienced as well as lessons learnt should be shared. This will constitute a big component of the envisaged Africa HRH Observatory currently underway. The adoption of the African research agenda adopted at the July 2005 regional consultation⁶ is a step in the right direction.

Health systems context and health priority programmes

Management of the health workforce, including medical, nursing and midwifery services, laboratory, pharmacy, public health and other diagnostic services, has plagued the successful implementation of priority health programmes at country level for a long time. The implementation of the health-related MDGs and targets has highlighted the necessity of working within the context of health systems strengthening of which HRH is key has gained momentum. Strengthening health systems is seen as the first challenge if the MDGs are to be reached.⁷ The ongoing interdisciplinary, inter-programme and inter divisional approach within the context of health systems to addressing the HRH issues is the way to go given that HR constitute the key resource to deliver quality health services. It is expected that joint integrated planning and implementation in supporting countries will become the norm rather than the exception if real gains are to be made for better health outcomes in the years to come.

⁶ Regional Consultative Meeting: Taking the Human Resources for Health Agenda Forward at country Level in Africa. Brazzaville, July 2005. Final Report.

⁷ WHO (2005) Health and the Millennium Development Goals" Keep the Promise. Geneva, page 8.

Regional and global HRH efforts

Until recently, HRH development issues were limited to the brain drain and migration at global level. This is despite the fact that many reports existed at national level on shortages including reports of health priority programmes that almost always cited HRH as an impediment to achievement of set targets. The attainment of MDGs and other targets has emphasized the debate on crisis nature of the HRH situation globally and more so in Africa. This has been led in the past two years or so by the High-Level Forum for the MDGs and other partners advocating the formation of a global platform on HRH agenda.⁸ Regional momentum has picked up on this where a regional platform has been established with some agreed priorities with multi-stakeholder and partner participation to trigger country action.

One of the major outcomes of these was the focus of 2006 World Health Report on HRH development and 2006-2015 the decade of HRH calling for international agencies such as the IMF and World Bank to pay even closer attention to this issue.

Challenges for further action

Resource availability remains a key issue in terms of financial, infrastructure, equipment, supplies and people capacity for HRH development in countries. Real and substantial resources have yet to be mobilized beyond current “talking” and pledging levels.

Momentum at operational levels most of HRH development or related issues remain at international, regional and to some extent national levels. Much has to be done to translate those issues at operational levels where the needs are felt and experienced the most by the populations requiring health services.

Moving from talk to action on the known needs and underlying reasons in general and for real gains to be made:

- **National level:** Countries have to own the issues in very specific terms for themselves. It is time to support countries to concretely assess and determine to implement what is possible and, seek support for issues beyond national capability, and demonstrate political and technical commitments with the relevant stewardship role of national governments.
- **Regional level:** scaling up the provision of intercountry and country support in all areas, based on country planned priorities including resources

- **Global level:** maintaining and building on the current global interest through advocacy and tangible resource mobilization with the major funding partners and stakeholders to support country plans in coordinated manner

Partnerships for HRH development: improving and increasing on current levels and quality of partnerships by exploiting further their comparative advantages to reduce duplication and wastage of resources for the benefit of countries, contributing to developing tangible expertise and critical mass of advocates and actors in order to influence policy and implementation at country levels is critical for HRH development.

Conclusion

WHO/AFRO will continue to collaborate with its 46 Member States taking advantage of the current momentum to accelerate the implementation of the priority interventions as the journey continues. The collaboration and support of all partners and stakeholders at all levels is critical in order to ensure the availability and optimal performance of the health workforce.

* Dr. Diarra-Nama is the Director, Division of Health Systems and Services Development, WHO Regional Office for Africa, Brazzaville, Republic of Congo.

⁸ High Level Forum on the Health MDGs (December 2004). Addressing Africa's Health Workforce Crisis: An avenue for action. Abuja.

Investing in Human Resources for Health to Attain the Health MDGs



* Mrs Margaret Phiri

Introduction

In 2000, the global community made a historic commitment to eradicate extreme poverty and improve the health and welfare of the world's poorest people within 15 years. The commitment was set forth in the Millennium Declaration and derived from it are eight time-bound goals, known as the Millennium Development Goals (MDGs).

The MDGs have gained widespread acceptance in rich and poor countries alike. They are seen to provide an overarching framework for development efforts, and benchmarks against which to judge success.¹ Now is the time to review progress, take stock of achievements, and address the challenges with the MDGs target date of 2015, less than 10 years away.

WHO has identified five challenges, which also represent the core elements of the WHO's strategy for achieving the goals. The challenges are: strengthening health systems which will help achieve better health outcomes; ensuring that health is prioritized within overall development and economic policies; developing health strategies that respond to the diverse and evolving needs of countries; mobilizing more resources for health in poor countries and, lastly, the need to improve the quality of health data.

The purpose of this article is to answer the question "where should major investments be made in order to achieve the health-related MDGs in view of the challenges outlined above?" The focus of the paper is making a case for investing in human resources for health (HRH), recognized as the glue of all health systems.

Evidence of human resource crisis in Africa

In Africa, the shortage of health service staff has become one of the most serious and critical constraints to scaling up the response to priority health programmes which also constitute the health-related MDGs and targets.

The major constraint that has been reported and documented by some of the priority programmes in the implementation of their strategies relates to human resources for health. For example, a recent study commissioned by the Global Alliance for Vaccines and Immunization (GAVI) found that management and human resources represent a major constraint in 40 vaccine fund-eligible countries.

A recent annual review of the STOP TB programme found that 10 of the 22 high-burden countries reported major deficiencies in staffing at central level, while another seven struggle with inadequately trained staff at periphery level.² Reviews of the implementation of IMCI cited human resource barriers as critical health systems constraints and recommended that, in order to achieve the under-five targets of the MDGs, countries and implementing partners urgently needed to increase and make better use of existing human and financial resources devoted to child health programmes.

¹ Norbert Dreesch et al, 2005, *An approach to estimating human resource requirements to achieve the Millennium Development Goals*. Geneva, World Health Organization, EIP/HRH.

² DFID, UNICEF, USAID and WHO, 2003, *The analytic review of the Integrated Management of Childhood Illness Strategy*. Geneva, World Health Organization.

The gloomy picture that this evidence provides is the impact human resources have on the realization of the MDGs targets. If no strategic investments are made in the health workforce, it will not be possible to achieve the health MDGs.

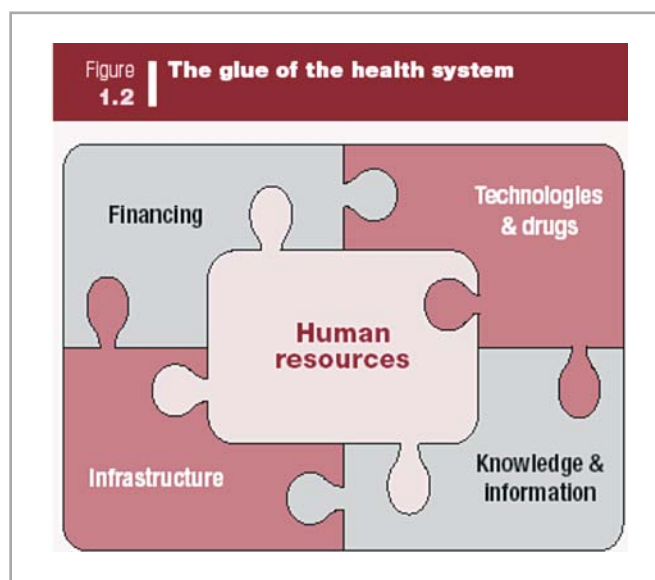
Why invest in human resources for health?

Health workers are a potent force as it is the health workers who deliver health. There is evidence that it was the investment in world's health workers made possible the science-based health revolution of the 20th century.

It is also being continually recognized that outreach services, clinics, and hospitals are only as good as the people who staff them. Health workers are therefore the linchpin, the keystone, and pivot of all efforts to overcome health crises and to achieve the MDGs for health.

Only when high-level initiatives, finance and technologies are matched by an investment in people will the formula for better health for all be credible and effective. Five critical and important arguments to underscore the power of the health worker have been given in the JLI report.³ The arguments are that health workers:

- Spearhead performance of health systems, both curative and preventive. The number, quality, and configuration of human resources—informal and community workers—shape the output and productivity of health systems;
- Are the ultimate resources in health because they manage and synchronize all other health resources, including financing, technology, information, and infrastructure. It is the health worker who glues these inputs together into a functioning health system (see figure 1).
- Are among the principal “binding constraints” for achieving the health MDGs. There is need for strategic management of human resources so that they can catalyse the acceleration of health progress.



³ JLI Report. 2004. *Human Resources for Health: Overcoming the crisis*. Global Equity Initiative, Cambridge, Massachusetts.

There is evidence that almost all major health breakthroughs in last century were sparked by the mobilization of health workers. Health workers command a large share of the health budget in all health systems. Indeed, about 75% of the health budget is spent on health workers. Ironically, the workforce, commanding the largest share of the budget, is the least strategically planned and managed resource of most health systems. It is also argued that well trained and well compensated professionals helped to facilitate the doubling of life expectancy among privileged populations in the last century. If this is true, then the opportunity for the world to change things is now when most countries are experiencing human resource crises and the survival of their populations is being threatened by unabated epidemics like HIV/AIDS and other priority diseases.

Aspects of HRH development requiring urgent investment

Investment in human resources should be made in areas that can bring maximum returns to the health system and alleviate the critical shortage of health personnel (in terms of quantity and quality). This article focuses on and advocates for investing in the method/framework proposed by Dreesch et al (2005) on how to estimate the human resource requirements to achieve the MDGs as one critical step towards addressing the human resource shortage. The reason for proposing investments in this approach is that the framework provides a possible menu for investment outline; it provides a

rationale for determining the required human resources (quantity and quality) based on service needs and job analysis which are in line with the health MDGs targets. The framework also offers an opportunity to human resource planners to determine the right skill mixes at the different levels of service delivery. It also provides a guide to human resource planning based on service needs as well as the quality and quantity of health staff needed at different levels of health care delivery.

The proposed framework involves the following steps:

- Identify the needs for services, based on the incidence and prevalence of health problems, demographic characteristics of the population, and the targets set forth by the MDGs;
- Identify the interventions required to deliver these services at each level of care based on the strategies proposed by various programmes;
- Identify the tasks and skills required to deliver the required interventions at each level of care, using a functional job analysis;
- Estimate the time requirement for each of the interventions, at each level of care, based on programme expert opinion or data provided by time-motion studies; express time requirements in full-time equivalents;
- Identify possible overlaps/synergies between skills and possible timesavings effected by combining various skills; build in productivity.

The method builds on the service targets approach and functional job analysis, and seeks to identify skills and time requirements, as well as potential efficiency gains across various priority health programmes.

The framework also builds on the functional job analysis or task analysis.⁴ The task analysis seeks to define and describe the knowledge, skills and abilities (KSA) involved in a job. These KSA serve to specify both what is required by the job and the health worker qualification for the job. KSA are the essential information needed by organizations for carrying out their diverse HRH functions and can provide an excellent basis for estimating personnel requirements.

⁴ Moore FI. 1999. *Guidelines for task analysis and job design*, Geneva, World Health Organization.

The levels of care and the categories are listed in Table I. A matrix has been developed, in which the various programmes can list the tasks that need to be performed at various levels of care (Table 2).

Table I: Levels of care and task categories

Levels of care	Task category
<ul style="list-style-type: none"> • National • Provincial/state • District health office • Hospital • Health centre • Other lower health facility • Community-level activities 	<ul style="list-style-type: none"> • Programme management • Prevention • Diagnosis • Treatment • Counselling • Drug procurement • Data management • Surveillance • Action for social behavioural change

Using this matrix, each programme can identify the skills required to deliver their interventions, at each level of care, as well as training needs for in-service training from the perspective of each programme, based on the case management tasks identified. The principles of functional job analysis are however equally valid for pre-service training.

There are a number of reasons for choosing this particular approach in planning for HRH requirements and for advocating for investment in this process. The MDGs set specific objectives for health, and there are a number of specific interventions to achieve these objectives, when delivered to the population in need. It is also possible to set service targets based on these interventions. The functional job analysis allows for clearly identifying the skills required to deliver specific tasks, and for identifying potential synergies and time savings across specific interventions. The data required for this exercise are not very complex, and the involvement of the actual providers in estimating the time requirements gives the approach a participatory nature for HRH planning. The matrix can also be used as a possible investment plan.

As indicated in the framework, if service needs are clearly defined, interventions required to deliver these services across priority programmes are identified, if the tasks and skills required to deliver those specific interventions at each level of care are identified, if the time requirement for each of the interventions is estimated; if possible overlaps between skills and possible time savings affected by combining various skills are identified; and if adjusted full-time equivalents are estimated, there is a great opportunity to reverse the poor health indicators and achieve the desired health outcomes through long-term investments. This is especially true because the framework addresses components that are directly related to the health MDGs.

There is related accumulating evidence that the density and quality of health workers are major determinants of the health status of populations, that human resources drive health outputs and outcomes. The proposed framework offers hope that with long-term investment in the steps outlined above, African countries could see an amelioration in the HRH crisis and turn poor health indicators into positive health indicators.

That there are other confounding socioeconomic factors and other health determinants that can greatly influence health outcomes. There are some limitations associated with implementation of this proposed framework. There might be some technical difficulties in some settings.

Table 2: Task analysis of various health problems

Level of intervention	Task category	EPI/POLIO/HIV/AIDS/Malaria/ Stop TB/ MMRP/IMCI				
		Task to be performed	Skills required	Training programme needs	Time required	Productivity efficiency gains
National office	Programme management					
	Prevention					
	Diagnosis					
	Treatment					
	Counselling					
	Drug procurement					
	Data management					
	Surveillance					
	Action for social behavioural change					
	Others					
Sub-national/ Provincial						
District health office						
Hospital						
Health centre						
Other lower health facilities						
Community level activities						

In terms of planning for required human resources, the exercise should consider the feasibility of getting the estimated number of staff, given the available resources.

Challenges in assessing return on investment

Assessing return on investment in human resource development processes can be a challenge and a difficult exercise for the countries, especially because benefits may not be immediately obvious and quantifiable. Countries should however be assisted to:

- Determine the apparent and actual return to be achieved by an investment over time
- Project the value of investment in future and current equivalent terms
- Apply “what if scenario” to test the impact of investment decisions
- Compare the performance of alternative investments
- Plot investment parameter over time
- Easily establish an investment plan with set performance goals
- Identify when investment performance varies from projected goals and take actions accordingly.

Conclusion

The time to invest in human resources is now if the world has to turn the tide of the HRH crisis and improve the health outcomes of the people. The evidence to warrant investment in HRH is compelling as outlined above. Continued political commitment of governments and continued partnership with and among stakeholders on human resource issues will be the keys to making appropriate and timely investments and to realizing the desired gains from the investment.

** Mrs Phiri is the Regional Adviser for Nursing and Midwifery at the Regional Office. She is based in Ouagadougou, Burkina Faso.*

Strengthening Human Resources for Health: Evidence in the WHO African Region



* Ms Jennifer Nyoni

Introduction

It is common knowledge that it requires people to provide health services and competent persons to deliver most of the health services, even for what is usually referred to as *primary health care*. Therefore, having information or evidence on the quality, quantity and utilization of health workers is critical to effective and efficient health service delivery for better health outcomes.

There are many reasons why evidence on human resources for health (HRH) in the region is problematic. Countries' National Health Information Systems (NIS) have been the main source of evidence for monitoring health services. While in principle the human resources information system (HRIS) is a subsystem of the NIS, in many cases, the data is limited to a few statistics on health worker/patient ratios covering only a few cadres. Not many countries have invested adequately in systematic collection, storage and analysis of health worker information for either policy or implementation. The data often excludes qualitative information on the process of production, management, and utilisation of human resources. Furthermore, information is usually spread out in various departments of the health sector as well as across both

the public and private sectors with very little systematic interaction amongst the various sources.

The consequences of this scenario are many. Those responsible for producing the health workforce keep producing the type and number of health personnel that they **assume** is required by the service. Those utilizing the health personnel experience deficiencies of some skill or others have an over supply of certain other kinds. Meanwhile those who control funding are making decisions on what is affordable and cutting down on the numbers (to reduce costs), albeit these are arbitrary issues. In the meantime there is no strategic overview of the whole picture to assess the effect of these disjointed though well-intentioned actions.

At international level, global health initiatives such as GAVI and GFATM have been dogged with constraints. It is no secret that prospects of attaining the MDGs are not so bright because among other reasons, as is now globally recognized, the health workforce availability is essential to the attainment of the targets of the health-related MDGs.¹ It is estimated that while sub-Saharan Africa has 25% of the world's disease burden, it has only 1.3% of world's health workforce.² It is also becoming increasingly clear that radical action is needed to address the health workforce crisis in sub-Saharan Africa. Yet calls to halt and reverse the human resources crisis are being made using scanty and somewhat unreliable information from many of the countries concerned. Instead, global population figures are being used to estimate health workforce needs.

¹ WHO, (2005). *Health and the Millennium Development Goals: Keeping the Promise*. Geneva.

² High-level Forum on the Health MDGs (2004). *Addressing Africa's Health Workforce Crisis: An Avenue for Action*. Abuja. Final report, page 2.

Information on the balance between available numbers and quality of health workers and how they are utilized in coverage of essential health services is not readily accessible. For example, until now, priority health programmes have been planned without creating a balance between the activities proposed, the targets set and how these would affect the utilization of health workers on the whole.

Yet, health worker needs and availability ought to be a major factor in planning of priority health interventions. A second anecdotal observation is that very few countries have up-to-date information on health worker distribution, migration, and the effects on coverage of services with an annual estimation of needs. These two aspects should be a litmus test of a programme's or country's awareness of human resources information issues.

This article advocates for strengthening of evidence on the health workforce to influence strategic policy, planning and implementation of health service delivery in the WHO African region. The purpose is to take advantage of the current momentum on the recognition of the importance of health workforce development in influencing health development goals at nationally and internationally.

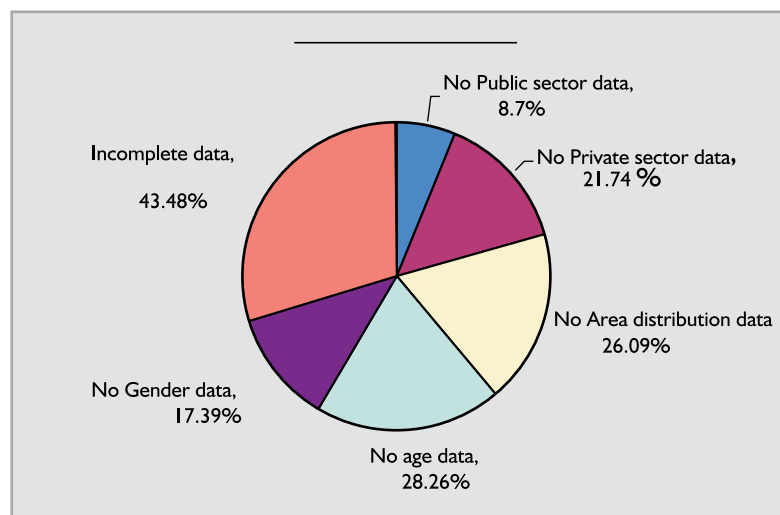
The method used in developing this paper involved review of existing documentation on the subject of HRH evidence as well as experiences gained from working with countries on human resources data and information requirements for service delivery.

For example, Figure 1 shows a 2005 survey results of WHO African Region on health worker information where a significant number of countries did not provide all the required information such as total numbers by cadre; by sector (private and public) geographical distribution or distribution by age and gender because such information was not readily available nor accessible. This picture poses a serious challenge especially if it is a reflection of reality at country level.

There is another challenge in making a case with empirical evidence at country level that appropriate numbers and utilization of health workers has a bearing on health development demonstrating and that they are not just a recurrent expenditure—(using at least 50% of health recurrent budgets)³—but, rather, they are an investment given the improved health status of the population being served. There is need to demonstrate this with evidence of what health workers can achieve when they are available on the one hand, and on the other, the negative effects of their unavailability.

For example, it is increasingly evident that “the proportion of women who deliver with the assistance of a skilled health care provider is highly correlated with lower maternal mortality ratios.”⁴ “As the density of health workers increases, maternal, child and under-five mortality all fall. The analysis suggests

Figure 1: Data quality results from the 46 countries of WHO African Region



³ WHO (2003). *The people who work for our health: placing health workers at the heart of health service delivery in Africa*. Brazzaville, page 4.

⁴ WHO, (2005): *Health and the Millennium Development Goals: Keeping the Promise*. Geneva, page 19.

that a 10% increase in the density of the health workforce is correlated with about a 5% decline in maternal mortality".⁵ Lack of skilled human resources is one of the factors affecting the quality of health services provided for individuals with malaria, TB or HIV, according to some detailed studies on the quality of health care.⁶

This kind of evidence can contribute to empowering countries to make a case for monitoring progress with HRH information such as profiles on quality; quantity; geographical distribution (public, private); fiscal (proportion of the health budget allocated to health workforce development; productivity and performance management, including output per nurse, doctor, pharmacist, etc; attrition rates among health workers; and their reasons for migrating, among others.

Investing in human resources information subsystems to capture not only quantitative but qualitative information is as critical as investment in tracking the utilization of funds and medicines within the health system. This means that efforts should go beyond the current token efforts of assuming the HRIS is within the HIS by default. Investment in trained personnel to establish and maintain current and appropriate data and information at both national, sub-national and facility level for local and national use for informed decision-making is just as important.

From the foregoing, it is critical that investment is made by health systems in information and data on HRH. The race towards attaining the MDGs

and the significant investments in priority diseases by the Global Health Initiatives provide an opportunity for strengthening these data systems and linking them to health workforce performance and service coverage evidence. The African region should take advantage of the current and evolving global initiatives to improve Health workforce development within health systems context while tackling priority diseases including malaria, HIV/AIDS, TB, and concerns such as maternal and child health. This is because these initiatives have brought to the fore the agenda of the HRH crisis which until recently has not been given the attention it deserves.⁷ For example, it is not uncommon to find one or no qualified health staff in some of the rural based health facilities.

What we are doing

Regional level

The regional HRH strategy and its acceleration agenda provides for strengthening of human resources management capacity including HRIS and evidence building. National capacities to project human resources requirements based on policies in place, production levels, recruitments, utilization, retention and research is being promoted. Advocacy for this is done through regional and global resolutions and consultations. Thus, countries are increasingly recognizing the importance of planning comprehensively based on concrete policy directions and accurate assessment of the HRH situation. WHO and partners are supporting countries with various tools and guidelines on assessment, policy and plan development among other forms of assistance. However, on the specific aspect of strengthening the HRH data and information for improved evidence, a lot still remains to be done.

As an example, in the 2004-2005 biennium, no country specifically requested for support to strengthen their HRIS. Only six planned requests for this activity were received for the biennium 2005-2006.

⁵ Joint Learning Initiative (2004): Human Resources for Health: Overcoming the Crisis. Global Equity Initiative. Harvard University Press, Massachusetts.

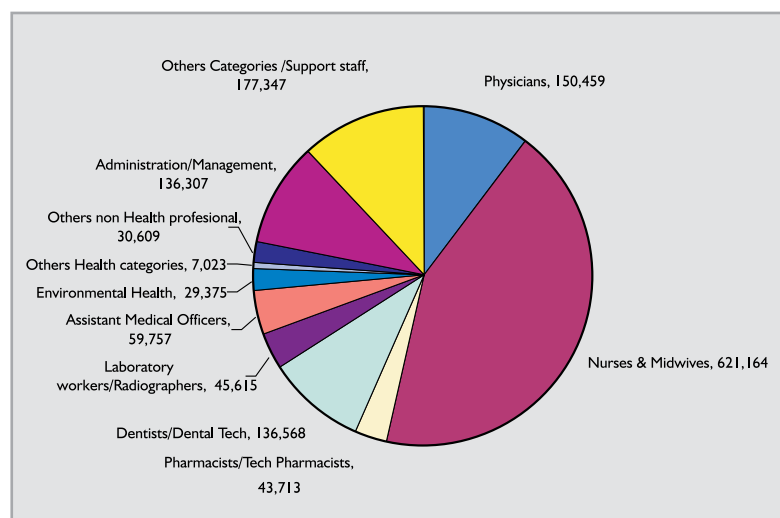
⁶ Bates I et al (2004): Vulnerability to Malaria, Tuberculosis and HIV-Review. *The Lancet*. Infectious Diseases, Vol 4 June 2004, page 371.

⁷ High-level Forum on the Health MDGs (2004). *Addressing Africa's Health Workforce Crisis: An Avenue for Action*. Abuja. Final report, page 2.

It is worth mentioning that the data collection process for *The World Health Report 2006* involved the survey of 46 countries in the Region for health worker profile data and training institutions capacity had mixed results in terms of quality and quantity.⁸ The main challenges related to incompleteness of the data, quality and consistency. It took more time configuring, cleaning up and analysing data sets than it took to collect them.

Figure 2 shows the main categories of health workers in the WHO African Region in a survey conducted in 2005. A significant number of countries did not provide all the required information; therefore, the data should be interpreted with caution.

Figure 2: Numbers of health workers by cadre in the WHO Africa Region, 2005



Country level

A good starting point for strengthening the evidence on the health workforce is to build on what already exists in the various departments, programmes, facilities, institutions and sectors and compile these at national level. This is followed by the establishment of a national HRIS with links to other levels including the national health information system (HIS). We recommend this method because national level Ministries of Health would have the expertise, the equipment and related support at national as

well as sub- national levels. Ultimately however, what is desirable is to have the bulk of the information analysed and used at the point of collection, and a proportion sent for use at other levels in turn provide feedback so that the national picture of the situation can be constructed. For example, for maternal health, WHO is advocating that every woman must have professional skilled care close to her home when giving birth. In terms of human resources, the process required is to have links with the local data (HIS) on how many women of child bearing age exist in the catchment area in order to estimate the number of staff with midwifery skills.

Regional and global levels (partners and other stakeholders NGOs)

Intercountry sharing of information and ideas through common platforms and forums, policy dialogue, and intercountry studies should be promoted. This process contributes to building national capacities and evidence for common agenda human resources issues regionally and internationally. It is not uncommon in many countries to find that partners have more consolidated information on HRH than the national authorities. What partners should do is build local capacity to collect, analyse and use human resources data and information.

⁸ WHO (2006). *The World Health Report 2006: Working Together for Health*, Geneva, World Health Organization.

⁹ Consultative meeting on taking the HRH agenda forward at country level. Final Report, Brazzaville, WHO Regional Office for Africa, 2005.

They should also advocate for increased investment in building and maintaining the evidence for HRH development by disseminating promising and good practices carried out at country level. One such example of partner role was during the High-Level Forum organized by partners and stakeholders on MDGs and targets progress review with the participation of countries within the region among others in February 2005 in Oslo, Norway. At this forum, a discussion paper entitled “Better intelligence for HRH: a regional observatory” was shared during the global HRH consultation. Thereafter, the WHO Regional Office for Africa developed this concept further for the establishment of an Africa health workforce observatory which was adopted during the regional stakeholder consultation in July 2005 in Brazzaville, Congo.

Establishing a regional health workforce observatory

The decision to strengthen HRH evidence for the countries of the Region through the establishment of a regional HRH observatory that would eventually evolve into a broader health system observatory.⁹ Essentially the functions of the observatory include country information and monitoring; research and analysis; sharing and dissemination, networking; and capacity building.

The observatory is intended to promote and support evidence-based policy, planning and implementation of HRH development within the context of health systems performance. Given the generally weak HRIS base at country level, targeted capacity building to strengthen HRIS in participating countries and institutions will be promoted. This will be done through the national observatories, the commissioning and dissemination of research studies, networking, policy dialogue and resource mobilization. Inter-country comparative analyses for policy debate to stimulate development of strategic responses that are applicable to national and regional interventions will also be conducted.

In an effort to use existing institutions, WHO/AFRO was designated to be the interim secretariat to move the observatory agenda forward with the involvement of all interested partners and stakeholders in addition to the countries who should be the primary beneficiaries of the outcome of the observatory.

The national observatories will contribute to the regional level for inter-country assessments and reviews. Country and regional nodes will be established and linked to each other as they evolve.

Challenges and further action

National authorities should demonstrate their commitment for strengthening their HRH information for informed policy, plan and implementation of health development strategies by investing in the strengthening of comprehensive HRIS within the context of health systems. Partners and stakeholders at country, regional and global levels should coordinate their support and use comparative advantages for the benefit of the countries.

The opportunity of the current advocacy and momentum for HRH development at global level (including the declaration of 2006–2015 as the Decade of HR development) should be seized to mobilize resources for investing in building and maintaining evidence for HRH development within the context of strengthening health systems.

⁹ Consultative meeting on taking the HRH agenda forward at country level. Final Report, Brazzaville, WHO Regional Office for Africa, 2005.

There is also the challenge of recognizing that the HRIS is an important component of the national HIS as a fully-fledged subsystem as opposed to a few hastily selected quantitative indicators. It is important to promote the dissemination of promising, and good practices of HRH and related studies without forgetting to share lessons learnt. Other aspects include:

- Promoting the collection, analysis and use of the information at points of collection and feedback to the collection points by those who compile and analyse at other levels
- Investing in the appropriate dedicated personnel with the requisite knowledge and skills to work on the comprehensive HRIS to provide information related to the health system requirements.
- Strengthening regional capacities to provide evidence at inter country and regional levels advocating for policy change and resource mobilization.

Conclusion

There is no substitute for good, reliable, accessible, timely data and information to influence any decision for policy implementation and resource mobilization. If national and global goals and targets for improving the health status of populations are to be realized, there is no option but to invest in the building of sustainable evidence for informed decisions on health workforce development in Africa. There is enough evidence that unless health workers are available in the right place, in the right numbers with right competencies doing the right things, in a conducive working environment, desirable implementation levels of whatever health service delivery is unlikely be achieved. We start with what is there and improve on it.

**Ms. Nyoni is the Regional Adviser for Human Resources for Health Management at the WHO Regional Office for Africa, Brazzaville, Republic of Congo.*

Migration of Skilled Health Professionals in the African Region: An Overview



* Dr Magda Awases

Introduction

Migration of skilled health personnel is a cause for major concern for countries in Africa. The phenomenon is not new to the continent, but the brain drain has accelerated in recent years and has reached crisis levels. The global demand of skilled health care providers is increasing in many parts of the world. For example, in 2002 over 50% of new registrations at the Nurses Council Register in the United Kingdom were from external sources.¹ High-income countries are increasingly looking abroad to meet their personnel needs. Recruitment from abroad thus becomes a more viable and less expensive option.

In many developing countries, especially those in sub-Saharan Africa, continuous low supply of trained health workers has been exacerbated by increased disease burden from HIV/AIDS, TB and malaria. *The World Health Report 2006*² estimates that Africa needs an increase of approximately 817,992 (139%) health care providers to achieve coverage of essential health interventions.

The migration of health workers has drawn attention at national, regional and international levels and has led to the recognition that insufficient human

resources for health (HRH) is a major constraint that may prevent the attainment of the Millennium Development Goals.

Efforts have been made by countries to reduce migration of health workers. From 1983 to 1999, the International Organization for Migration implemented the “Return and Reintegration of Qualified African Nationals Programme”. The establishment of the Global Commission on International Migration by the UN Secretary-General in December 2003, the adoption by the Fifty-seventh World Health Assembly of Resolution WHA57.19 on international migration in May 2004, and the creation of the Global Health Workforce Alliance are some recent examples.

Future prospects do not look promising. It is estimated that the United States will need around one million nurses over the next ten years. The UK has projected that by 2010, one in four nurses will be aged 50 years or older, and more health workers will be needed to bear this extra burden.³ Nurses from developing countries will be sought to make up for these shortages.

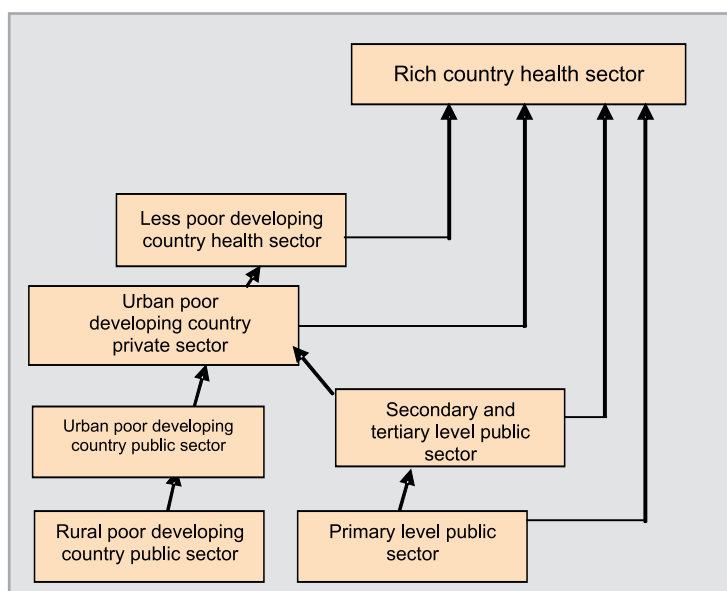
This article provides an overview of the health worker migration challenge in the WHO African Region and examines data from selected countries. It further examines the key impact and consequences of migration and discusses policy options to manage migration, strengthen health systems and reduce the negative effects of migration of health personnel.

¹ Buchan, J and Dovlo, D 2004. *International recruitment of health workers to the UK: A report for DfID*. http://www.difdhealthrc.org/shared/publications/reports/int_rec/int-rec-main.pdf

² *The World Health Report 2006: Working together for health*, Geneva:WHO.

³ International Organization for Migration, 2002, *Migration for Development in Africa*, Geneva.

Figure 1: Pattern of movement and migration of health workers



Source: Loewenson and Thompson (ed), 2004

Scope of migration

The rate of migration varies from country to country. However, the pattern of migration shows some similarities. Migration particularly from the rural health facilities has severe negative effects on the accessibility and equitable distribution of health care. Figure 1 depicts a pattern of movement of personnel which shows that migration will tend to drain the periphery more of its skilled health personnel.⁴

Migration also exists between countries within the African Region. Countries such as Botswana, Senegal and South Africa have become both “exporters” to the developed countries and “importers” from other African countries.⁵

The incompleteness of systematic HRH data collection in the countries of origin impedes attempts to monitor migration and to come up with a clear regional picture of health worker migration in Africa. However, regulatory bodies of the receiving countries have data on health workers registered to work in their countries. While these information is inevitably partial, it nevertheless provides a fairly good picture of the number of foreign trained health workers in developed countries. Tables 1, 2, 3 and 4 show the number of doctors from African countries registered to work in developed countries. Figure 2 shows the number of nurses registered to

practice in the United Kingdom. In Portugal, the number of African doctors represent 28% of all foreign doctors (Table 4).

Reasons for migration of health workers

The most recent study of migration in six African countries provide various reasons for migration. It can be deduced that there is a correlation between migration of health workers and the economic environment in countries as 70% and more mentioned the reason for intention to migrate areas to save money, better remuneration, lack of promotion, economic decline as depicted in figure 3.

⁴ Martineau T, Decker K and Bundred P, 2002, *Briefing note on international migration of health professionals: leveling the playing field for developing country health systems*, Liverpool: Liverpool School of Tropical Medicine.

⁵ Loewenson, R and Thompson, C (ed) 2004. Health personnel in Southern Africa: Confronting maldistribution and brain drain, EQUINET discussion paper No.3.

Table 1: African migrant doctors in the United States

Sending country	Number of doctors practising/qualified to practise in the USA
Nigeria	2,158
South Africa	1,943
Ghana	478
Ethiopia	257
Uganda	133
Kenya	93
Zimbabwe	75
Zambia	67
Liberia	47
TOTAL	5,251

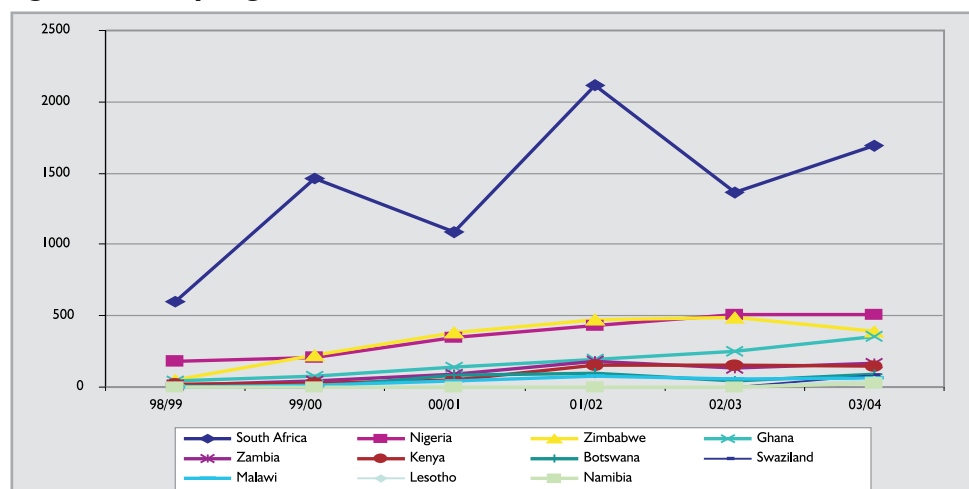
Source: Hagopian et al 2004

Table 2: African migrant doctors in the United Kingdom

Sending country	Number of doctors practising/qualified to practice in the UK
South Africa	7,487
Nigeria	1,922
Ghana	324
Zimbabwe	143
Uganda	120
Zambia	88
Kenya	74
Tanzania	38
Ethiopia	26
TOTAL	10,222

Source: General Medical Council, United Kingdom, 2004

Figure 2: Yearly registration of African nurses in the UK, selected countries



Source: Nursing and Midwifery Council, United Kingdom, 2004

Table 3: Sub-Saharan African migrant doctors in France (main countries)

Sending country	Number of foreign trained doctors qualified to practise in France
Madagascar	261
Senegal	147
Democratic Republic of Congo	87
Republic of Congo	79
Togo	70
Côte d'Ivoire	68
Benin	37
Cameroon	27
Other countries	36
TOTAL	812

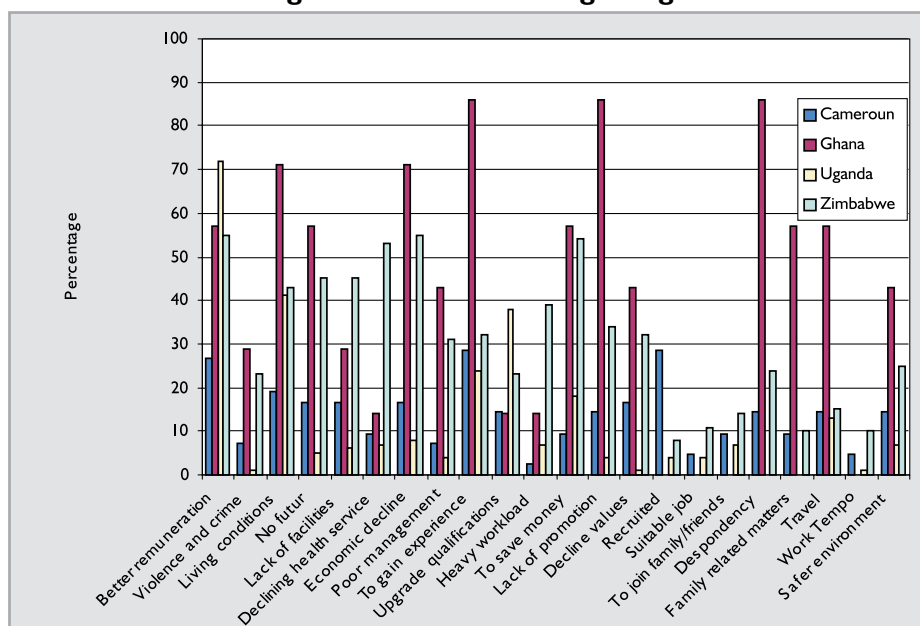
Source: *Ordre des Médecins, 2005*

Table 4: African migrant doctors in Portugal (main countries)

Sending country	Number
Angola	145
Guinea-Bissau	74
Mozambique	47
Sao Tome and Principe	47
Cape Verde	39
TOTAL	352

Source: *Carrolo and Ferrinho, 2003*

Figure 3: Reasons for migrating



Source: *Carrolo and Ferrinho, 2003*

Migration is primarily a response to uneven development at global level, but usually explained in terms of particular factors such as low wages, few incentives and poor working conditions. Moreover, poor promotion opportunities, inadequate management support, heavy workloads, limited access to modern or appropriate technology have all been cited as “push factors”—motivating health workers to leave their country of origin. Pull factors therefore may be a result of better wages, working conditions and aggressive recruitment; a higher standard of living, better career development prospects, a good education and a future for the children which are offered in recruitment campaigns, and verified by those migrants that are already established in their new locations.

On the other hand, the decision to migrate for economic reasons can be seen by the individual health worker having positive impact in terms of as securing a better income including access to better social services, remittances, technological return, skills upgrading and development.

Consequences of migration

Effects on health care delivery

The main and most obvious consequences are the effects on health care delivery systems due to loss of experience skilled health workers. This has resulted in skeleton staff servicing the overburdened public health sector, as manifested in long queues especially in rural areas where some health facilities now have no trained staff and are run by nurse aides with limited competency.⁶

The net effect is an increase in the workload of those who remain, burnout which result in associated stress and absenteeism. These result in some health facilities becoming no longer functional or being run by unqualified staff.

Economic loss

Until recently, health personnel such as doctors and nurses were trained with public funds or had their training heavily subsidized by government. African governments are continuously losing much-needed resources for development by investing in human capital, which they lose to developed countries. For example, in Ghana it has been estimated that because of migration, the country has lost around £35 million of its training investment in health professionals. In comparison Save the Children⁷ estimates that the UK has saved £65 million in training costs since 1998 by recruiting from Ghana.

Skill loss and workload issues

A further outcome of migration can be a “skill loss” when migrants with specific skills are lost to the developed countries. The effect is more devastating in small countries where the loss of one cardiologist could result in the closing down of a ward or the cardiology clinic. This would inevitably adversely affect the community served by that specific health facility

Possible actions

Managed migration

Building on the concepts of managed migration, the African Region should develop a framework for managing migration by developing coordinated systematic interventions that will ensure that migration is managed and moderated to minimize its impact while at the same time securing some benefits from the process. The framework should include strategies for motivation and retention of existing health workers, bilateral and multilateral agreements, scaling up the production and training of health workers, monitoring the trends and magnitude of migration and engaging stakeholders in conducting a coherent and coordinated research agenda to provide evidence to address the priority HRH.

Retaining existing health workforce

Financial incentives are the most obvious ways of inducing people not to move. These include direct or indirect payments such as

⁶ Awases, M, Gbary, A, Nyoni, J and Chatora, R, 2004, Migration of Health Professionals in Six Countries, WHO Regional Office for Africa, Brazzaville.

⁷ Save the Children, 2005, Whose Charity? Africa's Aid to the NHS, London, Save the Children.

better wages or higher salaries, bonuses, pensions, provision of insurance cover, loans and tuition reimbursements.

However, non-monetary incentives like encouraging better career development, providing opportunities for training, raising the status of health workers through enhanced career progression opportunities, reducing occupational stress by ensuring health workers safety and well being and provision of psychological support, such as counselling of those who are working under difficult conditions as well as support for access for antiretroviral treatment. All these can potentially reduce migration.

Expanding production and training

On the assumption that some proportion of health workers will go overseas, additional efforts should be made to strengthen the capacity of national training institutions to scale up education and training of health workers in terms of numbers and range of skills relevant to the needs of countries' health systems. Efforts should be made to train a critical mass of mid-level cadres such as nurses, technicians, clinical officers.

Bilateral and multilateral agreements

Special arrangements that will foster international cooperation and allow for a win-win situation, such as country-to-country agreements and international rotational exchange programmes, should be considered. Bilateral agreements offer a policy option for managing and monitoring the migration of skilled health professionals. Bilateral agreements can be concluded either through a formal memorandum of understanding between governments or a less formal exchange of "letters of intent".

Harnessing the return of the diaspora

Developing countries and international institutions are placing new emphasis on the potential role of health workers in the diaspora to assist their home countries. There is new recognition of the positive role of the diasporas in source country development, which goes beyond the issue of remittances, but includes the transfer of knowledge and technology.

Creation of a fiscal space for the health sector

Economic restructuring, usually imposed from outside, has sometimes meant the deterioration of conditions rather than the greater efficiency it was intended to encourage. This has sometimes led to a paradox of simultaneous high unemployment and high vacancy rates—real incentives to migration.

Within Africa, health sectors cannot be allowed to continue to struggle. "Fiscal" space must be created to enable recruitment in the public sector, where demand is greatest and equity therefore best served. What is at the very core of providing an effective health care system are quite simply an improved economic performance, a stable political situation and a peaceful working environment.

Conclusion

The challenge remains for African countries to overcome the macroeconomic, social and political constraints that may affect negatively some of the strategies and initiatives to slow down migration and mitigate its negative effects. But they cannot act alone. Migration links them in to a global economy, largely determined by those countries that are also the principal labour recruiters, and it is those countries that must act to ensure that the global care chain becomes less inequitable.

Migration should be embedded in national and international political economies. The way forward is to look at successful models of managed migration and embarked upon it as a region or subregions.

** Dr Awases is the Regional Adviser for Human Resources for Health Development, at the WHO Regional Office for the Africa, Brazzaville, Republic of Congo.*

Human Resources Management Capacity in the African Region: Challenges and Prospects.



* Dr Martins Ovberedjo

Introduction

Human resource management can be summed up as the integrated set of roles, functions, decisions, systems and processes in an organization that meets the needs and supports the work performance of employees in order to accomplish the mission, goals and strategies of the organization.¹ The people concerned in this context are the human resources for health (HRH), defined as “all people engaged in actions whose primary intent is to enhance health”.²

The performance of health care systems depends to a large extent on the quality of knowledge, skills and motivation of the people responsible for delivering health services. There is growing recognition that weak human resource management is among the most serious system barrier to performance of the health system.³ This situation has led to the recognition of HRH crises within which specifically human resource management challenges are lodged.

This paper briefly examines the human resource management situation in the African Region, and outlines important determinants and challenges contributing to the present situation. The perspectives presented in this paper are largely focused on a government-led human resource management and planning model prevalent in most

countries in the African Region. Using a performance-oriented framework, the paper highlights four major strategic HRH management capacity challenges.

The author argues that to achieve the goals of HRH management system, major institutional changes are required. Issues proposed for changes include the need to reform and institutionalize development of HR capacity to improve health workers retention, motivation and long-term career development. The paper also proposes a set of urgently required actions, including governments translating their political commitment into strengthening HR management capacity, including the provision of technical leadership, policy reforms and long-term financial commitments.

Human resource management capacity

The Human resource management capacity of many countries in the African region is generally weak. For example, recent reviews of the HRH capacity within the context of The 3 by 5 HIV/AIDS strategy implementation have revealed and confirmed further huge HRH capacity challenges in the region.⁴ Different factors have contributed directly to this situation and threaten the ability of the HRH management system to adequately plan and deliver the objectives of the health system. In this regard a number of important issues arising from unforeseen consequences related to health sector reforms undertaken by countries have contributed to the present weak HR management capacity.

¹ Sarah Johnson: Building Capacity and Human Resource Management for Health sector reform & the organization and institutions comprising the sector. LAC RSS. Iniciativa Reforma Sector Salud. Oct. 2000.

² World Health Report 2006, WHO Geneva 2006

³ Overcoming the Crises: Joint learning Initiative. Harvard the President and Fellows of Harvard College. 2004

⁴ Report on Human Resources for Health status in the African Region. WHO/AFRO Brazzaville 2004.

In the first place, health sector reforms undertaken in many African countries were implemented with little consideration about the needs and envisaged roles of the HRH management system. Hence, the HR management system ability to contribute to the overall objectives of the reforms was limited. For example, results from a recent WHO survey show that only 14 countries indicated that they have an HRH policy and strategy document; five countries responded that it was developed between the years 1995-2000 and the other five indicated it was developed during 2001-2004.⁵ Also, the majority of countries surveyed 68% (21 countries) indicated having no access to guidelines on HRH Policy and plan development.

This study also revealed that only 52% of respondent countries indicated presence of at least one person with HR qualifications on their staff. Because long-term workforce planning, career development, improved working conditions and professional autonomy were not given due attention, the capacity of the HRH management system remains weak within the context of implemented reforms.

The decentralization of health care reforms also led to a loss of managerial control through transfer of functions, decision-making, and resources to the intermediate and local levels. In some countries, decentralization resulted in privatization which necessitated the emergence of new management relationships between public and private institutions. This situation led to new management challenges in such areas as new financing arrangements, policy functions and the institutional implementation and management of training institutions.

The decentralized health sector reform led to changes which modified important aspects of the health workforce, including labour conditions, need for new required skills and the entire system of wages and incentives.⁶ The decentralization process thus affected all processes linked with human resource management and performance, especially since many health systems were not adequately prepared. Studies have shown that performance of the decentralized health system is a product traceable to the presence of informal management and wider political culture of the health system.⁷

The reforms also led to changes in the overall macroeconomic and political developments with attendant reduced public health

spending achieved through freezes in employment and wages, and limitations on expenditures. This situation negatively affected HRH management capacity and the ability of the health system to deliver health services.

The weak HRH management outcomes affected health system performance and worker motivation. It was observed in Tanzania, for example, that there is need to improve management capacity at district level to achieve improved financial disbursement, support supervision and of immunization and EPI coverage.⁸ More important perhaps in the context of this paper is that low institutional capacity in countries is the result of deep-rooted problems and inconsistencies in the way human resources are managed and especially how health reforms are designed and implemented.⁹ For the majority of countries in the Region, decision-making for important HRH management issues is taken by the Ministry of Finance, Department of Budget and the Public Service Commission. This leaves the Ministry of Health officials playing purely symbolic roles.

Actions proposed

To address in a sustainable manner the

⁵ Report on Human Resources for Health status in the African Region. WHO/AFRO Brazzaville 2004

⁶ Rigoli, Felix; Dussault, Gilles (2003) The interface between health sector reform and human resources in health Human Resources for Health 19 <http://www.human-resources-health.com/content/1/1/9>

⁷ Atkinson .S, Haran. D: Back to basics: does decentralization improve health system performance? Evidence from Ceara in north-east Brazil. Health Systems Development Programme, University of Manchester, M13 9PL England.

⁸ Innocent A. J. Semali, Don De Savigny, and Marcel Tanner. (2005 March). Health sector reform and decentralization in Tanzania: The case of the expanded programme on immunization at district level, *Journal of Health Population in Developing Countries*.

⁹ Human resources in the health sector: an international perspective. Javier Martínez & Tim Martineau. DFID Health Systems Resource Centre. 2002

HR management capacity challenges	Improving HR strategic planning capacity in ministries of health	Improving equity in the distribution of HRH	Improving efficiency in the use of HRH	Improving staff motivation and performance
<p>1. Challenges arising from Health Reforms</p>	<p>a. Change management capacity building for all key stakeholders b. To avoid resistance undertake sensitization of professional groups.</p>	<p>a. Promote policy and health reform impact assessment b. Undertake targeted operations research on factors promoting workers motivation and performance</p>	<p>a. Facilitate skill mix analysis b. Undertake reallocation of function following capacity building c. Undertake regular job performance analysis.</p>	<p>a. Institutionalize performance incentives b. Promote an environment for development of reform change agents supporters and champions c. Support health sector leadership development at relevant levels</p>
<p>2. Role of Donors and Development Partners</p>	<p>a. Ensure policy consistency b. Support funding for local HR priorities c. Empower local health officials to lead the existing decision making processes. d. Promote development of long term plans e. Capacity building</p>	<p>a. Capacity Building b. Promote research</p>	<p>a. Promote research b. Provision of “innovation funds” to enable improve performance c. Minimize externally imposed policy prescriptions and priorities</p>	<p>a. Advocacy on key gaps and challenges facing HRH b. Partnership with government and private sector to address identified problems c. Create flexible fund flow arrangements. d. Promote an environment where donor and development partners activities can be assessed by countries.</p>
<p>3. Poor funding for HRH</p>	<p>a. Provide adequate funding for HRH activities b. Promote development of system for HR Health Accounts, c. Promote national dialogue on funding HRH</p>	<p>a. Promote research to identify important equity issues arising from poor funding b. Undertake steps to address identified priorities</p>	<p>a. Undertake continuous performance improvement actions to address efficiency and effectiveness problems arising from poor funding</p>	<p>a. Promote continuous advocacy to improve HRH funding b. Monitor staff pay, contract terms, and welfare conditions on a regular basis. c. Promote monitoring and evaluation of HR activities</p>
<p>4. Weakness leadership and stewardship of MoH</p>	<p>a. Establish fully fledged and functional HRH Division b. Capacity building and skills development in HR supply and production, HR forecasting, management and labor economics. c. Forge partnership with key sectors and stakeholder on HRH issues. d. Create enabling policies and Plans for HR development</p>	<p>a. Promote operations research b. Develop HR observatory c. Donor coordination aimed at achieving consensus on local priorities and roles.</p>	<p>a. HR capacity building b. Promote operations research</p>	<p>a. Raise profile of community health workers. b. Ensure adequate funds for HRH. c. Document best and share practices</p>

identified HR capacity challenges, the following actions are proposed. Firstly, there is need to promote proactive and progressive change oriented HR policies. Efforts in this direction are aimed at building the capacity of the country health authorities especially health sector leaders to be responsive to emerging health needs. Policies put in place are expected to facilitate empowerment and enhanced participatory decision making roles for health sector based HRH managers.

There is also need to adopt and promote new HR management orientation to address inherent weaknesses cited in Table I. Issues to consider include the development of a culture of management change, improved stewardship and streamlined roles and responsibilities for implementing reforms. This process is expected to involve emergence of new vision and concepts of HR at all levels of the health system. Human resources should now be considered the intellectual capital for long term systematic investment. In addition, concrete steps need to be taken to develop and adapt existing HR management practice and system to effectively meet the identified and evolving needs of the health system to enable achievement of stated performance targets.

In the area of partnership and coordination, the MoH is expected to undertake identified actions listed in the above table to generate sustainable funding mechanisms and long term support for HRH activities in general. It is proposed that donor and development partners and the private sector are enabled through public sector leadership to contribute existing resources and efforts to improve the weak HR management capacity.

Conclusion

Overall, health sector reforms implemented by countries were generally aimed to improve equity, quality, sustainability and efficiency of systems, but the reality in many poor countries was different as it resulted in weakened HRH management system in addition to other unforeseen consequences. This paper proposes, in conclusion, a set of urgently required actions, including the need for governments in the African Region to translate their political commitment to HR management functions by undertaking investment to enhance HR technical leadership, policies and financial resources for health development. This shift in government orientation is necessary to ensure that HR management is treated as an essential health system function above and beyond the concept of simple personnel and administrative activities.

** Dr Ovberedjo is the Adviser on Human Resources for Health at the WHO Country Office in Tanzania.*

The Economic Cost of Health Professionals Brain Drain in the African Region: A Case Study



* Dr Joses Muthuri Kirigia

Introduction

Countries in the African Region of the World Health Organization (WHO) continue to experience loss of a sizeable number of highly skilled health professionals (physicians, nurses, dentists and pharmacists) to developed countries. There are three categories of emigrants: scientific trainees (Master's and PhD level) who go overseas for training but fail to return upon completion of their studies; health professionals who train in developed countries, return upon completion of their studies and then emigrate after working in their countries for a while; and health professionals who train in local institutions but emigrate upon completion of their studies and/or after working for some period of time.

The causes of the first category of emigration include: lack of research funding; poor research facilities; limited career structures; poor intellectual stimulation; threats of violence; lack of good education for children in home country¹; and lack of evidence-based decision-making culture, leading to lack of recognition of potential contribution of researchers to national health development.

The second and third categories of emigration result from a combination of push (in source countries) and pull (in recipient countries) factors. The

key push factors include: weak health systems; insecurity including violence at the workplace; poor living conditions; low remunerations; lack of professional development opportunities (e.g. continuing education or training); lack of clear career development paths;² and risk of HIV infection due to lack of appropriate protective gear when handling specimens, blood and blood products; nepotism in recruitment and promotion; political unrest/civil wars; widespread poverty; poor governance; and case overload.

Some of the factors that pull professionals to developed countries may include: information, communication and technology, making it easy to access information on jobs, visa applications and process; aggressive targeted recruitment to fill vacancies in richer countries; availability of employment opportunities; better remunerations and working conditions;³ secure and conducive living conditions; and opportunities for intellectual growth (e.g. refresher courses, access to Internet and modern library facilities).

The push and pull factors in tandem have led to brain drain of health professionals from African countries. This has exacerbated the already weak national and district health systems, making it extremely difficult for countries in the Region to achieve the United Nations Millennium Development Goals (MDGs).^{4,5}

This article attempts to estimate the economic cost of external migration of doctors and nurses from the WHO African Region to developed countries and highlight social losses.

¹ Pang T, Lansang MA, Haines A. Brain drain and health professionals. *BMJ* 2002; **324**: 499-500.

² Stilwell B, et al, *The migration of health workers: an overview*. Geneva: WHO, 2005.

³ Stilwell B, et al, Migration of health-care workers from developing countries: strategic approaches to its management. *Bulletin of the World Health Organization* 2004; **82**(8): 595-600.

⁴ United Nations. *Millennium Development Declaration*. New York: UN, 2000.

⁵ United Nations Development Programme. *Human Development Report 2004: cultural liberty in today's diverse world*. New York: UNDP, 2004.

Methods

The data on the cost of primary and secondary education were obtained from a non-profit religious mission school in one Member State in the Region. The primary school period is for eight years. Its cost consists of tuition, lunch, transport, textbooks, stationery and uniforms. The tuition and lunch cost does not contain any subsidy.

Attendance at the secondary school is for four years. Costs consist of tuition, lunch, transport, textbooks, stationery and uniforms. The fees levied by the religious mission school aimed at covering the cost, not making a profit.

The data used to estimate the cost of training nurses and doctors were obtained from a public university medical school and college of health sciences programme in one of the Member States. The school is self-sponsored or unsubsidized. The nursing programme offers four years of training and one year of internship. The cost estimates include unsubsidized tuition fees, accommodation and living expenses. The statistics on the number of African nurses and doctors working in seven OECD countries were obtained from *The World Health Report 2006*.⁶

The medical doctor education programme in the Member State in question consists of five years of training and one year of internship. The cost estimates are made up of unsubsidized tuition fees, accommodation and living expenses.

In order to obtain the average total cost of producing a doctor (nurse) we summed up the average cost of medical school (and nursing school) and the average costs of primary and secondary schools. That gave us an approximation of the total cost of training a medical doctor and a nurse.

In order to obtain the returns from investment foregone by society when a doctor or a nurse emigrates, we multiplied the average total cost of educating a health professional by a compounding factor.⁷ In algebraic terms, the lost return from education investment into a i^{th} doctor or nurse ($ILOSS_{i=Doctor, nurse}$) who decides to emigrate would be:

$$ILOSS_{i=Doctor, nurse} = ATC_{i,...} \times (1+r)^t$$

where: $ATC_{i,...}$ = average total cost of educating a i^{th} health professional, e.g. doctor, nurse; $(1+r)^t$ is the compounding

factor; 'r' is the interest rate; and 't' is the difference between the average retirement age and the average age at emigration.

Results

Economic loss due to emigration of doctors

A total of 18 556 doctors trained in ten sub-Saharan African countries (Angola, Cameroon, Ethiopia, Ghana, Mozambique, Nigeria, South Africa, Uganda, United Republic of Tanzania and Zimbabwe) work in eight OECD countries (Australia, Canada, Finland, France, Germany, Portugal, United Kingdom and United States of America) [6].

The cost of tertiary education of a single doctor is approximately US\$ 48 169. The total cost of secondary education per student is US\$ 6865 and that for primary education US\$ 10 963. Thus, the total education cost per medical doctor is US\$ 65 997 (i.e. US\$ 48169 + US\$ 6865 + US\$ 10 963). That figure does not represent the loss incurred by society as a result of emigration of a single medical doctor. The real loss is the dollar value of the alternative use of the resources invested in producing a doctor, i.e. the opportunity cost.

Assuming that the average age of emigrating doctors is 30 years; the average retirement age is 62 years in recipient countries [6]; an emigrant doctor would work for 32 years before retirement; and an interest rate of 10% per year.⁸ If the amount of US\$ 65 997 (i.e. cost of educating one medical

⁶ WHO: The World Health Report 2006: Working together for health. Geneva; 2006.

⁷ Drummond MF, Stoddart GL, Torrance GW. *Methods for the economic evaluation of health care programmes*. Oxford: Oxford University Press, 1997.

⁸ Kirigia JM. Cost-utility analysis of schistosomiasis intervention strategies in Kenya. *Environment and Development Economics* 1998; 3(3): 319-346.

doctor) were put into a commercial bank for a period of 32 years at an interest rate of 10% per annum, the investment will grow to US\$ 1 393 446. This is obtained by applying the standard compounding formula: $[(\text{initial investment}) \times (1+r)^t] = [\text{US\$ } 65\,997 \times (1+0.10)^{32}]$. Therefore, on average, for every doctor that emigrates, a country loses about US\$ 1 393 446. The economic loss incurred by the ten SSA countries as a result of the brain drain of 18 556 medical doctors [6] is US\$ 25 856 782 563, i.e. 18 556 doctors x US\$ 1 393 446 per doctor.

Economic loss due to emigration of nurses

There are 29 597 nurses and midwives trained in 19 sub-Saharan African countries working in seven OECD countries (Canada, Denmark, Finland, Ireland, Portugal, United Kingdom and United States of America) [6].

The tertiary cost of training one nurse in a school of health sciences is about US\$ 25 352. Since the cost of secondary education is US\$ 6865 and that for primary education is US\$ 10 963, the total cost of educating one nurse is US\$ 43 180, i.e. US\$ 25 352 + US\$ 6865 + US\$ 10 963.

Let us assume that the average age of emigrating nurses is 30 years; the retirement age is 62 years in developed countries; an emigrant nurse would work for 32 years before retirement [6]; and an interest rate of 10%. If the amount of US\$ 43 180 (i.e. cost of educating one nurse) were put into a commercial bank for a period of 32

years, at a interest rate of 10% per annum, the investment will grow to US\$ 911 693, i.e. $[\text{US\$ } 43\,180 \times (1+0.10)^{32}]$. Therefore, on average, for every nurse that emigrates, a country loses about US\$ 911 693. Assuming there are no remittances, the economic loss of the 29 597 nurses and midwives trained in 19 sub-Saharan African countries working in OECD countries is US\$ 26 983 377 721, i.e. 29,597 nurses x US\$ 911 693 each.

Conclusion

We do estimate that the emigration of 18 556 medical doctors from ten SSA countries has led to a total loss of returns from investment of US\$ 25 856 782 563. The economic loss of the 29 597 nurses and midwives trained in 19 sub-Saharan African countries working in OECD countries is US\$ 26 983 377 721. Of course, this is assuming that the medical doctors and nurses do not make remittances to their home countries.

When health professionals emigrate, sub-Saharan African countries lose far more than the cost incurred by society to educate them. This is because there are several other losses that are not captured in the education-costing methodology. Some of those losses are: loss of health services; loss of supervisors of peripheral facilities (e.g. health centres, dispensaries and health posts); loss of mentors for health sciences trainees; loss in functionality of referral systems; loss of role models in society; loss of public health researchers; loss of custodian of ethical and human rights, especially in rural areas;⁹ loss of savings (investment capital); loss of entrepreneurs who would have set up health-related (e.g. private clinics, hospitals, pharmacies) enterprises; loss of employment opportunities for domestic workers; loss of tax revenue to governments; disruption of families; 'internal' brain drain by diverting the attention of those who remain from important local public health problems.

Economic arguments notwithstanding, ultimately, the price of emigration of human resources for health from SSA to developed nations is paid in unnecessary debility, morbidity, human suffering and premature death among the African people. This unacceptable situation should be urgently reversed through joint action by both developing and developed countries.

* Dr Kirigia is the Regional Adviser, Health Financing and Social Protection, WHO Regional Office for Africa, Brazzaville, Republic of Congo.

⁹Kirigia JM, Wambebe C, Baba-Moussa A. Status of national research bioethics committees in the WHO African Region. *BMC Medical Ethics* 2005; 6:10. Available at <http://www.biomedcentral.com/1472-6939/6/10>

Recruitment and Use of Health Staff by Communities in Mali



* Dr Seydou Coulibaly

A major strategy employed by the Government of Mali in its health policy is the improvement of geographical accessibility to health services for the populations. The country has been divided into 1044 health areas, and community health associations have been created in each health area. These associations create and manage community health centres which represent the first level of contact with conventional health services.

Each association signs a mutual assistance agreement with the government which contributes 90% of the cost of construction and also supplies equipment and an initial stock of essential drugs. The association contributes 10% of the cost of construction, ensures the maintenance of buildings, replenishes stocks and drugs, and recruits staff required for running the community health centres.

Today, the community sector is the second biggest employer of labour in the health sector after government. This article examines the results obtained by this mechanism for the recruitment and use of staff and provisions for ensuring its sustainability.

Results achieved and impact on the labour market

The significant results of the recruitment and use of staff by communities in Mali are a reduction in unemployment and an improvement in the availability and stability of technical staff.

Impact on unemployment: Community participation in the management of health services has demonstrated that despite the a freeze in recruitment in the public service, it is possible to offer health care services to the public throughout the country.

Data from a survey commissioned by the WHO in 2005 in Mali show that out of the country's 11 418 health workers of all categories, 3385 work in the community sector, meaning that about one out of three health workers is employed by this sector. The 3385 community health workers include 980 technical staff¹ comprising

135 doctors, 189 state registered nurses, 98 midwives and 558 first cycle nurses. To these technical staff must be added 957 matrons, 682 auxiliary health workers and 602 administrators.

Improvement of availability of health staff: Community management of first line health care has greatly contributed to the availability of technical staff. The situation improved from five doctors per 5000 inhabitants before this initiative² to nine for 1000 inhabitants after its implementation,³ representing an increase of 80% between 1998 and 2004. According to the same sources, in the case of nurses, comparative figures have gone up from 15–21 for 100 000 inhabitants to 3–5 for midwives for 100 000 inhabitants, representing an increase of 40% and 67%, respectively.

¹ Monitoring document of the Technical Committee of the Social and Health Development Programme January 2006

² Ministry of Health, Social and Health Development Programme 1998-2002

³ From: Berthé A. Y. and Balique H. on Study on Human Resources of the Health Sector in Mali, 2004, reported to the population of Mali in 2004

Table 1: Technical medical staff in community health centres, Mali, 2005

Regions	Doctors		Nurses		Total	
	Number	≥ 2 years at post (%)	Number	≥ 2 years at post (%)	Number	≥ 2 years at post (%)
Very poor	65	54	381	53	446	53
Poor	17	59	123	57	140	57
Bamako	64	45	3	33	67	45
Total	146	51	507	54	653	53

Source: Monitoring document of the Technical Committee of the Social and Health Development Programme, January 2006

Improvement of the stability of health staff: Recruitment of staff by the community health associations has also helped to stabilize the technical staff in the peripheral zones (Table 1). Globally, out of 653 technical agents, more than half remained at their posts for more than two years, compared to 46% in 1997.⁴

This relative stability of the staff is probably due to the fact that salaries paid by the community health associations are generally higher than those of the public service. In addition, the health workers are paid overtime allowances and provided with housing and means of transportation by the communities. Also, under the decentralization process, the municipalities pay the salaries of locally recruited support staff.

Staff availability and stability have not only helped to improve first line care at significantly lower costs than in the public sector but also significantly improved geographical accessibility to health services. Geographical accessibility of

the populations to PMA at 5 km has improved significantly, growing from 34% in 1997 to 46% in 2004. For the same period, the rate increased from 46% to 69% for populations situated within a radius of 15 km from the community health centre. Furthermore, the extension of the health cover resulted in an increase in curative consultations from 0.18 new contacts per inhabitant per year in 1998 to 0.25 in 2005.

The average cost of a prescription has decreased with the generalization of the prescription of essential drugs in DCI, which are 2–4 four times cheaper than speciality drugs.

Problems and challenges

Community Health Centres as springboard: Compared to the public service, community status has various disadvantages: particularly the precarious nature of the employment and difficulties in having access to specialist training (scholarships are generally reserved for public servants only). Hence, the status of a community worker offers no guarantee for a career plan, and generally ASACOs do not contribute to the social security fund. These factors are highly discouraging and consequently the health staff consider the community status as temporary employment, which they accept for lack of better prospects. It is, therefore, the quests for job security and the need for a career plan that compel doctors, nurses and midwives to ultimately leave the COMHCs

⁴ Dugas S. and Van Dormael M. (2003). Construction of family medicine in development countries, pp: 143-216 in Studies in Health Services Organizations and Policy, vol. 22

for the public service, after passing the competitive examination. They are posted by the State to the detriment of the community health associations which employ them, which is detrimental to the sustainability of the COMHCs⁵ and quality of services.

Inadequacy between the training and reality in the field:

Doctors hired by the community health associations learnt to prescribe specialist drugs, as the courses taught are only intended for specialists whereas in practice they prescribe generic essential drugs. A review of the curricula, better supervision of internships and specific training in community health care would probably contribute to improve the quality of services.

Shortage of technical staff on the labour market: Community health associations are also confronted with the shortage of health professionals with certain qualifications like nurses and midwives. In fact, in some localities, the COMHC is not functioning due to lack of qualified staff on the market. This shortage of staff is explained by the low production capacity of health training schools and the inability of the government to redeploy certain categories of health workers like those who are concentrated in the capital.

These problems may have consequences on the offer of adequate care, in terms of quantity and quality, for the population in case the qualified staff decide to leave. In fact, when a nurse leaves, replacement is by a nursing aid or a matron whose skills are quite limited. There is, therefore, a reduction in the range of services offered and deterioration of their quality. This reduces the use of services, influences the viability of COMHCs and impedes the extension of the coverage.

Prospects

Community is the first level of contact of populations with health services and the second provider of jobs. To meet the imperious need of consolidating the achievements made, it seems necessary:

1. To institute inconvenience allowances in addition to the incentive bonus: the application of this measure would encourage health staff to accept to work in poor and landlocked regions. The HIPIC (highly indebted poor countries) resources may be used to fund this initiative.

2. To examine all measures that could facilitate the adoption of a career plan for health professionals employed by the ASACOs in order to offer them opportunities to progress in their profession. In this perspective, the ongoing reflection on the status of the public service of territorial authorities is an initiative to be encouraged.
3. To strengthen the production and training capacities of health training schools in order to better offer the labour market with nurses and midwives while ensuring the social relevance of the training programmes and the academic efficiency of these institutions.
4. To support the decentralization of training schools and encourage the recruitment of locally-trained staff so that health facilities are manned by staff already impregnated in the sociocultural realities of the population of their zones of posting.
5. To implement the transfer of skills and resources to territorial authorities to enable them to contribute efficiently to the health development of their constituency, particularly by decentralizing the budget headings for staff.
6. To provide a grant to community health associations in landlocked regions to ensure sustainable offer of care and adoption of pro-poor equitable and distributive health policy.

⁵ Synthesis mission report by Pr A. Ndecki, STP/HRE, WHO/AFRO, on the descriptive study of good human resource management practices by the ASACOs in Mali 2004

Conclusion

The Malian experience of transfer of responsibility to the populations to ensure the creation of COMHCs, their functioning and management through the community health associations has helped to organize additional offer of a more accessible care to the populations. It has contributed to the availability and stability of the staff working in poor regions.

Despite these results, the community health policy is dependent on the shortage of technical staff on the market, the lack of a career plan and obstacles encountered by community health workers in their access to specialization.

However, the ongoing development of the human resource sector policy, negotiations on the status of community staff, reflections on the political function of local authorities and support of partners to national strategies for ensuring efficient management of human resources in general and the COMHCs in particular will help to eliminate the bottlenecks observed. This will help ensure the sustainability of the community health system.

** Dr Coulibaly is the Health Economist at the WHO Country Office in Mali.*

Human Resources for Health: Experience of Mozambique

Introduction

Mozambique has a population of about 18 million inhabitants distributed over 11 provinces and 144 districts. It is a low-income country with a GDP per capita of about US\$ 340. Recent estimates show that nearly 54.1% of the population live below the poverty line. About 55.3% of the people live in rural areas.

Human resources for health in Mozambique pose a major challenge for various reasons. Mozambique is a poor developing country; its epidemiological profile is dominated by communicable diseases, especially malaria, tuberculosis, cholera and HIV/AIDS among the population in general; acute respiratory infections, diarrhoeal diseases, malnutrition, anaemia and measles among the infant population; and high infant mortality and maternal mortality. Average prevalence of HIV/AIDS is 16.2% (MoH surveillance report, 2004).

The national health system (NHS) has about 1250 health facilities (MoH-DPC) including 1205 health posts and health centres, 30 rural and district hospitals, seven provincial hospitals, five general hospitals and three central hospitals. The NHS employs about 22 000 staff distributed over 11 provinces. The NHS also has roughly 313 foreign specialist doctors working under a technical assistance programme. The network of training facilities comprises nine training institutions for basic courses; four for medium-level training and one for advanced-level training where courses are provided in areas such as nursing, curative and preventive medicine, maternal and child health nursing and hospital administration.



** Dr Antonio Mussa*



***Dr Eva das Dores Pascoal*

Despite efforts by the government to improve the health status of the population, much remains to be done to enhance access to health services, improve the quality of services and provide drugs.

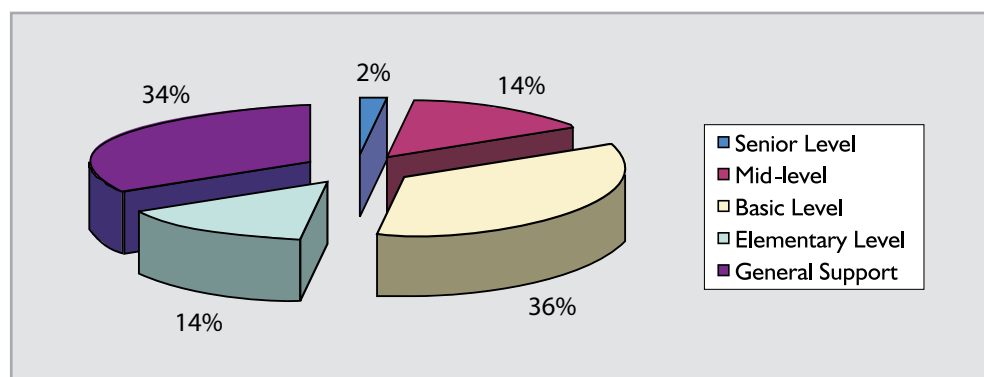
The main source of human resources supply to the NHS is recruitment of the graduates of Ministry of Health

training institutions. However, staff placement in health services is still characterized by imbalance in staff distribution among the different regions and provinces and between urban areas and rural areas where roughly 80% of them live (Table I).

Table I: Medical staff distribution in Mozambique

PROVINCE	DOCTOR/POPULATION RATIO	TECHNICAL STAFF/POPULATION RATIO
CABO DELGADO	68 761,	2 195
NIASSA	57 058	1 330
NAMPULA	94 130	2 286
ZAMBÉZIA	172 478	3 282
TETE	96 997	1 694
MANICA	61 815	1 823
SOFALA	38 094	1 320
INHAMBANE	64 198	1 417
GAZA	74 418	1 677
MAPUTO PROVINCE	29 780	1 702
MAPUTO CID/HCM	5 206	799

Figure I: Staff distribution by level of training



Source: DRH-DPG-REI

Staff distribution by level of training shows a major disparity between mid-level technical staff and senior technical staff in the NHS. Out of the total of nearly 22 000 staff, 14% are mid-level technicians while 2% are senior technicians, which means that the majority of the Mozambican population are provided with health care by technicians of the basic and elementary levels, a situation which affects the quality of service especially in rural areas.

Human resources financing

Financing of the health sector is from three main sources: General Budget of the State; Common Funds; and Vertical Funds from bilateral and multilateral partners. The General Budget of the State is the main source of funding of health personnel expenditure (salaries and other expenses) which accounts for about 40% of recurrent expenditure in the health sector (MoH, O.E 2005). However, given the limitations created by macroeconomic policies in regard to recurrent state expenditure, it has not always been possible to employ all new graduates by using the salary fund.

Technical health staff

Under the sector-wide approaches (SWAs), partners provide financial resources to enable Ministry of Health to employ health personnel on temporary basis pending finalization of the administrative procedures for their full employment. This is a stop-gap measure intended to provide employment for new graduates in order to address the problem of scarcity of health personnel in the peripheral areas. Even so, for budgetary reasons, it has not been possible to employ all the health professionals.

Partners' contributions are based on the salary scale applicable in the State machinery. This practice has prevented a situation whereby newly-trained staff, after prolonged stay on the waiting list, desert to join other sectors including nongovernmental organizations or other higher-paying private sector agencies. Some newly-trained staff even refuse placement in the provinces or in rural areas.

A significant number of new graduates desert for employment by service providers other than the NHS (Table 2). Still in the context of partners' support, a substantial amount of external

financial resources is allocated to finance expatriate specialists under the technical assistance programme and to pay for the fringe benefits of Mozambican specialist doctors working at duty stations other than Maputo, the country's capital.

The Ministry of Health spends about US\$ 4.3 million annually on payments for expatriate staff employed under the technical assistance programme. Of that amount, US\$ 2.3 million is financed from partners' contributions and the remaining US\$ 2 million from the State Budget (POA, 2005, Overall health sector financing), (Figure 2).

Challenges

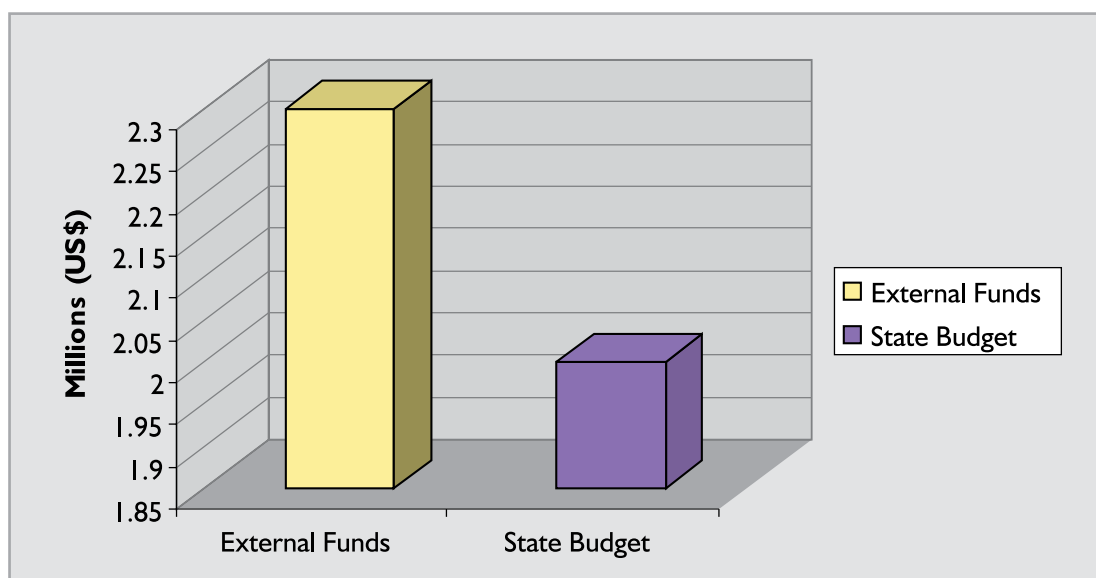
In the context of the health sector's contribution to the implementation of the development plan, the following were noted as challenges in regard to human resources for health:

- Increasing, by 2009, the training and absorption of specialized mid level technicians to 484, mid-level health technicians to 2107, basic to 2857 and specialist doctors to 124 especially in the areas of nursing, curative and preventive medicine, and maternal and child health nursing.
- Meeting the target of 1000 health professionals (general practitioners and specialists) in the NHS by 2010.

Table 2: Placement of technical health staff, Mozambique, 2003-2004

Staff	2000	2001	2002	2003	2004
On Placement	313	605	902	1164	1039
Absorbed	92	207*	865	600	731
Deserters	No data	159	60	164	208

Figure 2: Overall health sector financing



Source: POA 2005

- Expanding the network of training institutions from 13 to 16.
- Providing performance incentives, funding for social and family welfare, loans for health professionals, housing (with electricity) for staff working in rural areas, and fellowships for their children to boost staff motivation.

Constraints

Inadequate budgetary resources for the payment of salaries will remain a constraint in the health sector for some time. Another constraint is the difficulty in assigning health personnel to peripheral areas and maintaining them there due to poor logistics, thus creating an imbalance in health personnel availability between urban and rural areas.

In the area of training, constraints noted are scarcity of qualified teachers, inadequate equipment and lack of practical training facilities.

Conclusion

In collaboration with Mozambique's health development partners, the health sector carried out a human resources situation analysis and developed strategic directions for adapting human resources for health to the health sector challenges. The goals are to achieve the Millennium Development Goals, implement the absolute poverty reduction plan and improve the health status of the population.

**Dr Antonio Mussa is the National Director of Human Resources for Health, Ministry of Health, Mozambique.*

*** Dr Eva das Dores Pascoal is the Health Economist in the WHO Country Office, Mozambique.*

Contact for this issue:

Dr Alimata J. Diarra-Nama

Director

Division of Health Services and Systems Development

WHO Regional Office for Africa

P.O. Box 6, Brazzaville

Republic of Congo

Tel: + 47 241 39200

Fax: + 47 241 39501/ 39503