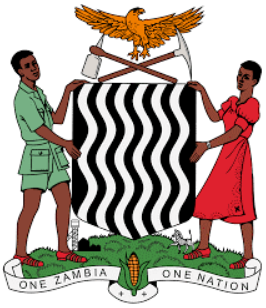

HUMAN RESOURCES FOR HEALTH PLANNING & DEVELOPMENT STRATEGY FRAMEWORK

HRHPD STRATEGY FRAMEWORK

JULY 7, 2017

REPUBLIC OF ZAMBIA
Ministry of Health

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FOREWORD

Zambia has about 1.2 physicians, nurses, and midwives per 1000 population while the minimum acceptable density threshold is 2.3 per 1000 population. The estimated shortage of doctors, nurses and midwives in Zambia is about 14,960. However, with the projected population growth the deficit more than doubles disproportionately to, 25,849 in 2020, and 46,549 in 2035, at the current rate of HRH production. Worryingly, the human resources for health crisis has persisted for over 20 years. The efforts before and leading up to the development and implementation of the 2013 – 2016 National Training Operational Plan (NTOP) and the National Human Resources for Health Strategic Plan (2011 – 2016) yielded certain achievements, however, the HRH numbers and skill-mix gap remained disturbingly enormous.

The Ministry of Health (MoH) recognizes that the health workforce (human resources for health) are a critical component to achieving the health system objectives. Importantly, Zambia has embarked on an unwavering health systems strengthening agenda that has led to unprecedented investment in health infrastructure, among many other interventions, aimed at enhancing universal health coverage based on a primary health care approach. However, Zambia's efforts to ensure adequate HRH appeared to be impeded by delicate HRH leadership and governance, inadequate institutional capacity for HR management to carry out HRHPD, ineffective HRH strategies, underinvestment and low levels in HRH production, weak regulator capacity to promote and assure educational and training quality, slow progress in educational reforms, skewed distribution of health workers, low implementation of existing plans, lack of incentives, uncoordinated partnerships, and weak policy dialogue. Furthermore, slow economic growth, causing inability to pay, threatened unemployment of HRH even if the outputs were to increase.

Given the aforementioned, the MoH has embarked on efforts aimed at exploring effective ways of redressing the persistent and prevailing Human Resources for Health (HRH) crisis. The highest policy-makers of the Ministry and many of its development partners resolved that a comprehensive strategy framework (SF) was needed that would define the model of interventions, identify priority areas and guide on focal strategy areas. It was anticipated that the strategy framework would inform resulting strategies, operational plans and programmatic interventions. The main focus for the planned interventions is to accelerate HRH production and improve the quality of trained HRH. The primary target audiences of this SF are government leaders, health policy makers at all levels, cooperating partners, training institutions, civil society, as well as the stakeholders and partners who support our health systems strengthening efforts.

I implore all stakeholders to support the interventions prioritized in the strategic areas outlined in this strategy framework. The MoH in consultation and collaboration with various stakeholders will develop detailed and specific road maps and operational plans to ensure successful implementation.

Original Signed By

Hon. Dr. Chitalu Chilufya, MP
MINISTER OF HEALTH

ACKNOWLEDGEMENTS

The Ministry of Health acknowledges our development partners and stakeholders that supported strengthening its human resources systems, in developing preceding human resources for health strategic plans and the national training operational plans.

This human resource for health strategy framework document is a result of extensive consultations with various stakeholders, including, development partners, Human Resources for Health (HRH) stakeholders, training institutions, Government ministries and Ministry of Health (MoH) personnel at national, provincial and district levels. The MoH is grateful to all for their invaluable contributions during both the consultative and drafting stage of this strategy framework.

The development partners together with the Ministry recognize the central role that HRH plays in health systems strengthening. Therefore, the Ministry looks forward to continued financial and technical support when implementing the detailed strategic and operational plans that will be developed for specific priority areas.

Original Signed By

Mr. John Moyo
Permanent Secretary
MINISTRY OF HEALTH

WORKING DEFINITIONS

Term	Definition
Capacity Building	The development and strengthening of human and institutional resources.
Continued Professional Development	The process of tracking and documenting the skills, knowledge and experience gained both formally and informally as one is in work, beyond any initial training.
Faculty Development	Staff development and professional development, in settings that pertain to educators.
Health Professional	A Healthcare professional that has studied, advises on or provides preventive, curative, rehabilitative and promotional health services based on an extensive body of theoretical and factual knowledge in diagnosis and treatment of disease and other health problems acquired in higher education.
Health Professions' Educator	A skilled and certified healthcare professional with high level of professional expertise who is designated to provide students & professionals-in-training with practical and skills-oriented instruction in settings that pertain to health care. In addition, they have educator training.
Health Worker Density	A health worker density estimate, that is, doctors, nurses, and midwives. It does not encompass the roles of other important categories of the health workers such as pharmacists, laboratory technicians and scientists as well as radiographers and physiotherapists among others.
Human Resources for Health	Health workers classified into five broad groupings: health professionals, health associate professionals, personal care workers in health services, health management and support personnel, and other service providers not elsewhere classified.
Human Resources for Health Development	The educational and training process of building knowledge, skills and attitudes of future healthcare professionals or building capacity for healthcare professionals who are already in the healthcare professions.
Human Resources for Health Planning	The management process of forecasting, devising and implementing interventions for the production, recruitment, retention of human resources for health harmonized to present and future health sector needs.
Human Resources Information System	A software package for obtaining, compiling, analyzing and reporting data regarding information

	health workforce metrics across the core dimensions of national capacity and contents of the human resources for health (HRH) database: • Tracking stock and mix of HRH. • Tracking output of health professions education institutions.
Human Resources Learning Management Information System	A software application for the administration, documentation, tracking, reporting and delivery of health professions educational courses or training programmes
In-Service	Refers to the state of presently being in employment in the sector.
Pre-Service	Refers to the developmental state of being prepared for future employment in the sector.
Quality Human Resources for Health	Quality denotes competence and fitness for purpose in a functional health system.
Skill Development	The process of helping health professions to do their work better with particular reference to practical skills.
Specialist Training	The educational and training process of building knowledge, skills and attitudes to a high level of professional expertise in a particular specialty of a health profession. A health professions specialist completes education and training recognized and approved by Specialist Professional Bodies or higher education institutions.

ABBREVIATIONS & ACRONYMS

ACRONYM	MEANING
AIDS	Acquired Immune Deficiency Syndrome
CDC	Centres for Diseases Control and Prevention
CHAI	Clinton Health Access Initiative
CIDRZ	Centre for Diseases Research in Zambia
CPs	Cooperating Partners
DFID	Department for International Development (United Kingdom)
GFATM	Global Fund to Fight AIDS, TB, Malaria
DHRA	Directorate of Human Resources and Administration
GNC	General Nursing Council
GRZ	Government of the Republic of Zambia
HIV	Human Immunodeficiency Virus
HPCZ	Health Professions Council of Zambia
HR TIMS	Human Resources Training Information Management System
HRH	Human Resources for Health
HRHPD	Human Resources for Health Planning and Development
HRHPD SF	Human Resources for Health Planning and Development Strategy Framework
HRIS	Human Resources Information System
HWF	Health Workforce
ISCO	International Standards Classifications of Occupations
LMTH	Levy Mwanawasa Teaching Hospital
MedScholar	Medical Education Faculty Development Scholars' Programme
MoH	Ministry of Health
MTEF	Medium Term Expenditure Framework
NHP	National Health Policy
NHRHSP	National Human Resource for Health Strategy Plan
NTOP	National Training Operational Plan
PEPFAR	United States President's Emergency Plan for Aids Relief
POTF	Pathway of Transformation Figure
PRSP	Poverty Reduction Strategy Paper
SBH	Systems for Better Health
SDG	Sustainable Development Goals
SF	Strategy Framework
SIDA	Swedish International Development Agency
STI	Sexually Transmitted Infection
STP	Specialist Training Programme
SWAp	Sector Wide Approach
TI	Training Institution
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNODC	United Nations Office on Drugs and Crime
USAID	United States Aid for International Development
WHO	World Health Organization

EXECUTIVE SUMMARY

The Ministry of Health (MoH), between January and May 2017, completed a review and audit and intensive and extensive consultations concerning human resources planning and development (HRHPD) within the Ministry. The effort was aimed at exploring effective ways of redressing the persistent and prevailing Human Resources for Health (HRH) crisis. The HRH crisis was recognized as a key impediment to provision of quality healthcare services. The highest policy-makers of the Ministry and many of its development partners resolved that a comprehensive strategy framework (SF) was needed that would define the model of interventions, identify priority areas and guide on focal strategy areas. It was anticipated that the strategy framework would inform resulting strategies, operational plans and programmatic interventions. This strategy framework recognizes the crucial role of collaboration and dynamic partnerships with stakeholders required to deliver on the promise of transforming HRHPD into a relevant, efficient, effective, and sustainable mechanism for improving service delivery.

The human resource capacity remains one of the weakest components of the health system in Zambia. The efforts before and leading up to the development and implementation of the 2013 – 2016 National Training Operational Plan (NTOP) and the National Human Resources for Health Strategic Plan (2011 – 2016) yielded certain achievements, however, the HRH numbers and skill-mix gap remain worryingly enormous and they hinder delivery of quality health services. Zambia has about 1.2 physicians, nurses, and midwives per 1000 population while the minimum acceptable density threshold is 2.3 per 1000 population. The estimated shortage of doctors, nurses and midwives in Zambia is about 14,960. However, with the projected population growth the deficit more than doubles disproportionately to, 25,849 in 2020, and 46,549 in 2035, at the current rate of HRH production.

A review of HRH Development in MoH found that, by stipulation, human resource planning and development was the responsibility of the Directorate of Human Resources and Administration (DHRA) but, in practice, the management of pre-service and in-service training activities was fragmented and managed from the different directorates and some MoH-managed training institutions (Tis) had no clear linkage to the MoH structures and their supervision was on ad hoc basis. Furthermore, efforts to obtain data regarding information HRH metrics revealed indicative capacity inadequacies across the core dimensions of national capacity and contents of the human resources for health (HRH) database.

Zambia's efforts to ensure adequate HRH appeared to be impeded by delicate HRH leadership and governance, inadequate institutional capacity for HR management to carry out HRHPD, ineffective HRH strategies, underinvestment and low levels in HRH production, weak regulator capacity to promote and assure educational and training quality, slow progress in educational reforms, skewed distribution of health workers, low implementation of existing plans, lack of incentives, uncoordinated partnerships, and weak policy dialogue. Furthermore, slow economic growth, causing inability to pay, could result in unemployment of HRH even if the outputs were to increase.

The purpose of the strategy framework is to increase relevance, efficiency, effectiveness and sustainability of HRHPD in Zambia by adopting transformative and innovative measures that can maximize impact in redressing the persistent HRH crisis the Country has faced for over 20 years

This SF recognizes as critical to improving HRHPD various aspects: continuous political will, institutional and financial assurance, and participation of different key stakeholders and partners that can impact HRH production, the availability and performance of appropriately skilled and deployed HRH leadership.

Goal

The goal of this Strategy Framework is to:

1. Provide a comprehensive institutional context for the planning, coordination and implementation of the national HRHPD.
2. Articulate national HRHPD priorities, approaches, and outcomes that stakeholders should work towards, based on their respective mandates, resources and comparative advantages.
3. Articulate an agreed framework for the implementation of HRHPD in partnership with stakeholders that is in line with the four 1s in HRHPD Coordination (1 Authority, 1 entry point, 1 exit point, 1 stop) and the 70-20-10 HRH Development approach (70% within the work settings strategies, 20% short term out-of-station settings strategies, and 10% long-term release strategies).
4. Provide a transparent strategy framework to form the basis of agreements with development partners and other stakeholders on their technical and financial support and the management and coordination of HRHPD.

General Objectives

This Strategy Framework further supports:

- To accelerate the outputs of quality HRH that can make substantial impact on the HRH deficit in order to improve service delivery;
- To provide for comprehensive standards for optimal delivery of pre-service and in-service HRH development through various levels of the healthcare delivery system.
- To provide for equitable, efficient, decentralized and responsive HRHPD.
- To establish the Levy Mwanawasa Teaching Hospital and National Health Training Institute and its satellite provincial health training centres and district training facilities that will operate as part of an integrated multi-disciplinary training institution.
- To provide for health professions' educator pathways for health personnel.

The SF acknowledges that HRHPD is only one aspect of achieving optimum HRH density: achieving optimum HRH density is dependent on several additional factors, such as retention and equitable deployment of HRH. However, this HRHPD transformational strategy framework anticipates that several necessary preconditions must prevail, such as, the following outcomes: a) strengthening HRHPD leadership and governance (Strategy Area 1), strengthening internal and external HRHPD and partnership coordination (Strategy Area 2), c) scaling up HRH education and training outputs (Strategy Area 3) together with optimizing the

health professions-educator career pathways (Strategy Area 4) so that the educational focus acquires comparable status in service-delivery context, and d) improving educational and training quality frameworks (Strategy Area 5).

Furthermore, for HRHPD to be transformed, it should be based on the conviction that reframing the relationship between HRHPD and the sector needs is vital. The outcomes outlined above, are in turn dependent on three main preconditions (outputs):

1. First, more supportive policy framework for transforming HRHPD, where policy-makers are relentlessly committed to support a paradigm shift toward transformative approaches away from "business-as-usual" approaches.
2. Second, supportive environment for HRHPD reform enablers, including:
    a) Redefining the qualifications and skill-set profile of personnel traditionally considered appropriate for HRHPD leadership.
    b) Building the capacity to produce huge numbers of HRH at national, and devolved distributed training facilities.
    c) Safeguarding the presence of a number of prominent specialists and academics in hospitals and training facilities that will be designated as specialist and HRH education and training sites.
    d) Increasing linkage of HRHPD priorities and service delivery demands together with population needs.
    e) Strengthening research, evidence and knowledge about the various facets of the proposed pathway of transformation.

3. Third, amplified participation and leadership by MoH in HRH production at all levels. Notwithstanding, MoH should work in consultation and collaboration with both public and private education and training stakeholders. HRH working educational context will require reassurance that their positions are comparable to service delivery and will be recognized and rewarded.

SITUATIONAL ANALYSIS

General Overview

Zambia is a land-linked country of 752,612 square kilometers area. The population of Zambia has increased threefold since 1980 to 13.1 million from 5.7 million. Given the population growth rate of 3 % the population is projected to increase to 17.9 and 26.9 million in 2020 and 2035, respectively.

Zambia, since 2006, has been implementing the Vision 2030 to transform the Country into a prosperous middle income country by 2030 from its current status as a lower middle income country. The Country's Gross Domestic Product growth has fluctuated between 7.2% (2005), 10.3% (2010), 5% (2013, 2014) and 2.9% in 2015. Although the majority (54.4% in 2015) of the population were adversely affected by poverty, it was, predominantly, a rural phenomenon. Regrettably, the Country was also beleaguered by disproportionately high disease burden.

Malaria, HIV and AIDS, sexually transmitted infections (STI's), tuberculosis, mental health, cancer, trauma, non-communicable diseases (diabetes, hypertension and cardiovascular diseases), neglected tropical diseases (schistosomiasis, trachoma, lymphatic filiariasis), nutritional stunting and obesity, to name a few, inflict a huge financial and health care service delivery burden.

The Country's health indicators have also characteristically remained troublesomely high. In 2007, HIV and AIDS prevalence was reported as 14% but declined marginally to 13.3% in 2014. Maternal mortality declined steadily from 649 per 100,000 births in 1996 to 591 (2007), and 398 (2013/2014), respectively. Infant mortality and under five mortality, also, declined. The former from 109 (1996), 95 (2001/2), 70 (2007) and finally to 45 per 1,000 live births (2013/2014) and the latter, from 197 per 1000 live births to 168 (2001/2002), 119 (2007), and finally to 75 (2013/2014). While the Government and cooperating partners (CPs) have been responding by implementing interventions and reforms to improve service delivery, the human resources for health crisis has continued to be a serious constraint to service delivery and the reform process. The HRH crisis in Zambia has persisted for over 20 years. Unquestionably, a different approach to redress the huge and growing HRH deficit is now required. A strategy framework will provide a platform to promote relevant, effective, efficient, and sustainable interventions.

The MoH is responsible for setting policy and strategic direction in provision of health services as guided by gazette mandates and key policies. The National Health Policy (NHP) of 2012 set clear directions for the development of the Health Sector in Zambia while the Vision 2030 stipulated that policies would be implemented through successive national development plans and health strategic plans. Importantly, the NHP prioritized, among other programmes, primary health care services, hospital referred services, human resource development and management, medical supplies and logistics, infrastructure development, legal framework and health care financing.

The strategy framework to guide Human Resources for Health Planning and Development (HRHPD) was considered critical to providing a context for strategic, operational and programmatic interventions. It was projected to set the direction and priorities for HRHPD in the health sector and how they interface with other health systems strengthening initiatives. The health systems support the vision: "A nation of healthy and productive people"; the mission: "To provide equitable cost-effective quality health services as close to the family as possible"; and the overall goal: "To improve the health status of people in Zambia in order to contribute to increased productivity and socio-economic development."

HRH Development and Government Goals

Zambia has a critical shortage of health care professionals to provide the health care services needed by its people. To meet the health system objects, including the health-related objectives and the health-related sustainable development goals, Zambia needs a more practical and effective human resources planning and development system – including robust and reliable gap analysis, accurate monitoring of students and health professionals, and develop capacity to generate more reliable, up-to-date data, provide common definitions and proven analytical tools to support crucial policy decision-making. Zambia's HRH workforce must be scaled-up by almost 140% in order to overcome the crisis while taking into account accessibility, equity, equality and efficiency. This HRHPD Strategy Framework is prioritized because MoH recognizes HRHPD as a top priority in health systems strengthening in order to achieve the national transformative agenda, which recognizes the importance of health in improving national productivity.

Given the large HRH deficit, unprecedented, but correspondingly unmatched, investment in health infrastructure, and the changed policy landscape that recognizes the importance of balancing investment on both curative and preventive flanks of the continuum of care by using the primary care approach, the health sector needs a strategy framework that will result in a coherent, efficient and effective HRHPD that is harmonized to sector needs.

Current Status

The human resource capacity remains one of the weakest components of the health system in Zambia. The efforts before and leading up to the development and implementation of the 2013 – 2016 National Training Operational Plan (NTOP) and the National Human Resources for Health Strategic Plan (2011 – 2016) yielded certain achievements, however, the HRH numbers and skill-mix gap remains worryingly enormous and they hinder delivery of quality health services.

The government of Zambia has continued to demonstrate its strong commitment to addressing the country's human resource for health (HRH) gaps through expanding the staff establishment by approving new structures and providing funding for net recruitments on an annual basis. The health worker's establishment has grown at an average of 5% during the period 2011 to 2016, and, for example, the number of nurses in health centres has grown from 12,348 in 2012 to 14,807 in 2016 representing a 4% average yearly increase. As stated above, however, human

resource deficits remain high against the targets in the Seventh National Development Plan 2017-2021, especially the goal of having 9 nurses per 10,000, for example. Zambia has about 1.2 physicians, nurses, and midwives per 1000 population while the minimum acceptable density threshold is 2.3 per 1000 population. The estimated shortage of doctors, nurses and midwives in Zambia is about 14,960. However, with the projected population growth the deficits more than double disproportionately to, 25,849 in 2020, and 46,549 in 2035, at the current rate of HRH production. Zambia's HRH profile is summarized in Table 1 below.

Table 1. HRH Filled Establishment

	2011			**2016**		
HRH Cadre	Approved	Actual	Gap %	Approved	Actual	Gap %
Doctor	2,939	1,076	63.4	3,119	1,514	51
Clinical Officer	4,813	1,509	68.6	4,883	1,814	63
Midwife	6,106	2,753	54.9	6,322	3,141	50
Nurse	17,497	7,996	54.3	18,484	11,666	37
Pharmacy	1,108	777	29.9	1,219	1,159	5
Radiography	483	276	42.9	542	419	23
Lab	2,023	713	64.8	2,110	921	56
Environmental	2,063	1,367	33.7	2,319	1,796	23
Physiotherapy	421	297	29.5	448	432	4
Nutrition	330	170	48.5	350	202	42
Dental	865	278	67.9	908	312	66
Admin	6,115	1,683	72.5	22,353	19,254	14
Total	**44,763**	**18,985**	**38**	**63,057**	**42,630**	**32**

While the WHO defines the health workforce (HWF) as "all people engaged in actions whose primary intent is to enhance health" the Health worker density estimate focuses on the more traditionally known doctors, nurses, and midwives and excludes other important categories of the health workers such as pharmacists, laboratory technicians and scientists, radiographers and physiotherapists among others. The health worker density metric, therefore, may lead to underestimating and underfinancing programmes aimed at solving the crisis of health workforce in health systems.

The International Standard Classification of Occupations (ISCO, 2008) categorized health workers into five broad groupings: health professionals, health associate professionals, personal care workers in health services, health management and support personnel, and other service providers not elsewhere classified. The ISCO defined health professionals as those who study, advise on or provide preventive, curative, rehabilitative and promotional health services based on an extensive body of theoretical and factual knowledge in diagnosis and treatment of disease and other health problems acquired over 3 or more years in higher education. Table 2 below lists the professionals in three selected categories.

Zambia needs a clear definition of the health workforce to allow for appropriate selection on metrics for analysis, for example, health worker density and distribution per 1000 population, distribution by place of employment (urban/rural), subnational (district) distribution), and

health worker concentration which considers percentage of all health workers working in urban areas divided by percentage of total population in urban areas.

Table 2. Selected Human Resources for Health Categories by the International Standard for Classification of Occupations (2009)

Health Professionals	Health Associate Professionals	Management & Support Staff
• Generalist medical practitioners • Specialist medical practitioners • Nursing professionals • Midwifery professionals • Paramedical practitioners • Dentists • Pharmacists • Environmental & occupational & hygiene professionals • Physiotherapists • Dieticians & nutritionists • Audiologists & speech therapists • Optometrists & ophthalmic opticians	• Medical imaging & therapeutic equipment technicians • Medical & pathology laboratory technicians • Pharmaceutical technicians & assistants • Medical & dental prosthetic technicians • Nursing associate professionals • Midwifery associate professionals • Dental assistants & therapists • Medical records & health information technicians • Community health workers • Dispensing opticians • Physiotherapy technicians & assistants • Medical assistants • Environmental & occupational health inspectors and associates • Ambulance workers	• Health service managers • Health economists • Health policy lawyers • Biomedical engineers • Medical physicists • Clinical psychologists • Social workers • Medical secretaries • Ambulance drivers • Administrators

Presently, Zambia's health workers' distribution shows marked geographical mal-distribution skewed toward urban areas. A review of 2011-2016 comparison of urban to rural distribution of professions in post showed the following: Doctors (418:335), clinical officers (966:805), midwives (1,687:1,513) and nurses (6,214:5,024). Notably, the majority of medical specialists, general physicians, dentists, pharmacists, nurses and midwives practice work in urban areas. Rural facilities were severely understaffed and in some instances, were managed by unqualified staff.

HRHPD Stakeholders

The health sector in Zambia requires that all partners buy into one plan, one budget, one system and one monitoring and evaluation framework. The MoH and cooperating partners use health sector performance indicators to monitor and evaluate performance through the Joint Annual Reviews. Additionally, they have committed to the sector wide approach (SWAp) which is operationalized through technical working groups, policy meetings, sector advisory group meetings, and annual consultative meetings. This is the context that has framed the HRHPD Strategy Framework.

Human resources for health are pivotal to international and national development agendas and, as such, are of national interest. On one hand, the Government seeks to provide equitable access to cost effective quality health care service as close to the family as possible. On the other, the sustainable development goals have specific provisions for universal health coverage; and access to health care as a central measure for health and well-being for all. Expectedly, central government, other line ministries and in particular the ministry responsible for higher education, education and training institutions, multi- and bilateral- development partners, civil society, and the public in general are important stakeholders in HRHPD.

HRHPD System Overview

Human Resources for Health Planning and Development is embedded in the geopolitical administration of the Country. Zambia is divided into 10 administrative provinces and 105 districts. Health management is done through provincial health offices (10), district health offices (105) and statutory bodies. The hospital system is categorized into 3rd, 2nd, and 1st level hospitals which are supported by health centres and health posts to link to the community. The provincial health is the link between the national and district level. The district is responsible for implementation of health promotion, preventive, curative and rehabilitative services. Zambia's health system has been decentralized to district and hospital levels. The Ministry, however, retains such functions as policy formulation and guidance, monitoring and evaluation, and donor coordination.

All the structures from the central level, provincial level, hospitals, statutory bodies, districts, training schools have their specified annual action plans which they independently implement. Strategic plans and operational plans are financed and implemented through the processes and systems of the Government's Medium Term Expenditure Framework (MTEF) and the annual budgets and plans.

Specific to HRHPD, the MoH, nationwide, supports and manages 25 nursing-oriented training institutions, two (2) biomedical training institutions, two (2) community health assistant training colleges, one (1) dental training school, and one (1) multi-professional training college (Chainama College of Health Sciences). The management of the training institutions is delegated to the education officer or principal nurse tutor based at the institution and, in turn, supervised by hospital medical superintendents. The hospitals are accountable to the associated provincial health office. It is noteworthy that the training institutions receive a grant directly from Ministry of Finance but are accountable for the finances to the Permanent Secretary (Administration) of MoH. Additionally, MoH's various directorates support, coordinate and conduct multiple and diverse short-term training programmes meant for capacity building, skill development, and continued professional development. The directorates also directly cooperate and collaborate with multiple and various cooperating partners who support MoH with logistical and financial resources in the training sector and human resource strengthening.

Public and private higher education institutions form a key resource in HRH development in Zambia. The University of Zambia School of Medicine has been the key provider of medical doctors, pharmacists, physiotherapists, biomedical scientists, environmental health officers,

and degree nurses. More recently, the Copperbelt University and Mulungushi schools of medicine have been chartered as public universities. Several private universities have joined the endeavor to produce health professions, for example, Lusaka Apex Medical University (LAMU) and Cavendish University Zambia (CUZ) are already established while University of Lusaka and Texila American University (TAU) are formalizing regulatory procedures before becoming operational. Twenty-five (25) other private training institutions participate in training different cadres of health professionals at diploma and certificate level. Some of these institutions also offer specialist training and in-service programmes. Notably, human resource development in public and private training institutions is not coordinated or aligned to MoH priorities and targets nor harmonized to sector needs.

The Health Professions Council of Zambia and the General Nursing Council of Zambia register, inspect and accredit both public and private health professions training institutions.

HRHPD in MoH

A review of the HRH planning and development in MoH found that, by stipulation, human resource planning and development was the responsibility of the Directorate of Human Resources and Administration (DHRA) but, in practice, the management of pre-service and in-service training endeavors was fragmented and managed from the different directorates and some MoH-managed training institutions had no clear linkage to the MoH structures and their supervision was on ad hoc basis. Furthermore, efforts to obtain data regarding information health workforce metrics revealed indicative capacity inadequacies across the four core dimensions of national capacity and contents of the human resources for health (HRH) database:

- Tracking stock and mix of HRH.
- Tracking output of health professions education institutions.
- Regularly updating databases
- Adequate human resources to maintain databases.

The MoH was dependent on ad hoc reports compiled from different sources, for which completeness, timeliness and comparability were widely variable. The necessity for accurate, timely and effective human resources for health data to inform the development of policies on human resources for health is well recognized.

Zambia's International Commitments

Zambia is a signatory to several international protocols and agreements. Of note for HRHPD and most recent, is the United Nations General Assembly of 2015 that ushered in the Sustainable Development Goals to be achieved between 2016 and 2030. Zambia also signed the 2016 World Health Assembly resolutions that adopted the Global Strategy for Human Resources: Workforce 2030. Additional complementary endorsements that support Health Systems Strengthening include the Ouagadougou Declaration on Primary Health Care and Health Systems in Africa (2009) that focuses on nine major priority areas, namely:

- Leadership and Governance for Health;

- Health Service Delivery;
- Human Resources for Health;
- Health Financing;
- Health Information Systems;
- Health Technologies;
- Community Ownership and Participation;
- Partnerships for Health Development; and
- Research for Health.

Zambia is committed to improve HRH through comprehensive evidence-based health workforce planning and monitoring; build health training institutions' capacity for scaling up the training of relevant cadres of health-care providers; promote strategies for motivation and retention of HRH; build HRH management and leadership capacity; and mobilize resources for HRH development.

In April 2001, Zambia as a signatory, also committed to the Abuja Declaration to set a target of allocating at least 15% of their annual budget to improve the health sector.

National Policy Frameworks for HRH Development

The HRHPD Strategy Framework recognizes and complies with the following national and international policy frameworks:

- The Constitution of the Republic of Zambia
- The Vision 2030 Plan
- The 7th National Development Plan
- The National Health Services Bill (2015)
- The National Health Policy
- The 2030 Agenda for Sustainable Development

Challenges of HRH Planning and Development

Zambia's efforts to ensure adequate HRH are impeded by delicate HRH leadership and governance, inadequate institutional capacity for HR management to carry out HRHPD, ineffective HRH strategies, underinvestment and low levels in HRH production, weak regulator capacity to promote and assure educational and training quality, slow progress in educational reforms, skewed distribution of health workers, low implementation of existing plans, lack of incentives, uncoordinated partnerships, and weak policy dialogue. Furthermore, slow economic growth may cause Government's inability to pay and result in unemployment of HRH even if the outputs were increased.

Cross-Cutting Issues

HIV in Health

Zambia's HIV prevalence stood at 13.3% (2014) but this was still comparatively high in the World and the Sub-Saharan region. The magnitude of HIV infection among the HRH is unknown but is a matter of greater concern because MoH has lost significant numbers of health workers and/or had their full potential contribution restricted due to the effects of chronic ill health. High attrition rates due to HIV can undermine efforts to accelerate HRH production and retention in the health workforce and quality of their contribution to health services. This Strategy Framework will safeguard the rights of HRH living with HIV and promote integrated workplace interventions to support them. Additionally, it will promote prevention messaging.

Gender in Health

The Constitution of Zambia Act No. 2 of 2016 categorically assures gender equity from the provision that confirms the equal worth of women and men, their right to freely participate in determining and building a sustainable political, legal, economic and social order. This Strategy Framework will safeguard removal of broader societal barriers that prevent women from joining the health workforce or confine them to lower tiers. Such barriers include gender-based discrimination, higher illiteracy levels, violence and sexual harassment during training and in the workplace, traditional customs that require women to obtain permission from a male family member to change location to access training or employment, traditional role expectations that overburden women with family responsibilities and limited provisions for life course events like maternity leave. Furthermore, continuous professional development opportunities and career pathways tailored to gender-specific needs in order to enhance both capacity and motivation for improved performance will be promoted.

Health and Poverty Reduction

This Strategy Framework recognizes that poverty is a complex and multi-faceted phenomenon whereby limited access to basic services such as education and health is an important consideration. The poor are disproportionately affected by the national disease burden and are often most likely to have difficulties accessing quality health services. Poverty and its links to health are important considerations. For example, the Patriotic Front Manifesto prioritizes poverty reduction among the people of Zambia; the World Health Organization systematically monitors and analyzes the health component of Poverty Reduction Strategy Papers (PRSPs) from a pro-poor perspective and assesses to what extent the overall PRSP document recognizes investment in health as important to poverty reduction.

This Strategy Framework recognizes investment in the components of health systems, particularly in HRH planning and development as an effective stratagem in poverty reduction. The overall aim is to ensure that the SF and attendant strategies provide for "pro-poor" health policies in low-income hard-to-research and under-served communities to define measures for monitoring the impact of HRHPD on poor people.

VISION, RATIONALE AND GUIDING PRINCIPLES

Vision

A dedicated & competent human resource for health workforce whose performance is optimized and potential fully developed for the improvement of the health of all people in Zambia.

Mission Statement

To create a comprehensive national strategy framework that will inform HRHPD strategies, operational plans and programmatic interventions in order to provide adequate and appropriately qualified HRH harmonized to health sector priority needs.

Rationale

The purpose of the strategy framework is to increase relevance, efficiency, effectiveness and sustainability of HRHPD in Zambia by adopting transformative and innovative measures that can maximize impact in redressing the persistent HRH crisis the Country has faced for over 20 years.

Guiding Principles

The Primacy of Human Resources for Health in Health Systems Strengthening

Health workers are the driving force of health systems without which health systems cannot function. The attainment of high standards of health is dependent on availability, accessibility, acceptability and quality of HRH. This Strategy Framework recognizes that the HRH will be critical to the attainment of national, regional and Sustainable Development Goals for 2016 – 2030. The Strategy Framework further recognizes that HRH underpin the SDG health Goal, with target (3c) to "substantially increase health financing and the recruitment, development and training and retentions of the health workforce in developing countries, especially in least developed countries and Small Island developing states." This target uses health worker density and distribution as the key indicators.

Sustainable Development Goals & Universal Health Coverage

Zambia, as a member of the international fraternity, adopted the United Nations framework for sustainable development. The framework includes a set of 17 goals and 169 targets collectively denoted to as the Sustainable Development Goals (SDGs), to be achieved between 2016 and 2030.

SDG 3 – Good Health and Well-being- is of particular interest to the health sector because it seeks to "ensure healthy lives and promote well-being for all at all ages." Of the 13 targets, 3.8 is explicitly premised on universal health coverage (UHC), "achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all." To achieve UHC, three dimensions are normally considered: a) the package of services covered, b) the proportion of costs covered, and c) the population which are covered. Notwithstanding, the aforementioned, 10 other goals have health related targets including clean water and sanitation, and nutrition, to mention a few. This necessitates a multi-sector approach to addressing the achievement of SDGs.

For Zambia to attain the SDGs, including UHC, an adequate, fit-for-purpose, equitably-distributed, and motivated health workforce will be required.

Transformative and Paradigm Shift Approaches

Stubborn and persistent HRH shortages together with unpredictable economic growth have necessitated the MoH to reappraise the effectiveness of previous HRH strategies and operational plans. Experiences from elsewhere have demonstrated the value of transformative advances alongside paradigm shifts. This SF seeks to create a context that can support such kind of transformative and innovative HRH strategies in order to achieve meaningful impact through accelerated outputs, increased quality and equity and filling coverage gaps faced by the Zambian health system while harnessing economic gains and complying with key international and national policies and development agendas.

Unavoidably, greater alignment between educational institutions and the health care system will be required to bring about transformative change that will contribute to a rapid scaling up of the production of health workers to achieve self-sufficiency in health workforce development. Shortages in HRH can interfere with Zambia's efforts to achieve international and national development goals.

WHO's Global Strategy on Human Resources for Health: Workforce 2030

This Strategy Framework parallels the internationally endorsed and much influential World Health Organization's Global Strategy of Human Resources for Health which is underpinned by four objectives:

1. Optimize performance, quality and impact of the health workforce through evidence-informed policies on HRH, contributing to healthy lives and well-being, effective universal health coverage, resilience and strengthened health systems at all levels.
2. Align investment in HRH with current and future needs of the population and health systems, taking into account of labour market dynamics and education policies, to address strategies and improve distribution of health workers, so as to enable maximum improvements in health outcomes, social welfare, employment creation and economic growth.

3. Build capacity of institutions at subnational, national, regional and global levels for effective public policy stewardship, leadership and governance on HRH.
4. Strengthen data on HRH monitoring and accountability of national and regional strategies, and global strategy.

Several elements of the WHO Global Strategy are instructive, for example, planning should take account of workforce needs as a whole, rather than treating each profession separately; ensure effective use of available resources and improve efficiency of health and HRH spending; adopt transformative strategies in the scale-up of health worker education; promote links of HRH planning and education.

General Principles of Devolved Governance

Zambia is a constitutional democracy. The Constitution of Zambia (Amendment) Act, No. 2 of 2016 provides in Part IX the General Principles of Devolved Governance. This SF will safeguard the principles therein:

1. In 141 (1), the management and administration of the political, social, legal and economic affairs of the state shall be devolved from the national government level to the local government level.
2. In 141 (3), the different levels of Government shall observe and adhere to the following principles:
    a) Good governance, through democratic, effective and coherent governance systems and institutions;
    b) Respect for the constitutional jurisdiction of each level of government;
    c) Autonomy of the sub-structures; and
    d) Equitable distribution and application of national resources to the sub-structures.

Additionally, Part XIII Public Service Values and Principles in 173 (1) b advises the promotion of efficient, effective and economic use of national resources.

STRATEGY FRAMEWORK GOAL, OBJECTIVES AND STRATEGIES

HRHPD Strategy Framework

This Strategy Framework recognizes that continuous political, institutional and financial assurance with participation of different key stakeholders and partners that can impact HRH production, availability and performance is critical to improving HRH planning and development.

Goal

The goal of this Strategy Framework is to:

1. Provide a comprehensive institutional context for the planning, coordination and implementation of the national HRHPD.
2. Articulate national HRHPD priorities, approaches, and outcomes that stakeholders should work towards, based on their respective mandates, resources and comparative advantages.
3. Articulate an agreed framework for the implementation of HRHPD in partnership with stakeholders that is in line with the four 1s in HRHPD Coordination (1 Authority, 1 entry point, 1 exit point, 1 stop) and the 70-20-10 HRH Development approach (70% within the work settings strategies, 20% short-term out-of-station settings strategies, and 10% long-term release strategies).
4. Provide a transparent strategy framework to form the basis of agreements with development partners and other stakeholders on their technical and financial support and the management and coordination of HRHPD.

General Objectives

This Strategy Framework further supports:

- To accelerate the outputs of quality HRH that can make substantial impact on the HRH deficit in order to improve service delivery;
- To provide for comprehensive standards for optimal delivery of pre-service and in-service HRH development through various levels of the healthcare delivery system.
- To provide for equitable, efficient, decentralized and responsive HRHPD.
- To establish the Levy Mwanawasa Teaching Hospital and National Health Training Institute and its satellite provincial health training centres and district training facilities that will operate as part of an integrated multi-disciplinary training institution.
- To provide for health professions' educator pathways for health personnel.

Strategic Direction: HRH Planning and Development Transformation Theory of Change Baseline Narrative

This section presents HRHPD Transformation's Baseline Theory of Change Narrative. It represents the transformation initiative at the time of its launch in July 2017. The intention is to revisit it periodically as the transformation proceeds and particularly in the preparation for performance appraisal and evaluation of the impact of its implementation.

Its production was necessitated as a means of sharing a reasoned rationale and to provide a reference framework for internal and external use. This narrative is to be read in conjunction with the Pathway of Transformation Figure (POTF) provided below (Figure 1). A set of points are noteworthy:

1. Only the most important aspects of the rationale are presented and outlined below.
2. The interventions planned in the HRHPD transformation may be modified, revised and adapted as the transformation proceeds.
3. Planned interventions refer to those contained in each strategy areas, and in the POTF.

The narrative below starts with the long-term objective/goal, depicted on the right of the POTF (blue background). It then proceeds backwards through what have been identified as the four most important outcomes (magenta background) of the Goal, considering in turn the pre-requisite outputs (green background), and making reference to the interventions that may lead to these outcomes. The need to sustain outcomes achieved needs to be borne in mind.

HRH Planning and Development Transformation Long-Term Objective and Goals, Outcomes, and Outputs

The ultimate objective (goal) of the HRHPD transformation initiative is to achieve sufficient numbers and quality of HRH to work in a functional health system in order to improve health service delivery in Zambia.

This goal acknowledges that HRHPD is only one aspect of achieving optimum HRH density: achieving optimum HRH density is dependent on several additional factors, such as retention and equitable deployment of HRH. However, this HRHPD transformation initiative recognizes that certain preconditions (outcomes) must be in place for the goal to be achieved: a) strengthening HRHPD leadership and governance (Strategy Area 1), strengthening internal and external HRHPD and partnership coordination (Strategy Area 2), c) scaling up HRH education and training outputs (Strategy Area 3) together with optimizing the health professions-educator career pathways (Strategy Area 4) so that the educational focus acquires comparable status in service-delivery context, and d) improving educational and training quality frameworks (Strategy Area 5).

Furthermore, the transformation initiative is based on the conviction that reframing the relationship between HRHPD and the sector needs is vital. In turn, three main preconditions (outputs) to these outcomes must prevail:

1. First, policy-makers must be continually supportive and committed to transformative reform in HRHPD to support for a paradigm shift toward transformative approaches away from "business-as-usual" approaches.
2. Second, supportive environment for HRHPD reform enablers, including:
    a) Redefining the qualifications and skill-set profile of personnel traditionally considered appropriate for HRHPD leadership.

b) Building the capacity to produce huge numbers of HRH at national, and devolved distributed training facilities.
c) Safeguarding the presence of a number of prominent specialists and academics in hospitals and training facilities that will be designated as specialist and HRH education and training sites.
d) Increasing linkage of HRHPD priorities and service delivery demands together with population needs.
e) Strengthening research, evidence and knowledge about the various facets of the proposed pathway of transformation.

3. Third, amplified participation and leadership by MoH in HRH production at all levels. Notwithstanding, MoH should work in consultation and collaboration with both public and private education and training stakeholders. HRH working educational context will require reassurance that their positions are comparable to service delivery and will be recognized and rewarded.

The indicators for the pathway of transformation are itemized in the monitoring and evaluation section. They are intended to measure the outcomes and will be used to assess the performance of HRHPD transformation initiative.

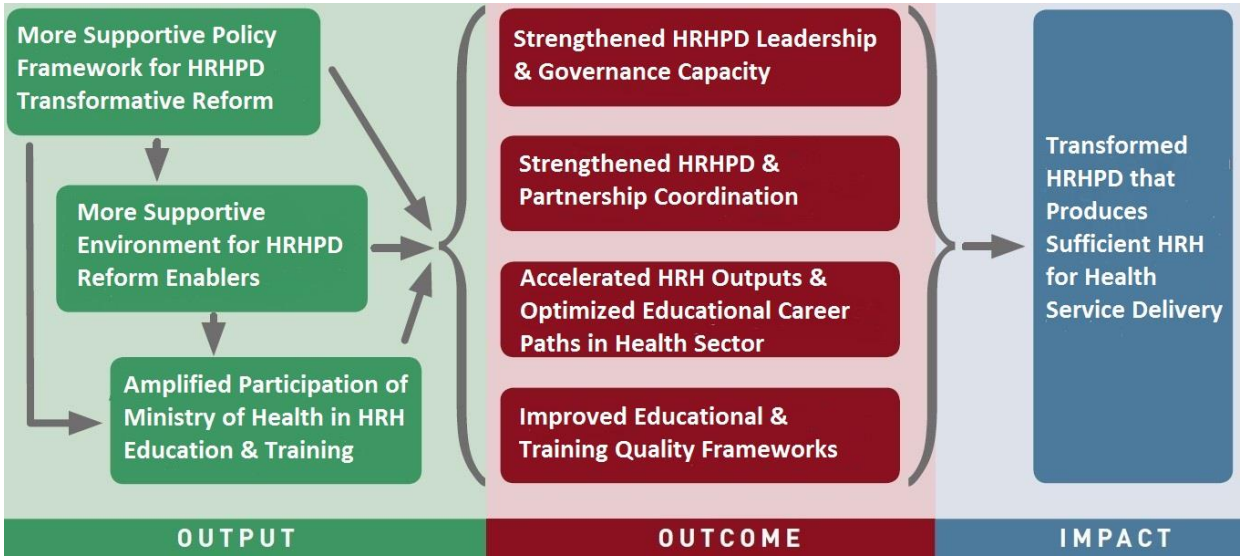

Figure 1: The Pathway of Transformation for HRH Planning & Development (HRHPD) in Ministry of Health.

Specifics about the target population, the amount of change required to signal success, and the timeframe over which such change is expected are embedded in the strategies and targets.

Key Strategic Interventions

This Strategy Framework builds upon a number of international, regional and national efforts. It has the following five strategic areas for achieving the objectives:

Strategy Area 1: Strengthening HRH Planning and Development Leadership and Governance Capacity

To address the fragmentation and inadequacies cited above, this Strategy Framework proposes the establishment of an "Integrated Health Workforce Planning and Development" approach to support transformative education and training of the health workforce by harmonizing and integrating human resources planning and development across five key areas:

1. Education and training institutions and in-service programmes.
2. Regulatory frameworks (accreditation and regulation).
3. Financing and sustainability.
4. Monitoring, implementation and evaluation with respect to quantity, quality and relevance of students and professionals in the health system.
5. Governance and planning

The "Integrated Health Workforce Planning and Development" approach can be achieved by integrating the roles, functions, and personnel currently envisaged and existing in the following entities:

1. National Training Coordination Unit headed by the National Training Coordinator
2. Human Resources Section headed by Assistant Director HRA – Training and Development, in particular:
    A. Human Resources Planning Unit headed by Chief Human Resources Management Officer – Planning
    B. Human Resources Development Unit headed by Chief Human Resources Development Officer.
3. Chief Nursing Officer – Education (Directorate of Clinical Care and Diagnostic Services)
4. Community Health Assistants Training Coordinator (Human Resources and Administration)
5. E-learning Nursing Programme Coordinator (ChildFund)

Such an integrated comprehensive framework for HRH planning and development will support MoH to meet its health system objectives, including health-related Sustainable Development Goals, and stimulate transformative education and training of the health workforce and further provide information for planning, policy and decision-making for human resources. Without strategies involving transformational efforts on health workforce capability all efforts at systems strengthening will remain aspirational. At the centre of the integrated approach is the effort to link HRH planning and education (including an adequate pipeline of trainees).

Plainly, the recommendation is consistent with resolutions of both the World Health Assembly (WHA59.23) for member states to commit to a rapid scaling of the production of health workers

and WHA67.24 that instigated the Global Strategy on Human Resources for Health: Workforce 2030 that reiterated that health systems can only function with human workers.

The justification for the transformative approach is necessitated because the 'business as usual approach' has not yielded sufficient progress over the preceding 20 years given that the systems have not evolved and are not optimally configured to achieve self-sufficiency in health workforce planning and development but have instead resulted in a fragmented approach that did not maximize synergies and integrate efficiency of investment across the five key areas that require attention and action by policy makers.

The transformation of human resource planning and development can be achieved by competent and dedicated leaders focusing on health needs and the objectives of the health services system. The transformative change proposed will require cultural and organizational changes; it will disrupt the values, objectives, power, and interests of many stakeholders, and foremost will happen in a complex environment and system. The success of such radical transformation will need strong commitment, strong leaders and policy champions as well as a solid governance mechanism at many levels of implementation. The leaders required should have capacity to grasp the multi-dimensional ramifications of the transformation and scaling up of education and training and its integration into the health systems.

Strategy Area 2: Strengthening Human Resources for Health Planning & Development and Partnership Coordination

The MoH is mandated to forecast, plan, manage and develop HRH requirements. Coordination factors in policy, national health indicators, disease burden and health systems strengthening at all four levels, namely: national, provincial, district and community. Coordination and management of the HRH development is critical to achieving a narrower gap between HRH supply and demand, minimized duplication of efforts, improved rational use of resources, and more equitable distribution of resources and services.

The coordination process demands formation of strategic partnerships and alliances with internal and external stakeholders regarding pre-service, postgraduate, and in-service (including capacity development, skill development, and continued professional development) programmes. It is through improved coordination and monitoring that quality and comprehensiveness of HRH development can fulfil the demands of quality health care service delivery.

This strategy framework provides for the establishment of the one-authority, one-stop, one-entry, and one-exit HRH planning and development coordination entity for the health sector.

Furthermore, there is widespread recognition of the need for accurate, timely and effective HRH data to inform the development of policies on HRH in Zambia. A harmonized dedicated system for collecting, processing and disseminating comprehensive timely information on its HRH workforce, including pipeline and stock, distribution, expenditures, and other parameters will be crucial. Standard tools, indicators, definitions and systems of classifying health workers will be necessary to minimize constraints on using HRH information for evidence-informed

decision-making. Strengthening HRH information and monitoring systems requires a better foundation for policy making, planning, programming, and accountability.

Strategy Area 3: Accelerating HRH Outputs from Education and Training Institutes

Firstly, Zambia has made modest improvement on the HRH deficit since declaring the HRH Crisis in 2006. Secondly, Government has embarked on large-scale infrastructure development in the health sector in order to improve access to quality health care services for its people. Amid these realities, the Government recognises that HRH is one of the weakest components in the Zambian health systems. Radical and bold decisions that shift from 'business-as-usual' are needed to improve HRH development that can meet the health care service delivery demands.

Zambia's HRH workforce must be scaled-up by almost 140% in order to overcome the crisis while taking into account accessibility, equity, equality and efficiency. Notwithstanding, Government wishes to minimise disruptions of service delivery caused by uprooting health staff from their stations as they pursue in-service training. In this regard the MoH will uphold the 70-20-10 in-service training principle were 70 % of the training takes place in the participants work settings, 20 % are short-term off-site trainings and 10 % are long-term off-site training approaches.

Levy Mwanawasa Teaching Hospital & The National Health Training Institute.

The Ministry of Health is upgrading the Levy Mwanawasa Hospital into an 800 bed capacity teaching hospital. Furthermore, the MoH has commenced and is committed to completing the construction of the 3,000-student capacity National Health Training Institute (NHTI) situated adjacent to Levy Mwanawasa Hospital. The NHTI total project cost is ZMW K 148,006,027.67 (USD $ 14,800,602.77). The physical structure is designed to house the following:

a) Public hub: this facility houses the following amenities: grocery store x 1, post office x 1, internet café x 1, bank x 1, canteen x 1, bookshop x 1, general shops x 6, and print and stationery shops x 2;
b) Administration block: this facility that has a capacity for 185 persons;
c) Library: this facility that has a capacity of approximately 920 students;
d) Laboratories and tutorial rooms: this facility includes 2 blocks of 4 laboratories (260 students per block), 4 tutorial rooms (80 students per block).
e) Auditorium and lecture theatres: this facility includes a 750-seats capacity auditorium and six lecture theatres each with a capacity of 155 students; and
f) Dining hall: this facility that has a capacity for 1,060 persons.

The Levy Mwanawasa Teaching Hospital (LMTH) & NHTI will be important strategic vehicles to accelerate and intensify training of health professionals in a manner that will be aligned to priorities of the health sector. The purpose of LMTH and NHTI will be to educate, train, and prepare health professionals to directly support the MoH systems, public healthcare services, and national health strategies. In addition, they will anchor health sector HRH development policy, strategic direction, and quality improvement and assurance.

The LMTH & NHTI underpin the MoH's keystone strategic initiative to divert from the 'business as usual' approach in training moving away from small-scale interventions toward more transformative innovations that maximize opportunities by spending resources in an efficient manner and around investing for impact. These two priorities underpin the framework and mandates of LMTH & NHTI and these are:

a) To accelerate and intensify training in order to reduce the human resources for health deficit regarding the numbers and skill-mix with special attention to quality of training programmes. [Accelerated Training Response: Investing for Impact].
b) To strengthen the capacity for a well-coordinated and sustainably managed health sector training plan. [One Coordination Authority: Efficiency in Resource Utilization].

The LMTH & NHTI will serve as MoH's qualifications awarding institutes at specialist, degree, diploma, and certificate levels. They will be MoH's premier training centres for both pre-service and in-service education and training, including capacity development, skill development, continued professional training and specialist postgraduate training. They will provide the nation with health professionals dedicated to career service in the public service in Zambia. The LMTH & NHTI approach is unique in relating education, research, and consultation to provision of cost-effective quality health services that will be responsive to the national health priorities.

Educational Philosophy

Uniquely, the education and training will be hands-on, competence-based and spearheaded and modeled on professional experiences of practicing clinicians.

The LMTH & NHTI organizational framework is anchored on five goals and these are:

a) Goal 1 – Human Resources for Health Capacity Building. To continually build the human resource capital to fulfil the Ministry's mandate to deliver access to cost-effective quality health services as close to the family as possible. The curricula are grounded in educational and scientific rigour, high standards of medical and health professionalism but have a clear focus on the unique requirements of public healthcare services and national health priorities.
b) Goal 2 – Enhanced National Training Policy Framework. To ensure that LMTH & NHTI staff, internal processes and capabilities, and infrastructure are the best in the nation, operationally excellent, and are capable of supporting and enabling the delivery of a well-coordinated and sustainably managed HRHPD strategy framework in order to enhance MoH's organizational capabilities.
c) Goal 3 – Excellence in Education. To be a recognized national leader for pre-service and in-service teaching and learning in the health professions; incorporating best practice and the latest technologies and methods in how students and participants are educated and trained. This posture must be reflected in the selection of students and faculty, by both being chosen competitively and only the most qualified applicants will be considered.
d) Goal 4 – Strong Strategic Partnerships. To develop further and leverage the relationships with local, regional and international partners and stakeholders so

that LMTH & NHTI can grow, achieve more, and continue to deliver excellence in education, training, research, and consultation.

e) Goal 5 – Decentralized Nationally Distributed Multi-Centre Training Model. The LMTH & NHTI will have a national character in its training sites and operate a distributed campus model with training sites at Levy Mwanawasa Teaching Hospital, University Teaching Hospitals, Central Hospitals, Provincial Hospitals, and Level 1 District Hospitals and as well as community focused practicums. Nevertheless, the programmes will be managed by a centralized programme design.

Integrated, multi-professional, multi-site training institutions model.

Typically, health professions training in Zambia, even when located on the same premises, has been restricted to training one cadre of the health professions per training institution, especially in nursing schools and colleges of biomedical sciences. Chainama College of health sciences, universities, and private training institutions have adopted multi-professional and multi-site approaches. Furthermore, training institutions are restricted to the hospital directly linked to the training institution. In contrast, the LMTH & NHTI, in line with the devolution principle espoused in Zambia's constitution, will operate multi-site training centres geographically distributed across the country. The NHTI satellite training centres will be located in all MoH teaching hospitals, central hospitals, provincial hospitals and accredited district hospitals. This strategy affords equitable and accessible geographical distribution of key developmental projects. This approach also supports the WHO Global Policy (2010) recommendation to increase access of health workers in remote and rural areas by training people 'in the rural for the rural.' The training model harness the competitive advantage of the MoH to maximize the benefits to training health professionals. All the staff in these institutions are already on the MoH payroll and the institutions receive grants from MoH.

Devolved training sites will enable the LMTH & NHTI to deliver training of health professionals in higher numbers, with a better lecturer-to-student ratio and expose students to a variety of learning environments. This innovative approach will increase quantity alongside quality. Additionally, this approach will accrue benefits to both the hospitals-training centres and students. This approach momentously reduces the transaction costs of setting up and expanding health professions training institutions by promoting synergy, efficiency, effectiveness and equitable geographical distribution and access to quality health care services.

Specialist training programme.

The Specialist Training Programme (STP) is a strategy to accelerate the training of medical specialists so that the benefits are catalytic to HRH workforce development. The STP strategy will enable medical specialist training to grow faster through an expanded range of settings beyond traditional university-based postgraduate programmes. The STP will be delivered through specialist international, regional or national medical colleges, such as the Royal College of Surgeons and Physicians of Ireland, College of Surgeons of East and Central Africa, College of Physicians of East and Central Africa, East Central and Southern Africa (ECSA) –

Health Community, for example. All training programmes will receive prior recognition and approval of the Health Professions Council of Zambia. The STP will be conducted in a multi-site decentralized distributed model with clinical placements at teaching, central and provincial hospitals. The two aims of the STP are to:

- Enhance HRH distribution by providing specialist registrars with training opportunities in rural areas and areas of workforce shortage.
- Increase specialist training capacity and quality by providing educational opportunities in settings where registrars will work once they qualify.

The projected number of specialist training places funded by the STP from 2018 to 2022 is:

2018	2019	2020	2021	2022
40	80	160	320	640

The level of funding available for STP posts is a salary contribution per year, registration fees, educational support stipend, and professional examinations fees.

In addition to establishing specialist training posts, the Strategy Framework also provides authority to mobilize funds, resources, and strategic partnerships with international and regional specialists' colleges, including developing system wide education and infrastructure support projects to enhance specialist training opportunities for eligible trainees. Further, development of the STP Operational Framework is prioritized.

Strategy Area 4: Optimizing the Educational Career Paths in the Health Sector

Ministry of Health senior staff can be appointed to a single spine salary scale that allows for recognized parallel career pathways. Each career pathway will stipulate the appointment/promotion criteria applicable for the relevant career progression and related grade conditions of service. For example, doctors may be appointed to career tracks shown in Table 3. There is built-in flexibility to take an alternative career path at all grades.

Table 3. Doctor's Career Pathways

Level	Medical Doctor	Health Professions' Educator
1	Senior Consultant 2	HPE Professor
2	Senior Consultant 1	HPE Associate Professor
3	Consultant	HPE Consultant
4	Senior Registrar	Senior Registrar
5	Registrar	HPE GMO
6	GMO	GMO
7	SRMO	SRMO
8	JRMO	JRMO

HPE = Health Professions' Educator; GMO = General Medical Officer; SRMO = Senior Resident Medical Officer; JRMO = Junior Resident Medical Officer.

The joint professional and academic appointment and promotion framework is a strategy to re-emphasize and accelerate the promotion of teaching/learning as a key function of health

professions. It also places educational activity as an important duty and function of teaching at central, provincial, district and community health facilities.

Strategy Area 5: Improving Educational & Training Quality Frameworks

Standards of teaching and learning, assessment practices, staffing, infrastructure, and curricula, to a large extent, influence the quality of education and training and to what extent it fits the intended purposes.

Training needs assessment is a critical component in assuring quality and sustainability of new programmes and curriculum reform. In the pursuit of quality improvement and assurance strategies, this strategy framework seeks to safeguard the place of training needs assessments before embarking on new curricula development and curriculum reform; that of appropriately qualified health professions' education experts in overseeing the process; and that of content/subject experts in generating and peer-reviewing curriculum content.

The SF further provides for educational research to generate evidence for educational policy, curriculum development, assessment practice and policy, and teaching/learning policies and practices, as important standards, quality improvement and assurance strategies.

Additionally, in the first instance, curricula and new programmes should align and conform to the policy provisions that promote integrated approaches to learning management, synergy, and multi-site distributed clinical placement, and health sector priorities, when possible.

Competitive Advantage of the MoH in HRH Planning & Development

Robust Organizational Framework

The MoH's organizational structure is well-financed, robust, timely and responsive. Its influence is national in extent and it can direct and implement directives in local settings in far-flung places making it amenable to both promoting decentralization in line with national policy and facilitating equitable distribution of skilled health personnel to under-served areas. This framework can be brought to bear on re-organizing the HRH development agenda and landscape. Other existing training institutions do not have a comparable system and the influence of their structures is limited to local settings and affects only a few individuals.

Staffing

The bulk of training activities and professional apprenticeship is already dependent on MoH-employed clinicians and -owned health facilities. A critical mass of such scientifically trained staff are already employed by the MoH and are deployed in clinical roles which do not fully utilize their higher qualifications and academic experience.

Furthermore, specialized clinical care in Zambia is practically reliant on MoH personnel. The MoH has both the numbers and scope of skill mix to sustain clinician training and specialization

training. The following is an outline of available MoH specialists: Internal medicine – general internists, cardiologists, renal physicians, neurologists, endocrinologists, infectious diseases specialists, radiologists, gastro-enterologists, and nuclear medicine specialists; In surgery, MoH has specialists in general surgery, orthopaedics, anaesthesiology, urology, ophthalmology, maxillo-facial surgery, ear nose and throat, plastic surgery and paediatric surgery; In paediatrics, specialists include general paediatricians, neonatologists, paediatric nutrition, cardiology and renal paediatric physicians. Other specialists are in obstetrics and gynaecology and in psychiatry. All these specialists are already on the MoH payroll and work in MoH health facilities.

Monitoring & Evaluation

Monitoring and evaluation of the SF will use existing M & E platforms for the MoH, including the National Health Indicators and in particular the M & E frameworks developed for HRH planning and development strategic plans, operational plans, and road maps. An evaluation report within the context of Annual Consultative Meeting will be shared with all stakeholders. The following process indicators may be adapted to HRH strategic plans, operational plans, and road maps:

Strategic Area of Focus	Process Indicators
Strategic Area 1 Strengthening HRHPD Leadership and Governance Capacity	Existence of HRHPD SF at MoH
	Approval of HRHPD SF by High-Level officials
	Proportion of national, provincial and district policy documents that reflect the content of this Policy
	Implementation rate of the key strategic areas included in this SF
	Existence of budget line dedicated to HRH Planning and Development
	Existence of functional & up-to-date HRH Information System & Database.
Strategic Area 2 Strengthening HRHPD Partnership Coordination	Existence of functional coordination mechanism to facilitate policy dialogue on the HRH planning and development agenda.
	Number of National HRH Planning and Development consultations held.
	Existence of functional comprehensive HRH Information systems.
	Existence of functional and comprehensive Coordination mechanism.
Strategic Area 3 Accelerating HRH Outputs from Education and Training Institutes	Increase the rate of admission to health training institutions by at least 50% by 2025
	Annual rate of increase in the numbers of graduates in medicine, nursing and midwifery - 15% target.

• The LMTH & NHTI • Integrated, Multi-Professional, Multi-Site Training Institutions Model. • Specialist Training Programme	Number/percentage of functional Specialist Professional Bodies that play their role in certifying specialists.
	Number/percentage of training institutions integrated into single multi-professional training institutions
	Number/percentage of hospitals approved for professional training.
Strategic Area 4 Optimizing the Educational Career Paths in the Health Sector	Percentage of staff on Health Professions' Educator career pathway
	Percentage of senior clinical staff who have completed faculty development programme (MedScholar) – 50% target.
Strategic Area 5 Improving Educational & Training Quality Frameworks	Number/percentage of new programmes complying with guidance on needs assessment requirement.
	Number/percentage of curriculum revised and implementing best practices in the training of health professionals.
	Existence of defensible, credible and accountable pass/fail criteria for achievement of educational objectives which conform to international best practices.
	Number/percentage of new courses on e-learning platform for pre-service and in-service training.
	Effective collaboration with the Health Professions Council of Zambia (HPCZ) and General Nursing Council (GNC) in administering Licensure Examination as a quality assurance strategy.
	Number/percentage of curriculum development and evaluation, and assessment support programmes organized for training institutes and faculty.

Each of these strategic areas has a set of identified priority interventions that will lead to achieving the objectives. For implementation, detailed specific steps and actions will be developed by MoH with collaborations of key stakeholder. Implementation of the interventions outlined in this SF require the commitment and collaboration of all stakeholders and partners under the leadership of the Zambian government.

CONCLUSION

This Strategy Framework is expected to alleviate the HRH crisis in Zambia, contribute to improving health service delivery in the Country and accelerate progress towards the attainment of the health SDGs and other national and regional health goals and targets. The Strategy Framework sets the premise and priority areas for interventions through:

1. Providing a comprehensive institutional context for the planning, coordination and implementation of the national HRHPD.
2. Articulating national HRHPD priorities, approaches, and outcomes that stakeholders should work towards, based on their respective mandates, resources and comparative advantages.
3. Articulating an agreed framework for the implementation of HRHPD in partnership with stakeholders that is in line with the four 1s in HRHPD Coordination (1 Authority, 1 entry point, 1 exit point, 1 stop) and the 70-20-10 HRH Development approach (70% within the work settings strategies, 20% short-term out-of-station settings strategies, and 10% long-term release strategies).
4. Providing a transparent policy framework to form the basis of agreements with development partners and other stakeholders on their technical and financial support and the management and coordination of HRHPD.

This Strategy Framework further supports initiatives:

- To accelerate the outputs of quality HRH that can make substantial impact on the HRH deficit in order to improve service delivery;
- To provide for comprehensive standards for optimal delivery of pre-service and in-service HRH development through various levels of the healthcare delivery system.
- To provide for equitable, efficient, decentralized and responsive HRHPD.
- To establish the Levy Mwanawasa Teaching Hospital and National Health Training Institute and its satellite provincial health training centres and district training facilities that will operate as part of an integrated multi-disciplinary training institution.
- To provide for health professions' educator pathways for health personnel.

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APPENDIX 1

ORGANIZATION STRUCTURE FOR DIRECTORATE OF HUMAN RESOURCES PLANNING & DEVELOPMENT (MoH)

Objective and Scope of the Directorate of Human Resources Planning and Development

Objective of Human Resources Planning and Development: To provide the right number of health care workers with right knowledge, skills, attitudes and qualifications, performing the right tasks in the right position at the right time to achieve the right predetermined health targets.

The Directorate is responsible for the provision of policy and strategic direction, quality improvement frameworks, and advisory services regarding health sector human resources planning and development needs in order to improve the HRH complement required for quality service delivery. The main functions of the Directorate are to:

1. Formulate and implement evidence-based HRPD policies, strategic and operational plans including the HRH Planning and Development Strategy Framework, HRH Strategic Plan, and the National Training Operational Plan.
2. Establish a repository of HRH Planning and Development policies, plans, and a register of training CPs, agencies and stakeholders.
3. Monitor and report on progress in the implementation of HRHPD policies, strategic and operational plans.
4. Oversee and coordinate the institutional management & development of education and training institutions managed by the Ministry.
5. Formulate and champion compliance with pre-service and in-service education & training standards by way of quality improvement and assurance frameworks in the training of health professionals.
6. Facilitate the utilization and implementation of E-learning programmes in order to accomplish the e-Health Strategy and Smart Zambia protocol.
7. Create a one-stop, one-entry, one-exit point platform and communication hub for HRHPD for the health sector that ensures availability of functioning communication systems between the Ministry of Health and HRHPD stakeholders and Development Partner (s).
8. Coordinate the transition of HRH Development and Planning initiatives from Project Phase to integration into the Ministry system.
9. Be a catalyst for policy dialogue for change and impact in HRH planning and development.
10. Advise the Minister, Permanent Secretaries, directorates and CPs on matters of HRHPD.

Chief Human Resources Management Officer – Planning (CHRMO-P) is responsible for:

1. Establishing systems and coordinating data collection required for HRH pipeline outputs, workforce trending, modelling, projections, and planning.
2. Establishing a functional and updated Human Resources Information System (HRIS) and Database illustrating pre-service education pipeline status and workforce numbers, skill mix and distribution.
3. Developing a compendium of human resources for health indicators and applying and reporting HRH analytics, including forecasting, planning, and costing, applicable to Zambia.

4. Developing and applying analytical tools and frameworks for needs based human resources planning including discipline & skill priorities, workforce supply & requirements to achieve the priority needs of the Ministry of Health.
5. Collaborating with relevant stakeholders in the design, execution and reporting of research to optimize the production and utilization of the health workforce.
6. Coordinating the formulation of the National Human Resources Strategic Plan and the National Training Operational Plan.
7. Designing, developing and making operational the Zambia Health Workforce Observatory.

Chief Human Resources Development Officer (CHRDO) is responsible for:

1. Establishing systems and coordinating data collection required for education and training information database, analysis and planning.
2. Developing national standards for educational and training institutions in the health sector.
3. Developing a compendium of performance indicators for education and training institutions in the health sector.
4. Establishing a functional and updated Learning Management Information System (LMIS) and Database illustrating pre-service and in-service education and training institutions status, numbers, HRH cadre programmes offered, and distribution.
5. Facilitating the development of pre-service educational and training programmes in the Ministry.
6. Facilitating the development of in-service educational and training programmes in the Ministry.
7. Analyzing and advising on the alignment of the health workforce pre-service education pipeline to meet identified health sector priorities.
8. Analyzing and advising on the alignment of the health workforce in-service education and training programmes to meet identified health sector priorities.
9. Monitoring and evaluating the quality of pre-service programmes carried out in education and training institutions.
10. Monitoring and evaluating the quality of in-service programmes carried out for the health workforce in the Ministry of Health.
11. Assisting to develop and maintain pre-service training education programmes in collaboration with training institutions and MoH departments and/or development partners.
12. Coordinating Faculty Development and Trainer Development for staff in the Ministry.