

# Human resources for health: a snapshot of Zambia's Strategic Plan

## Ministry of Health, Zambia

The World Health Organization (WHO) defines 'health workers', or human resources for health (HRH), as all people whose main activities are aimed at promoting, protecting and improving health (WHO, 2006). They include not only people who provide health services such as medical doctors, nurses, midwives, clinical officers, pharmacists and laboratory technicians but also lecturers and tutors in health training institutions as well as management and support workers such as accounts officers, cooks, drivers and classified employees. These health workers may work in facilities and institutions run by the public and private sectors or by non-governmental and faith-based organisations.

The category also includes untrained health workers in the informal sector such as practitioners of traditional medicine and community health volunteers, as well as family members who are looking after the sick and other unpaid caregivers (Dal Poz et al., 2007). Without them, prevention and treatment of diseases, rehabilitation and advances in health cannot reach those in need.

The WHO used to recommend a ratio of 2.5 health workers per 1,000 population to provide the minimum public health and clinical interventions, with 'health workers' defined as medical doctors, nurses (enrolled and registered), midwives, medical licentiates and clinical officers (WHO, 2006). The corresponding ratio for Zambia is 0.98 health workers per 1,000 population. Although the WHO staffing ratio is no longer used as a policy guideline, the organisation does recommend a proxy ratio of two medical doctors and 14.3 nurses per 1,000 population to achieve the Millennium Development Goals (MDGs).

## Human Resources for Health Strategic Plan (HRHSP)

Zambia's Human Resources for Health Strategic Plan (HRHSP) 2011–2015 is aligned with the country's Sixth National Development Plan 2011–2015 as well as the Africa Health Strategy 2007–2015, the Kampala Declaration of 2008 and the Framework for Implementing the Ouagadougou Declaration on Primary Health Care and Health Systems in Africa (Government of Zambia, 2010a; WHO/ROA, 2010.). The National Health Strategic Plan 2011–2015 and the HRHSP 2011–2015 are fully harmonised (Ministry of Health, 2011). The document has been developed in line with the WHO Regional Office for Africa guidelines for developing policies and plans for HRH (WHO/ROA, 2006). The HRHSP 2011–2015 offers a baseline and has set targets and agreed monitoring indicators. The cost of the entire plan is estimated at Zambian Kwacha (ZMK) 2,331,517 million (440 million USD).

Zambia faces severe shortages in skilled HRH. This human resource crisis cannot be redressed solely by the efforts of the Directorate of

Human Resources and Administration since many required interventions are not within its mandate but are the responsibility of other Directorates or stakeholders. As such, participatory and consultative approaches were used throughout the planning process. Some 350–400 people were consulted to review the HRHSP 2006–2010, draw critical lessons from it and provide recommendations for the HRHSP 2011–2015. They included representatives of management and staff of health facilities at all levels in both rural and urban settings and from the public and private sectors. Senior officials from key ministries, training institutions, regulatory bodies, Church Health Association Zambia and co-operating partners were consulted. Representatives from other key stakeholders – health professional associations, health unions and civil society and neighbourhood health committees – have also joined the process. These key stakeholders and partners were consulted in Western Province, Copperbelt Province and Lusaka.

## International context

The following global and regional developments, commitments and policy guidelines in the area of HRH have influenced the objectives, strategies and activities of the HRHSP 2011–2015.

- The Abuja Declaration on HIV/AIDS, tuberculosis and other related infectious diseases (April 2001) in which participating governments pledged to allocate at least 15 per cent of their annual national budgets to improve the health sector by 2015. In 2010, Zambia's health sector budget was 9 per cent of the annual national budget and is expected to increase to 12 per cent in 2013.
- The African Union Ministers of Health, in their Gaborone Declaration of October 2005, committed to providing universal access to treatment and care for the achievement of the MDGs through the preparation and implementation of cost-indicative HRH development plans. Furthermore, the Health Ministers of the Southern Africa Development Community (SADC) meeting on HRH in Maputo (2005) linked high maternal mortality rates in the region with a lack of motivated and highly qualified health professionals.
- In 2006, the Global Health Workforce Alliance (GHWA) was created as a common platform for action to address the global HRH crisis. Since then, the WHO and WHO/GHWA have produced several policy recommendations on HRH. Zambia, as a member of the World Health Assembly, accepted resolution WHA57-19, which adopted the World Health Report 2006, and declared the period 2006–2015 the 'Health Workforce Decade'. In addition, the Africa Health Strategy 2007–2015, developed by the African Union, calls on African countries to promote all aspects of HRH development and retention and improve working

and living conditions and the health of staff. The strategy also recommends that African governments develop cost-indicative plans for national HR development and deployment, including reviewing remuneration packages and incentives, especially for those working in disadvantaged areas.

- In 2009, after having made significant achievements in building global awareness about the HRH crisis and the need for action, the GHWA began focusing at the country level (WHO/GHWA, 2009.). In January 2011, it convened its second Global Forum on HRH. Participants confirmed their support for the Kampala Declaration.

### National context: disease burdens and the health system

In 2011, the population of Zambia was estimated at 13.55 million persons, and the country has an average population growth rate of 2.4 per cent, one of the highest in the world (CIA, 2011). Up to 75 per cent of the 72 districts qualify as rural. An inequity gradient exists that ranges from the better-off districts (category A), through category B (rural-urban mix), category C (largely rural districts) and category D (remote rural districts and most socio-economically deprived).

The country is facing an epidemiological transition resulting in a dual disease burden. In addition to communicable diseases (CDs), with HIV/AIDS, tuberculosis and malaria among the most important, an increasing number of non-communicable diseases (NCDs) have been reported that are predominantly related to risk factors associated with demographic, behaviour and social changes and urbanisation. The country's huge disease burden (see Box 2) is partly attributable to poverty, inequity, inadequate food, poor environmental health and sanitation and limited emphasis on the promotion of healthy lifestyles and on the importance of prevention.

In the formal health system, the main providers of health-care services include public health facilities under the Ministry of Health, Ministry of Defence and Ministry of Home Affairs. The Churches Health Association of Zambia is a faith-based umbrella organisation with many clinics and hospitals spread over the entire country, predominantly in rural and hard-to-reach areas. The majority of its workforce is on the payroll of the Ministry of Health. Other providers in the formal system include private for-profit clinics, drug stores, diagnostic centres and hospitals. Expatriate and volunteer staffs support the health facilities. Due to low production of medical doctors within the country, expatriate doctors are working in at least 50 per cent of the hospitals. Some 25 per cent of the hospitals have an expatriate nurse and 14 per cent have other expatriate staff. Some 3 per cent of rural health centres and 10 per cent of urban health centres report having expatriate personnel. In addition, 45 out of 63 dental surgeons in the public health sector are expatriates because the country does not have a training programme for dental surgeons.

The formal sector also depends on volunteers, specifically at the health centre level: 32 per cent of rural and 48 per cent of urban centres rely on volunteers, half of whom work full-time and half part-time. In general, volunteers are less common in hospitals (Ministry of Health/World Bank, 2010). The informal health sector is

large and unregulated. It consists of numerous trained and untrained traditional birth attendants and traditional healers and a wide range of community health volunteers. People in rural and remote areas consult informal health service providers as a norm; yet, even urban people with formal education also consult them for specific concerns.

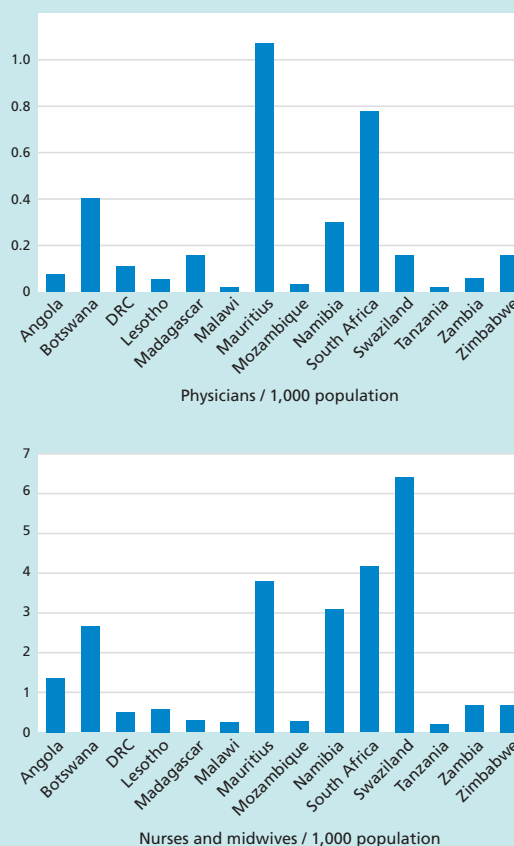
Despite a positive increase in the total number of staff members in the public health sector from 23,176 in 2005 to 30,713 in September 2010 (a net increase of 13 per cent, adjusting for population growth and attrition rates), annual increments are still inadequate for closing the gap between the current and recommended establishment for the period 2011–2015.

#### Box 1

##### Health worker to population ratios in SADC

None of the Southern Africa Development Community (SADC) countries are near the WHO benchmark for health worker: population ratios. Zambia is in the middle of the ranking for the nurses per 1,000 population ratio (7th out of 14 countries), while it fares relatively worse than its neighbours on the physicians per 1,000 population ratio (10th out of 14 countries).

Physicians per 1,000 population and nurses and midwives per 1,000 population for selected SADC countries



Source: Ministry of Health/World Bank, 2010.

## Retention, attrition and regional imbalances

A considerable distributional imbalance of HRH exists within provinces with rural provinces at a disadvantage. The highest population to staff ratio is found in the provinces of Luapula (1,297:1) and North Western Province (1,014:1) compared with 371 population per HRH in Copperbelt Province. Also great imbalances exist between districts within the provinces.

The Ministry of Health has a few incentive schemes to attract and retain HRH in under-served areas. All degree holders within the Ministry, irrespective of their salary scale and cadre, are entitled to a recruitment and retention allowance. This allowance is 25 per cent of their basic salary. In addition all officers who work at facilities in rural and remote areas, irrespective of their salary scale, receive a 'rural or remote allowance', which is respectively 20 per cent and 25 per cent of their basic salary. The Ministry also established the Zambia Health Workers Retention Scheme in 2003, initially for medical doctors. The 'package' was made up of a basic allowance plus educational and housing allowances.<sup>2</sup>

In 2007, the attrition rate for public sector HRH, including the management and support workforce, was 4.7 per cent. This is relatively low. In 2009, it further decreased to 3.6 per cent. According to the Ministry of Health's draft Workforce Review, 'preventable' or 'voluntary' attrition within the public sector has a limited impact on the overall public health-care workforce, suggesting that increasing training outputs would be a rational approach to scaling up HRH (Ministry of Health, 2010). 'Non-preventable' or 'involuntary' attrition is predominantly caused by death and retirement (*ibid.*). Involuntary and voluntary attrition rates are slightly, yet consistently, higher in urban than in rural areas (see Table 1).

The reduced attrition rate, combined with an increased output of graduates from health training institutions and net recruitment contributed to the overall growth rate of the workforce. Attrition does not appear to be a big problem in Zambia, although the early retirement age (55 years) is causing a high turnover of public HRH.

To increase the number of health service providers from 16,255 to 26,364, the public sector will need to recruit 1,000 HRH per net year of attrition. To compensate for the attrition, the annual recruitment should be 2,200. To reach the recommended establishment of 39,360 health service providers,<sup>3</sup> the public sector would need to recruit a total of 3,500 clinical HRH (clinical cadres) per year during the next 10 years.

## Training, leadership and management

There are currently a number of HRH training programmes available within the country: pre-service training to enter the health profession and post-basic training to upgrade professional skills). The number of nursing and midwifery graduates has risen significantly in recent years, from 896 graduates in 2006 to 1,585 in 2010. This growth has been driven largely by: infrastructure capacity expansion of Ministry of Health training institutions; new programmes that have contributed to accelerating the training of

### Box 2

#### Zambia's disease burden

- The Zambia Demographic and Health Survey of 2007 provided some evidence that years of investment in primary health-care programmes has begun to yield positive results with a fall in both maternal and under-five mortality rates between 2002 and 2006.
- Malaria accounts for over 40 per cent of all visits to health facilities and poses a severe social and economic burden on communities living in malaria endemic areas.
- Zambia has a generalised HIV epidemic fuelled by structural factors such as gender inequality, social norms that encourage multiple concurrent sexual partnerships for men, and unequal distribution of wealth between men and women. HIV/AIDS ranks high as a key cause of morbidity and mortality for both women and children.
- Partly as a consequence of HIV/AIDS, tuberculosis (TB) continues to be among the major public health problems in the country and multidrug resistance for TB is on the increase.
- Zambia experiences annual epidemics like cholera, which are driven by inequitable access to improved water sources, safe sanitation and insufficient hygiene practices. According to the 2007 ZDHS, only 41 per cent of the households have access to improved sources of water and 25 per cent of households have no toilet facilities.
- The Government of the Republic of Zambia has made non-communicable diseases a crucial component of primary health care, the referral system and the overall health service delivery reform strategy.

**Table 1**

#### Voluntary and involuntary attrition of Ministry of Health HRH, percentage by geographic area between 2007 and 2009

	2007			2008			2009		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Involuntary	3.7%	2.9%	3.4%	3.7%	3.4%	3.6%	3.0%	2.6%	2.8%
Voluntary	1.7%	0.7%	1.3%	1.3%	0.8%	1.2%	1.0%	0.5%	0.8%
<b>Total</b>	<b>5.4%</b>	<b>3.5%</b>	<b>4.7%</b>	<b>5.1%</b>	<b>4.2%</b>	<b>4.7%</b>	<b>3.9%</b>	<b>3.1%</b>	<b>3.6%</b>

Source: Ministry of Health, 2010.

nurses and midwives, including direct entry midwifery and registered mental health nursing programmes; and the opening of private training institutions.

The provincial medical officers, district medical officers, hospitals and health centres are headed by medical professionals with little or no management training,<sup>1</sup> yet they are charged with managing

### Box 3

#### Priority strategies

The NHSP 2011–2015 provides priority strategies for HRH, which include:

- Scale up recruitment and improve distribution and retention of HRH; increase numbers of specialist doctors to provide specialised services in hospitals and contribute to the strengthening of referral services.
- Develop and implement appropriate mechanisms for more equitable distribution of health workers, including improved targeting and regulation of staff posting; review, strengthen and expand the health workers' staff retention scheme as a tool for staff retention and for attracting health workers to rural areas.
- Carry out a skills gap analysis and, based on its findings, develop a comprehensive human resources plan.
- Strengthen human resource management to improve efficiency and effectiveness in utilisation of existing staff; implement an appropriate staff performance management system and performance-based incentive systems.
- Strengthen multisectoral collaboration with government line ministries, faith-based Institutions, the private sector, co-operating and development partners and other governments to address the HRH crisis.
- Develop and implement an appropriate plan for production of health workers, based on projected HRH needs, both in numbers and mix of skills; collaborate with the Ministry of Education towards increasing the intake of medical students; scale up the recruitment and retention of teaching staff at health training institutions.
- Provide appropriate and co-ordinated training to community health assistants in order to mitigate the shortages of health workers, and scale up health promotion at community level.

scarce resources like HRH, money and time. Many managers report they are unfamiliar with the procedures, guidelines and codes of the Public Service Management Division. Although some managers appear to be naturally good leaders, are fast learners and enjoy the daily challenges, many are struggling to cope with the responsibilities associated with management without an adequate skills base. The Ministry of Health does not have a leadership and management programme nor does it offer induction programmes for newly appointed people in management positions. In the past, the Ministry and the National Institute for Public Administration (NIPA) ran an advanced diploma course in health management for district medical officers and hospital managers, but it was discontinued due to financial constraints. The Ministry is interested in resuming the programme with NIPA.

### Alignment with other national priorities

The HRHSP 2011–2015 is guided by the National Health Strategic Plan 2011–2015, which prioritises increased access to health services (see Box 3). This is planned through the expansion of a number of priority programmes, such as maternal, newborn and child health, immunisation, malaria, TB, HIV/AIDS prevention, treatment and care, neglected tropical diseases, environmental health and non-communicable diseases. The NHSP 2011–2015 contains an ambitious investment plan for health infrastructure development, including 560 new health posts, rehabilitation of 500 health facilities, and upgrading and completion of additional health centres and hospitals.

### Implementing, monitoring and evaluating the Plan

The National Health Strategic Plan 2011–2015 will be operationalised through a series of mid-term expenditure frameworks that will give expenditure ceilings for the Ministry of Health. For the implementation of the HRHSP 2011–2015, the Ministry will include proposed HRH activities for each year in its annual action plans and budgets. Through the Ministry's comprehensive annual action plans and budgets, NHSP priorities and strategies will be translated into costed activities for implementation. Co-operating partners are expected to contribute to the financing and to be involved in the planning, implementation and monitoring of the NHSP 2011–2015.

A lesson learned from the previous HRHSP is that the monitoring system or process for human resources should be integrated in the Ministry of Health general monitoring and evaluation system,

**Table 2**

#### Expected sources of funding by objective (ZMK million)

Objectives	Government non-emoluments	Government emoluments	Co-operating partners	Total
<b>Objective A:</b> To increase the number of adequately trained HRH	710,782	0	380,000	1,090,782
<b>Objective B:</b> To increase the number of equitably distributed HRH with appropriate skills mix	253,316	785,000	80,000	1,118,316
<b>Objective C:</b> To improve the performance and utilisation of HRH	115,799	0	6,620	122,419
<b>Total</b>	<b>1,079,897</b>	<b>785,000</b>	<b>466,620</b>	<b>2,331,517</b>



*Families flock to Child Health Week in Zambia*

which relies on the joint annual reviews, although a set of HRH-specific indicators are developed for this plan. It is important that the data for the specific indicators proposed for the HRHSP 2011–2015, as far as possible, are collected as part of the general monitoring and evaluation system. In particular there must be an alignment between the HRHSP monitoring and the joint annual review monitoring of the HRHSP 2011–2015 objectives, strategies, activities and indicators.

Derived from the recommendations of the review report and the situation analysis, the HRHSP 2011–2015 divides the major issues into three objectives (see Table 2) guided by the principles of equity, feasibility and sustainability, cost effectiveness, a health system approach, recognition of HRH, gender mainstreaming, accountability and transparency, and co-ordination.

Estimated costs in the HRHSP 2006–2010 were ZMK 2,254,000 million. Actual expenditures were not more than ZMK 375,000 million, albeit for only four years. This was only a small fraction (17 per cent) of the required funding estimated for the implementation of the plan.

Two factors seriously affected the implementation of the HRHSP 2006–2010. The restructuring led to an increase in the numbers of positions and persons appointed to positions at headquarters and

at provincial level. However, the process of restructuring diverted the focus from implementing and monitoring the Plan. Second, alleged misuse of funds at the central level in 2009 led to a freeze on contributions from co-operating partners. This freeze negatively affected the infrastructure development of training institutions and the capacity for scaling up the production of HRH.

### Financing the plan\*

Zambia has traditionally had four main sources of financing for health: government funding, donor funding, household contributions and 'other' (mainly private sector employer contributions). With continued growth of the economy, the Government estimates that the resources available will rise from ZMK 20,000 billion in 2011 to over ZMK 30,000 billion in 2015.

In the Medium Term Expenditure Framework (MTEF) 2011–2013, the Government states its intention to direct more domestic health resources to the health function, especially in the wake of the reduced sector support by a number of the co-operating partners. During 2011–2013, the allocation to the sector is expected to increase by 58.4 per cent compared to the 2008–2010 MTEF. This will compensate for the reduced support

from co-operating partners and ensure that the sector maintains a funding level of at least 10.5 per cent of total Government expenditure.

Further funding from co-operating partners is subject to the implementation of an agreed Governance Action Plan between the partners and the Ministry of Health. Although there is a high level of uncertainty, it is estimated that co-operating partners will return to earlier levels of contribution of ZMK 265,000 million to the health sector in 2012 and that about 30 per cent of this will be allocated to the HRHSP 2011–2015. It is expected that the funds will increase by approximately 10 per cent annually.

## Conclusion: developments in health resourcing

The Government is committed to increase the total funding for health, in keeping with its commitment to the target of 15 per cent of the national budget set by the African Union's Abuja Declaration of April 2001. The strategy to do this is through increasing the existing local revenues, collected by health facilities in urban areas. The Government is also considering the introduction of additional new innovative sources of financing, such as the new health-related domestic taxes and the introduction of a National (Social) Health Insurance Scheme (NHIS).

'Marginal budgeting for bottlenecks' tools will be used in the costing of the National Health Strategic Plan 2011–2015 and experiences will lay the ground for a rollout of the tool to provinces, districts and hospitals. Ongoing 'results-based financing' initiatives, supported by the World Bank as a pilot project in the Eastern Province, will be evaluated and assessed, including for financial sustainability. Based on the evaluation, the Ministry of Health will decide on any further development of results-based financing.

The Ministry of Health recognises that several of the necessary measures related to addressing the HRH crisis include aspects beyond its control. Further, human resource functions are spread over many departments, units, sections, divisions, programmes, sectors, institutions, organisations and facilities. The Ministry is conscious of the need for generous external financial and technical support. Therefore, it is committed to establishing and maintaining productive partnerships with key stakeholders and co-operating partners. Future funding from partners will depend on the successful advocacy of the Ministry for the NHSP 2011–2015 and

the HRH Strategic Plan 2011–2015. The HRH Strategic Plan thus indicates some areas that should be of interest for the co-operating partners to support.

## References

- CIA (2011). World fact book 2011. Central Intelligence Agency. [www.cia.gov/library/publications/the-world-factbook/fields/2011.html](http://www.cia.gov/library/publications/the-world-factbook/fields/2011.html)
- Dal Poz, M., Kinfu, Y., Drager, S. and Kunjemen, T. (2007). Counting health workers: definitions, data, methods and global results. Geneva: World Health Organization.
- Government of Zambia (2010a). Sixth National Development Plan 2011-2015: sustained economic growth and poverty reduction
- Government of Zambia (2010b). 2011–2013 MTEF, August.
- Ministry of Health (2010). Workforce review, draft 2, December.
- Ministry of Health (2011). Human Resources Information System. Expanding on the existing human capital management and PMEC systems. March.
- Ministry of Health/World Bank (2010). African region human development, June 28.
- WHO (2006). The world health report 2006: working together for health. Geneva: World Health Organization.
- WHO/GHWA (2009). Financing and economic aspects of health workforce scale-up and improvement: framework paper. Geneva: Global Health Workforce Alliance/World Health Organization.
- WHO/ROA (2006). Policies and plans for human resources for health: guidelines for countries in the WHO African region. Brazzaville: World Health Organization Regional Office for Africa.
- WHO/ ROA (2010). Framework for the implementation of the Ougadougou Declaration on Primary Health Care and Health Systems in Africa. Brazzaville: World Health Organization Regional Office for Africa.

## Endnotes

- <sup>1</sup> Some health training programmes have included management modules, including for RNs, RMs and COs.
- <sup>2</sup> The retention scheme also has a non-monetary component that includes provision of piped water, modern ablution facilities, solar panels, etc. These can be critical to retaining staff in rural areas.
- <sup>3</sup> With non-clinical health workers included, the estimate is 60,000. (Informal correspondence with Ministry of Health, 2012).
- <sup>4</sup> The Ministry of Health is currently compiling National Health Accounts, which was last done in 2006. The draft report will be available in mid-2012 and provide up-to-date information on the main sources of financing (government, co-operating partners, households, etc.).