Kingdom of Lesotho

Ministry of Health and Social Welfare

Human Resources Development & Strategic Plan

2005-2025

Acknowledgements

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1 Introduction

This document is a combined Human Resources Development Plan and Human Resources Strategic Plan for the health and social welfare sector of Lesotho. The Development Plan is presented in Chapters 2 through 5, and the Strategic Plan is presented in Chapter 6. The essential difference between the two is that the HR Development Plan represents a technical assessment of the total labor supply and training requirements for the sector in the absence of any budget or production constraints. It reflects a technical assessment of what is needed and what should be produced and financed if we faced no constraints. The Strategic Plan by contrast takes cognizance of budget and production constraints and thus represents a prioritized plan that would be technologically feasible from a production standpoint and financially feasible assuming the investment and incremental recurrent budgetary resources are forthcoming as anticipated.

It is important to note in this regard that discussions held with the Ministry of Public Service (MPS) have indicated that **if** the health and social welfare sector can adequately redress the substantive existing deficiencies in the domain of career management – deficiencies that are causing the sub-optimal use of trained personnel currently employed in the sector and are contributing to an unsustainably high loss rate among the most highly trained and costly to produce occupations - and can redress the perceived inefficiencies associated with the relatively high percentage of the wage bill allocated to non-technical support staffs, the Government of Lesotho will be prepared to finance the incremental recurrent costs of the posts that are technically justified and that can be filled with adequately trained personnel. As such, the principal constraints to the realization of the Strategic Plan laid out in Chapter 6 will be the ability of the MOHSW to address the career management issues to the satisfaction of the MPS and the ability of the sector to produce the requisite personnel and retain them in service.

The HR Development Plan draws extensively on the *Health Sector Human Resources Needs Assessment* (Schwabe, McGrath and Lerotholi, 2004) produced by Medical Care Development International under contract to the Ministry of Health and Social Welfare through the Lesotho Human Resources Consultancy funded by the World Bank. It incorporates extensive feedback obtained from key stakeholders at the National HR Development Planning Workshop held in Maseru in June 2004. It is anticipated that there will be a need for a final round of review and adaptation that will once again involve key stakeholders. This final round of review and adaptation should also serve as the basis for producing a 3-year rolling *Health and Social Welfare Training Plan* that will provide the specific yearly training objectives for the sector. This training plan will also need to take into account specific financial commitments to expand the substantive pre-service and post-basic training capacity, financing out-of-country substantive training grants, and finance the development of the national Continuing Education Program.

2 Situation Analysis – State of the Health & Social Welfare Sector

2.1 Health and Social Welfare Policy and Sector Reform

As part of an ongoing Health Sector Reform process, the Government of Lesotho in conjunction with its major partners recently drafted a new Health and Social Welfare Policy (September 2003) that provides the agenda for the development of the sector. The Policy is formulated as an integral component of the national development strategy outlined in the Government's Vision 2020 Framework. The agenda for health sector development is posited within the context of the country's medium term Poverty Alleviation Strategy that seeks to substantively reduce the incidence and impact of poverty through expansionary macroeconomic policies designed to foster growth in production and employment, and through public sector performance improvement achieved through a more effective allocation of resources towards activities with the highest impact on poverty alleviation. The fiscal policies to be promulgated under the Poverty Alleviation Strategy include ensuring that public expenditures are targeted at national development objectives and priorities, including health care.

The new Health and Social Welfare Policy and associated Health Sector Reform initiatives build upon past systemic developments within the sector. These include most notably the adoption in 1979 of a national Primary Health Care strategy, the decentralization of health services to eighteen Health Service Area (HSA), the decision to create a Nurse Clinician cadre to carry out medical functions of diagnosis, prescription of drugs as well as the usual nursing and midwifery functions, the introduction of the Community Health Worker Program, and the introduction of Filter Clinics designed to provide primary care in a more cost-effective manner to the growing urban population.

HIV/AIDS has caused a precipitous deterioration in health status. The HRDSP is a key component of Health Sector Reform which seeks to reduce the burden of disease in the most cost-effective and equitable way

Though the implementation of these initiatives Lesotho initially realized important improvements in health status as measured through reductions in infant, child and maternal mortality and through an increase in life expectancy. The advent of the HIV/AIDS pandemic, however, has taken an enormous toll on Lesotho and has substantively eroded the past gains made in health status. The precipitous deterioration in health status that has occurred as a result of the HIV/AIDS pandemic comes at a time when the country faces increased economic and natural hardships and increasingly constrained public finances. Adequately addressing the pandemic in a humanitarian manner with available resources will require fundamental reforms and a commitment to allocate resources in ways that will have the greatest impact on reducing the overall burden of disease in the most cost-effective and equitable manner possible.

The Health and Social Welfare Policy calls for rationalizing sector labor supply, improving retention, and appropriately training HR

The new Health and Social Welfare Policy identified a number of human resources-related problems that need to be addressed within the sector reform process as a means of effectively responding to the challenges ahead. These include the need to rationalize the supply of health and social welfare sector labor, implement strategies that will improve staff retention, and appropriately train available personnel to perform the tasks they are charged.

The new Health and Social Welfare Policy is predicated upon a number of guiding principles that have a direct bearing on this human resources needs assessment as well as on the articulation of the Human Resources Development and Strategic Plans. These guiding

principles include the commitment of Government to (i) poverty reduction and social welfare; (ii) a primary health care approach to service delivery that relies or focuses on community participation, inter-sectoral collaboration, appropriate technology, disease prevention, health promotion and behavior change; (iii) equal access to basic health care and social welfare services and the adoption of strategies that will redress any existing disparities by giving special attention to disadvantaged regions and underserved communities in the country; (iv) affordability of services; (v) community participation in management and planning for health and social welfare services; (vi) integrated service delivery approaches; (vii) sustainability of service provision when external support stops; (viii) efficiency in resources allocation so as to ensure that resources are only used where the greatest benefit can be realized in the most cost-effective manner; (ix) ensuring that good quality services are supplied; (x) according special attention to ensuring that health and social welfare services are available for women given their generally lower status in society and their special role in reproduction; and (xi) adhering to the highest level of ethics and integrity and guided and enforced through professional councils and legislation.

The guiding principles of the HRDSP include
- Reinforcing PHC
- Ensuring equal access
- Adopting integrated strategies
- Maximizing efficiency / sustainability
- Ensuring quality
- Targeting women and other vulnerable groups

In keeping with these guiding principles, the new Health and Social Welfare Policy identifies the components of a new District Health Package that will ensure that Government is able to make the best use of its limited resources to have the largest impact on reducing the burden of disease facing the country. These District Health Package components include: (1) essential **public health** interventions in the domain of health and education promotion, immunization, nutrition, integrated management of childhood illnesses (IMCI), and environmental health; (2) **communicable disease control** interventions addressing in particular sexually transmitted diseases, HIV/AIDS, and tuberculosis; (3) **sexual and reproductive health** interventions designed to ensure access to family planning and appropriate care for pregnant women, safe motherhood (with particular emphasis on preventing teenage pregnancy and providing post-abortion care), maternal and infant nutrition, adolescent health, and the use of Anti Retroviral Therapy as a means of interrupting mother to child transmission of HIV; and (4) essential **clinical services** addressing the most common diseases, basic dental care and mental health services.

The HRDSP will ensure the effective delivery of the District Health Package

The new Health and Social Welfare Policy also identifies the social welfare priorities as follows: (1) child welfare including health, development, protection from abuse, exploitation, neglect and abandonment, and the provision of care for orphans and other vulnerable groups; (2) youth services including vocational education and employment promotion, controlling the spread of HIV/AIDS, and preventing and managing substance abuse and delinquency; (3) services for women including those that foster increased economic, social and political opportunities, and protect their rights; (4) services for adults in difficult circumstances including the homeless and those in *Bakoao*; (5) services for people with disabilities; and (6) services for the elderly.

The HRDSP will ensure the effective delivery of essential social welfare services

The new District Health Package and social welfare priorities have the following specific implications for the articulation of the future human resources development strategy for Lesotho:

To strengthen public health interventions:

- Sufficient numbers of trained personnel must be deployed to supply IMCI as the primary strategy for improving child survival and development.

The HRDSP will ensure effective delivery of IMCI services

- Front-line health and social welfare service providers should be trained to promote improved nutrition particularly among children and mothers as an integrated component of facility-based services and community outreach activities. Nutrition counseling should be fully integrated within other priority areas of intervention such as counseling for HIV/AIDS.
- Staffing at primary health care facilities should be sufficient to supply nutrition supplementation and support to vulnerable children and mothers as part of the integrated facility-based service package.
- Environmental health education and promotion should be reinforced within the curriculum of front-line health and social welfare service providers and specific multi-disciplinary strategies/interventions should be introduced that actively engage these front-line service providers in this realm.
- Social welfare services targeted at the under-5 population should be strengthened at the community level through the establishment of an Auxiliary Social Worker (ASW) cadre who would undertake household-based interventions to promote child development and protection from abuse, exploitation, violence, neglect and abandonment.
- Train front-line health and social welfare providers and community members in emergency health and rescue care.

The HRDSP will strengthen curricula and train relevant HR in
- Nutrition
- Environmental health
- Emergency health and rescue services
- Prevention of communicable diseases
- Health education and communication
- Adolescent health and welfare
- Prenatal care and family planning
- Prevention of mother-to-child transmission of HIV/AIDS

To strengthen communicable disease control interventions:

- Prevention and control of communicable diseases and in particular sexually transmitted diseases, HIV/AIDS and tuberculosis needs to be integrated into the service package offered by **all** front-line health and social welfare providers through training and the assignment of specific job/task responsibilities.
- All front-line health and social welfare providers should receive reinforced training in health education and communication designed to effect behavioral change as a means of reducing the risk of contracting communicable diseases.
- New and/or reinforced interventions targeted at adolescents in the areas of sexuality, HIV/AIDS, substance abuse, career development, and mental health need to be instituted and adequate staffing for carrying out these interventions assured.

To strengthen sexual and reproductive health interventions:

- Adequate staffing needs to be put in place to assure universal access to prenatal monitoring, safe deliveries and post delivery care, and antenatal care.
- Front-line health and social welfare providers should be trained to promote and facilitate access to safe, effective, affordable and acceptable methods of family planning.
- Front-line health and social welfare providers should be trained to educate pregnant women on mother-to-child transmission of HIV and (as becomes feasible) the use of ART as a means of reducing the rate of transmission.

To strengthen clinical services:

- Ensure that all health facilities (Government, CHAL and other NGO) are staffed with a minimum complement of necessary personnel, taking into account the designated service function of the various types of facilities and associate case management and referral guidelines/norms.
- Integrate oral health services into primary health care through the deployment of an adequate number of trained Oral Health Assistants in health centers and higher level health facilities.
- Train front-line health and social welfare providers in oral health advocacy and education, and integrate oral health into on-going social mobilization and IEC programs/strategies.
- Reinforce training of all front-line health and social welfare providers in mental health as a means of recognizing and identifying cases and linking patients with available care. Train and deploy Social Workers and Social Welfare Assistants to provide community-based mental health care.
- Ensure adequate staffing of all designated mental health facilities.
- Strengthen Specialist mental health service delivery by ensuring an adequate supply of Psychiatrists and Mental Health Nurses.
- Strengthen training in appropriate case management and rational use of medicines among all front-line health providers.
- Train relevant personnel in supervision, performance evaluation and technical support based on well-specified quality assurance guidelines /norms /protocols /targets and use of related performance indicators.
- Ensure adequate staffing for cost-effective pharmaceutical procurement, storage, distribution and management at all levels of the health delivery system.

The HRDSP will reinforce clinical care by
- Ensuring minimum necessary staffing
- Integrating oral health
- Integrating mental health
- Strengthening training in case management and rational drug use
- Training staff in new quality assurance protocols
- Ensuring adequate pharmacy staffing

To strengthen social welfare services:

- Train and recruit appropriate numbers of Social Workers and Social Worker Auxiliaries to ensure adequate coverage in social welfare services at the district and community levels.
- Ensure that front-line social work providers are adequately trained/ oriented in issues and interventions strategies associated with child protection and development, youth development, adults in difficult circumstances, people with disabilities, prisoners, and the elderly.
- Front-line health providers need to be sensitized/ oriented in the principal issues impacting social welfare in the country. The creation of a Medical Social Worker cadre should be considered for rural areas.

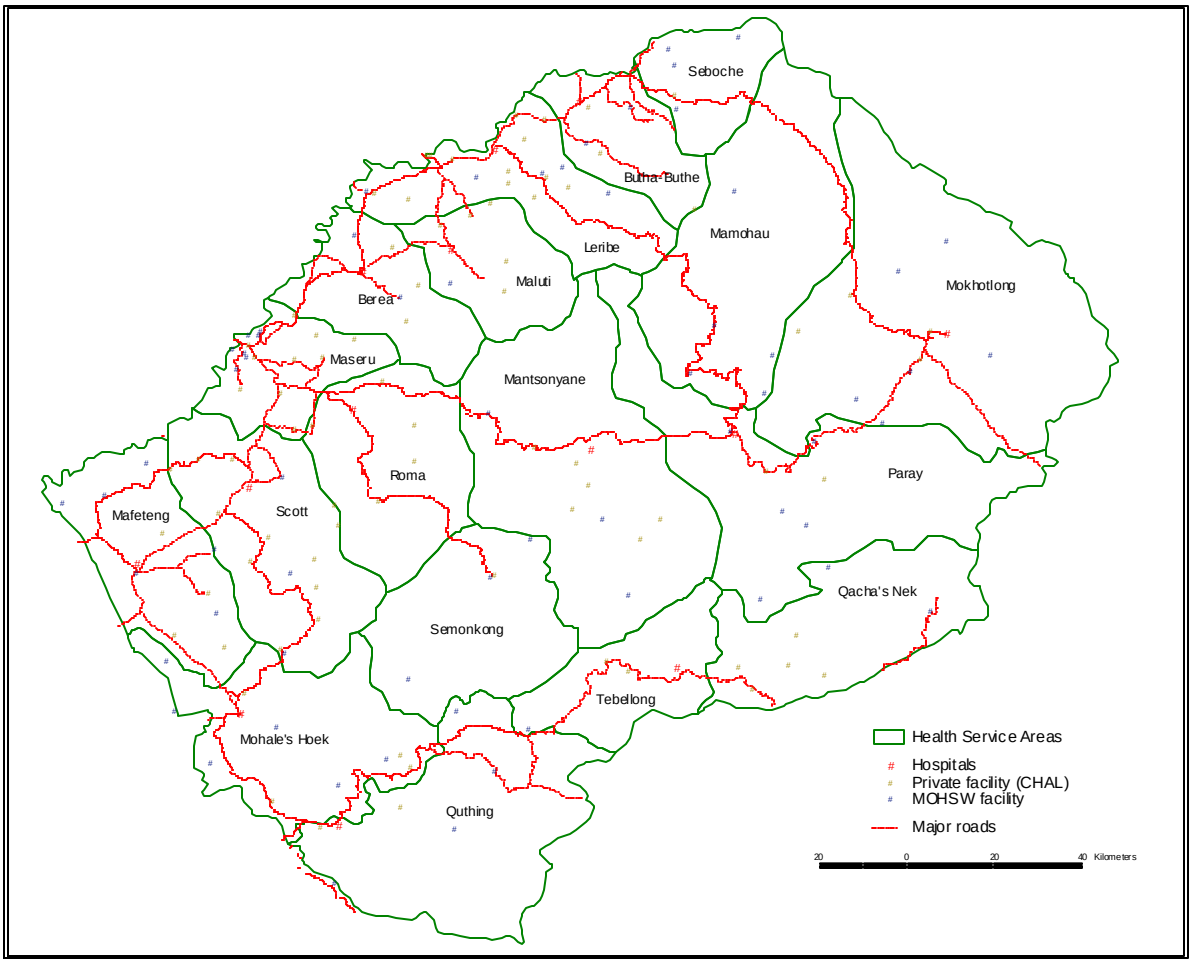
The HRDSP will strengthen social welfare services by
- Ensuring adequate social welfare staffing
- Integrating social welfare into frontline health services

2.2 Decentralization[1]

In 1979 Primary Health Care (PHC) was adopted as a strategy for health service provision in Lesotho. Eighteen Health Service Areas (HSAs) were introduced[2]. They were based on the catchment populations of 18 hospitals: 9 Government and 9 Christian Health Association of Lesotho (CHAL) institutions. The HSA was recognised as the core of the Lesotho health care delivery system, and the level at which the full range of management activities (planning, leading, supervision, monitoring) takes place.

Figure 1 presents the boundaries of these 18 HSAs.

Figure 1: Boundaries of the 18 HSAs.



While the health system was organized in HSAs, the Local Government Act of 1997 established Rural, Urban and Municipal Councils – also known as districts - as the basic administrative unit of the country. These districts were charged under the Act with overseeing the provision of health and social welfare functions. In accordance with this Act, the Government created District Health Teams (DHTs) to be responsible for planning,

[1] The following narrative is drawn from the MOHSW's Strategy for Decentralisation of the Health and Social Sector in Lesotho (2003), pages 11 and 12.

[2] In addition, the Lesotho Flying Doctor Service serves nine health centers located in isolated mountain sites.

coordinating, expediting and monitoring health programmes throughout the district. The District Medical Officer (DMO) was expected to be the main link between the district and the Ministry of Health headquarters.

The composition of a District Health Team was expected to vary from district to district, but generally is was to have the following members: DMO as the team leader, District Nursing Officer, District Health Inspector, District Public Health Nurse, District Health Administrator, District Psychiatric Nurse, District Pharmacy Technician and District Laboratory Technician.

In accordance with the MOHSW's Strategy for Decentralisation of the Health and Social Sector (2003), in the future each district will have a District Health Management Team (DHMT) to manage, co-ordinate and oversee the performance of the health and social welfare services. The team will also work closely with the Hospital Management Teams in its area, and with the DHMT(s) of the neighbouring district(s) in order to ensure that shared communities are provided with quality health services, co-ordinate special initiatives, and prompt response to disease outbreaks and other possible emergencies.

The DHMT will be empowered to oversee activities of all health and welfare service providers in the district without particular consideration to the proprietor. DHMT will also be responsible for the supervision of the hospital(s) and health centres within the district. The new Memorandum of Understanding that is being instituted between the GOL and CHAL will guide the operations of CHAL facilities and their relationship with the DHMT.

2.3 Organization of Health and Social Welfare Services

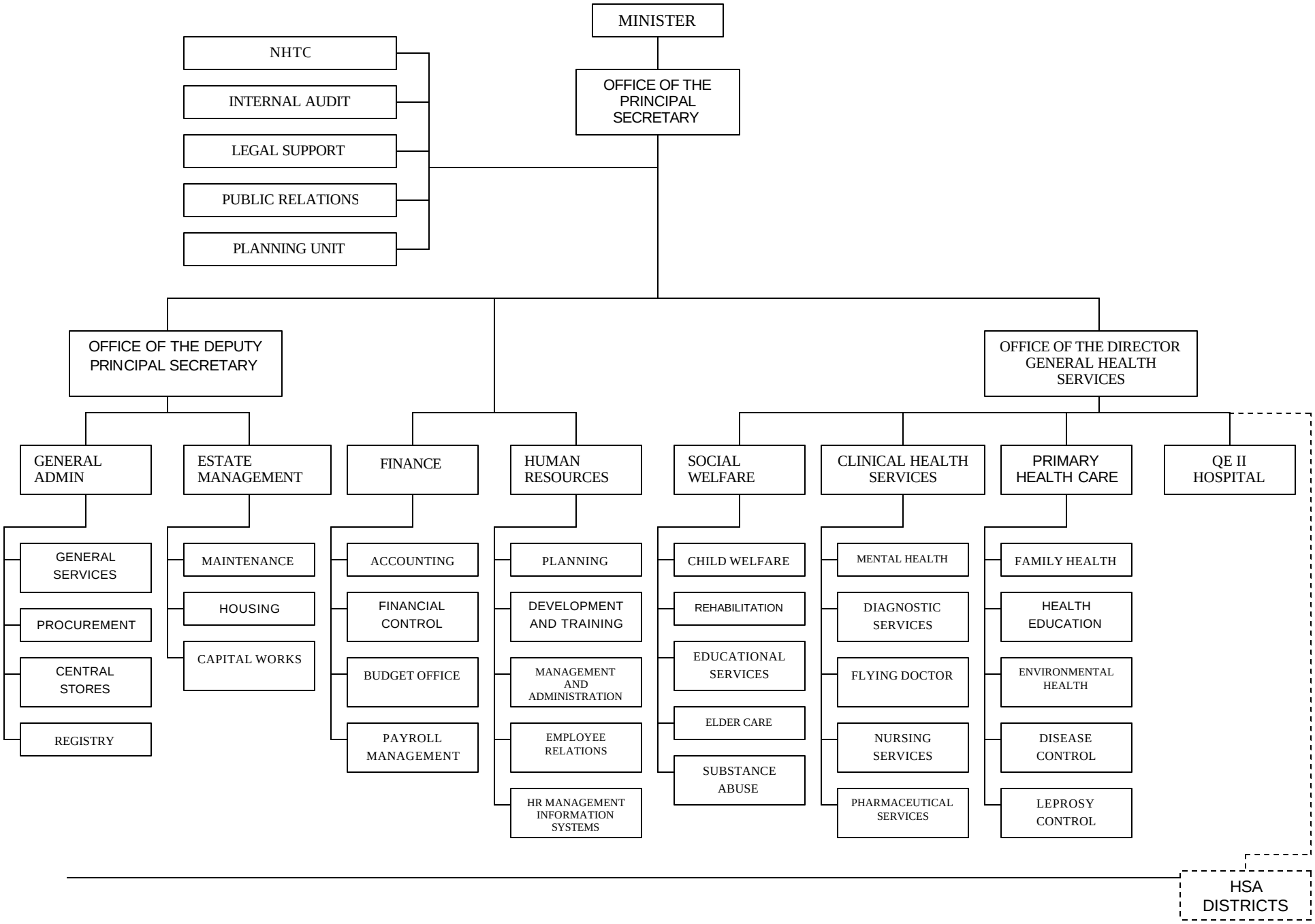
Publicly funded health and social welfare services are administered by the Ministry of Health and Social Welfare. The current organizational structure of the MOHSW is depicted in Figure 2[3]. It reveals that the Chief Executive Officer of the MOHSW is the Principal Secretary, under whom there are essentially two major branches: administration and services. In addition, there are a number of specialized entities and departments that report directly to the PS including the National Health Training Center, the Health Statistics and Planning Unit, Internal Audit, Legal Support and Public Relations.

The principal administrative services entities within the MOHSW include General Administration, Human Resources, Estates Management, and Finance. These entities report to the Deputy Principal Secretary. The principal service entities within the MOHSW include QE II Hospital, Clinical Health, Primary Health Care, the Health Service Areas (future District Health Management Teams), and Social Welfare. These entities report to the Director General of health Services.

In addition to its own publicly owned health service infrastructure, the Government of Lesotho also subsidizes the provision of health services supplied by the Christian Health Association of Lesotho (CHAL) and a limited number of NGOs. CHAL provides approximately one-third of the health care of the country through a network of eight (08) HSA Hospitals, and 73 health centers. CHAL (and other NGOs) are formally linked to the MOHSW through the Principal Secretary's office.

[3] A complete Organogram of the MOHSW linked to the Establishment is presented in Annex 7.1.

Figure 2: Organogram of the Ministry of Health and Social Welfare



2.3.1 Organization of Clinical Services[4]

The Director General of Health Services (DGHS) is the national authority responsible for the provision of health services. There are certain clinical services (e.g., management of diarrhea in children below the age of five, as well as clinical services provided at the health centers) provided under the auspices of PHC. The authority responsible for these PHC services is the Director of Primary Health Care (DPHC), whose office is responsible to that of the DGHS. Clinical services provided at the Health Service Area (HSA) Hospital level report directly to the DGHS. The District Medical Officer is the principal clinical authority at the district level and is located at the Government hospitals. In CHAL HSAs the hospital Medical Superintendent is the principal clinical authority. Responsibility for these services will be ceded to the District Medical Officer under the new DHMT structure.

With respect to the individual clinical disciplines, each respective head of department (usually a specialist located at Queen-II Hospital) has the overall responsibility for overseeing the provision of clinical services within their individual disciplines. The specialists at Queen-II are also expected to monitor and supervise all clinicians in the provision of their respective clinical services throughout the country.

Within the CHAL sub-sector, the Secretariat plays no role in the actual provision or monitoring of clinical services. There is, however, a tacit understanding that all CHAL HSA Management Teams will provide health services as per GOL guidelines. This arrangement is being formalized through the new partnership framework under which CHAL hospitals will be contracted by Government to provide a specified complement of services subject to measurable quality assurance standards. All CHAL hospitals and health centers will need to be certified in the future in order to continue to benefit from GOL financing.

Clinical services are provided at three levels within the health care system: the Primary Care Level, which consists of health centers and filter clinics, first level referred care provided at the district and HSA hospital, and second-level referred care provided at Queen-II Hospital. QEII also serves as the national referral hospital. There are no higher-level tertiary services (e.g., organ transplants, onco-therapy, etc.) in Lesotho, and all such cases are referred to Pelonomi Hospital in the Republic of South Africa.

Within the CHAL sector clinical services are provided only at the primary and first level referred care levels.

2.3.2 Organization of Public Health Services

The most basic level of PHC service provision is at the community/village level where volunteer Community Health Workers (CHW) are the first line providers of care. It is expected that any person requiring health care services will first consult with a CHW who will make initial assessments and then, if indicated, refer the individual to the health center level. Other responsibilities given to the CHWs include growth monitoring, community-based rehabilitation of the disabled, and maintenance a village register.

[4] This narrative is extracted from the Lesotho Health Study Phase I Report (MCDI, May 2000).

Health centers are the main formal sector providers of the services that fall within the scope of PHC. A Nurse Clinician is ostensibly in charge of the health center and is expected to have been trained in all aspects of public health services.

The District Public Health Nurse deployed in government hospitals, and the PHC Coordinator in CHAL facilities are responsible for the planning implementation and co-ordination of PHC activities in their respective HSAs. They both report to the respective program managers within the PHC directorate of the MOHSW. All these program managers are located at MOHSW head quarters.

There are three divisions within the PHC Directorate, each of which is headed by a Divisional Head who in turn reports directly to the DPHC. National program planning for PHC is the responsibility of the divisional heads, each in his/her functional domain, while policy-making and leadership in the implementation thereof is the responsibility of the DPHC.

2.3.2.1 National Public Health Programs

There are twelve National Public Health Programs that fall within the Department of Primary Health Care. They are concerned mainly with preventive services but do have some curative aspect to them as well. The PHC Department is divided into five sections: (i) the Family Health Division, (ii) the Disease Control and Environmental Health Division, (iii) the Health Education Division, (iv) the Division for Community Participation and Traditional Health, and (v) Mental Health.

The **Family Health Division** includes: (1) the Reproductive Health, Sexual Health and Family Planning Program established to reduce maternal, infant and child morbidity and mortality; (2) the Expanded Program on Immunization established to provide universal vaccination for all children and mothers; (3) the Control of Diarrheal Disease Program which seeks to reduce mortality attributable to dehydration that results from diarrhea; (4) the Acute Respiratory Infections Program which seeks to improve the management of acute respiratory infections, and thereby reduce mortality from these conditions; (5) the Child Nutrition and Household Food Security Program, which is a multi-sectoral program headed by a National Nutrition Committee made up of representatives from the ministries of Home Affairs, Education, Health and Social Welfare, and Agriculture; and (6) the Community Health Worker Program.

There are five programs that fall within the **Disease Control and Environmental Health Division**: (1) the Leprosy Program, (2) the Tuberculosis Program, (3) the Sexually Transmitted Diseases Program, (4) the AIDS Prevention and Control Program, and (5) the Environmental Health Program.

The **Health Education Division** is established to facilitate health education and communication as a means of promoting improved health and wellbeing. The division has several programs through which it works, but its Social Mobilization Program underpins most PHC activities. A technical committee, which includes representatives of NGOs, coordinates the activities of this program and ensures collaboration with other sectors operating in this field.

2.3.3 Organization of Technical Support and Allied Health Services

2.3.3.1 Laboratory Services

The Central Laboratory located within the Queen II Hospital grounds functions simultaneously as the National Public Health Laboratory, the National Referral Laboratory, and the Laboratory for Queen II Hospital. The Head of Laboratory Services oversees the Central Laboratory and coordinates all laboratory-related activities in the country. There are six functional areas within the laboratory services, namely, Hematology, Clinical Chemistry, Microbiology, TB, Cytology and Pathology. The National Blood Transfusion Service (NBTS) also falls within this department.

Laboratory services are available in each of the 17 HSA hospitals. However, the quality and mix of services varies widely between government and CHAL facilities. Government facilities are generally better equipped (and staffed) and can therefore offer a wider range of services as compared to CHAL facilities. The condition of CHAL hospital laboratory facilities has been much improved since an intervention undertaken through Irish Aid support. This intervention entailed the upgrading of all CHAL hospital laboratories, and the appointment of qualified staff to run them.

2.3.3.2 Pharmacy Services

The MOHSW, through the Department of Pharmaceutical Services, has overall responsibility and authority for pharmaceutical services throughout the country. This authority includes policy formulation, regulatory activities, and production and management of drug supply. The management of the national drug supply system is delegated to the National Drug Stockpile Organization (NDSO) that is headed by a pharmacist.

At the HSA level, a Pharmacist or Principal Pharmacy Technician has the responsibility for overall management of drugs for the hospital and the health service area. At health centers a Nurse Clinician or Nurse-in-charge (or sometimes even a Pharmacy Technician) is responsible for the drug supplies management.

2.3.3.3 Radiology Services

Radiology services are provided at all HSA hospitals and at Queen II Hospital. In spite of being equipped to provide limited contrast studies, the HSA hospitals only provide basic (or conventional) radiology. This is mainly due to a shortage of staff qualified in radiology. In addition to the basic services, Queen II Hospital also provides specialized or sophisticated services. Services included are ultrasound, contrast studies and a CAT Scan.

2.3.4 Organization of Social Welfare Services

The Department of Social Welfare has overall responsibility for overseeing and coordinating social welfare services in the country. The department is headed by a Director who reports to the Director General of Health Services. The department is currently rethinking its organizational structure and is proposing the creation of units

dedicated to rehabilitation, child welfare, clinical welfare[5], gerontology, education. Each of these units would have staff at the central level responsible for policy formulation, service planning and coordination, and supervision of district-level staffs. Social Welfare services will be represented at the district level through the DHMT and expect to have Social Welfare Auxiliaries stationed at all health facilities as an entry-point to community engagement.

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[5] The Department is proposing the establishment of sub-disciplines under the clinical welfare unit in the areas of psychotherapy, orthopedics, and occupational therapy. Since these functions are already attributed to other departments within the MOHSW, it is recommended that Social Welfare coordinates with them rather than duplicates the functions.

3 Current State of Health Sector Human Resources

3.1 Current Supply

There are at least 8,600 personnel working in the health sector in Lesotho, excluding traditional healers and traditional birth attendants. Of these personnel, only 44%, or approximately 3,790, are employed in the formal health sector operated by the Government of Lesotho (GOL), the Christian Health Association of Lesotho (CHAL), other Non Governmental Organizations (NGOs), and the private for-profit sector. The remainder, and majority, work in the informal health sector and include an estimated 4,800 Community Health Workers.

Though the focus of the Human Resources Development and Strategic Plan (HRDSP) is on the development of formal sector personnel, it recognizes the critically important role that Community Health Workers and other informal sector personnel will need to play in the future in assuring the delivery of health services. As such, the HRDSP identifies a specific set of interventions designed to further develop and strengthen the role of CHWs in the health care delivery system of Lesotho. Given the large projected shortfall in the supply of formal sector personnel, and in particular the shortfall in personnel who can ensure cost-effective coverage of essential preventive, promotive and palliative health and social welfare services to the large number of people suffering from HIV/AIDS, the HRDSP identifies the resources to ensure that CHWs are appropriately skilled, deployed and supervised.

Community Health Workers must continue to play a substantial role in the provision of health services in Lesotho

3.1.1 Supply by Proprietor

Within the formal sector, the HRDSP focuses on the Government and CHAL sub-sectors. The personnel census conducted for the Health Sector Human Resources Needs Assessment reveals that 75% of the enumerated formal health sector employees are employed by the Ministry of Health and Social Welfare (MOHSW), 22% by the Christian Health Association of Lesotho (CHAL), and the remaining 3% by other Non-Governmental Organizations (NGOs) such as the Red Cross and the private for-profit sector. Though the census of private sector employees was incomplete, it is clear that the focus of the HRDSP is on the Government and CHAL sub-sectors which, without question, employ the majority of the formal sector health personnel in the country.

3.1.2 Supply by Function

The functional allocation of formal sector health personnel varies by proprietor or sub-sector, and a comparison between the Government and CHAL sub-sectors raises some potentially important questions concerning the allocative efficiency of the MOHSW labor supply. The census reveals, for example, that non-technical support personnel consisting primarily of general support staffs account for 33% of the MOHSW labor force. By contrast, only 17% of CHAL's labor force is employed in non-technical support service functions. The evidence presented in the Health Sector Human Resources Needs Assessment suggests that the MOHSW's relatively large supply of non-technical support service personnel is inefficient because they are inadequately trained for the roles they are assigned. The HRDSP will redress this situation and improve the cost-effectiveness of

The relatively large share of non-technical support personnel within MOHSW is inefficient and will need to be rationalized.

health services delivery through (1) a critical review of all non-professional personnel in the sector with the view to establishing the appropriate number needed to provide quality cost-effective services; and (2) a formal in-service training program for Ward Attendants and other general support staff who are assigned non-technical patient care and support service functions (e.g. patient feeding, cleaning, and other non-clinical nursing responsibilities). This latter is an essential component of the proposed strategy for rationalizing the supply of nurses required since the Ward Attendant will be trained to carry out essential functions that otherwise would have to undertaken by professional occupations at considerably higher cost.

The HRDSP will rationalize the supply of non-professional support staff and will train ward attendants to supply non-technical patient care.

Another important functional difference in labor supply between the MOHSW and CHAL is the proportion of personnel in technical support, allied health and special health service personnel who are technically qualified for their job. For example, while 64% of the orthopedic personnel working for the MOHSW are qualified Orthopedists, CHAL employs no orthopedic staff at all. While 95% of the MOHSW biomedical engineering and estates management personnel are qualified Technical Officers, only 43% of CHAL's employees in these cadres are Technical Officers. While 58% of the MOHSW personnel employed in the Laboratory Cadre are qualified Laboratory Technologists, only 6% of those employed in the CHAL sector in this cadre are Laboratory Technologists. The HRDSP redresses the discrepancies in supply mix of technically qualified versus technically unqualified staffs between the MOHSW and CHAL sub-sectors as directed by the new Health and Social Welfare Policy.

The HRDSP will ensure that the CHAL sector employs technically qualified staff for technical support, allied health and special health services

3.1.3 Supply by Service Level

Although more than 60% of Lesotho's health care production is supplied at the primary care level, less than 20% of the formal sector labor supply works at this level. The largest share of the total health sector labor supply (46%) is engaged at the secondary service level while a further 24% is employed at the tertiary care level[6]. While the more intensive and sophisticated nature of production at the secondary and tertiary care levels warrants a higher concentration of staff per unit of service provided, the workload-based requirements projections presented in this report reveal that health service staffing at the primary care level is particularly deficient relative to service need and more deficient than at the secondary and tertiary levels. Indicators of Staffing Need[7] reveal, for example, that Filter Clinics and Health Centers only have 31% and 41% respectively of the Full Time Equivalent (FTE) nursing personnel they require, while Type I and II hospitals have between 50% and 108% of the FTE nursing they require.

Less than 20% of Lesotho's health personnel provide 60% of the health care of the country at the primary care level.

In order to respond in a cost-effective and equitable manner to the substantial burden of disease facing the country, and to be consistent with the new Health and Social Welfare Policy which renews Lesotho's commitment to a primary health care oriented strategy, the HRDSP gives priority to closing the supply gap in the primary care sector. This entails ensuring that all GOL and CHAL health centers and filter clinics are supplied with the required personnel.

The HRDSP gives top priority to closing the supply gap among primary care personnel in the next decade.

[6] The remaining 10% are employed in other support service institutions including headquarters, and educational institutions.

[7] An Indicator of Staffing (ISN) is the current labor supply as a percentage of requirements.

Though nursing supply will need to be increased relative to current levels, future deployment at the health center level will need to reflect the new and somewhat revised staffing recommendations derived from the requirements estimates presented in this plan[8]. It will not be cost-effective to apply a uniform staffing standard to all health centers since there is a great deal of variability in the demand for their services. Though **minimum** coverage considerations dictate that each health center, for example, should have a minimum of one (01) Nurse Clinician, one (01) General Nurse, and one (01) Nursing Assistant, some health centers will need as many as three (03) Nurse Clinicians, two (02) General Nurses and one (01) Nursing Assistant. Moreover, nursing supply must be seen as a variable rather than as a fixed quantity, that should reflect changing needs based on changing demand for services.

The HRDSP will ensure that staffing levels at health centers and hospitals reflect the volume of service demand rather than uniform staffing standards.

Ensuring the future viability of CHAL through the full implementation of the new partnership framework[9] will be one of the most essential strategies for ensuring that adequate staffing is supplied at the primary care level. Though CHAL only accounts for 22% of the total formal sector labor supply, it employs 43% of those working at the primary care level. The HRDSP ensures that adequate training resources are directed at the CHAL sector both in terms of substantive pre-service training and in-service training in order to bolster the primary sector.

The HRDSP continues to recognize the vital role that CHAL will need to play in the provision of primary care services.

3.1.4 Supply by Geographic Region and Health Service Area

The Health Sector Human Resources Needs Assessment revealed that the distribution of health sector personnel in Lesotho is **not** distributed in a manner that is proportionate to the distribution of population (a proxy for effective demand). The Central region is much better covered with health sector personnel than either the Northern or Southern regions. While the Central Region has 2.04 personnel per 1000 population, the Northern Region only has 1.33 and the Southern Region only 1.13. The relatively disadvantaged status of the South with respect to the supply of health sector personnel is further evidenced by the fact that it is served by fewer than 25% of the primary care personnel even though 29% of the population resides there and even though it is the most dependent on primary care services.

While the relatively favored position of the Central Region is undoubtedly warranted to some degree because of the concentration of tertiary care institutions and headquarters administration in the region, the extent of the geographic coverage disparity is carefully considered within the HRDSP given the importance accorded to ensuring equity of access to basic, quality health services within the new Health and Social Welfare Policy and in light of the policy to decentralize public sector functions. Ensuring adequate personnel coverage at the primary care level (health centers and filter clinics) will go a long way towards ensuring equity of geographic coverage, and is the principal strategy employed in this regard in the HRDSP.

By giving priority to closing the primary care HR supply gap, the HRDSP will ensure that staffs are distributed in a geographically equitable way.

[8] Previous normative staffing standards called for one (01) Nurse Clinician or Clinical Officer, two (02) Nursing Sisters, and three (03) Nursing Assistants at each health center.

[9] This must include acting without further delay to secure the funding for a CHAL strengthening project that will position the CHAL institutions and CHAL Secretariat to meet the accreditation standards which are supposed to determine whether future GOL grant funding will be provided.

3.1.5 Supply of Nurses

The largest single cadre within the formal health sector in Lesotho is the nursing cadre. The 1,123 nurses employed throughout the sector account for approximately 33% of the total labor supply, and 90% of all personnel directly engaged in health service production.

The nursing profession is relatively homogeneous when it comes to gender and nationality. Ninety five percent of all nurses are women and 99.6% are Basotho.

Coverage rates across Health Service Areas vary considerably from a high of 1.22 Nurses per 1000 population in Thaba Tseka to 0.71 per 1000 in Maseru, to 0.36 in Mokhotlong to 0.10 in Semongkong. The HRDSP promotes equity in coverage by ensuring that all health facilities have the minimum staffing complement and that facilities with higher demand employ commensurately greater numbers of nurses.

By giving priority to closing the primary care HR supply gap, the HRDSP will ensure equity of staffing coverage.

The preeminent role played by the nursing cadre in sector labor supply is consistent with the principles outlined in the new Health and Social Welfare Policy, and positions the sector to provide universally accessible, cost-effective and affordable primary health care services. The full realization of this objective will depend critically upon the strategic mix of nurse occupations employed within the cadre as well as how they are deployed institutionally and geographically. A rationalized career structure and deployment is articulated in this HRDSP in order to respond in a cost-effective manner to the considerable burden of disease facing the country.

The significant role that Nursing Assistants play in the health sector labor market as a whole, and the CHAL sub-sector in particular, has been an issue of some debate in recent years. At the heart of the debate is the tension between enhancing the quality of service provision (upgrading and diversifying the skills of nurses as a whole), and achieving the coverage objectives for primary health care. The debate has been fueled by the fact that Nursing Assistants have been assigned responsibilities (particularly within the curative sector) that supersede the pre-service training they have received, NAs have had to learn informally on-the-job what they need to know to perform their duties. In the process, a new nursing occupation has effectively emerged that is filled by the more experienced Nursing Assistants.

The reliance on these higher functioning Nursing Assistants has been the natural outcome of the labor market realities (high demand, limited supply and wage-bill constraints) prevailing in Lesotho and thus represents an efficient (if incomplete and somewhat less than effective) solution to existing labor market disequilibria. The HRDSP seeks to equilibrate the nursing labor market through (1) the commitment to continued training and deployment of Nursing Assistants whose skills will be upgraded in the area of MCH/FP, and (2) the creation of a new single-qualified General Nurse occupation that will assume most of the clinical responsibilities that have been assumed by NAs. The role of NAs will be re-oriented under the HRDSP towards health promotion as originally envisage for this occupation, and will be enhanced through a strengthened pre-service curriculum to assist in provision of MCH/FP services as well as outpatient screening, information processing and basic support care for dressings and injections at the hospital and health center levels under the direct supervision of Nursing Officers.

The HRDSP will improve labor market efficiency by (1) continuing to train and deploy NAs to provide promotive care, and (2) creating a new single-qualified General Nurse occupation to provide primary clinical care.

While the Health Sector Human Resources Needs Assessment revealed the need to increase the supply of nurses to adequately meet the current and future health challenges of the country, historical evidence indicates that nursing coverage has actually decreased by approximately 15% during the last decade. Nursing coverage in Lesotho is currently at a level that is only 85% of that which prevailed in sub-Saharan Africa in the early 1990's, 40% of the level prevailing in Zimbabwe in 1995, and roughly 12% of the level currently prevailing in South Africa.

Nursing coverage has decreased by 15% during the past decade.

The decline in nursing supply has been due to a combination of labor market factors that have negatively impacted on the rate of inflow into the cadre and the rate of outflow. The rate of inflow has been negatively affected on the one hand by production inadequacies, and on the other hand, by the very low hiring rate for those nurses who have graduated and are entering the labor market.

High loss rates among Nurses have been due to inefficiently high occupational turnover associated with poor career management and to a lesser extent by attrition.

The rate of outflow from the cadre has been negatively affected by poor career management and the associated high occupational turnover rates on the one hand, and high attrition rates on the other hand. The high attrition rates have in turn been caused by a combination of push factors such as deficiencies in the conditions of service and an inefficiently early mandatory retirement age, and pull factors such as out-of-country employment opportunities. The HRDSP places priority on redressing each of these factors that have contributed to the decline in nursing supply, but most particularly the loss due to poor career management, since **investments in further HR development cannot be justified unless returns to these investments can be substantially improved.**

Investing in further HR development can only be justified if career management can first be improved.

As nursing supply coverage has declined, nursing workload has necessarily increased. Based on available health service production statistics, it is estimated, for example, that hospital nurses currently face daunting workload volumes that have negative implications for service quality and as well as for retention of staff. These excessive workloads are the third most frequently mentioned reason for job dissatisfaction among nurses, and job dissatisfaction was found to be a statistically significant determinant of attrition expectations among nurses. The HRDSP will seek to relieve the excessive nurse workload by a strategic diversification and increase in the total supply of nurses, and by rationalization of their work responsibilities.

The HRDSP will relieve excess nursing workload through a strategic diversification and increase in the future labor supply.

The potential feasibility and sustainability of the proposed strategic increase in and rationalization of nursing supply will be undermined if vastly improved career management is not introduced within the cadre and sector as a whole. Occupational turnover rates[10] among nurses have been much higher than desirable from a cost-effectiveness standpoint and higher than should be required to provide suitable career advancement opportunities. The HRDSP identifies the need for turnover rate targets to be set for each occupation – targets which will serve as the basis for monitoring career management/promotion. These targets will need to be subject to periodic (5-year) review to ensure that they remain consistent with sector HR development objectives.

The HRDSP will set turnover rate targets for all occupations to enforce improved career management.

[10] Occupational turnover rates are the percentage of a given occupation that leaves the occupation for another different occupation while remaining employed in the health sector during a given period of time.

3.1.6 Supply of Medical Doctors

Medical Doctors (Specialists and Medical Officers) represent the second largest health service occupation after nurses, but they account for only 2.9% of all health sector employees and 8% of all employees directly engaged in health services provision.

The Medical Doctor cadre is one of the few cadres in the Lesotho health sector that has a higher proportion of males than females. The low proportion of female doctors (they account for 20% of the total supply) is likely due in part to the dependence on non-nationals, most of whom are men.

Coverage rates across Health Service Areas vary considerably from a high of 0.16 Medical Doctors per 1000 population in Maseru to 0.07 per 1000 in Thaba Tseka, to 0.02 in Mohale's Hoek to 0 in Qacha's Nek.

Medical Doctor coverage has declined over the past decade and is substantially lower than elsewhere in sub-Saharan Africa.

A comparison with other countries within the region reveals that Lesotho is relatively disadvantaged with respect to Medical Doctor coverage. Lesotho's current coverage rate is about 33% of the level that reportedly prevailed in the early 1990s in sub-Saharan Africa as a whole, 27% of the level in Swaziland in 1996, and approximately 7% of that prevailing in South Africa today. This is explained in part by the fact that Lesotho's coverage rate for Medical Doctors has declined substantially over the last decade and that most (if not all) of this deterioration has occurred in CHAL HSAs.

The relatively large decline in Medical Doctor coverage in CHAL HSAs explains in part why the MOHSW is by far the largest employer of Medical Doctors in the country, accounting for 2/3 of the total supply. The supply of Specialists in the country is particularly limited and none are employed by CHAL. The latter is of particular concern given the recommendations of the new Health and Social Welfare Policy which calls for health facilities to be staffed with a minimum essential complement of personnel taking into account the designated service function. As revealed in the Lesotho Health Study (MCDI, June 2002) a number of CHAL hospitals should provide a range of specialist services which would necessitate the deployment of Specialist Registrars[11].

The HRDSP promotes the continued reliance on non-national Medical Doctors as the principal source of future supply.

One of the most striking aspects of the Medical Doctor labor market in Lesotho is the very high level of dependence on non-national staff. This high level of dependence means that the MOSHW will have to continue to recruit heavily in the open market for Medical Officers and Specialists for the foreseeable future. Given the prevailing regional and international labor market conditions for Medical Doctors, however, the GOL's reliance on the recruitment of non-nationals makes good economic sense. The reason for this is that it safeguards the GOL from substantial potential losses in human capital investments for these highly qualified and highly mobile personnel. Estimates for the past 20 years suggest that only 20% of the Medical Doctors whose training has been financed by the GOL are currently working for the MOHSW and CHAL!

Only 20% of Basotho Doctors trained with GOL financing are working for the MOHSW or CHAL.

A downside of the dependence on non-national Medical Doctors is undoubtedly that it increases the overall loss rate due to attrition. This is reflected both in the fact that attrition expectations among Medical Doctors are the highest for any cadre in the sector (2/3rds indicate that they are likely to leave the health sector labor market in the next five

[11] Specialist Registrars are Registrars with diploma level training in at least one core area of specialization and two years of related work experience.

years, with ¾ of these expecting to seek employment outside of Lesotho), and that actual attrition rates have been high (estimated to be between 68% and 74% over a five year period). High attrition rates have a disruptive effect on service production, undermining both effectiveness and quality, raising the search and transformation costs associated with the deployment of personnel, and thus undermining efficiency.

The HRDSP will reduce attrition among Medical Doctors by introducing a more favorable and restructured remuneration package tied to longer contract terms.

Interviews with non-national Medical Doctors reveal that the inefficiency caused by the high attrition rates could be reduced through measures that would increase the willingness of non-national doctors to remain in Lesotho. The HRDSP thus recommends the introduction of a more favorable and somewhat restructured remuneration package that should be tied to longer contract terms. It is also recommended that further review be made of the potential feasibility of introducing a revised grading system for Medical Doctors that would more adequately compensate them for their qualifications and reduced the differential in remuneration vis-à-vis South Africa[12]. If attrition rates can be reduced among non-national doctors, the benefits of relying on them in terms of the substantial savings in human capital investment will substantially outweigh the costs of improved remuneration.

Attrition rates among Basotho doctors might also be reduced through the introduction of stricter enforcement of bonding or service conditionality in training agreements, and through the introduction of increased length-of-service requirements that include a mandatory tour in rural hospitals. This latter is considered particularly important given the fact that Medical Doctor coverage is extremely low at Type II hospitals. Increasing Medical Doctor coverage in Type II hospitals is considered essential for upgrading the quality of care provided and reducing the excess demand for QEII services.

The HRDSP will reduce the loss of Doctors through improved career management to eliminate inefficient occupational turnover.

Attrition is not the only cause of loss among Medical Doctors in Lesotho. The Health Sector Human Resources Needs Assessment revealed that occupational turnover is also very high. At prevailing turnover rates, the sector can expect to lose roughly 85% of its Specialists and roughly 45% of its Medical Officers within the next five years even without attrition! This high rate of occupational turnover is distressing given that it is largely attributable to poor career management policies and procedures within the sector. The HRDSP makes instituting more rational career development and promotion policies and procedures a first priority in the GOL's strategy to reduce the high loss rates that have plagued the sector.

3.1.7 Supply of Mental Health Personnel

The supply of mental health is very limited and is concentrated in Maseru.

The supply of mental health staff is very limited in Lesotho with a coverage level of just 0.02 mental health professionals per 1000 population. At the time of the census carried out as part of the Lesotho Human Resources Consultancy they accounted for less than 1% of the total health and social welfare sector workforce and just 3% of the personnel directly engaged in health services production. The majority of mental health personnel are concentrated in the Maseru area with most (13 of the 18) Health Service Areas having no coverage at all.

[12] Among the grading options that the MOHSW could consider is the Hay System® that was discussed under the Lesotho Human Resources Consultancy.

Like Medical Doctors, the duration of employment among senior mental health professionals is very short (an average less than 2 years) due to the fact that there has been a reliance on non-nationals and that the one national is at the early stages of her career. Mental Health Nurses by contrast have been employed in the sector for considerably longer periods (an average of just under 12 years), a fact that reflects the relatively high status of these nurses within the cadre and the associated experiential requirements for being a Mental Health Nurse.

The need to redress the prevailing deficiencies in mental health service capacity are clearly identified in the new Health and Social Welfare Policy which not only calls for adequately staffing of designated mental health facilities (MOTUs, Mohlomi, and the psychiatric ward at QEII) through an increased supply of psychiatrists and Mental Health Nurses, but also calls for reinforcing the training of all front-line health and social welfare providers in mental health.

Though staffing of mental health services is generally inadequate throughout the country, it is particularly deficient in CHAL Health Service Areas. As such, there are important geographical distribution inequities and associated coverage deficiencies that the HRDSP seeks to redress.

The relatively limited and inadequate supply of Mental Health Nurses is not the result of a lack of training in this occupational domain. Lesotho has enrolled 51 Mental Health Nurses in the past three training cycles at NHTC, but only graduated 53% (n=27). In spite of having produced these 27 graduates, there are still only 13 Mental Health Nurse posts currently filled in the MOHSW and CHAL.

Only 20% of Mental Health Nurses currently working in the health sector are deployed in the mental health arena!

Given the limited number of established posts, it is also estimated that only 20% of the qualified Mental Health Nurses currently working in the health sector are actually deployed to jobs in the mental health arena that require the use of their specialized skills! As such, and as unbelievable as this may seem, the entire current projected supply gap for Mental Health Nurses could be closed simply by redeploying Mental Health Nurses who are currently working in the system but outside their profession! Though it is unlikely that such a redeployment strategy can in and of itself close the supply gap, it underscores the pressing need for instituting much improved career management systems and procedures within the sector to safeguard any future investments that will be made in developing human resources. Training intake levels must be based on projected requirements and associated established posts.

The HRDSP must first seek to close the supply gap for Mental Health Nurses through redeployment.

3.1.8 Supply of Dental Personnel

The supply of dental service personnel is very limited.

The Health Sector Human Resources Needs Assessment revealed that the supply of dental service personnel is very limited in Lesotho with a coverage of 0.07 per 1000 population. At the time of the census, they accounted for 0.4% of all health and social welfare sector staff. None of the CHAL Health Service Areas employ dental personnel while all but one Government Health Service Area (i.e., with the exceptions of Mokhotlong) have at least one dental staff deployed. Staffing is so limited that only Maseru has more than two dental staff deployed.

The gross deficiencies in oral health service provision capacity are highlighted in the new Health and Social Welfare Policy which calls for integrating oral health into the primary

health care system through the deployment of trained Oral Health Assistants at health centers and at higher level facilities.

The relatively few dental personnel currently employed in the sector tend to be female (63%) and Basotho (93%). Within the cadre there is a pronounced difference in employment duration between senior professional and other dental staff. The relatively short employment duration among Dental Specialists and Dental Officers, for example, is due to a combination of youthfulness among nationals and the employment of a non-national Dental Specialist on a short-term contract basis. The relatively long employment duration among non-professional dental occupations reflects the historical dependence on these untrained occupations to provide the limited amount of dental care that has been provided, and the lack of career progression opportunity within the cadre.

3.1.9 Supply of Orthopedic Personnel

The supply of orthopedic personnel is extremely small with a coverage level of just 0.006 orthopedic professionals per 1000 population. At the time of the census they accounted for 0.4% of the total health and social welfare sector workforce and all 14 were employed by the MOHSW. All orthopedic personnel are deployed to the Maseru area; all are Basotho and most are men.

The supply of orthopedic personnel is extremely limited.

Orthopedic personnel have the shortest employment duration among Allied Health professionals, with the average being just over 9 years. There is considerable variability within the cadre in the average length of assignment within a single post. Orthopedic Technicians in particular have had little opportunity for transfers, with one reportedly having served in the same post for over 30 years. The HRDSP addresses the special case of cadres like the Orthopedic cadre that require a relatively limited number of posts and thus have extremely narrow career ladders and limited career advancement opportunities. The HRDSP strongly recommends the institution of incentive mechanisms (e.g. accelerated wage increments) to compensate for occupations that require unusually long post durations as a means of retaining trained staffs within these professions.

3.1.10 Supply of Rehabilitation Personnel

The supply of rehabilitation personnel is extremely limited with a coverage level of just 0.008 rehabilitation professionals per 1000 population. At the time of the census they accounted for 0.4% of the total health and social welfare sector workforce. The majority of rehabilitation personnel are concentrated in the Maseru area with most (11 of the 18) Health Service Areas having no coverage at all. Roughly 80% of the 17 personnel are employed in the MOHSW sub-sector, with the remaining 20% employed by CHAL and other NGOs. Physiotherapists make up 30% of the cadre's labor supply, with Physiotherapy Assistants accounting for half of the available staff.

The supply of rehabilitation personnel is extremely limited.

Most of the rehabilitation personnel are women and all are Basotho. Personnel in this cadre have the longest employment duration of all Allied Health personnel, with the average employment duration being just over 12 years. As is the case in most other cadres, the lengths of assignments in a single posting are lowest for the most senior occupations and longest for the more junior occupations. Physiotherapists, for example, have worked in the same post for an average of less than 5 years, while Physiotherapy Assistants have remained in the same post for roughly 10 years on average.

3.1.11 Supply of Radiography Personnel

The supply of radiography personnel is extremely limited.

The supply of radiography personnel is extremely limited with a coverage level of just 0.006 radiographic professionals per 1000 population. At the time of the census they accounted for 0.4% of the total health and social welfare sector workforce. The majority of radiography personnel are concentrated in the Maseru area with most (10 of the 18) Health Service Areas having no coverage at all. Roughly 60% of the 14 personnel are employed in the MOHSW sub-sector, with the 30% employed by CHAL and the remaining 10% in the private sector. Radiographic Technicians make up 50% of the cadre's labor supply, the remainder being equally divided between Radiographers and Radiographic Assistants.

Most of the radiography personnel are women and most are Basotho. Personnel in this cadre have an average employment duration that is in the mid-range for Allied Health professions, with the average staff member having worked for 11 years in the sector. Unlike most other cadres, the lengths of assignments in a single posting is higher for the most senior occupations and lower for the more junior occupations. Radiographers, for example, have worked in the same post for an average of 10 years while Radiographic Assistants have remained in the same post for just over 5 years on average.

3.1.12 Supply of Pharmacy Personnel

The supply of pharmacy personnel is very limited.

The supply of pharmacy personnel is limited with a coverage level of 0.03 professionals per 1000 population. At the time of the census, pharmacy staff accounted for 1.6% of the total health and social welfare sector labor force. Over half of the pharmacy personnel are deployed in the Maseru area while four (04) Health Service Areas have no qualified pharmacy personnel deployed at all – all CHAL HSAs.

Only half of CHAL pharmacy personnel hold professional qualifications.

The census reveals that MOHSW employs the vast majority of pharmacy personnel and nearly all of the more highly trained occupation, including 100% of the pharmacists, 92% of the pharmacy technologists, and 79% of the pharmacy technicians. Clearly, there is considerable disparity in the technical qualifications of pharmacy staff between the MOHSW and CHAL in favor of the former. While virtually all MOHSW pharmacy personnel are professionals, only half of the CHAL pharmacy personnel hold professional qualifications. This disparity in qualifications is addressed within the HRDSP in order to be responsive to the new Health and Social Welfare Policy which calls for the deployment of adequate staffing for cost-effective pharmaceutical procurement, storage, distribution and management at all levels of the health delivery system in conformity with the designated function of each facility type.

Two-thirds of the pharmacy personnel are women and most are Basotho. Personnel in this cadre have an average employment duration that is in the lower mid-range for Technical Support Service professions, with the average staff member having worked for 10 years in the sector. The duration of employment is considerably longer for the least qualified occupations within the cadre. For example, Pharmacy Assistants have been employed for an average of 15 years as compared to Pharmacists who have been employed for an average of only 3 years. The same phenomenon is observed for duration in post. Like most other cadres, the length of assignments in a single posting is lowest for the most senior occupations and highest for the more junior occupations. Pharmacists, for

example, have worked in the same post for an average of 2 years while Pharmacy Assistants have remained in the same post for just over 15 years on average.

3.1.13 Supply of Laboratory Personnel

The supply of Laboratory personnel is limited.

The supply of laboratory personnel is slightly greater than that of the pharmacy cadre but has essentially the same coverage level of 0.03 professionals per 1000 population. At the time of the census, laboratory staff accounted for 2.0% of the total health and social welfare sector labor force. The census reveals that nearly ¾ of the laboratory staff in Lesotho are employed by the GOL, including virtually all of the Laboratory Technologists. It further reveals that there is considerable disparity in the technical qualifications of laboratory staff between the MOHSW and CHAL, again favoring the former.

There is a great disparity between the technical qualifications of laboratory personnel working for the MOHSW versus CHAL.

Three quarters of the laboratory personnel are women and virtually all are Basotho. Personnel in this cadre have an average employment duration that is in the lower mid-range for Technical Support Service professions, with the average staff member having worked for 10 years in the sector. Occupational turnover has been particularly high in recent years in the lower level occupations within the cadre. For example, job history data reveal that 1 in 5 Assistant Laboratory Technicians have been transferred to another occupation within their cadre each year. At this rate, it is projected that 21 of the 23 Assistant Laboratory Technicians will have been upgraded within the next five years. This high rate of turnover is consistent with the objective of phasing out the occupation in an effort to upgrade the overall skills base of the laboratory cadre.

By contrast, occupational turnover among Laboratory Technologists has been relatively low. This is to be expected given that it is the most senior occupation within the laboratory cadre. At a 2.8% annual turnover rate it can be expected that 1 laboratory technologists would be transferred each year to other occupations. However, unless substantive improvements can be made at NHTC to increase the appallingly low graduation rates for Laboratory Technologists, it may be necessary to contemplate a complete moratorium on transferring Laboratory Technologists out of the occupation (e.g. to systems management occupations) until the projected supply gap is filled.

3.1.14 Supply of Biomedical Engineering and Estates Management Personnel

The supply of biomedical engineering and estates management personnel is very deficient.

The supply of biomedical engineering and estates management personnel is very deficient relative to the needs of the sector. Though the available personnel are more proportionately distributed between the GOL and CHAL than the other Technical Support Service cadres such as pharmacy and laboratory, the supply of the most highly trained occupation – Technical Officers – is skewed in favor of the GOL. Nearly half of CHAL's biomedical engineering personnel are non-professional maintenance staff, and four CHAL HSAs have no estates management personnel engaged.

The Needs Assessment analysis reveals that the average annual turnover rate for Technical Officers is relatively high. At current level, it is projected that 43% of the Technical Officers will be transferred to another occupation outside the cadre within the next five years! This high level of turnover is at odds with the human resource needs of the sector given that there is already a substantive shortfall in the number of Technical

Officers employed. Here again, the HRDSP will seek to foster substantively improved career management and ensure that the needs of the sector are balanced with the personal career aspirations of individual employees.

3.1.15 Supply of Nutrition Personnel

Dedicated nutrition personnel are virtually non-existent.

The supply of dedicated nutrition personnel is virtually non-existent in Lesotho with a coverage level of just 0.002 professionals per 1000 population. At the time of the census, nutrition staff accounted for just 0.1% of the total health and social welfare sector labor force. Though CHAL actually employs more nutrition staff than the GOL (CHAL employs 3 nutrition staff versus the 2 employed by the MOHSW), their qualifications are not as high as those employed by the GOL. At this very minimal level of supply, it is not surprising that most Health Service Areas have no dedicated nutrition personnel.

3.1.16 Supply of Health Education Personnel

The supply of health education personnel is very limited.

The supply of health education personnel is very limited with a coverage level of just 0.005 health education staff per 1000 population. At the time of the census health education staff accounted for 0.3% of the total health and social welfare sector workforce. Just over half of the 12 health education personnel are employed by the MOHSW, with CHAL employing three (03), and the rest being employed by other NGOs and the private sector. Roughly 2/3 of the health education personnel are deployed in Maseru, with most other Health Service Areas having no dedicated health education staff.

3.1.17 Supply of Environmental Health Personnel

The supply of environmental health personnel is very limited.

The supply of environmental health personnel is limited with a coverage level of 0.02 environmental health staff per 1000 population. At the time of the census they accounted for 1.4% of the total health and social welfare sector workforce. Over 90% of environmental health personnel are employed by the MOHSW, with only three (03) of the CHAL Health Service Areas having at least one staff engaged. Though Government HSAs are better served than CHAL HSAs, coverage levels vary from a high of 0.06 per 1000 population in Leribe to 0.02 per 1000 in Mafeteng. Roughly 2/3rds of the environmental health labor supply is made up of non-professional Health Assistants, with Environmental Health Officers accounting for the remaining 1/3. None of the Environmental Health Officers are employed by CHAL.

3.1.18 Supply of Social Welfare Personnel

The supply of social welfare personnel is extremely limited.

The supply of social welfare personnel is extremely limited with a coverage level of 0.01 social welfare staff per 1000 population. At the time of the census they accounted for just 0.6% of the total health and social welfare sector workforce. Over 80% of social welfare personnel are employed by the MOHSW, with only three (03) of the CHAL Health Service Areas having at least one staff engaged. Most of the social welfare staffs are concentrated in Maseru with over half of the HSAs having no social welfare personnel employed at all.

Social welfare, like most other cadres is largely staffed by women and is entirely Basotho. Employment duration is relatively low compared to most health sector cadres, with the average social welfare personnel having worked for 7 years. Occupational

turnover is high for this cadre, but particularly for Social Welfare Assistants. At prevailing rates, for example, the sector could expect that nearly half of the Social Welfare Assistants will be transferred to another occupation in the next five years (including being promoted to Social Worker status), and one quarter of the Social Workers. The latter in particular is not consistent with the objectives identified in the new Health and Social Welfare Policy which calls for expanding supply coverage for social welfare occupation. Whether the high turnover rate among Social Welfare Assistants is deemed to be consistent with the new Health and Social Welfare Policy depends upon the weight placed on expanding coverage versus upgrading the qualifications of existing staff.

3.2 Schemes of Service

3.2.1 Career Paths and Advancement Opportunities

Career paths and advancement opportunities vary considerably by cadre. Unfortunately, in many cases it was not possible to evaluate career progression and advancement opportunities because of a lack of sufficient employment history data. In quite a few cases this reflects the small number of personnel actually employed in specific cadres and thus the individual employee-specific nature of past employment experience. The cadres affected by this are orthopedics, rehabilitation, radiography, biomedical engineering, estates management, nutrition, health education, occupational health and social welfare. Anecdotal evidence indicates that most of these cadres have narrow career paths and relatively little career advancement opportunity given the small number of professional level posts on the Establishment. These cadres are therefore candidates for special consideration for the proposed system of accelerated grade level increments designed to retain key professionals working in occupations with highly restricted career advancement opportunities – occupations where there is a high risk of loss due to occupational turnover and attrition.

Technical occupations within cadres with narrow career structures should be granted accelerated grade level increments as a strategy for improving retention.

The Health Sector Human Resources Needs Assessment reveals that the nursing career ladder is fairly narrow and very hierarchical. Its narrowness comes from the fact that there is currently only one established path of progression from Nursing Sister (the base qualification) to Nursing Officers. Parallel systems of career progression through specialization are not adequately established. There is a need for a more diversified occupational structure that will facilitate advancement opportunities and render the system more efficient through the deployment of personnel with greater job-specific training.

The Nursing career ladder is narrow and hierarchical. The HRDSP will expand the career ladder to improve efficiency and enhance career advancement avenues.

Though the rationale for creating multi-skilled nurses who in principle can be moved anywhere in the system was a reasonable point of departure for the development of the nursing cadre in Lesotho, it now produces a high level of inefficiency since a high percentage of these multi-skilled nurses do not use a substantial proportion of the substantive pre-service and post-basic skills they have acquired. This represents an enormous loss to the sector – one that cannot be sustained under prevailing burden of disease realities. The more diversified career structure and more flexible career paths recommended in the HRDSP will render the system more efficient while contributing to

The past strategy of producing multi-skilled (dually qualified) nurses is no longer warranted from an efficiency standpoint and cannot be sustained.

better job satisfaction and retention and better quality of services delivered as a product of higher levels and more effective targeting of skill within the cadre.

Within the cadre, the overall level of career advancement opportunity for Nursing Officers is considered very adequate given their relatively senior status within the profession and the pyramidal hierarchical management structure of the sector. Moreover, the degree of career advancement into non-nursing cadres is a very positive factor since these highly experienced health workers are a very valuable resource in other management and production areas of the sector.

By contrast, the level of career progression observed for Nursing Sisters is considered to be fairly high given the natural pyramidal hierarchical structure of the sector and the cadre. Roughly 30% of Nursing Sisters have progressed up the career ladder to become Nursing Officers, and a further 8% have moved to occupations outside the cadre. While the merits of this relatively high past level of occupational turnover can be debated, the new career structure and staffing requirements identified in this HRDSP will call for continued upgrading of a high proportion of the Nursing Sisters to Nursing Officer status, and in particular to serving as Nurse Clinicians and Clinical Nurses. Nursing Sisters will be deployed in the future largely to provide obstetric delivery care. Their general nursing responsibilities both on the inpatient and outpatient level will be assumed by the new General Nurse occupation along with and under the supervision of the increased number of Nursing Officers.

Career progression opportunities for Nursing Assistants have been abysmally low in the past. The HRDSP will alleviate this structural impediment.

Finally, the Health Sector Human Resources Needs Assessment revealed that rates of career progression for Nursing Assistants have been abysmally low. Only 5% of Nursing Assistants have advanced up the nursing career ladder – 4% becoming Nursing Sisters, and 1% becoming Staff Nurses. Nearly 12% have moved to other occupations within the sector. This structural impediment to career progression will need to be alleviated under the HRDSP in order to maximize the returns to qualified and experienced Nursing Assistants, to upgrade the quality of care offered to the Basotho, and to minimize the level of job dissatisfaction that has been high in this occupation.

The HRDSP will expand the career ladder for Medical Doctors through the introduction of Specialist Registrars to be deployed at Type IIA and IIB hospitals.

Though the overall line of progression within the Medical Doctor cadre from Medical Officer to Specialist is low by regional and international experience, the Health Sector Human Resources Needs Assessment revealed that this reflects the high proportion of non-nationals in the Medical Officer occupation in Lesotho. When the non-nationals are removed from the analysis, the rate of progression is on the order of 20%, which is consistent with international experience. The HRDSP will increase the opportunities for career advancement by Medical Officers through the creation of a Specialist Registrar occupation that will provide the specialist-level care required at the district hospital level. Developing the Specialist Registrar occupation – largely through continued contracts with non-nationals - will be a priority in the short to medium term within the Medical Doctor.

The laboratory career ladder is coherent and well functioning.

Overall, there is a coherent and well functioning career track within the Laboratory cadre. The cadre structures are well established, and career mobility within the profession is fluid and progressive. This would seem to be the product of the developments that have taken place in recent years with the benefit of targeted external assistance.

None the less, the need exists for further development of parallel specialist tracks within the cadre given the technical diversity within this profession. There is a need to create sub-specialty service areas in such disciplines as clinical chemistry, hematology, blood transfusion, cell pathology etc.

The specialist laboratory track needs to be expanded.

Laboratory Technicians have had the highest relative rate of career progression within the cadre. The census survey results indicate that 44% of Laboratory Technician have advanced up the career ladder to become Laboratory Technologists, and another 11% have left the cadre altogether to become Technical Officers.

Nearly 70% of Assistant Laboratory Technicians have progressed up the career ladder to either become Laboratory Technicians or Technologists. This high rate of progression reflects the investments that have been made to upgrade this cadre in the past.

3.2.2 Promotion Criteria

Though there are at least implicit criteria for promotion in place, the inefficiently high levels of occupational turnover that have occurred in most cadres indicate that these criteria are inefficiently and unsustainably weighted in favor of the individual worker against the public interest. Much stricter promotion criteria must be introduced and enforced as a primary component of the HRDSP in order to ensure that the sector can reap reasonable returns to investment in human capital and in order to minimize the loss of trained personnel. Promotions in the future must primary weight to the human resource supply needs of the sector, while still providing regulated opportunities for career advancement.

The HRDSP will introduce much stricter promotion criteria that adequately factor in the public interest.

Where it is in the public interest to promote personnel within certain occupations at relatively high rates – as it will be for Nursing Sisters during the initial phase of the HRDSP – this should be accommodated. Where it is not in the public interest to allow personnel to be promoted, alternative compensation mechanisms must be introduced. This should include an accelerated grade level incrementing strategy that will induce professional personnel to remain in their current post for longer durations.

3.2.3 Posting Policy

The geographic disparities in personnel coverage, coupled with the under-supply of personnel in the primary care sector reflect inefficiencies in the prevailing posting policy of the MOHSW.

The HRDSP introduces a revised posting policy that ensures the staffing of all primary care facilities, including those in remote areas. This will be a pre-condition for seeking the creation of new posts from the MPS.

The HRDSP will need to ensure that a new posting policy that is consistent with the objectives of the new Health and Social Welfare Policy and with the objectives of the HR Strategic Development Plan is introduced as a pre-condition for obtaining agreement from the Ministry of Public Service for the creation of new posts. This new posting policy must give priority to closing the supply gap at the primary care level and to ensuring that personnel posted to more remote facilities are either given opportunities at regular intervals (e.g. after 3 years of continuous service) for being rotated through less remote primary care facilities and/or are offered substantially enhanced mountain allowances that adequately compensate them for working in remote areas with few amenities.

The HRDSP will also establish duration of posting maximums in remote facilities that will be strictly adhered to.

3.2.4 Remuneration

The MOHSW remunerates its employees in accordance with the 1999/2000 salary adjustments. Public Service Regulations stipulate that every officer shall enter an incremental salary scale at the minimum notch of the scale. In instances where an officer holds qualifications higher than required for the post in which s/he is currently employed, s/he is eligible for incremental credit above the minimum notch. Each financial year thereafter, the officer gets an annual increment to his/her annual earning, payable on the anniversary date of hire.

As per the 1995 Memorandum of Understanding (MOU) between GOL and CHAL, Government paid qualified CHAL employees (those with professional training) at the first notch of their grade. It was then up to individual CHAL facilities to "top up" salaries (i.e. to pay personnel the difference between their actual notch and the first notch) – something that they were not been able to do in recent years given their precarious financial position. Though the current subvention has been decoupled from direct salary payments, part of it is none-the-less based on the original salary subvention. In addition, the new Supplementary Emergency Financing Facility (SEFF) is based on a formula that is derived using first notch level salary expenditures and the agreement prevents CHAL from increasing salaries. This structural inequity in the level of compensation between CHAL and GOL facilities has led to higher rates of attrition in the CHAL sub-sector, and has made it extremely difficult for the sub-sector to compete for qualified personnel. The sub-sector's ability to sustain service provision has thus been seriously undermined.

The new interim supplementary emergency financing facility perpetuates the historic wage differential between CHAL and the GOL. The HRDSP eliminates this differential in order to enable the CHAL sector to compete for qualified personnel and in order to reduce attrition.

It is strongly recommended that this discriminatory wage differential be eliminated under the HRDSP and that CHAL institutions be permitted to pay their employees at levels commensurate with those paid by the GOL for equally qualified and experience staffs.

The Health Sector Human Resources Needs Assessment revealed that there are a number of inter-occupational inequities in allowances that will need to be eliminated under the HRDSP. Inter-occupational inequities exist in the Risk Allowance and the On-Call Allowance. In the former, occupations working closely with AIDS patients or patients suffering from other highly infectious communicable diseases have not been extended the Risk Allowance. It is currently only offered to nurses working with psychiatric patients[13]. In the former case, On-Call allowances are only paid to Medical Doctors and are not offered to nurses or other professional staff that work extra shifts. This has been a source of considerable dissatisfaction on the part of nurses and other cadres whose services are required when Doctors work extended hours.

The HRDSP will seek to eliminate inter-occupations inequities in Risk and On-Call allowances.

Health service provision is a team undertaking that requires the full participation of not only Medical Doctors but Nurses and other essential support services personnel. Though levels of benefit payments can vary by grade of personnel, the range and type of benefits

[13] Given the highly demanding nature of mental health nursing, and the need to create incentives to fill this occupation (particularly if other higher level nursing opportunities are expanded as proposed) the HRDSP will seek to introduce a graduated Risk Allowance with nurses working with psychiatric patients receiving incrementally more than other nurses receiving the Risk Allowance.

offered to one cadre should be offered to others whose services are required. The HRDSP will seek to rectify these structural inequities.

The HRDSP will seek to eliminate inequities in the application of the Mountain Allowance. It will also seek to introduce a graduated scale that provides greatest compensation for working in the most remote sites.

In addition to the inter-occupational inequities, there are inequities in the application of the Mountain Allowance which is only paid to professional personnel working in Mokhotlong and Qacha's Nek. Personnel working in similarly remote highland areas are not paid the Mountain Allowance. The HRDSP will also see to eliminate this structural inequity, while allowing for a graduated scale that gives the greatest compensation for the most remote facilities. An explicit "remoteness" criteria will need to be developed and all facilities (GOL and CHAL) will then need to be classified accordingly so that inequities in the mountain allowance can be eliminated.

Analysis of wage determination in the GOL and CHAL sub-sectors presented in the Health Sector Human Resources Needs Assessment revealed that remuneration levels are efficiently structured to reward investments in human capital. More highly qualified personnel are paid more than less qualified personnel. The wage analysis revealed, however, that the returns to education in the CHAL sub-sector are about half of the level in the GOL sub-sector. This discriminatory wage differential is a general phenomenon that results from the MOU – a phenomenon that creates a structural disincentive for any personnel, but particularly the more qualified, to seek employment in the CHAL sub-sector if employment opportunities exist in the MOHSW sub-sector. Though this observed pay differential has reportedly been compensated for to some extent by CHAL (i.e. through the provision of housing, education for children, social opportunities etc), given the objectives of the partnership framework and the Health and Social Welfare Policy, as indicated earlier, the structural wage discrimination needs to be eliminated as part of the HRDSP.

3.3 Skills Assessment

A professional skills assessment was carried out as part of the Health Sector Human Resources Needs Assessment for most occupations in conjunction with principals of each of the cadres concerned. These assessments were based on professional judgment derived from experience in supervising and working with each of the occupations. They were not based on an empirical evaluation derived either from an examination process or direct observation.

The purpose of the assessment was to determine the balance between current service responsibilities (as delineated through a listing of core job functions) and the available skills mix within each particular service arenas whether in the MOHSW or CHAL.

The skills assessed were divided into two principal categories: (1) core practice (patient diagnosis, care, etc.) or technical (laboratory diagnosis etc) skills, and (2) service administration/management and development (policy, planning etc.) skills. Clearly, a significant level of cross-over can occur between the two categories. It is also apparent that the skills base for personnel needs to expand as they occupy more senior posts and ultimately become service managers. In addition, advancements in areas such as information technology are placing additional skill requirements on a wide range of staff.

The Health Sector Human Resources Needs Assessment revealed that **communications** skills were the most frequently mentioned core skill required for health sector employees,

having been identified by 79%) of the census survey respondents. This was followed by **leadership** skills (61%), **safety practice** (60%), **patient care** (58%), **health promotion** (56%), **teaching** (55%), **planning** (51%), **monitoring patient status** (49%), **administrative management** (48%), **aseptic procedures** (46%), and **patient treatment** (45%), which when combined with communication skills constituted the ten most frequently needed skills.

The Health Sector Human Resources Needs Assessment further ascertained that the skill areas of greatest deficiency in terms of the number of occupations affected were in descending order: (i) **communications**, (ii) **data entry and processing**, (iii) **supervision**, (iv) **leadership**, (v) **teaching**, (vi) **information technology**, (vii) **personnel management**, (viii) **monitoring and evaluation**, (ix) **inventory management**, and (x) **monitoring patient status**.

The HRDSP will address the need for strengthening pre-service and post-basic for relevant occupations in training, communication, leadership, and monitoring patient status

There were four skill areas that appeared on both the list of most frequently cited core skills and the list of skill areas that the largest number of occupations identified as being areas of particularly deficiency. These were **communications** (which is at the top of both lists), **leadership**, **teaching** and **monitoring patient status**. Three of these – communications, leadership and monitoring patient status – will need to be strengthened within the existing pre-service curricula as well as being the focus of a concerted in-service continuing education initiative. The acquisition of teaching or training skills will also be targeted within the comprehensive Continuing Education Program identified in the HRDSP.

The HRDSP will address the need for improved teaching skills through the CEP

Emphasizing training in improved communications, leadership and supervision will be in keeping with the principal objectives of the new Health and Social Welfare Policy.

The HRDSP will address the need for substantial generic training in data processing and information technology

There is also a need for substantial generic in-service training in the areas of information technology and data processing – both domain that have been subject to dramatic change in recent years with the wider adoption of computers. This trend can only be expected to accelerate with the planned investment in the development of automated data management systems within the sector.

3.4 Training Capacity

3.4.1 Substantive Pre-Service and Post-Basic Training

Lesotho has a strong tradition of training at basic, post-basic and in-service levels. This tradition is attested to by the fact that just under 3/4 of sector personnel currently in service received most, if not all, of their training in Lesotho. However the Health Sector Human Resources Needs Assessment identified major shortcomings in the training process reflected in high dropout rates among trainees, extremely low hiring rates among graduates, high occupational turnover rates among trained personnel as well as excess training production relative to requirements in some occupations. These findings suggest that the training process has not been subject to strategic oversight and control by the MOHSW that would have ensured a better match with sector needs and greater cost-effectiveness.

The HRDSP will seek to redress the significant shortcomings in pre-service and post-basic training at NHTC, and ensure that HR production is constrained by available posts

It is also apparent that there has been a dramatic decline in the operational efficiency of the NHTC in recent years, lending further credence to the view that the MOHSW has not

been operating with a coherent strategic training policy and has not exerted appropriate control over the NHTC, its flagship training facility. The continuing efficiency of the CHAL training institutions, particularly in the face of the continuing uncertainty surrounding the MOU with GOL, is all the more laudable in this context.

What is clear from the findings of the Health Sector Human Resources Needs Assessment is that a substantial effort will be required to enhance training capacity if the level of health and welfare services envisioned in the new Health and Social Welfare Policy is even to be partially achieved in the next decade.

3.4.2 In-Service Training

In-service training within the health and social welfare sector has been conducted on an *ad hoc* basis in both government and CHAL facilities. Neither the MOHSW nor CHAL have written policies and procedures for in-service training needs assessments - the cornerstone of any training initiative. As such, many in-service training sessions appear to have been undertaken to meet central level, vertical program objectives rather than locally identified training needs.

The Health Sector Human Resources Needs Assessment revealed that the in-service training that has been provided has been extremely limited and completely inadequate. The average nurse, for example, has received less than 1 opportunity for in-service training throughout her career! Moreover, roughly half of the Nursing Sisters and Nursing Assistant have not received any in-service training at all! Unfortunately, a similar situation prevails for most other occupations as well.

The typical nurse has received less than 1 in-service training opportunity in her career

Clearly, the Lesotho health sector has placed insufficient emphasis and resources on continuing education. This is particularly problematic given the crucial role that continuing education plays in ensuring competency, efficiency and quality in service delivery. Maintaining quality and cost-effective service provision as well as motivating and retaining health sector personnel will depend critically upon the provision of a regular and relevant program of continuing education.

The HRSP identifies the investments necessary to establish a national Continuing Education Program that will be charged with providing regular and relevant in-service training for most health sector occupations. Where necessary, either because of technical content or the fact that relatively few personnel are involved, continuing education opportunities will be supplied out-of-country.

A cornerstone of the HRDSP will be the creation of national Continuing Education Program

3.5 Future Supply under Current Labor Market Conditions

3.5.1 Introduction

If prevailing labor market conditions are not improved markedly in the next decade through strategies identified in the HRDSP, the future supply of many of the most essential health personnel is projected to decrease precipitously. This decrease in future supply is expected to occur due to a combination of detrimental labor market phenomena over which the MOHSW has some control. These include low graduation rates from in-country training institutions, low hiring rates by the MOHSW and CHAL from those who do graduate, high occupational turnover and high attrition rates.

The future supply of many essential occupations will decrease precipitously if prevailing labor market conditions are not improved under the HRDSP

Graduation rates will need to improve

Graduation rates need to be improved by strengthening the quality of education being provided in certain training programs.

Hiring rates will need to improve

Hiring rates need to be increased markedly through a combination of better human resources development planning (only training the numbers required that the GOL and CHAL are known to be able to hire), and through a streamlining of management systems and procedures both within the MOHSW and CHAL but more importantly, between these organizations and the Ministry of Public Service.

Occupational turnover rates will need to be reduced

Occupational turnover needs to be reduced substantially in most occupations through the introduction of systematic and planned career management strategies that regulate the opportunities for career advancement so that they effectively balance the needs of the sector with the desires of personnel.

Attrition rates will need to be reduced

Attrition rates need to be reduced through a combination of strategies including an increase in the retirement age for highly technical and costly occupations, improvements in the conditions of service, and regulation of the market for out-of-country job placement. The latter should include the introduction of sabbaticals for affected occupations where the Government not only facilitates the placement of its personnel in skill-enhancing out-of-country jobs, but also retains a post for the personnel if they return within the agreed-to time frame (and where relevant offers higher-level posts where newly acquired skills and competencies can be more effectively employed) and allows the personnel to remain vested in the retirement system.

While the supply of many essential health occupations will need to be increased in the future, some will need to be decreased as part of an overall strategy of occupational diversification. This is particularly the case in the Nursing cadre where the future supply of Nursing Sisters and Nursing Assistants will need to be reduced as a number of their current job responsibilities and a large share of their current workload are transferred to more appropriately trained occupations that can provide the services in a more cost-effective way. In these occupations, not only will there need to be improvements made in the aforementioned labor market phenomena, but the intake levels at in-country training institutions will need to be reduced accordingly in order to avoid producing an unemployable excess supply of workers.

3.5.2 Health Service Occupations

3.5.2.1 Medical Doctors

Table 1 presents the supply projections for Medical Officers under prevailing labor market conditions. It reveals that the MOHSW and CHAL would need to hire between 44 and 55 new Medical Officers each 5 years to maintain the current supply level given the high loss rates that affect this occupation.

Safeguarding the future supply of Doctors will depend on reducing attrition and occupational turnover

The principal labor market factors impacting the future supply of Medical Officers are the very high 5-year attrition rate of between 43% and 53% and a 22% 5-year occupational turnover rate (roughly 4% per year, or three to four of the 84 Medical Officers).

Medical Officers have been promoted or reassigned to a range of other occupations including Specialists, program managers, epidemiologists and educators. This type of

turnover is considered generally appropriate and efficiency-enhancing if the objective is to maintain the supply at its current levels, and if the Medical Officers' skills and knowledge are utilized in their new occupation. However, since there is a considerable projected supply gap that will need to be filled, a balance must be struck between offering career advancement opportunities and reassigning the available Medical Officers to other non-direct-service-related occupations.

Table 1: Medical Officer Supply Projections (2003 – 2023)

Year	Number Hired per 5-Years		Suppy		Projected Population of Lesotho[3]	Medical Officers per 1000 population		Sensitivity[4]
	Minimum Loss[1]	Maximum Loss[2]	Minimum Loss[1]	Maximum Loss[2]		Minimum Loss[1]	Maximum Loss[2]	
2003	55	44	84	84	2,235,658	0.04	0.04	
2008	55	44	94	97	2,324,703	0.04	0.04	-0.15
2013	55	44	86	86	2,350,601	0.04	0.04	0.00
2018	55	44	85	85	2,371,651	0.04	0.04	0.02
2023	55	44	85	84	2,399,936	0.04	0.04	0.03

Notes
(1) Based on high annual loss rate estimates (10.0%)
(2) Based on low annual loss rate estimates (8.1%)
(3) Source: US Bureau of the Census mid-year projections
(4) Measures the percentage change in supply associated with a 1% change in the loss rate

The HR Needs Assessment projected that the number of new Medical Officers who would need to be hired each five year period could be reduced to between 27 and 37 if the five-year attrition rate could be reduced by 10% points and the annual turnover rate could be reduce to 3% or an average of only 2.5 promotions per year.

3.5.2.2 Nursing

3.5.2.2.1 Nursing Officers

Table 2 presents the future supply forecast for Nursing Officers under prevailing labor market parameters. It reveals that the future supply of Nursing Officers will decrease markedly if these labor market conditions are not improved substantially.

The principal labor market factors driving this projected decline in Nursing Officer supply are the extremely low 5-year graduation rate of 38%, the extremely low hiring rate of 27% (or its converse, a very high 5-year human capital investment loss rate of 73%), the very high 5-year attrition rate of between 40% and 55% and a reasonably acceptable 22% 5-year occupational turnover rate.

Safeguarding the future supply of Nursing Officers will depend on increasing graduation rates and hiring rates, and reducing attrition and turnover rates

The HR Needs Assessment projected that the future supply of Nursing Officers could be maintained at current levels **if** the MOHSW/NHTC is able to substantively improve its production performance (e.g. increase the graduation rate from 38% to 80%), reduce the associated loss in human capital investment (i.e., increase the hiring rate among graduates from 27% to 85%), reduce attrition (e.g. from a 5-year rate of 40% to 15%) and reduce turnover (e.g. from a 5-year rate of 22% to a more efficient 15%).

Table 2: Nursing Officer Supply Projections (2003 – 2023) – Status Quo Parameters

Year	Suppy		Projected Population of Lesotho[3]	Nursing Officers per 1000 population		Sensitivity[4]
	Minimum[1]	Maximum[2]		Minimum[1]	Maximum[2]	
2003	206	206	2,235,658	0.09	0.09	
2008	61	85	2,324,703	0.03	0.04	-1.80
2013	23	35	2,350,601	0.01	0.01	-2.19
2018	16	21	2,371,651	0.01	0.01	-1.62
2023	15	18	2,399,936	0.01	0.01	-0.94

Notes
(1) Based on high annual loss rate estimates (14.9%)
(2) Based on low annula loss rate estimates (12.6%)
(3) Source: US Bureau of the Census mid-year projections
(4) Measures the percentage change in supply associated with a 1% change in the loss rate

3.5.2.2.2 Nursing Sisters

Table 3 presents the future supply forecast for Nursing Sisters under prevailing labor market parameters. It reveals that the future supply will decrease to approximately ½ its current level if these labor market conditions are not improved substantially.

The principal labor market factors driving the projected decline in Nursing Sisters supply are the extremely low hiring rate of 33% (or its converse, a very high 5-year human capital investment loss rate of 67%), the fairly high turnover rate (37.5% over 5 years), and attrition rates that have been somewhat higher than desirable (i.e. between 26.5% and 30% over a five-year period).

Safeguarding the future supply of Nursing Sisters will depend on increasing hiring rates, and reducing attrition and turnover rates

Table 3: Nursing Sister Supply Projections (2003 – 2023)

Year	Suppy		Projected Population of Lesotho[3]	Nursing Sisters per 1000 population		Sensitivity[4]
	Minimum[1]	Maximum[2]		Minimum[1]	Maximum[2]	
2003	314	314	2,235,658	0.14	0.14	
2008	195	206	2,324,703	0.08	0.09	-1.05
2013	162	173	2,350,601	0.07	0.07	-1.23
2018	150	158	2,371,651	0.06	0.07	-1.05
2023	150	158	2,399,936	0.06	0.07	-1.04

Notes
(1) Based on high annual loss rate estimates (13.2%)
(2) Based on low annula loss rate estimates (12.5%)
(3) Source: US Bureau of the Census mid-year projections
(4) Measures the percentage change in supply associated with a 1% change in the loss rate

The Needs Assessment projected that the future supply of Nursing Sisters would nearly double relative to current levels **if** the MOHSW were able to reduce the loss in human capital investment (i.e., increase the hiring rate from 33% to 85%) and reduce attrition (e.g. from a 5-year rate of 26.5% to 15%, thus implying a 5-year loss rate of 44% when turnover is included). Turnover rates were assumed to remain the same since it is anticipated that Nursing Sisters will continue to be upgraded to Nursing Officers as one of the principal means of filling the future supply gap for NOs.

In order to satisfy the future *reduced* requirements for Nursing Sisters, the HR Needs Assessment projected that intake levels at Maluti, Roma and NHTC will need to be

reduced from the current level of roughly 70 per year to around 15 per year *if the preceding labor market improvements are realized*. The excess training capacity freed up from cutting back on the training of Nursing Sisters would be taken up by training single-qualified General Nurses and possibly Nursing Officers as well.

3.5.2.2.3 Nursing Assistants

Table 4 presents the future supply forecast for Nursing Assistants under prevailing labor market parameters. It reveals that the future supply will decrease markedly if these labor market conditions are not improved substantially.

The principal labor market factor driving this projected decline in Nursing Assistant supply is the extremely low hiring rate of 38% (or its converse, a very high 5-year human capital investment loss rate of 72%).

Safeguarding the future supply of Nursing Assistants will depend on increasing hiring rates

Table 4: Nursing Assistant Supply Projections (2003 – 2023)

Year	Suppy		Projected Population of Lesotho[3]	Nursing Assistants per 1000 population		Sensitivity[4]
	Minimum[1]	Maximum[2]		Minimum[1]	Maximum[2]	
2003	545	545	2,235,658	0.24	0.24	
2008	360	413	2,324,703	0.15	0.18	-0.57
2013	252	315	2,350,601	0.11	0.13	-0.89
2018	179	239	2,371,651	0.08	0.10	-1.10
2023	152	196	2,399,936	0.06	0.08	-1.01

Notes
(1) Based on high annual loss rate estimates (8.8%)
(2) Based on low annula loss rate estimates (6.8%)
(3) Source: US Bureau of the Census mid-year projections
(4) Measures the percentage change in supply associated with a 1% change in the loss rate

The Needs Assessment projected that the future supply of Nursing Assistants would satisfy future requirements levels **if** the MOHSW is able to increase hiring rate from 28% to 85%, increase the promotional opportunities for NAs (i.e., increase the 5-year occupational turnover rate from 18% to 30%) and reduce attrition (e.g. by 5% points from a 5-year rate of 16% to 11%), thus implying a net increase in the 5-year loss rate (e.g. from 34% to 41%). The projected supply in 2023 is nearly 200 NAs less than the current supply.

3.5.2.3 Mental Health

The supply analysis for Mental Health Nurses is subsumed within the Nursing Officer occupation presented above. The number of other higher-level mental health occupations is too few to meaningfully project supply, and all are trained out-of-country.

3.5.2.4 Dental Health

There are too few Dental Officers and Dental Technologists working in the system to generate meaningful supply forecasts. Moreover, these occupations are not trained in Lesotho so the future supply depends completely on the future hiring levels that will be established by the MOHSW and CHAL.

3.5.3 Allied Health Service Occupations

There are too few Orthopedic Technologists, Physiotherapists, Physiotherapy Assistants, Radiographers, Radiographer Technicians or Radiography Assistants working in the system to generate meaningful supply forecasts. Moreover, these occupations are not trained in Lesotho so the future supply depends completely on the future hiring levels that will be established by the MOHSW and CHAL.

3.5.4 Technical Support Service Occupations

3.5.4.1 Biomedical Engineering and Estates Management

Table 5 presents the future supply forecast for Technical Officers under prevailing labor market parameters. It reveals that the MOHSW and CHAL will need to hire a total of 16 Technical Officers each 5 years to maintain supply at its current level if current labor market conditions do not change.

Table 5: Technical Officer Supply Projections (2003 – 2023)

Year	Number Hired per 5-Years	Suppy[1]	Projected Population of Lesotho[2]	Technical Officers per 1000 population
2003	16	38	2,235,658	0.02
2008	16	38	2,324,703	0.02
2013	16	37	2,350,601	0.02
2018	16	37	2,371,651	0.02
2023	16	37	2,399,936	0.02

Notes
(1) Based on annual loss rate estimate of 8.6%
(2) Source: US Bureau of the Census mid-year projections

Safeguarding the future supply of Technical Officers will depend on reducing loss rates

The principal labor market factor driving the future supply of Technical Officers is the 5-year loss rate estimate of 43.3%. The HR Needs Assessment projected that the 5-year hiring level would be reduced to 12 if the five-year loss rate could be reduced to 30%.

3.5.4.2 Pharmacy

Table 6 presents the future supply forecast for Pharmacy Technicians under prevailing labor market parameters. It reveals that the future supply will at the best increase slightly but may actually decrease relative to the current supply level.

Table 6: Pharmacy Technicians Supply Projections (2003 – 2023)

Year	Suppy		Projected Population of Lesotho[3]	Pharmacy Technicians per 1000 population		Sensitivity[4]
	Minimum[1]	Maximum[2]		Minimum[1]	Maximum[2]	
2003	47	47	2,235,658	0.02	0.02	
2008	57	49	2,324,703	0.02	0.02	0.73
2013	60	43	2,350,601	0.03	0.02	1.82
2018	60	43	2,371,651	0.03	0.02	1.82
2023	60	43	2,399,936	0.02	0.02	1.78

Notes
(1) Based on high annual loss rate estimates (14.9%)
(2) Based on low annula loss rate estimates (12.6%)
(3) Source: US Bureau of the Census mid-year projections
(4) Measures the percentage change in supply associated with a 1% change in the loss rate

The principal labor market factors driving the future projected supply of Pharmacy Technicians are the very high 5-year loss rate of between 59.7% and 77.1%, an average annual graduation rate of just 34%, and an annual hiring rate of 63%.

Safeguarding the future supply of Pharmacy Technicians will depend on reducing loss rates and increasing graduation and hiring rates

The HR Needs Assessment projected that the future supply of Pharmacy Technicians would satisfy future requirements levels **if** NHTC is able to increase the graduation rate (i.e., from 34% to 80%), the MOHSW is able to increase hiring rate (i.e., from 63% to 85%), and reduce the five-year loss rate (e.g. from between 59.7% to 77.1% to 30%), and **if** the intake levels at NHTC were *reduced* from the prevailing average level of 36 per class to 24 per class.

3.5.4.3 Laboratory

Table 7 presents the future supply forecast for **Laboratory Technologists** under prevailing labor market parameters. It reveals that the MOHSW and CHAL will need to hire a total of 17 Laboratory Technologists each 5 years to maintain supply at its current level if current labor market conditions do not change.

Table 7: Laboratory Technologist Supply Projections (2003 – 2023)

Year	Number Hired per 5-Years		Suppy		Projected Population of Lesotho[3]	Laboratory Technologists per 1000 population
	Minimum[1]	Maximum[2]	Minimum[1]	Maximum[2]		
2003	16	17	32	32	2,235,658	0.01
2008	16	17	36	36	2,324,703	0.02
2013	16	17	34	34	2,350,601	0.01
2018	16	17	33	33	2,371,651	0.01
2023	16	17	32	33	2,399,936	0.01

Notes
(1) Based on annual loss rate estimate of 7.0%
(2) Based on annual loss rate estimate of 7.6%
(2) Source: US Bureau of the Census mid-year projections

Safeguarding the future supply of Laboratory Technologists will depend on reducing loss

The principal labor market factor driving the future projected supply of Laboratory Technologists is the 5-year loss rate of between 35.1% and 37.8%. The HR Needs Assessment projected that the 5-year hiring level would be reduced to 14 if the five-year loss rate could be reduced to 30%.

Table 8 presents the future supply forecast for **Laboratory Technicians** under prevailing labor market parameters. It reveals that the future supply will increase by approximately 12 Technicians in 10 years if current labor market conditions do not change.

Table 8: Laboratory Technicians Supply Projections (2003 – 2023)

Year	Supply[1]	Projected Population of Lesotho[2]	Laboratory Technicians per 1000 population
2003	36	2,235,658	0.02
2008	44	2,324,703	0.02
2013	48	2,350,601	0.02
2018	50	2,371,651	0.02
2023	50	2,399,936	0.02

Notes
(1) Based on high annual loss rate estimates (8.2%)
(2) Source: US Bureau of the Census mid-year projections

Safeguarding the future supply of Laboratory Technicians will depend on reducing loss and increasing graduation rates

The principal labor market factors driving the future projected supply of Laboratory Technicians are the 5-year loss rate of 41%, an average annual graduation rate of just 13% from NHTC, and a hiring rate of 80%.

The HR Needs Assessment projected that the intake level at NHTC would need to be approximately 14 students per 3-year cycle (with intakes occurring only each 3 years) to maintain supply at it current and required level if the graduation rate is increased to 80% and the 5-year loss rate is reduced to 28%.

3.5.5 Special Health Service Occupations

There are too few Nutrition Officers, Nutrition Assistants, Health Educators, and Assistant Health Educators working in the system to generate meaningful supply forecasts. Moreover, these occupations are not trained in Lesotho so the future supply will depend completely on the future hiring levels that will be established by the MOHSW and CHAL.

3.5.5.1 Environmental Health

Table 9 presents the future supply forecast for Environmental Health Officers under prevailing labor market parameters. It reveals that if labor market conditions remain unchanged, then the MOHSW and CHAL will need to hire 8 new Environmental Health Officers each five-years to maintain the current labor supply.

Table 9: Environmental Health Officer Supply Projections (2003 – 2023)

Year	Supply[1]	Projected Population of Lesotho[2]	Health Inspectors per 1000 population
2003	19	2,235,658	0.01
2008	19	2,324,703	0.01
2013	20	2,350,601	0.01
2018	22	2,371,651	0.01
2023	21	2,399,936	0.01

Notes
(1) Based on high annual loss rate estimates (8.3%)
(2) Source: US Bureau of the Census mid-year projections

Table 10 presents the future supply forecast for Health Assistants under prevailing labor market parameters. It reveals that if labor market conditions remain unchanged, then the MOHSW and CHAL will need to hire 13 new Health Assistants each five-years to maintain the current labor supply.

Table 10: Health Assistant Supply Projections (2003 – 2023)

Year	Supply[1]	Projected Population of Lesotho[2]	Health Assistants per 1000 population
2003	34	2,235,658	0.02
2008	33	2,324,703	0.01
2013	33	2,350,601	0.01
2018	33	2,371,651	0.01
2023	34	2,399,936	0.01

Notes
(1) Based on high annual loss rate estimates (8.3%)
(2) Source: US Bureau of the Census mid-year projections

3.5.6 Social Welfare Occupations

3.5.6.1 Social Work

There are too few Social Workers and Social Welfare Assistants working in the system to generate meaningful supply forecasts.

4 Principles Guiding Formulation of Human Resources Development and Strategic Plans

The following principles form the basis for articulating the strategies envisaged in the Health Sector Human Resources Development and Strategic Plans. These principles were formalized during the national HR Development Planning workshop held in Maseru in June 2004. They are based on the findings of the Health Sector Human Resources Needs Assessment.

Strengthen HR Development Planning and Management within the health and social welfare sector

Principle 1: The HRDSP should ensure that the MOHSW Human Resources Department (HRD) is strengthened to oversee, authorize and coordinate all substantive training (in-country and out-of-country) in close collaboration with relevant departments, cadres and professional associations and in conformity with the guidance and strategies laid out in the HRDSP.

Develop HR to reduce the burden of disease in a cost-effective manner

Principle 2: The HRDSP should give first priority to the development of occupations in functional domain that are expected to have the greatest impact on reducing the burden of disease in a cost-effective and quality way.

Principle 3: The HRDSP should rationalize the supply of support staffs and promote more efficient use of their labor as a strategy for responding in a cost-effective way to the burden of disease and for enhancing the quality of care.

Develop HR to reinforce Primary Health Care capacity

Principle 4: The HRDSP should give top priority to closing the supply gap in the primary care level. This will also ensure consistency with the new Health and Social Welfare Policy.

Principle 5: The HRDSP should recognize the role and responsibilities of 4,800 Community Health Workers and promote them as an integral element of a cost-effective strategy to respond adequately to the burden of disease.

Principle 6: As part of the strategy to close the supply gap for primary care services, the HRDSP should promote human resources development within the CHAL sub-sector which employs 43% of all primary care staff.

Principle 7: The HRDSP should specify that a formal curriculum be developed for Health Assistants that will ensure that the needs of the various services are adequately incorporated and that would be universally adhered to in providing training for this occupation.

Develop HR to ensure equity of coverage

Principle 8: The HRDSP should promote equity of access to essential services by ensuring that human resources production and deployment assures that minimum staffing levels are achieved at all health facilities.

Principle 9: The HRDSP should promote equity of access to quality essential services by ensuring that staffing corresponds to service demand / workload. This implies that the HRDSP should not be based on uniform staffing levels.

Principle 10: The HRDSP should adopt a balanced approach to the development of human resources that accords priority to occupations with the greatest relative supply gap with respect to requirements.

Principle 11: The HRDSP should ensure that there are no disparities in geographic coverage with respect to the supply of personnel engaged in primary and secondary level service provision and related essential support service provision.

Principle 12: The HRDSP should promote minimum service coverage standards within districts particularly for occupations emphasized in the new Health and Social Welfare Policy.

Principle 13: The HRDSP should give priority to closing the supply gap for Social Worker (including Medical Social Workers) in accordance with the guidance provided in the new Health and Social Welfare Policy.

Strengthen and expand in-country substantive pre-service and post-basic training production capacity for relatively large occupations

Principle 14: The HRDSP should include a performance review and future production analysis for the Roma School of Nursing, NHTC, and other training institutions. The objective should be to clearly define the role that each of these schools can/should play in the future production of health and social welfare sector human resources, what occupations they should train and in what numbers. The review should critically evaluate the organizational management of each institution and develop an action plan for instituting the requisite changes that would enhance their performance.

Principle 15: The HRDSP should motivate the development of an action plan to implement the long-standing autonomy recommendations of the Mandala report for NHTC that have been accepted by the MOHSW and to position NHTC to assume the role identified under *Principle 14*.

Principle 16: Given the substantial projected supply gaps for essential health sector personnel, the HRDSP will need to strengthen both NHTC and CHAL training institutions. These organizations will not only require investments in upgrading their infrastructure and human resources, but will also need assistance in instituting improved management systems and procedures.

Principle 17: The HRDSP should evaluate the feasibility and desirability of instituting staggered training intakes for relatively small technical occupations that do not require regular (annual) output. In these cases, courses would be offered on a staggered basis (for example, one 2-year session every 5 years).

Institute rational and selective contracting of non-nationals

Principle 18: The HRDSP should rely on employment of non-nationals in occupations that are expected to suffer from structural supply gaps (i.e., those that it is expected the future supply cannot be met by training and hiring Masotho), are relatively expensive to produce, and are particularly susceptible to brain drain-related attrition. This principle will not only enable the sector to fill the supply gap in a timely manner but will also minimize the potential losses from the brain drain or attrition.

Principle 19: The HRDSP should minimize the practice of hiring non-nationals to probationary entry-level positions.

Principle 20: The HRDSP should restrict the social welfare jobs to Basotho given the particular cultural and communications demands of this profession.

Institute strategic and controlled funding of substantive out-of-country training for Masotho in highly specialized occupations

Principle 21: The HRDSP should selectively offer scholarships for qualified Masotho candidates in occupations characterized by *Principle 18* **only if:** (i) there are established posts identified for them to fill upon their return; (ii) the candidates fulfill mandatory pre-training service agreements in priority jobs / posts and agree to similar post-training under strict bonding conditions; and, (iii) an effective bonding enforcement monitoring system has been established.

Principle 22: The HRDSP should make provision for a limited number of substantive out-of-country training grants per year to maintain the current supply level of relatively small occupations that do not warrant in-country production.

Rationalize investments in degree level training to conform to objectives of the new Health and Social Welfare Policy

Principle 23: The National Manpower Policy should be reviewed in light of the findings of the HR Needs Assessment Report in order to clarify the Government's position on the funding of degree level training in health and social welfare cadres. The revised policy should account for the opportunity cost of funding this training given the sizeable supply gap that exists in the sector and should restrict funding to selectively upgrading the quality of services in specialist domain.

Principle 24: The HRDSP should restrict the development of degree level training programs at NUL for any cadre in which there is a substantial supply gap among non-degree level occupations. For example, a degree program for Pharmacists should not be established so long as there is a substantial supply gap for Pharmacy Technicians. In this way, the limited resources available for training will be allocated to ensure the broadest coverage of non-degree level staffs.

Principle 25: The HRDSP should seek to strengthen coordination with the NUL with regards to training of health and social welfare professionals at degree level. The current training of degree level general nurses with no prior work experience is inconsistent with the needs of the sector and violates the original intent of the program which was to provide a vehicle for upgrading clinical service skills among Nurse Clinicians (and now

Clinical Nurses) with considerable work experience. The use of public funds to train occupations that are not critically needed cannot be accepted within the prevailing context of significant supply shortfalls in essential non-degree-level staffs.

Maintain and upgrade skills of existing staffs through Continuing Education

Principle 26: The HRDSP should establish a national Continuing Education Program with regional centers that provide on-going in-service training for all occupations based on an annual in-service training plan developed at the DHMT level that satisfies the overall objectives of the HRDSP. The CEP should focus initially on redressing major skills deficiencies across occupations in the areas of

- personnel management
- supervision
- Teaching
- communications
- data processing and data use for service management and decision-making
- information technology

Principle 27: The HRDSP should make provisions for hiring highly qualified trainers in fields such as health education, communications, data processing etc, as the most cost-effective and expeditious means of infusing the sector as a whole with competency in these domain. If suitable nationals are not readily available, short-term contracting of non-nationals should be instituted.

Principle 28: The HRDSP should ensure that in-service training is provided for occupations that rely exclusively on continuing education for imparting requisite skills / knowledge. Formal curricula should be developed in these areas and courses offered on a periodic basis as required. Priority in this regard should be given to providing training to Ward Attendants in non-technical patient care.

Principle 29: The HRDSP should institute measures for maintaining competencies among technical personnel who have benefited from substantive post-basic training through periodic continuing education offered either in Lesotho, or as required out-of-country.

Principle 30: The HRDSP should initiate a process of developing Internet-based distance-learning facilities for existing staff as a means of supply both substantive post-basic and continuing education training in a phased manner without disrupting service provision.

Establish parity between GOL and CHAL labor markets

Principle 31: The HRDSP should promote proportionality between the MOHSW and CHAL sub-sectors in terms of HR development.

Principle 32: The HRDSP should promote equal schemes of service for comparable personnel working in the GOL and CHAL sub-sectors.

Institute improved hiring policies and procedures

Principle 33: The HRDSP should stipulate that all future recruitment must adhere to the new HR Management Policies and Procedure Guidelines which should minimize the hiring of unqualified personnel. Where there is a need to hire an unqualified person because of the unavailability of qualified candidates, this person should be accorded priority for acquiring the requisite substantive training.

Institute a career management system that maximizes the returns to investment in scarce human resources

Principle 34: The HRDSP should institute career management system in the MOHSW and CHAL that are based on clear and enforceable occupation-specific guidelines on transfers or promotions that lead to occupational turnover (i.e., move employees out of the occupation for which they have received substantive pre-service or post-basic training). Turnover rate thresholds should be established in this regard and should be only be changed based on an accurate multi-year assessment of loss rates.

Principle 35: The turnover thresholds established under the new career management system should be linked to duration of employment since last receiving substantive pre-service or post-basic training. The objective should be to minimize the rate and level of turnover among recent graduates from these substantive training programs and to maximize the returns to investments in their training. This can be achieved by restricting occupational turnover for a specified number of years after training – a length of time that should increase with the length and/or cost of the substantive training received.

Establish improved schemes of service in order to enhance retention of scarce human resources

Principle 36: The HRDSP should promote the institution of a grade/step accelerator for occupations with limited career advancement opportunities that is triggered by a duration-in-post threshold subject to effective job performance based on the performance appraisal system.

Principle 37: The HRDSP should promote the equitable extension of Risk, On-Call and other applicable allowances to qualifying occupations working as an integral part of a service team. Equitable in this regard means that if one occupation is provided an allowance for work that requires uncommon risk or levels of effort, all other occupations that serve as an integral part of the same service team should benefit from the same allowances, although at rates that are commensurate with their base salary level.

Principle 38: The HRDSP should promote the equitable extension of Mountain Allowances to all personnel working in remote and mountainous areas, not just those working in certain districts. The HRDSP should also undertake a review of the amount of the Mountain Allowance and ensure that it is set at a level that creates a real incentive to work in the remote and mountainous areas.

Principle 39: The HRDSP should promote strategies / policies that reduce job dissatisfaction as a primary component of its efforts to reduce loss through attrition. This should include *inter alia* strategies designed to enhance remuneration, improve working

conditions, provide adequate training opportunities, reduce excessive workload by closing the supply gap, and enhance supervision.

Introduce loss abatement (retention) strategies

Principle 40: The HRDSP should promote strategies that seek to manage or control the brain drain as a source of attrition in accordance with the recent WHO resolutions on country-to-country negotiations. This should include the development of formal fixed-term employment agreements with "pull" countries through which personnel in designated high brain-drain occupations (i.e. those that are being attracted away in large numbers relative to the size of the occupation) are offered official sabbaticals to work in the "pull" country without having to resign and give up participation in pension scheme. The "pull" country would pay the workers' salaries (a % of which would revert to Lesotho to finance the pension fund contribution), and perhaps "adopt" a hospital and/or provide short-term specialist TA for in-service training in Lesotho.

Principle 41: The HRDSP should promote extending the mandatory retirement age for personnel working in skilled occupations with sustained projected supply gaps.

Principle 42: The HRDSP should seek to contain, and where necessary reduce, the workload faced by hospital and health centers nurses in the most cost-effective and feasible manner possible.

Develop specialist clinical skills at the district hospital level

Principle 43: The HRDSP should motivate for the deployment of Specialist Registrars charged with supply requisite specialist services at designated Type II district hospitals. These Specialist Registrars should be hired with relevant pre-existing specialist training and work experience. They should be rotated initially through QEII to be accredited by a relevant Specialist Consultant.

Principle 44: The HRDSP should also provide for a limited number of out-of-country scholarships for Basotho Medical Officers or Registrars to obtain diploma level training in specialist areas. These grants should be tied to a mandatory service obligation at a relevant Type II hospitals both prior to leaving for training and afterwards (see *Principle xx*).

Principle 45: The HRDSP should seek to strengthen personnel management and staff appraisal skills of Consultants at QEII so that they can assure the competency of Registrars in specialist skill areas prior to and during their deployment at Type II hospitals as Specialist Registrars.

Enhance clinical case management at all levels

Principle 46: The HRDSP should promote the use of case assessment and management protocols by clinical personnel and should provide targeted orientation and in-service training programs administered by Consultants and Registrars as part of a competency assurance process.

Rationalize and expand the nursing cadre and career ladder

Principle 47: The HRDSP should seek to close as much of the projected supply gap for Nursing Officers and other occupations through redeployment of personnel who are not

working in posts that utilize their substantive post-basic training. This redeployment should be undertaken in conjunction with the implementation of expanded career ladders or *Principle 17* (whichever is feasible) since it is recognized that some of the deployment to jobs that do not use the skills acquired through substantive post-basic training has occurred because of the lack of career advancement opportunities.

Principle 48: The HRDSP should motivate for the development a new single-qualified General Nurse occupation to provide general nursing services for inpatients at the hospital level and to provide primary curative care at the health center level.

Principle 49: The HRDSP should reassign Nursing Sisters to maternity and obstetrical services at the hospital level and replace them in purely clinical roles by the General Nurse and/or Nursing Officers. The number of Nursing Sisters in the system should be based on the volume of maternity care demanded.

Principle 50: The HRDSP should ascribe responsibility for the relatively limited number of deliveries at the health centre level to Nurse Clinicians rather than Nursing Sisters.

Principle 51: The HRDSP should formalize the continued training and deployment of Nursing Assistants but ensure that they are employed in promotive public health activities rather than in a clinical role.

Principle 52: The HRDSP should enhance the opportunities for Nursing Assistants to be trained and promoted to General Nurse level. If necessary, qualified NAs with strong service records who have at least 15 years of potential service remaining prior to retirement should be provided with "bridging" educational opportunities to enable them to comply with the entrance requirements for the General Nursing program.

5 Future Human Resources Requirements – Development Plan

5.1 Introduction

Even if the MOHSW and CHAL can substantially redress the detrimental labor market phenomena described above, and rationalizes the allocation of work responsibilities and workload through the creation and deployment of a number of more appropriately trained occupations, the Health Sector Human Resources Needs Assessment has projected that there will remain a substantial gap between supply and requirements.

The Human Resources Development Plan identifies the total staffing requirements for the sector. The requirements are derived using a task and workload-based Full-Time Equivalent (FTE) requirements projections methodology supplemented by a coverage methodology. Both methodologies are described in the Health Sector Human Resources Needs Assessment report (Schwabe, McGrath and Lerotholi, June 2004)[14].

The Development Plan identifies the requirements for health and social welfare personnel in the absence of either a budget constraint or a production constraint. In other words, the requirements are based on a technical assessment of the needs for staffing that take into account prevailing and expected future workload and a rationalization of work responsibilities, *assuming that all the required staff can either be produced or hired under contract, and that the Government and CHAL can and will fund the requisite positions*.

The Strategic Plan presented later in Section 6 focuses on what can be produced within the next decade given the expected capacity of the in-country training institutions, and an indication of the willingness of the Government to fund the creation of new posts.

5.2 Staffing Requirements

5.2.1 Health Service Occupations

5.2.1.1 Medical Doctors

Meeting the challenge posed by the large prevailing burden of disease in a cost-effective manner that assures an acceptable quality of care will require substantially increasing the supply of Medical Doctors. At current burden of disease levels and with a rationalization of job responsibilities and workload to ensure that all clinical and management functions that could be adequately handled by other personnel (e.g. nurses, administrators etc) are transferred from Medical Doctors to these other personnel, it is projected that it will be

[14] MCDI's ***MedSolve© Human Resources Planning Module*** was used as the analytic tool for deriving the task and workload-based FTE requirements. A full set of supporting ***MedSolve©*** files that provide the detailed task and workload definitions and the associated supply, requirements, gap and cost projections have been provided with this plan document to the MOHSW Human Resources Department. The requirements presented in this HRDSP incorporate considerable input received from participants at the national HR Planning Workshop held in Maseru in June 2004, where the preliminary baseline and recommended requirements projections presented in the HR Needs Assessment report were examined, critiqued and modified as deemed appropriate based on additional technical and contextual factors.

necessary to triple the current supply of Medical Doctors. At a minimum it is projected that 255 Medical Officers and 17 Specialists are required. This will include the deployment of a new occupation of Specialist Registrars at Type IIA and Type IIB district hospitals in order to upgrade service quality at this level in accordance with the new Health and Social Welfare Policy.

A summary of the current requirements for Specialists and Medical Officers is presented in Table 11 and Table 12.

Table 11: Current Requirements – Medical Specialists

Job	Current FTE Requirements	Current Supply[2]	Indicator of Staffing Need
Internal Medicine	2		
General Surgery	2		
Obstetrics and Gynecology	2		
Pediatrics	2		
Orthopedics / Trauma	2		
ENT	2		
Ophthalmology	2		
Radiology (Radiologist)	1		
Clinical Pathology / Histopathology	1		
Intensive Care[1]	1		
Total	***17***	***27***	***159%***
Notes:			
[1] Boston University recommendation in QEII Study (2003)			
[2] Includes 5 Cuban physicians			

Table 12: Current Requirements – Medical Officers

Institution / Job	Minimum Current FTE Requirements			Current FTE Supply	Indicator of Staffing Need
	Workload Based	Coverage Based	Composite		
Type I Hospitals	**64**	**-**	**64**	**43**	**67.3%**
Registrar - Type I Hospital	19		19	16	84.2%
Senior House Officer - Type I Hospital	45		45	16	35.6%
House Officer - Type I Hospital	-	-	-	11	
Type IIA Hospitals	**72**	**78**	**98**	**14**	**14.3%**
Registrar - Type IIA Hospitals [1]	16	42	42	4	9.5%
Senior House Officer - Type IIA Hospitals	56	36	56	10	17.9%
House Officer - Type IIA Hospitals	-	-	-	-	
Type IIB Hospitals	**48**	**60**	**62**	**21**	**33.7%**
Registrar - HSA Type IIB Hospitals [1]	10	24	24	3	12.5%
Senior House Officer - Type IIB Hospital	38	36	38	18	47.0%
Type IIC Hospitals	**19**	**12**	**21**	**-**	**0.0%**
Registrar - HSA Type IIC Hospitals	4	6	6	-	0.0%
Senior House Officer - Type IIC Hospital	15	6	15	-	0.0%
District Medical Officers	**-**	**10**	**10**	**1**	**10.0%**
District Medical Officers	-	10	10	1	10.0%
Total	***203***	***160***	***255***	***79***	***31.0%***
Notes					
[1] Includes Specialist Registrars and Registrars					

Closing the supply gap by 2010 will require will require a 28% increase in the MOHSW Personnel Emoluments (PE) budget relative to FY 2003/04 or a 9.7% increase in the total MOHSW budget.

Table 13: Medical Doctor Labor Supply Gap and Related Cost (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	111	228	294	296	300
Total FTE Requirements	277	291	294	296	300
Personnel Supply Gap: Surplus / (Deficit)	(166)	(63)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	12.09	28.76	37.11	37.42	37.85
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	28.84	35.10	37.11	37.42	37.85
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	(17.29)	(6.57)	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*14.2%*	*33.8%*	*43.6%*	*43.9%*	*44.4%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*33.9%*	*41.2%*	*43.6%*	*43.9%*	*44.4%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*20.3%*	*7.7%*	*0.0%*	*0.0%*	*0.0%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*4.9%*	*11.7%*	*15.1%*	*15.2%*	*15.4%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*11.7%*	*14.2%*	*15.1%*	*15.2%*	*15.4%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*7.0%*	*2.7%*	*0.0%*	*0.0%*	*0.0%*
Notes: Includes 4 Medical Officers working at HQ plus 1 for the LFDS that are not accounted for in Table 12.					

It will ensure that Lesotho's coverage is brought into line with comparable coverage for other sub-Saharan African countries at roughly 12 Doctors per 100,000 inhabitants.

Table 14: Inter-country comparison of Medical Doctor Coverage

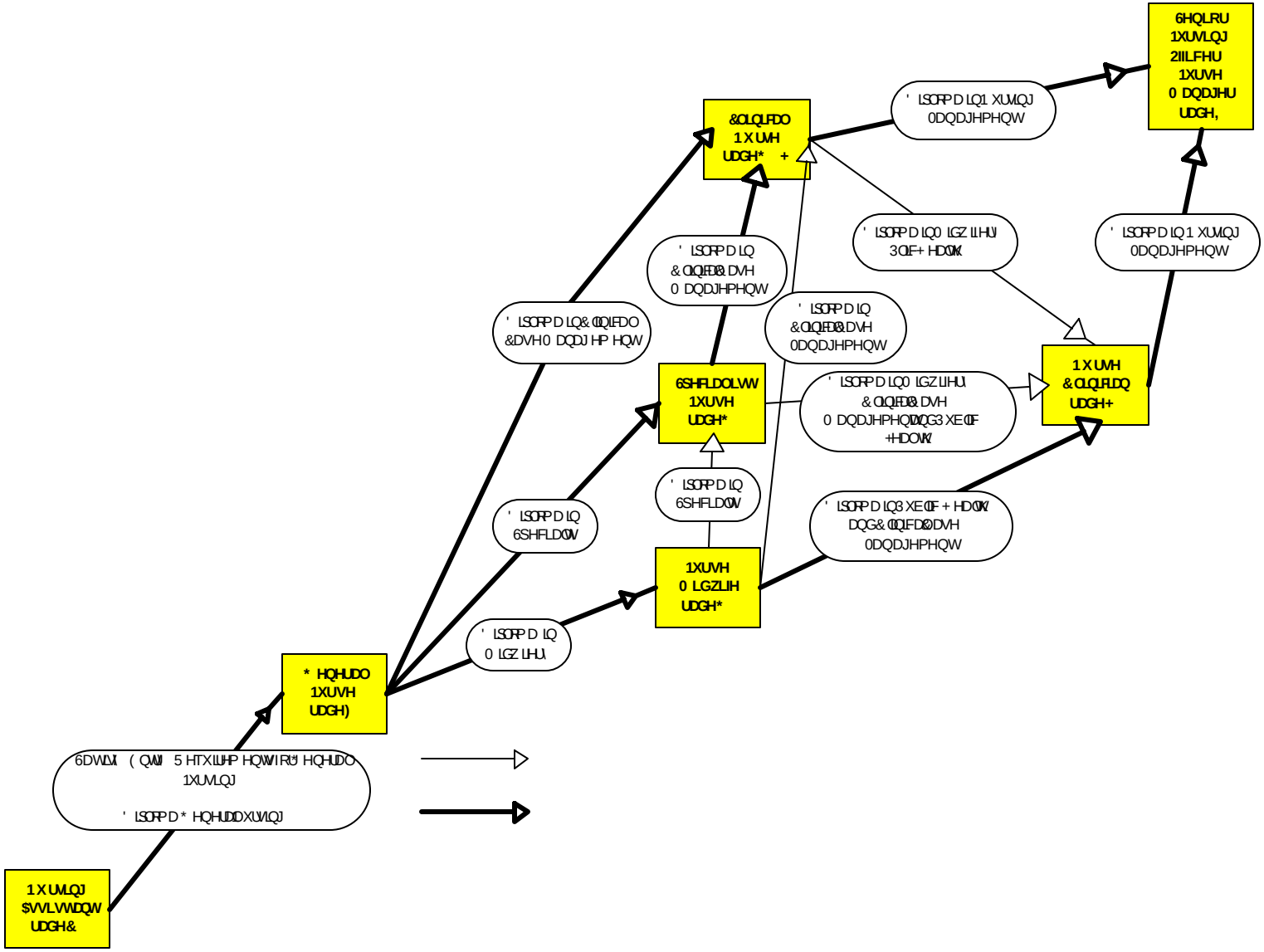
Country	Year	Doctors per 100,000
Botswana	1994	23.8
Zambia	1995	6.9
Tanzania	1995	4.1
Swaziland	1996	15.1
Sub-Saharan Africa	1992	12
Lesotho Actual	2003	3.8
Lesotho Requirement	2003	12.5

5.2.1.2 Nursing

The requirements for nurses are derived using a combined task and workload-based FTE requirements projections methodology and coverage methodology. The requirements are based on the recommended rationalized requirements presented in the Health Sector Human Resources Needs Assessment report, but *have been substantively modified to incorporate the technical input from participants in the national Human Resources Planning Workshop* convened in Maseru on June 1-3 2004. In particular, they incorporate a revised career ladder depicted in Figure 3 on page 5-11, and a substantively revised service rationalization methodology agreed to in the workshop which reallocates job responsibilities and associated workload within the nursing cadre in a way that is aimed at identifying the most cost-effective mix and level of future nursing supply.

The requirements include the creation of a new single-qualified *General Nurse* (GN) occupation that is charged with primary responsibility for inpatient nursing care and the provision of MCH/FP services at the hospital level, and approximately 40% of the

Figure 3: Rationalized Nursing Career Ladder



outpatient burden at the health center level.[15,16]. The requirements also call for the creation of a new *Clinical Nurse* (CN) job within the Nursing Officer occupation that will be charged with providing the majority of the outpatient care at the hospital level under the supervision of Medical Doctors.

The diversification of the nursing cadre in this way will permit a transfer of responsibility and workload from the dually qualified *Nursing Sisters* who will be redeployed in a strategic manner under the HRDSP to provide midwifery and obstetric services rather than general nursing. This will not preclude a more limited deployment of Nursing Sisters in smaller hospital settings to provide both midwifery and inpatient care particularly during night shifts when there is not sufficient Medical Doctor or Nursing Officer coverage.

The quality of care provided within the MOHSW and CHAL sub-sectors will at the same time depend critically upon the strategic deployment of Nursing Officers whose supply will need to be increased. At the hospital level, Clinical Nurses will take on formal responsibility for the provision of a large proportion of non-primary curative care at the hospital level under the supervision of medical personnel (doing what they already do but with appropriate acknowledgement, compensation and support). At the health center level Nurse Clinicians will oversee clinical and public health service delivery as currently prescribed.

The iterative rationalization methodology for the reallocations of job responsibilities and associated workload is summarized in Figure 4 presented on page 5-13. **Stage I** *reduces the need for Clinical Nurses (Nursing Officers) at Type I, II and III hospitals by reallocating a substantial share of their current responsibility for MCH/FP and outpatient treatment to General Nurses and Nursing Assistants.* In order to implement this rationalization, the NA curriculum will be reinforced in the MCH/FP (see recommendations in the "Substantive (Pre-Service and Post-Basic) Training Requirements" section of the HRDSP for NAs starting on page 5-47. **Stage I** *also shares responsibility for OPD care between the new Clinical Nurse occupation (who will be formally recognized for a task that they have de facto carried out for some time under prevailing supply constraints) and Nursing Assistants.*

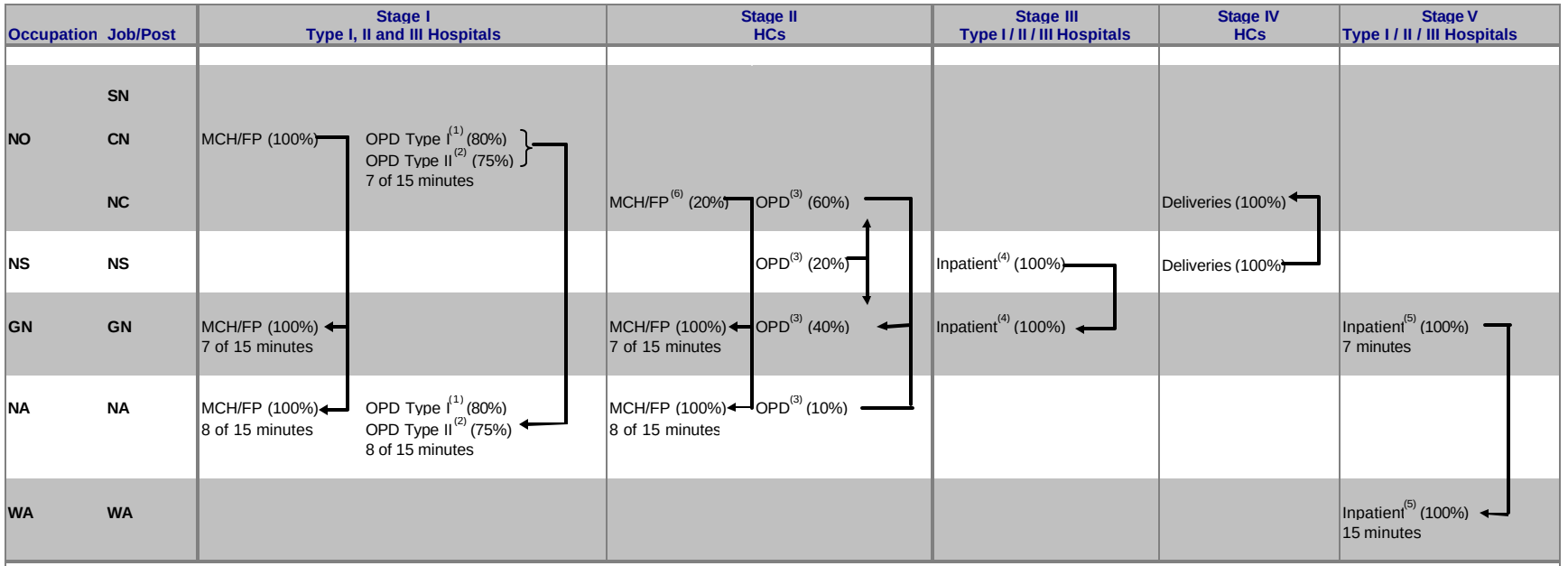
Stage II of the nursing requirements projections process *reallocates the MCH/FP workload from Nurse Clinicians at health centers to General Nurses and NAs*. **Stage II** also *reallocates responsibility for health center outpatient care from Nursing Sisters to Nurse Clinicians working in tandem with General Nurses*.

Stage III of the nursing requirements projections process *reallocates all inpatient responsibilities at Type I, II and III hospitals from dually qualified NSs to single-qualified General Nurses*. NSs remain in these facilities to provide delivery services and will be

[15] The proposal contained in the HR Needs Assessment to create an Advance Nursing Assistant occupation, was not ratified at the HR Development Planning Workshop and so has been dropped from the HRDSP.

[16] The recommendation from HR Needs Assessment to provide in-service training to upgrade Ward Attendants to provide the majority of non-nursing care was ratified at the HR Development Planning Workshop and so has been included in the HRDSP. The intention is to relieve Nursing Sisters of this responsibility, thus increasing the amount and quality of non-technical nursing care that can be provided at a lower overall cost.

Figure 4: Schematic Summary of Task/Workload Rationalization Assumptions Incorporated in each Stage of the Nursing Requirements Projections Process



Legend:
CN = Clinical Nurse; MO = Medical Officer; NC = Nurse Clinician; NO= Nursing Officer; NS = Nursing Sister; SN = Specialist Nurse

Notes:
(1) CN are assumed to treat 80% of the OPD cases (20% by MO). Time divided between NA (patient history, screening, vital signs, dressing & injections) and CN (diagnosis, treatment planning, treatment).
(2) NC are assumed to treat 75% of the OPD Cases (25% by MO). Time divided between NA (patient history, screening, vital signs, dressing & injections) and CN (diagnosis, treatment planning, treatment).
(3) Under the baseline task/workload assignment NCs cover 80% of OPD cases and NSs cover 20%. In addition NAs assumed to assist in dressings and injections in 10% of OPD cases. It is assumed that the caseload is now shared 60% by NC and 40% by GN. Time freed up for NAs allocated to increased health education. Time freed up for NSs allocated to deliveries.
(4) Under the baseline task/workload assignment NSs cover 100% of inpatient care at the hospital level. This task/workload is transferred to a new single-qualified GN occupation who would more efficiently provide this ca
(5) It is assumed that 40% of the nursing care time provided by GNs for inpatients is for non-technical patient care. This task/workload is shifted to WAs. The standard time per inpatient day for GNs is thus reduced from 12 minutes to 7 minutes. When WAs assume responsibility for non-techical patient care, the standard time per inpatient day is increased to 15 minutes.
(6) Under the baseline task/workload assessment, NCs cover 20% of MCH/FP cases and NAs cover 80%. In Stage II it is assumed that 100% of MCH/FP is handled by GNs and NAs, with GNs requiring 7 minutes for palpating the patient and NA requiring 8 minutes for screening patient. Time freed up for NC is applied to added supervision of CHWs and village outreach activities.

deployed at the smaller hospitals to cover night ward responsibilities in addition to midwifery.

Stage IV of the nursing requirements projections process *reallocates responsibility for deliveries at the health center level from the Nursing Sisters to the Nurse Clinician*. In this way, Nursing Sisters will only be deployed at the hospital level principally for midwifery.

Stage V *reduces the standard time per inpatient day allocated by GNs to inpatients at Type I, II and III hospitals and reallocates this time to newly trained Ward Attendants (WAs)*. This is done under the assumption that as much as 40% of the nursing care time is for non-technical patient care. The standard time allocated by nurses per inpatient day is thus reduced and is compensated for by an increased amount of time for non-technical patient care supplied by WAs. The net result is that the health system is able to increase the time per patient at a lower cost.

Stage V + Coverage After evaluating the distribution of all nursing personnel based on the Stage V requirements by institution type, a number of adjustments were made to increase supply in order to ensure adequate coverage. This included adding additional Specialist Nurses for QEII and the Type IIA and Type IIB hospitals, adding Senior Nursing Officers for each Type IIA and Type IIB hospital, adding Mental Health Nurses and General Nurses – Mental Health for Mohlomi and the MOTUs, adding Nursing Sisters to Filter Clinics, and adding Nursing Assistants to Health Centers.

Table 15 and Table 16 summarize the nursing requirements projections by iterative stage of the FTE projections process. The requirements are presented separately by nursing occupation in Table 15 and by facility type in Table 16[17].

These projections reveal that it is possible to limit the incremental requirements for nurses by diversifying the cadre in a way that achieves a more efficient match between responsibilities, workload and skills, and by reallocating responsibilities between the nursing occupations so as to maximize the use of more costly and scarce skills. The **Stage V + Coverage** requirements project the need for approximately half the number of nurses estimated to be required in the baseline assessment using prevailing job descriptions and workload volumes.

The **Stage V + Coverage** estimates also redistribute the requirements for nurses down the cadre, reducing the need for the most highly qualified and most costly nurses and expanding the requirements for less highly qualified and less costly nurses. A comparison of the baseline and **Stage V + Coverage** requirements estimates reveals that the projected

[17] The hospital typology is in accordance with the new Health and Social Welfare Policy as recommended and detailed in the Lesotho Health Study (MCDI, 2000). This includes: Type I national referral hospitals (QE II and Mohlomi), Type IIA district hospitals (Leribe/Motebang, Mohale's Hoek/Nts'ekhe, Mafeteng, Qacha's Nek/Machebeng, Maluti and Paray), Type IIB district hospitals (Berea, Butha-Buthe, Mokhotlong, Quthing, Seboche and Scott), Type IIC district hospitals (St James, St Josephs and Tebellong), Type III district hospitals (Filter Clinics) (Qoaling, Maputsoe and Mamohau), and Health Centers. The requirements are based on workload estimates derived from adjusted 2002 MOHSW Health Statistics Tables produced by the MOHSW's Information and Planning Unit. Adjustments were made for missing data by extrapolating from the months for which data were available. The level of adjustment varied depending on the service and the institutions involved. For this reason, the projected workload levels differ to some degree from the reported annual production levels in the Health Statistics Tables.

need for NOs and NSs is reduced by over 600 and 1700 respectively thus reducing the requirements for these more highly trained occupations as a share of all nurses from 92% of the total to 36% of the total. The reallocation of responsibilities and workload is compensated for under **Stage V + Coverage** by the deployment of nearly 700 new General Nurses and 350 Nursing Assistants. Together these latter occupations account for 54% of the total nursing workforce under the **Stage V + Coverage** projections – up from only 8% under the **Base** projections.

Finally, the Stage **V + Coverage** projections reallocate nursing supply between institution types, increasing the proportion of nurses working at the health center and filter clinic level (up from 33% under the **Base** estimates to 42% under the **Stage V + Coverage** estimates), while slightly reducing the share off nurses working at the hospital level (down from 68% to 58%).

Table 15: Summary Nursing Requirements by Occupation and by Iterative Stage of the Task/Workload FTE Projection Process

	Task/Workload FTE Requirements Model													
	Base		Stage I		Stage II		Stage III		Stage IV		Stage V		Stage V + Coverage	
Nursing Occupation	N	Col %	N	Col %	N	Col %	N	Col %	N	Col %	N	Col %	N	Col %
Specialist Nurse	35	1%	35	1%	35	1%	35	2%	35	2%	35	2%	210	11%
Senior Nursing Officer	11	0%	11	0%	11	0%	11	0%	11	1%	11	1%	18	1%
Senior Nursing Officer - MH	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	11	1%
Nursing Officer	1,201	36%	491	17%	288	12%	288	13%	505	28%	505	31%	505	26%
Mental Health Nurse	-	0%	-	0%	-	0%	-	0%	-	0%	-	0%	66	3%
Nursing Sister	1,843	55%	1,843	64%	1,432	59%	142	7%	73	4%	73	4%	77	4%
General Nurse	-	0%	20	1%	20	1%	703	32%	317	18%	697	42%	697	35%
General Nurse - MH	-	0%	27	1%	315	13%	666	31%	509	29%	-	0%	50	3%
Nursing Assistant	253	8%	454	16%	327	13%	327	15%	327	18%	327	20%	345	17%
Total Nursing	3,343	100%	2,882	100%	2,428	100%	2,170	100%	1,777	100%	1,648	100%	1,979	100%
Ward Attendants	-	0%	-	0%	-	0%	-	0%	-	0%	188	67%	188	67%
Ward Attendants - MH	92	100%	92	100%	92	100%	92	100%	92	100%	92	33%	92	33%
Total Clinical Attendants	92	100%	92	100%	92	100%	92	100%	92	100%	280	100%	280	100%

Table 16: Summary Nursing Requirements by Institution Type and by Iterative the Task/Workload FTE Stage of Projection Process

	Task/Workload FTE Requirements Model													
	Base		Stage I		Stage II		Stage III		Stage IV		Stage V		Stage V + Coverage	
Institution Type	N	Col %	N	Col %	N	Col %	N	Col %	N	Col %	N	Col %	N	Col %
Type I Hospitals	821	25%	719	25%	719	30%	543	25%	337	19%	300	18%	427	22%
Type IIA Hospitals	594	18%	487	17%	487	20%	457	21%	277	16%	255	15%	358	18%
Type IIB Hospitals	579	17%	389	14%	389	16%	381	18%	245	14%	227	14%	273	14%
Type IIC Hospitals	271	8%	193	7%	193	8%	100	5%	78	4%	73	4%	87	4%
Type III Hospitals	56	2%	72	3%	72	3%	123	6%	123	7%	77	5%	99	5%
Health Centers	1,022	31%	1,022	35%	567	23%	567	26%	716	40%	716	43%	735	37%
Total Nursing	3,343	100%	2,882	100%	2,428	100%	2,170	100%	1,777	100%	1,648	100%	1,979	100%
Type I Hospitals	44	48%	44	48%	44	48%	44	48%	44	48%	132	47%	132	47%
Type IIA Hospitals	14	16%	14	16%	14	16%	14	16%	14	16%	69	25%	69	25%
Type IIB Hospitals	14	16%	14	16%	14	16%	14	16%	14	16%	46	16%	46	16%
Type IIC Hospitals	7	8%	7	8%	7	8%	7	8%	7	8%	21	8%	21	8%
Type III Hospitals	12	13%	12	13%	12	13%	12	13%	12	13%	12	4%	12	4%
Health Centers	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Total Clinical Attendants	92	100%	92	100%	92	100%	92	100%	92	100%	280	100%	280	100%

5.2.1.2.1 Composite Nursing Requirements for Type I Hospitals

In order to ensure minimum service coverage for Specialist nursing care at QE II, the workload-based FTE requirements have been superseded by service coverage-based requirements which provide for the following minimum staffing in Specialist Nurses:

Specialist Nurse Job	Requirements
Accident & Emergency (4x 24h/7d coverage)	20
Nurse Anesthetists	
General OR (1 x 24h/7d + 3 x 9h/5d)	8
Maternity OR (1 x 24h/7d + 2 x 9h/5d)	7
Theatre Nurses	
General OR (1 x 24h/7d + 3 x 9h/5d)	8
Maternity OR (1 x 24h/7d + 2 x 9h/5d)	7
Ophthalmic Nurses	4
ICU Nurses (4 x 24h/7d)	20
Neonatal ICU Nurses (2 x 24h/7d)	10
Orthopedic Nurses	4
Pediatric Nurses	2
Total	90

The composite requirements which ensure both minimum service coverage and adequate staffing to cover the current workload are presented in Table 17. It reveals substantial shortfalls among General Nurses, Nursing Officers and Specialist Nurses, and substantial surpluses among Nursing Sisters and Nursing Assistants. All told, the current nurse supply at QEII and Mohlomi is less than half of what is required!

Table 17: Current Full Time Equivalent Requirements – Type I Hospitals

Nursing Occupation	Minimum Current FTE Requirement			Current FTE Supply	Indicator of Staffing Need
	Workload Based	Coverage Based	Composite		
Specialist Nurse	18	90	90		
Senior Nursing Officer	6		6		
Senior Nursing Officer - MH		3	3		
Clinical Nurse	79		79	35	20%
Mental Health Nurse		27	27	9	33%
Nursing Sister	27		27	81	300%
General Nurse	131		131	-	0%
General Nurse - MH		25	25	-	0%
Nursing Assistant	39		39	61	158%
Total Nursing	*300*		*427*	*186*	*44%*

Notes:
Mohlomi staffing consists of 9 Mental Health Nurses, 9 Nursing Sisters and 12 Nursing Assistants

In addition to the evident nursing supply gap at Type I hospitals, there is also a high level of inefficiency associated with the variance between the kinds of nurses required and the kinds of nurses currently posted.

5.2.1.2.2 Composite Nursing Requirements for Type IIA Hospitals

In order to ensure minimum service coverage for Specialist nursing care at the six (06) Type IIA hospitals, the workload-based FTE requirements have been superseded by service coverage-based requirements which provide for the following minimum staffing in Specialist Nurses:

Specialist Nurse Job	Requirements
Nurse Anesthetists General OR (1 x 24h/7d + 1 x 9h/5d) x 6	36
Theatre Nurses General OR (1 x 24h/7d + 1 x 9h/5d) x 6	36
Ophthalmic Nurses	6
Orthopedic Nurses	6
Total	84

The workload-based requirements have also been superseded for Senior Nursing Officers – one (01) of whom will be required at each Type IIA hospital for overall nurse management. Similarly, one Senior Nursing Officer – Mental Health will be required at each of the four Government Type IIA MOTUs.

The composite requirements which ensure both minimum service coverage and adequate staffing to cover the current workload are presented in Table 18. Though the overall deficit is less pronounced than for Type I hospitals, the table reveals substantial shortfalls at the Type IIA hospital level among General Nurses, Nursing Officers and Specialist Nurses, a substantial surplus among Nursing Assistance, and a moderate surplus among Nursing Sisters. All told, the current nurse supply at Type IIA hospitals is only 73% of what is required.

Table 18: Current Full Time Equivalent Requirements – Type IIA Hospitals

Nursing Occupation	Minimum Current FTE Requirement			Current FTE Supply	Indicator of Staffing Need
	Workload Based	Coverage Based	Composite		
Specialist Nurse	7	84	84		
Senior Nursing Officer	2	6	6		
Senior Nursing Officer - MH	-	4	4		
Clinical Nurse	35		35	34	26%
Mental Health Nurse	-	12	12	2	17%
Nursing Sister	18		18	72	399%
General Nurse	126		126	-	0%
General Nurse - MH	-	6	6	-	0%
Nursing Assistant	67		67	154	231%
Total Nursing	255		358	262	73%

In addition to the evident nursing supply gap at Type IIA hospitals, there is also a high level of inefficiency associated with the variance between the kinds of nurses required and the kinds of nurses currently posted.

5.2.1.2.3 Composite Nursing Requirements for Type IIB Hospitals

In order to ensure minimum service coverage for Specialist nursing care at the six (06) Type IIB hospitals, the workload-based FTE requirements have been superseded by service coverage-based requirements which provide for the following minimum staffing in Specialist Nurses:

Specialist Nurse Job	Requirements
Nurse Anesthetists	12
Theatre Nurses	12
Ophthalmic Nurses	6
Total	30

The workload-based requirements have also been superseded for Senior Nursing Officers – one (01) of whom will be required at each Type IIB hospital for overall nurse management. Similarly, one Senior Nursing Officer – Mental Health will be required at each of the four Government Type IIB MOTUs.

The composite requirements which ensure both minimum service coverage and adequate staffing to cover the current workload are presented in Table 19. The table reveals that there are substantial shortfalls at the Type IIB hospital level among General Nurses, Nursing Officers and Specialist Nurses, a substantial surplus among Nursing Sisters and Nursing Assistance. All told, the current nurse supply at Type IIB hospitals is 78% of what is required. Type IIB hospitals are thus better staffed than the higher level Type IIA and Type I hospitals, though even at this level there is a deficit in staffing.

Table 19: Current Full Time Equivalent Requirements – Type IIB Hospitals

Nursing Occupation	Minimum Current FTE Requirement			Current FTE Supply	Indicator of Staffing Need
	Workload Based	Coverage Based	Composite		
Specialist Nurse	10	30	30		
Senior Nursing Officer	2	6	6		
Senior Nursing Officer - MH	-	4	4		
Clinical Nurse	49		49	28	32%
Mental Health Nurse	-	12	12	-	0%
Nursing Sister	15		15	79	522%
General Nurse	94		94	-	0%
General Nurse - MH	-	6	6	-	0%
Nursing Assistant	57		57	107	189%
Total Nursing	*227*		*273*	*214*	*78%*

The most pronounced issue at this level, however, has to do with the kind of nurses that are currently deployed and the substantial variance between the types of nurses required and those who are currently posted.

5.2.1.2.4 Composite Nursing Requirements for Type IIC Hospitals

In order to ensure minimum service coverage for surgical care at the three (03) Type IIC hospitals, the workload-based FTE requirements for Specialist Nurses have been superseded by service coverage-based requirements as follows:

Specialist Nurse Job	Requirements
Nurse Anesthetists	3
Theatre Nurses	3
Total	6

The composite requirements which ensure both minimum service coverage and adequate staffing to cover the current workload are presented in Table 20. The table reveals that there are shortfalls at the Type IIC hospital level among General Nurses, Nursing Officers and Specialist Nurses, a substantial surplus among Nursing Assistance and Nursing Sisters. All told, the current nurse supply at Type IIC hospitals is 116% of what is required. Type IIC hospitals are thus somewhat overstaffed relative to the workload implied by service production levels in 2002. If there were not the kind of serious shortfalls in nursing staff at other institutional levels, it would be advisable to retain the overall current staffing level for nurses, but in light of the shortfalls at other institutional levels there will need to be some reallocation from the IIC level to other levels.

Table 20: Current Full Time Equivalent Requirements – Type IIC Hospitals

Nursing Occupation	Minimum Current FTE Requirement			Current FTE Supply	Indicator of Staffing Need
	Workload Based	Coverage Based	Composite		
Specialist Nurse	-	6	6		
Senior Nursing Officer	-	-	-		
Senior Nursing Officer - MH	-	-	-		
Clinical Nurse	18		18	13	55%
Mental Health Nurse	-	6	6	-	0%
Nursing Sister	11		11	31	270%
General Nurse	30		30	-	0%
General Nurse - MH	-	3	3	-	0%
Nursing Assistant	13		13	57	442%
Total Nursing	72		87	101	116%

In spite of the small surplus in nursing supply, the Type IIC hospitals also suffer from a substantial variance between the types of nurses required and those who are currently posted – a variance which undermines the cost-effectiveness of service delivery at these hospitals.

5.2.1.2.5 Composite Nursing Requirements for Type III Hospitals

The composite requirements which ensure both minimum service coverage and adequate staffing to cover the current workload are presented in Table 21. The table reveals that there are shortfalls at the Type III hospital / filter clinic level among General Nurses, Nursing Officers and to a lesser extent among Nursing Assistance.

All told, the current nurse supply at Type III hospitals is just 26% of what is required. Given the volume of work, the filter clinics are grossly understaffed. Since these facilities play an essential role in filtering primary care demand away from the hospital OPDs, staffing will have to be increased at this level as a matter of priority.

As with all other institutions, Filter Clinics also suffer from a substantial variance between the types of nurses required and those who are currently posted - a variance which undermines the cost-effectiveness of service delivery at these facilities.

Table 21: Current Full Time Equivalent Requirements – Type III Hospitals / Filter Clinics

Nursing Occupation	Minimum Current FTE Requirement			Current FTE Supply	Indicator of Staffing Need
	Workload Based	Coverage Based	Composite		
Specialist Nurse	-	-	-		
Senior Nursing Officer	-	-	-		
Senior Nursing Officer - MH	-	-	-		
Clinical Nurse	21		21	9	42%
Mental Health Nurse	-	9	9	-	0%
Nursing Sister	2	5	5	5	100%
General Nurse	27	5	27	-	0%
General Nurse - MH	-	10	10	-	0%
Nursing Assistant	27		27	12	45%
Total Nursing	*77*		*99*	*26*	*26%*

5.2.1.2.6 Composite Nursing Requirements for Health Centers

The composite requirements which ensure both minimum service coverage and adequate staffing to cover the current workload are presented in Table 22. The table reveals that there are substantial shortfalls at the Health Center level among General Nurses, Nursing Officers and to a lesser extent Nursing Assistants. It also reveals that there is a surplus in Nursing Sisters.

Table 22: Current Full Time Equivalent Requirements – Health Centers

Nursing Occupation	Minimum Current FTE Requirement			Current FTE Supply	Indicator of Staffing Need
	Workload Based	Coverage Based	Composite		
Specialist Nurse	-	-	-		
Senior Nursing Officer	-	-	-		
Senior Nursing Officer - MH	-	-	-		
Nurse Clinician	304	144	304	45	15%
Mental Health Nurse	-	-	-	-	
Nursing Sister	-	-	-	53	
General Nurse	287	-	287	-	0%
General Nurse - MH	-	-	-	-	
Nursing Assistant	125	144	144	108	75%
Total Nursing	*716*		*735*	*206*	*28%*

All told, the current nurse supply at Health Centers is just 28% of what is required. Given the importance of the Health Centers in the overall strategy laid out in the new Health and Social Welfare Policy it will be essential to give priority to addressing the staffing needs of the health centers.

As in the case of all other institutions, it will also be essential to correct the variance between the types of nurses required and those who are currently posted since this variance undermines the cost-effectiveness of service delivery at these facilities.

5.2.1.2.7 Total Nursing Requirements

Even with the fundamental diversification and rationalization of nursing service functions outlined in Figure 4, the requirements projections indicate that there is still a need to double the current nursing supply. This will include the production and hiring of roughly 700 new single-qualified General Nurses, and nearly 400 additional Nursing Officers (Clinical Nurses and Nurse Clinicians), while there will be a reduction in nearly 250 Nursing Sisters, and 150 Nursing Assistants.

Table 23: Current Nursing Requirements by Occupation

Nursing Occupation	Minimum Current FTE Requirement			Current FTE Supply	Indicator of Staffing Need
	Workload Based	Coverage Based	Composite		
Specialist Nurse	35	210	210	-	
Senior Nursing Officer	10	12	18	-	
Senior Nursing Officer - MH	-	11	11	-	
Clinical Nurse + Nurse Clinicians	505	144	505	164	20%
Mental Health Nurse	-	66	66	11	2%
Nursing Sister	73	5	77	321	419%
General Nurse	697	5	697	-	0%
General Nurse - MH	-	50	50	-	0%
Nursing Assistant	327	144	345	499	144%
Total Nursing	*1,647*		*1,979*	*995*	*50%*

Though the requirements projections indicate a need for substantially increasing the total number of Nurses working in Lesotho, Table 24 reveals that if this supply gap is closed the total supply would only be moderately above the average staffing level in other sub-Saharan African countries during the 1990s, and considerably less than in neighboring countries.

Table 24: Inter-country comparison of Nursing Coverage

Country	Year	Nurses per 100,000
Botswana	1994	219.1
Zambia	1995	113.1
Tanzania	1995	85.2
Sub-Saharan Africa	1992	61.0
Lesotho Actual	2003	51.4
Lesotho Requirements	2003	88.5
Source: Lesotho HR Needs Assessment, 2004 WHO estimates of health personnel 1998		

Table 25 presents the total projected costs and financing implications of closing the supply gap for nurses over the next two decades. It reveals that closing the supply gap will require a 52% increase in the MOHSW Personnel Emoluments (PE) budget relative to FY 2003/04 or a 18% increase in the total MOHSW budget.

Table 25: Projected Costs and Financing Implications of Future Nursing Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	*1064*	*1129*	*1153*	*1159*	*1203*
Nursing Officers [1]	206	216	205	189	186
Nursing Sisters [2]	314	415	480	530	582
General Nurses	0	0	0	0	0
Nursing Assistants[3]	545	498	469	440	435
Total Requirements [4]	*1980*	*2093*	*2116*	*2135*	*2161*
Nursing Officers	811	863	872	880	891
Nursing Sisters	77	80	81	82	83
General Nurses[5]	747	786	795	802	812
Nursing Assistants	345	364	368	371	376
Supply Gap: Surplus / (Deficit)	*(916)*	*(964)*	*(963)*	*(976)*	*(958)*
Nursing Officers	(606)	(647)	(667)	(691)	(705)
Nursing Sisters	236	335	398	448	499
General Nurses	(747)	(786)	(795)	(802)	(812)
Nursing Assistants	200	134	101	68	59
Total Project Cost of Supply [Inflation Adjusted Millions of Maloti]	36.31	46.73	56.95	68.14	83.14
Total Project Cost of Requirements [Inflation Adjusted Millions of Maloti]	80.43	98.18	115.07	134.60	157.91
Total Projected Cost of Gap [Inflation Adjusted Millions of Maloti]	(44.12)	(51.45)	(58.12)	(66.46)	(74.77)
Total Projected Supply Cost as % of 2003/04 Approved MOHSW PE Budget	42.62%	54.85%	66.84%	79.98%	97.59%
Total Projected Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	94.41%	115.24%	135.07%	157.99%	185.35%
Total Projected Gap Costs as % of 2003/04 Approved MOHSW PE Budget	51.79%	60.39%	68.23%	78.01%	87.76%
Total Projected Supply Cost as % of 2003/04 Approved MOHSW Budget	14.73%	18.96%	23.11%	27.65%	33.74%
Total Projected Requirements Cost as % of 2003/04 Approved MOHSW Budget	32.63%	39.84%	46.69%	54.61%	64.07%
Total Projected Gap Costs as % of 2003/04 Approved MOHSW Budget	17.90%	20.88%	23.58%	26.97%	30.34%

Notes:

(1) Assumes a graduation rate of 80%, hiring rate of 85%, 5-year attrition rate of 15%, and 5-year turnover rate of 15%.

(2) Assumes a graduation rate of 80%, hiring rate of 85%, 5-year attrtion rate of 15%, a 5-year turnover rate of 37.5% (accomodating the promotion of NSs to Nos), and a reduction in training intake from 70 per year to 15 per year.

(3) Assumes that hiring rates increased to 85%, increase in occupational turnover (career advancement) to 30% over five years, and decrease in 5-year attrition rate to 11%.

(4) Future requirements are increased by an annual factor of 5.3% between 2005 and 2010 1.1% between 2010 and 2015, 0.9% between 2015 and 2020, and 1.2% between 2020 and 2025. These reflected projected AIDS-adjusted annual population growth rates. Wage rates are assumed to increase at an average annual rate of 3% between 2005 and 2025.

(5) Includes General Nurses - Mental Health

5.2.1.3 Mental Health

The requirements for Mental Health Nurses are summarized in the previous section. The requirements for senior mental health professionals are summarized in Table 25. It reveals that there is a need to recruit an additional Psychiatrist in order to satisfy the needs of this sub-sector.

Table 26: Current Requirements – Mental Health Professionals

Job	Current FTE Requirements	Current Supply[2]	Indicator of Staffing Need
Psychologists	2	2	100%
Consultant Psychiatrists	4	3	75%
Specialist Registrar - Psychiatry	2	2	100%
Total	***8***	***7***	***88%***
Source: Lesotho Health Study, Phase II Report (MCDI, 2001) adjusted based on input from national Planning Workshop			

In addition to these mental health professionals the sub-sector requires one (01) Occupational Therapist (accounted for in section 5.2.2.2 starting on page 5-26), and four (04) Social Workers to work at Mohlomi Hospital (accounted for in section 5.2.5.1 starting on page 5-38).

Table 27 presents the total projected costs and financing implications of closing the supply gap for mental health professionals over the next two decades. It reveals that closing the supply gap will require a 0.15% increase in the MOHSW Personnel Emoluments (PE) budget relative to FY 2003/04 or a 0.05% increase in the total MOHSW budget.

Table 27: Projected Costs and Financing Implications of Future Mental Health Professional Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	7	8	8	8	8
Total FTE Requirements	8	8	8	8	8
Personnel Supply Gap: Surplus / (Deficit)	(1)	-	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	0.87	1.15	1.33	1.54	1.79
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	0.99	1.15	1.33	1.54	1.79
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	0.12	-	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*1.02%*	*1.35%*	*1.56%*	*1.81%*	*2.10%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*1.16%*	*1.35%*	*1.56%*	*1.81%*	*2.10%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*0.15%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.35%*	*0.47%*	*0.54%*	*0.63%*	*0.73%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*0.40%*	*0.47%*	*0.54%*	*0.63%*	*0.73%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*0.05%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*

5.2.1.4 Oral Health

A summary of the supply requirements for Oral Health personnel by institution type are presented in Table 28.

Table 28: Current Requirements – Oral Health

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Type I Hospital (QE II)			
Dental Specialist - Surgeon	2	0	0%
Dental Officers	2	0	0%
Dental Therapist / Technologist	0	2	0%
Dental Hygienists	2	0	0%
Dental Mechanics	2	0	0%
Chairside Assistants	4	1	0%
Oral Health Assistant	1	0	0%
Total Type I Hospital	*13*	*3*	*23%*
Type IIA Hospitals (n=6)			
Dental Specialist - Surgeon	0	2	
Dental Officers	6	1	17%
Dental Therapist / Technologist	0	2	0%
Dental Hygienists	6	0	0%
Chairside Assistants	6	6	100%
Oral Health Assistant	6	0	0%
Total Type I Hospital	*24*	*11*	*46%*
Type IIB Hospitals (n=6)			
Dental Therapist / Technologist	12	0	0%
Dental Hygienists	6	0	0%
Chairside Assistants	6	0	0%
Oral Health Assistant	6	0	0%
Total Type I Hospital	*30*	*0*	*0%*
Type IIC Hospitals (n=3)			
Dental Therapist / Technologist	3	0	0%
Dental Hygienists	3	0	0%
Chairside Assistants	3	0	0%
Oral Health Assistant	3	0	0%
Total Type I Hospital	*12*	*0*	*0%*
Type III Hospitals / FC (n=5)			
Dental Therapist / Technologist	5	0	0%
Dental Hygienists	5	0	0%
Chairside Assistants	5	0	0%
Oral Health Assistant	5	0	0%
Total Type I Hospital	*20*	*0*	*0%*
Health Centers (n=144)			
Oral Health Assistant	144	0	0%
Total Type I Hospital	*144*	*0*	*0%*
Total	***243***	***14***	***6%***
Summary by Job			
Dental Specialist - Surgeon	2	2	100%
Dental Officers	8	1	13%
Dental Therapist / Technologist	20	4	20%
Dental Hygienists	22	0	0%
Dental Mechanics	2	0	0%
Chairside Assistants	24	7	29%
Oral Health Assistant	165	0	0%
Total	***243***	***14***	***6%***

It reveals that the supply gap for the Dental cadre is substantial not only in terms of numbers of staff but also in terms of the variety of occupations. In all, the requirements estimates project the need for 243 oral health personnel, including 165 Oral Health

Assistants who would be deployed at the health center and hospital levels to promote improved oral health and offer limited restorative services (e.g. oral hygiene and emergency extractions), 24 Chairside Assistants, 22 Dental Hygienists, 20 Dental Technologists, 8 Dental Officers, 2 Dental Specialists and 2 Dental Mechanics. Only 6% of the required oral health staffs are currently in place, and it is estimated that it would cost approximately Maloti 4.9 million to close the supply gap. This would necessitate an increase in the MOHSW wage bill by 5.7 percentage points or a 2.0 percentage point increase in the total MOHSW budget.

Table 29: Estimated Costs and Financing Implications of Future Oral Health Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	14	129	233	233	233
Total FTE Requirements	243	233	233	233	233
Personnel Supply Gap: Surplus / (Deficit)	(229)	(105)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	0.69	3.57	7.50	8.70	10.08
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	5.58	6.47	7.50	8.70	10.08
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	4.90	2.90	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*0.8%*	*4.2%*	*8.8%*	*10.2%*	*11.8%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*6.6%*	*7.6%*	*8.8%*	*10.2%*	*11.8%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*5.7%*	*3.4%*	*0.0%*	*0.0%*	*0.0%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.3%*	*1.4%*	*3.0%*	*3.5%*	*4.1%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*2.3%*	*2.6%*	*3.0%*	*3.5%*	*4.1%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*2.0%*	*1.2%*	*0.0%*	*0.0%*	*0.0%*

5.2.2 Allied Health Service Occupations

5.2.2.1 Orthopedics

The current staffing complement for the orthopedic technologists is deemed appropriate for current requirements at QEII, but there is a need to increase supply at the regional hospitals (Leribe and Mohale's Hoek) and for Social Welfare services. No orthopedic personnel will need to be posted to the districts since there is no plan to set up workshops at this level of the service system at this time.

A summary of the requirements for orthopedic personnel is presented in Table 30.

Table 30: Current Requirements – Orthopedic Technicians

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Type I Hospital (QE II)			
Orthopedic Technologists	8	8	100%
Type IIA Hospitals (Leribe and Mohale's Hoek)			
Orthopedic Technologists	4	0	0%
Social Welfare Services			
Orthopedic Technologists	2	0	0%
Total			
Orthopedic Technologists	14	8	57%

Since orthopedic occupations are trained outside of Lesotho, the HRDSP will either need to recruit the four additional Orthopedic Technologists required for the regional hospitals on the open market, and/or will need to provide training grants for suitable candidates. In order to ramp up the services at the regional hospitals in the short run, it is recommended that the required staff be recruited initially either from the domestic or regional/international labor markets.

The total cost of filling the projected orthopedic personnel supply gap is estimated to be approximately Maloti 260,000. This would necessitate at 0.3 percentage point increase in the MOHSW wage bill or a 0.1 percentage point increase in the total MOHSW budget.

Table 31: Estimated Costs and Financing Implications of Future Orthopedic Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	8	12	12	12	12
Total FTE Requirements	14	12	12	12	12
Personnel Supply Gap: Surplus / (Deficit)	(6)	-	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	0.34	0.69	0.80	0.93	1.08
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	0.60	0.69	0.80	0.93	1.08
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	0.26	-	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*0.40%*	*0.81%*	*0.94%*	*1.09%*	*1.26%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*0.70%*	*0.81%*	*0.94%*	*1.09%*	*1.26%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*0.30%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.14%*	*0.28%*	*0.32%*	*0.38%*	*0.44%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*0.24%*	*0.28%*	*0.32%*	*0.38%*	*0.44%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*0.10%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*

5.2.2.2 Rehabilitation

There is a substantial supply shortfall in this cadre particularly among Physiotherapy Assistants as well as some inefficiency and inequity in the distribution of Physiotherapists. As revealed in Table 32, the country currently has 31% of the Physiotherapists it requires and only 16% of the Physiotherapy Assistants. There is also a need to deploy at least four (04) Occupational Therapists, one (01) Speech and Language Therapist, and one (01) Audiologist.

Given the comparatively small number of additional personnel required in these occupations, out-of-country training grants will be provided for the required positions. In order to establish this service in timely manner, it is recommended that the Government seek project financing to develop this cadre, fund the acquisition of necessary equipment, and provide technical assistance to introduce requisite service management systems and procedures.

The total cost of filling the projected rehabilitation personnel supply gap is estimated to be approximately Maloti 1.2 million. This would necessitate at 1.4 percentage point increase in the MOHSW wage bill or a 0.5 percentage point increase in the total MOHSW budget.

Table 32: Current Requirements – Rehabilitation

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Social Welfare services			
Physiotherapist	2	0	0%
Occupational Therapist	2	0	0%
Total Social Welfare services	*4*	*0*	*0%*
Type I Hospitals			
Physiotherapist	2	4	200%
Physiotherapy Technician	0	1	
Physiotherapy Assistants	5	2	40%
Occupational Therapist[(1)]	2	0	0%
Speech and Language Therapist	1	0	0%
Audiologist	1	0	0%
Total Type I Hospitals	*11*	*7*	*64%*
Type IIA Hospitals (n=6)			
Physiotherapist	12	1	8%
Rehabilitation Officer	0	1	
Physiotherapy Assistants	12	3	25%
Total Type IIA Hospitals	*24*	*5*	*21%*
Type IIB Hospitals (n=6)			
Physiotherapy Assistants	12	0	0%
Total Type IIB Hospitals	*12*	*0*	*0%*
Type IIC Hospitals (n=3)			
Physiotherapy Assistants	3	0	0%
Total Type IIC Hospitals	*3*	*0*	*0%*
Total			
Physiotherapist	16	5	31%
Physiotherapy Technician	0	1	
Rehabilitation Officer	0	1	
Physiotherapy Assistants	32	5	16%
Occupational Therapist[(1)]	4	0	0%
Speech and Language Therapist	1	0	0%
Audiologist	1	0	0%
Total	*53*	*12*	*23%*

Notes:
(1) One (01) Occupational Therapists is required at Mohlomi Hospital

Table 33: Estimated Costs and Financing Implications of Future Rehabilitation Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	12	33	49	49	49
Total FTE Requirements	53	49	49	49	49
Personnel Supply Gap: Surplus / (Deficit)	(41)	(17)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	0.39	1.24	2.18	2.52	2.92
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	1.62	1.88	2.18	2.52	2.92
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	1.22	0.63	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*0.46%*	*1.46%*	*2.55%*	*2.96%*	*3.43%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*1.90%*	*2.20%*	*2.55%*	*2.96%*	*3.43%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*1.44%*	*0.74%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.16%*	*0.50%*	*0.88%*	*1.02%*	*1.19%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*0.66%*	*0.76%*	*0.88%*	*1.02%*	*1.19%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*0.50%*	*0.26%*	*0.00%*	*0.00%*	*0.00%*

5.2.2.3 Radiology

Radiology services are seriously under-resourced by any standards. As revealed in Table 34 only 13% of the required personnel identified using a service-coverage methodology are currently deployed and the service is virtually non-existent at the Type II and III hospital levels. The country currently has 24% of the Radiographers it requires (4 of 17) and only 19% of the Radiographic Technicians (4 of 21). Not only are there too few staffs throughout the health sector in the Radiography, but the service is not headed by a Diagnostic Radiologists (a fully trained medical specialist) – an essential post for a modern health service of this type. In addition, it is almost impossible to operate a diagnostic imaging service in the modern day without ultrasonography. This is a specialist category of radiographer that will need to be supplied through the HRDSP in addition to the Radiologist.

In addition to the recruitment of the specialist personnel identified above, it will be necessary to upgrade the existing Radiographers so that they can perform ultrasonography. It will also be essential to train at least one officer in each hospital in radiation monitoring.

Table 34: Current Requirements – Radiology

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Type I Hospitals			
Radiologists	1	0	0%
Ultrasonographers	1	0	0%
Radiographers	5	2	40%
Radiographic Technicians	6	3	50%
Radiographic Assistants	2	0	0%
Total Type I Hospitals	*15*	*5*	*33%*
Type IIA Hospitals (n=6)			
Ultrasonographers	6	0	0%
Radiographers	6	2	33%
Radiographic Technicians	6	1	17%
Radiographic Assistants	12	3	25%
Total Type IIA Hospitals	*30*	*6*	*20%*
Type IIB Hospitals (n=6)			
Radiographers	6	0	0%
Radiographic Technicians	6	0	0%
Radiographic Assistants	12	0	0%
Total Type IIB Hospitals	*24*	*0*	*0%*
Type IIC Hospitals (n=3)			
Radiographic Technicians	3	0	0%
Radiographic Assistants	6	0	0%
Total Type IIC Hospitals	*9*	*0*	*0%*
Type III Hospitals / FC (n=5)			
Radiographic Technicians	0	2	
Radiographic Assistants	5	0	0%
Total Type III Hospitals	*5*	*2*	*40%*
Total			
Radiologists	1	0	0%
Ultrasonographers	7	0	0%
Radiographers	17	4	24%
Radiographic Technicians	21	4	19%
Radiographic Assistants	37	3	8%
Total	***83***	***11***	***13%***

The total cost of filling the projected radiography personnel supply gap is estimated to be approximately Maloti 2.62 million. This would necessitate a 3.07 percentage point increase in the MOHSW wage bill or a 1.06 percentage point increase in the total MOHSW budget.

Table 35: Estimated Costs and Financing Implications of Future Radiology Personnel Requirements (2005 – 2025)

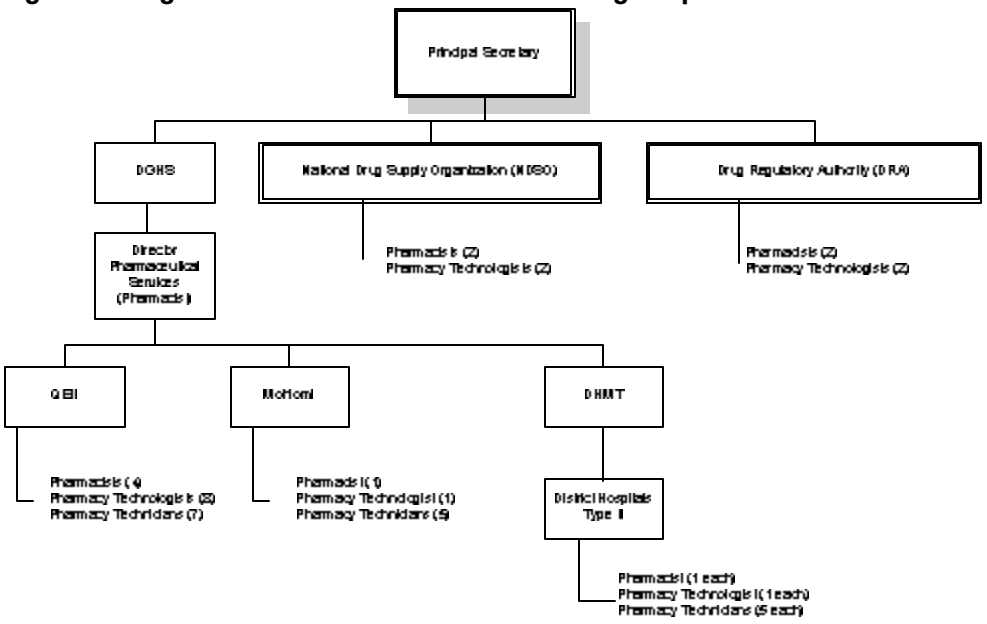
	2005	2010	2015	2020	2025
Total Labor Supply	11	47	83	83	83
Total FTE Requirements	83	83	83	83	83
Personnel Supply Gap: Surplus / (Deficit)	(72)	(36)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	0.42	2.00	4.09	4.74	5.49
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	3.04	3.53	4.09	4.74	5.49
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	2.62	1.53	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*0.50%*	*2.34%*	*4.80%*	*5.56%*	*6.45%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*3.57%*	*4.14%*	*4.80%*	*5.56%*	*6.45%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*3.07%*	*1.80%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.17%*	*0.81%*	*1.66%*	*1.92%*	*2.23%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*1.23%*	*1.43%*	*1.66%*	*1.92%*	*2.23%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*1.06%*	*0.62%*	*0.00%*	*0.00%*	*0.00%*

5.2.3 Technical Support Service Occupations

5.2.3.1 Pharmacy

The recent pharmaceutical assessment did not stipulate the human resources requirements for the sector. The following requirements projections are thus based on a coverage methodology that corresponds to the following organizational structure presented in Figure 5.

Figure 5: Organizational Structure and Staffing Requirements for Pharmacy Sector



A summary of the pharmacy personnel requirements by institution type is summarized in Table 36.

Table 36: Current Requirements – Pharmacy

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
NDSO(1)			
Pharmacists	2	2	100%
Pharmacy Technologists	0	5	
Pharmacy Technicians	2	2	100%
Total CMS	*4*	*9*	*225%*
Drug Regulatory Authority(1)			
Pharmacists	2	2	100%
Pharmacy Technologists	0	5	
Pharmacy Technicians	2	2	100%
Total CMS	*4*	*9*	*225%*
Type I Hospitals			
Pharmacists	5	1	20%
Pharmacy Technologists	9	6	
Pharmacy Technicians	12	2	17%
Total Type I Hospitals	*26*	*9*	*35%*
Type IIA Hospitals (n=6)			
Pharmacists	6	0	0%
Pharmacy Technologists	6	6	100%
Pharmacy Technicians	30	8	27%
Total Type IIA Hospitals	*36*	*14*	*39%*
Type IIB Hospitals (n=6)			
Pharmacists	6	0	0%
Pharmacy Technologists	6	6	100%
Pharmacy Technicians	30	0	0%
Total Type IIB Hospitals	*30*	*0*	*0%*
Type IIC Hospitals (n=3)			
Pharmacists	3	0	0%
Pharmacy Technologists	3	3	
Pharmacy Technicians	15	0	0%
Total Type IIC Hospitals	*15*	*0*	*0%*
Type III Hospitals / FC (n=5)			
Pharmacy Technologists	5	0	0%
Total Type III Hospitals	*5*	*0*	*0%*
Flying Doctor Service (n=1)			
Pharmacy Technologists	1	1	
Total Flying Doctor Service	*1*	*1*	*100%*
Total			
Pharmacists	24	5	21%
Pharmacy Technologists	30	32	107%
Pharmacy Technicians	91	14	15%
Total	***145***	***51***	***35%***

Notes:
(1) Includes one (01) Pharmacist for procurement and one (01) for distribution, each of whom are assisted by a Pharmacy Technologist.
(2) Includes one (01) Pharmacists for drug registration and inspection and one (01) for quality control, drug information and narcotics control. Two (02) Pharmacy Technologists provide assistance.

The requirements estimates indicate that the current personnel supply is at 35% of the minimum requirements level, and that the greatest gap occurs in the supply of Pharmacy Technicians where current supply is only 15% of requirements. With a surplus of Technologists, some of the posts identified for Technicians can be filled by these more highly qualified personnel. There is also a substantial shortage of Pharmacists.

The total cost of filling the projected pharmacy personnel supply gap is estimated to be approximately Maloti 4.6 million. This would necessitate a 5.4 percentage point increase in the MOHSW wage bill or a 1.9 percentage point increase in the total MOHSW budget.

Table 37: Estimated Costs and Financing Implications of Future Pharmacy Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	51	98	145	145	145
Total FTE Requirements	145	145	145	145	145
Personnel Supply Gap: Surplus / (Deficit)	(94)	(47)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	2.33	4.02	9.33	10.81	12.54
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	6.94	8.05	9.33	10.81	12.54
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	4.61	4.02	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*2.74%*	*4.72%*	*10.95%*	*12.69%*	*14.72%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*8.15%*	*9.45%*	*10.95%*	*12.69%*	*14.72%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*5.41%*	*4.72%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.95%*	*1.63%*	*3.79%*	*4.39%*	*5.09%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*2.82%*	*3.27%*	*3.79%*	*4.39%*	*5.09%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*1.87%*	*1.63%*	*0.00%*	*0.00%*	*0.00%*

5.2.3.2 Laboratory

The minimum coverage requirements analysis summarized in Table 38 reveals that there is a considerable supply gap for laboratory personnel at all levels of the service delivery system and that this is particularly the case for Laboratory Technologists. The current supply of Laboratory Technologists is 36% of the minimum requirements level, while the supply of Laboratory Technicians is 57% of requirements[18]. There is also a need for a limited number of Laboratory Assistants.

There is also a need for a Pathologist – a requirement that has been specified earlier under the Medical Specialist cadre (see page 5-9).

The total cost of filling the projected laboratory personnel supply gap is estimated to be approximately Maloti 4.1 million. As indicated in Table 39, financing these added posts this would necessitate a 4.8 percentage point increase in the MOHSW wage bill or a 1.7 percentage point increase in the total MOHSW budget.

[18] Unlike in other cadres where Technologists are diploma level personnel as compared with Technicians who are trained on-the-job, in the Laboratory cadre Technologists are degree level while Technicians are Diploma level. Moreover, Chief Laboratory Technologists have either Masters or PhD level education.

Table 38: Current Requirements - Laboratory

	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Type I Hospital			
Laboratory Technologist	26	11	42%
Microbiology	7	4	57%
Haemotology	4	2	50%
Biochemistry	4	2	50%
Cytology	8	2	25%
Histology	3	1	33%
Laboratory Technician	41	23	56%
Microbiology	15	4	27%
Haemotology	8	7	88%
Biochemistry	10	7	70%
Cytology	2	1	50%
Histology	6	4	67%
Total Type I Hospital	*67*	*34*	*51%*
Type IIA Hospitals (n=6)			
Laboratory Technologist	10	3	30%
Laboratory Technician	27	15	56%
Total Type IIA Hospitals	*37*	*18*	*49%*
Type IIB Hospitals (n=6)			
Laboratory Technologist	4	0	0%
Laboratory Technician	17	12	71%
Total Type IIB Hospitals	*21*	*12*	*57%*
Type IIC Hospitals (n=3)			
Laboratory Technologist	1	0	0%
Laboratory Technician	8	6	75%
Total Type IIC Hospitals	*8*	*6*	*75%*
Type III Hospitals / FC (n=5)			
Laboratory Technician	5	1	20%
Laboratory Assistant	5	2	40%
Total Type III Hospitals / FC	*5*	*1*	*20%*
Blood Transfusion Services			
Laboratory Technologist	3	2	67%
Laboratory Technician	6	2	33%
Phlebotomist	6	0	0%
Total Type IIA Hospitals	*15*	*4*	*27%*
Total			
Laboratory Technologist	44	16	36%
Laboratory Technician	104	59	57%
Laboratory Assistant	5	2	40%
Total	***148***	***75***	***51%***

Table 39: Estimated Costs and Financing Implications of Future Laboratory Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	75	112	148	148	148
Total FTE Requirements	148	148	148	148	148
Personnel Supply Gap: Surplus / (Deficit)	(73)	(37)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	4.01	7.08	10.90	12.63	14.64
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	8.11	9.40	10.90	12.63	14.64
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	4.10	2.32	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*4.70%*	*8.31%*	*12.79%*	*14.83%*	*17.19%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*9.52%*	*11.03%*	*12.79%*	*14.83%*	*17.19%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*4.82%*	*2.72%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*1.63%*	*2.87%*	*4.42%*	*5.13%*	*5.94%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*3.29%*	*3.81%*	*4.42%*	*5.13%*	*5.94%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*1.66%*	*0.94%*	*0.00%*	*0.00%*	*0.00%*

5.2.3.3 Biomedical Engineering and Estates Management

Based on the detailed requirements estimates for biomedical engineering and estates management personnel derived in the Lesotho Health Study (MCDI, 2000), it is estimated that only 37% of the required personnel are currently deployed, and that the service is non-existent at Type IIC hospitals. The staffing deficiencies exist in all three technical areas – biomedical equipment, electricity and plumbing, and estates management – but are particularly deficient in the area of biomedical equipment maintenance. These supply gaps are clearly problematic from the standpoint of ensuring adequate service quality and maximizing the returns on investment in plant and equipment.

A summary of the personnel requirements for estates management and biomedical engineering is presented in Table 40.

Table 40: Current Requirements – Estates Management & Biomedical Engineering

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Central Estates Management Unit[(1)]			
Technical Officer	8	2	25%
Total CEMU	*8*	*2*	*25%*
Type I Hospital - Estates Management Unit[(2)]			
Technical Officer - Electricity & Plumbing	9		
Technical Officer - Biomedical Engineer	3		
Total Type I HEMU	*12*	*13*	*108%*
Type IIA Hospitals - Estates Management Units (n=6)			
Technical Officer - Electricity & Plumbing	12	8	67%
Technical Officer - Biomedical Engineer	6	4	67%
Total Type IIA HEMU	*18*	*12*	*67%*
Type IIB Hospitals - Estates Management Unit (n=6)			
Technical Officer - Electricity & Plumbing	12	8	67%
Technical Officer - Biomedical Engineer	6	0	0%
Total Type IIB HEMU	*18*	*8*	*44%*
Type IIC Hospitals - Estates Management Unit (n=3)			
Technical Officer - Electricity & Plumbing	6	0	0%
Technical Officer - Biomedical Engineer	3	0	0%
Total Type IIC HEMU	*9*	*0*	*0%*
Type III Hospitals / FC (n=5)			
Technical Officer - Electricity & Plumbing & BME	5	3	60%
Total Type III HEMU	*5*	*3*	*60%*
Total			
Technical Officer	13	5	38%
Technical Officer - Electricity & Plumbing	44	19	43%
Technical Officer - Biomedical Engineer	18	4	22%
Total	***75***	***28***	***37%***

Notes:
(1) Includes 3 TOs at Estates Management Unit and 1 TO for NHTC
(2) Includes 1 TO for Mohlomi

The total cost of filling the projected pharmacy personnel supply gap is estimated to be approximately Maloti 1.4 million. This will necessitate a 1.6 percentage point increase in the MOHSW wage bill, or a 0.6 percentage point increase in the total MOHSW budget.

Table 41: Estimated Costs and Financing Implications of Future Estates Management and Biomedical Engineering Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	28	52	75	75	75
Total FTE Requirements	75	75	75	75	75
Personnel Supply Gap: Surplus / (Deficit)	(47)	(24)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	0.83	1.76	2.97	3.44	3.99
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	2.21	2.56	2.97	3.44	3.99
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	1.38	0.80	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*0.97%*	*2.06%*	*3.49%*	*4.04%*	*4.68%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*2.59%*	*3.01%*	*3.49%*	*4.04%*	*4.68%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*1.62%*	*0.94%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.33%*	*0.71%*	*1.20%*	*1.40%*	*1.62%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*0.90%*	*1.04%*	*1.20%*	*1.40%*	*1.62%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*0.56%*	*0.33%*	*0.00%*	*0.00%*	*0.00%*

5.2.4 Special Health Service Occupations

5.2.4.1 Nutrition

Given the significant nutritional deficiencies identified within the new Health and Social Welfare Policy and the importance that Government seeks to accord to redressing this problem, the relatively small number of dedicated nutrition personnel is an area of concern. While the overall strategy for extending nutrition services to the population will depend upon an integrated strategy that promotes improved nutrition as a part of all health service-related activities, there is a need for technical guidance and input in each district and at each hospital to promote and foster this strategy. In addition, there is a need for supervision and management of nutrition supplementation schemes at the health center level. In order for this type of strategy to succeed, the nutrition cadre will need to be expanded and strengthened.

A summary of the requirements for nutrition personnel by institution type is presented in Table 42. It reveals that there less than 10% of the required staff is currently deployed. The greatest numeric deficiency exists among Nutrition Assistants who will be posted at district hospitals and within the DHMTs, but there are also deficiencies among Nutrition Officers who will be posted primarily at the DHMT level. These staffs will be essential not only to develop capacity for nutrition education throughout the health system, but also to establish and operate supplemental feeding programs for malnourished children.

The total cost of filling the projected nutrition personnel supply gap is estimated to be approximately Maloti 1.51 million. This will necessitate a 1.8 percentage point increase in the MOHSW wage bill or a 0.6 percentage point increase in the total MOHSW budget.

Table 42: Current Requirements – Nutrition

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Headquarters[1]			
Nutrition Officer - Policy & Planning	1	0	0%
Nutrition Officer - Food Distribution & Feeding Supervision	1	0	0%
Total Headquarters	*2*	*0*	*0%*
District Health Management Team (DHMTs) (n=10)			
Nutrition Officer	10	0	0%
Nutrition Assistant	20	0	0%
Total DHMT	*10*	*0*	*0%*
Type I Hospital			
Nutrition Officer	1	1	100%
Nutrition Assistant	1	1	100%
Total Type I Hospital	*2*	*2*	*100%*
Type IIA Hospitals (n=6)			
Nutrition Assistant	6	2	33%
Total Type IIA Hospitals	*6*	*2*	*33%*
Type IIB Hospitals (n=6)			
Nutrition Assistant	6	0	0%
Total Type IIB Hospitals	*6*	*0*	*0%*
Type IIC Hospitals (n=3)			
Nutrition Assistant	3	0	0%
Total Type IIC Hospitals	*3*	*0*	*0%*
Type III Hospitals / FC (n=5)			
Nutrition Assistant	5	0	0%
Total Type III Hospitals / FC	*5*	*0*	*0%*
Total			
Nutrition Officer	13	1	8%
Nutrition Assistant	41	3	7%
Total	***54***	***4***	***7%***

Table 43: Estimated Costs and Financing Implications of Future Nutrition Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	4	29	54	54	54
Total FTE Requirements	54	54	54	54	54
Personnel Supply Gap: Surplus / (Deficit)	(50)	(25)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	0.12	1.01	2.19	2.54	2.94
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	1.63	1.89	2.19	2.54	2.94
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	1.51	0.87	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*0.14%*	*1.19%*	*2.57%*	*2.98%*	*3.45%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*1.91%*	*2.22%*	*2.57%*	*2.98%*	*3.45%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*1.77%*	*1.03%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.05%*	*0.41%*	*0.89%*	*1.03%*	*1.19%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*0.66%*	*0.77%*	*0.89%*	*1.03%*	*1.19%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*0.61%*	*0.35%*	*0.00%*	*0.00%*	*0.00%*

5.2.4.2 Health Education

In keeping with the emphasis on health education and community mobilization within the new Health and Social Welfare Policy, this cadre will need to be strengthened appreciably. The sector will require a minimum of 13 Health Educators – 3 at the Health Education Unit at HQ, and 1 each at each DHMT. In addition, 22 Assistant Health Educators (PHC/IEC Motivators) will be required – 2 at the Health Education Unit and 2 in under each DHMT. Current supply levels among health education personnel are only 29% of minimum requirements and that the greatest supply gap exists for Health Educators for which only 15% of the required numbers are currently deployed.

A summary of the personnel requirements for health education by institution type is presented in Table 44.

Table 44: Current Requirements – Health Education

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Headquarters[(1)]			
Health Educator	3	2	67%
Assistant Health Educator	2	5	250%
Total Headquarters	*5*	*7*	*140%*
District Health Management Team (DHMTs) (n=10)			
Health Educator	10	0	0%
Assistant Health Educator	20	3	15%
Total DHMT	*30*	*3*	*10%*
Total			
Health Educator	13	2	15%
Assistant Health Educator	22	8	36%
Total	***35***	***10***	***29%***

The total cost of filling the projected environmental health personnel supply gap is estimated to be approximately Maloti 1.1 million. This will necessitate a 1.3 percentage point increase in the MOHSW wage bill or a 0.5 percentage point increase in the total MOHSW budget.

Table 45: Estimated Costs and Financing Implications of Future Health Education Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	10	23	35	35	35
Total FTE Requirements	35	35	35	35	35
Personnel Supply Gap: Surplus / (Deficit)	(25)	(13)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	0.43	1.16	2.09	2.42	2.81
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	1.56	1.80	2.09	2.42	2.81
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	1.12	0.64	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*0.51%*	*1.36%*	*2.45%*	*2.84%*	*3.30%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*1.83%*	*2.12%*	*2.45%*	*2.84%*	*3.30%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*1.32%*	*0.76%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.18%*	*0.47%*	*0.85%*	*0.98%*	*1.14%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*0.63%*	*0.73%*	*0.85%*	*0.98%*	*1.14%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*0.46%*	*0.26%*	*0.00%*	*0.00%*	*0.00%*

5.2.4.3 Environmental Health

In keeping with the emphasis that is placed in the new Health and Social Welfare Policy on environmental health and the PHC/HIV-AIDS response, requirements for the environmental health cadre are substantial. As revealed in Table 46, a minimum of 28 Environmental Health Officers / Health Inspectors will be required – 8 at headquarters to cover a range of specialty areas, and 2 each in each of the DHMTs. In addition, 170 Health Assistants will be required - 1 each at all PHC facilities including those at the hospitals. The role of the Health Assistant will be integral to the core PHC team and will have a substantial role in mobilizing and supporting the promotive, preventive and home-based activities of Community Health Workers in combating HIV/AIDS.

Table 46: Current Requirements – Environmental Health

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Headquarters[1][2]			
Health Inspector / Environmental Health Officer	8	12	150%
Health Assistant	5	3	60%
Total Headquarters	*13*	*15*	*115%*
District Health Management Team (DHMTs) (n=10)			
Health Inspector / Environmental Health Officer	20	0	0%
Total DHMT	*20*	*0*	*0%*
Type I Hospital [3]			
Health Inspector / Environmental Health Officer	0	3	
Health Assistant	1	0	0%
Total Type I Hospital	*1*	*0*	*0%*
Type IIA Hospitals (n=6)			
Health Inspector / Environmental Health Officer	0	5	
Health Assistant	6	10	167%
Total Type IIA Hospitals	*6*	*10*	*167%*
Type IIB Hospitals (n=6)			
Health Inspector / Environmental Health Officer	0	6	
Health Assistant	6	13	217%
Total Type IIB Hospitals	*6*	*13*	*217%*
Type IIC Hospitals (n=3)			
Health Assistant	3	0	0%
Total Type IIC Hospitals	*3*	*0*	*0%*
Type III Hospitals / FC (n=5)			
Health Inspector / Environmental Health Officer	0	1	
Health Assistant	5	2	40%
Total Type III Hospitals / FC	*5*	*2*	*40%*
Health Centers (n=134)			
Health Assistant	144	5	3%
Total Type III Hospitals / FC	*144*	*5*	*3%*
Total			
Health Inspector / Environmental Health Officer	28	27	96%
Health Assistant	170	33	19%
Total	***198***	***60***	***30%***

Notes:
(1) Includes 1 Health Assistant currently employed by LFDS
(2) Environmental Health Inspectors will need to fill the following program management roles: (i) Water and Sanitation, (ii) Environmental Management, (iii) Occupational Health and Safety, (iv) Food Hygiene and Safety, (v) Port Health, (vi) Emergency Preparedness and Response, (vii) Public Health Laboratory Services, and (viii) Policy, Planning, HIV-AIDS and PHC
(3) Includes 1 Environmental Health Officer currently employed by Botsabelo Hospital

The requirements projections reveal that current supply levels among environmental health personnel are only 30% of minimum requirements and that a large proportion of this supply gap is attributable to the lack of sufficient numbers of Health Assistants who need to be posted to all health centers. Though the number of Environmental Health Officers in the system is nearly adequate, many are mis-deployed. Those currently attached to district hospitals will need to be re-deployed to DHMTS.

The total cost of filling the projected environmental health personnel supply gap is estimated to be approximately Maloti 3.42 million. This would necessitate a 4 percentage point increase in the MOHSW wage bill or a 1.4 percentage point increase in the total MOHSW budget.

Table 47: Estimated Costs and Financing Implications of Future Environmental Health Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	60	129	198	198	198
Total FTE Requirements	198	198	198	198	198
Personnel Supply Gap: Surplus / (Deficit)	(138)	(69)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	2.29	4.31	7.68	8.90	10.32
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	5.71	6.62	7.68	8.90	10.32
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	3.42	2.31	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*2.69%*	*5.06%*	*9.01%*	*10.45%*	*12.11%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*6.71%*	*7.77%*	*9.01%*	*10.45%*	*12.11%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*4.02%*	*2.71%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.93%*	*1.75%*	*3.12%*	*3.61%*	*4.19%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*2.32%*	*2.69%*	*3.12%*	*3.61%*	*4.19%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*1.39%*	*0.94%*	*0.00%*	*0.00%*	*0.00%*

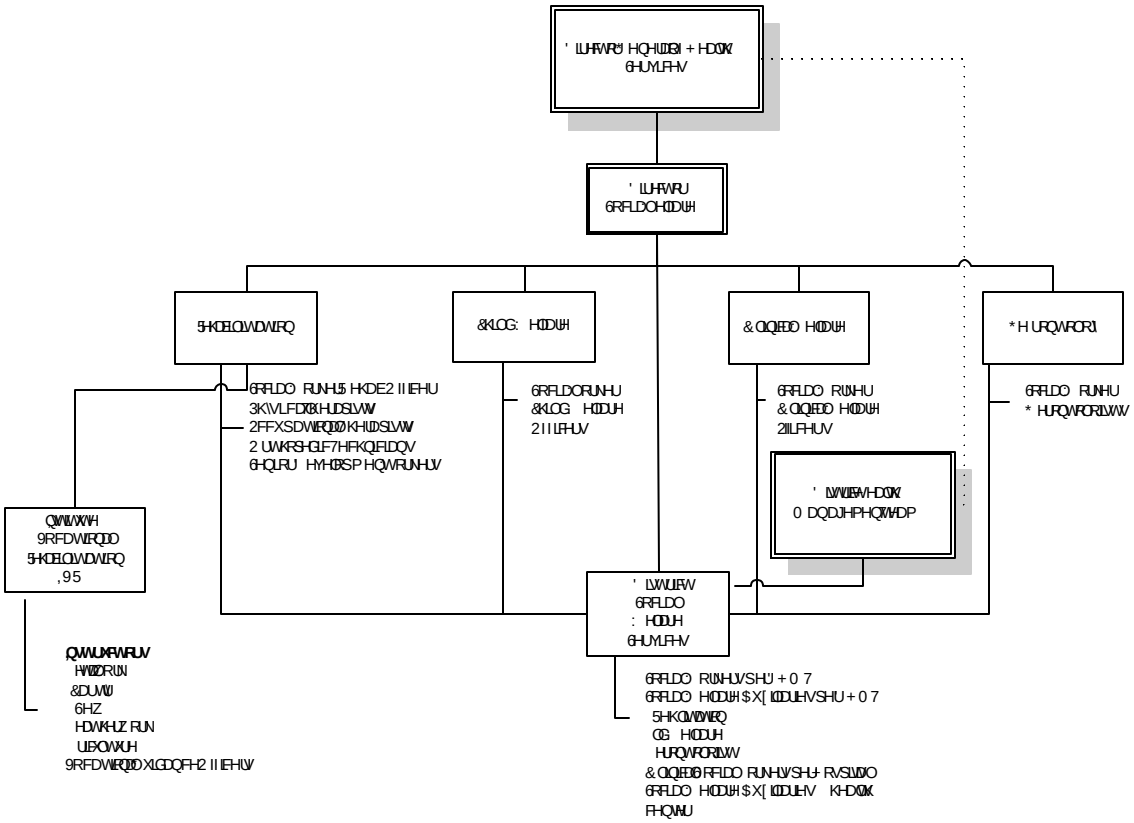
5.2.5 Social Welfare Occupations

5.2.5.1 Social Work

Though the priority need for extending social welfare services throughout the country is clearly identified in the new Health and Social Welfare Policy, the sector is currently in a rudimentary state of development. The potential for expanding the sector through the deployment of Social Workers (SW) and Social Welfare Auxiliaries (SWA) is substantively enhanced by the recent establishment of a degree-level program in social work at NUL, and the plans underway for diploma level training of SWAs at NHTC.

The requirements for social welfare personnel are based on the proposed service coverage schema that has recently been articulated by the Department of Social Welfare as depicted in Figure 6. This organizational service structure will permit service development in four critical areas: rehabilitative services for the disabled, child welfare, clinical welfare and gerontology. Services will be supplied at the district level under the direction of the DHMT and under the supervision of the central Department of Social Welfare. Vocational rehabilitation services will be supplied through the IVRC.

Figure 6: Organizational Structure and Staffing Requirements for the Social Welfare Sector



* Included with Rehabilitation and Orthopedic Requirements

The requirements presented in Table 48 reveal that current supply level for social welfare personnel is only 18% of *minimum* requirements. These projections should be seen as short run in nature and designed to ensure that this essential service is built up in an incremental and manageable manner. The service should be the subject of a detailed assessment by experts in the field who can provide guidance in articulating a long term sectoral strategy that specifies the requirements for personnel on the basis of work objectives and projected workload rather than on an institutional or organizational coverage basis.

As revealed in Table 49, the total cost of filling the projected social welfare personnel supply gap is estimated to be approximately Maloti 4.2 million. This will necessitate a 4.9 percentage point increase in the MOHSW wage bill or a 1.7 percentage point increase in the total MOHSW budget.

Table 48: Current Requirements – Social Work

Institution / Job	Current FTE Requirements	Current Supply	Indicator of Staffing Need
Headquarters			
Social Workers[(1)]	9	20	222%
Social Welfare Assistant	0	8	
Total Headquarters	*9*	*28*	*311%*
IVRC			
Instructors	10	5	50%
Vocational Guidance Officers	2	1	50%
Total DHMT	*12*	*6*	*50%*
District Social Welfare Services (n=10)			
Social Workers	10	0	0%
Social Welfare Auxiliaries	30	0	0%
Total DHMT	*40*	*0*	*0%*
Type I Hospital			
Clinical Social Worker	4	0	0%
Social Welfare Auxiliaries	4	0	0%
Total Type I Hospital	*8*	*0*	*0%*
Type IIA Hospitals (n=6)			
Clinical Social Worker	6	0	0%
Social Welfare Auxiliaries	6	0	0%
Total Type IIA Hospitals	*12*	*0*	*0%*
Type IIB Hospitals (n=6)			
Clinical Social Worker	6	0	0%
Social Welfare Auxiliaries	6	0	0%
Total Type IIB Hospitals	*12*	*0*	*0%*
Type IIC Hospitals (n=3)			
Clinical Social Worker	3	0	0%
Social Welfare Auxiliaries	3	0	0%
Total Type IIC Hospitals	*6*	*0*	*0%*
Type III Hospitals (FC) (n=5)			
Social Welfare Auxiliaries	5	0	0%
Total Type III Hospitals	*5*	*0*	*0%*
Health Centers (n=144)			
Social Welfare Auxiliaries	144	0	0%
Total Health Centers	*144*	*0*	*0%*
Total			
Social Workers	38	20	53%
Social Welfare Officers	11		
Rehabilitation Officers	2		
Child Welfare Officers	2		
Gerontologists	2		
Clinical Social Worker	19		
Social Welfare Auxiliaries	193	8	4%
SWA - Clinical	166		
SWA - Rehabilitation	10		
SWA - Child Welfare	10		
SWA - Gerontology	10		
Social Welfare Assistants	0	10	
Instructors	10	5	
Vocational Guidance Officers	2	1	
Total	***243***	***44***	***18%***

Notes:

(1) Requirements include: the Director of SW, 2 Rehabilitation Officers, 2 Child Welfare Officers, 2 Clinical Welfare Officers, and 2 Gerontologists. Current supply includes: the Director, 1 Principal SWO, 1 Senior SWO, 13 SWO, 1 Chief Rehab Officer, 1 Senior Rehab Officer, and 2 Rehab Officers

Table 49: Estimated Costs and Financing Implications of Future Social Welfare Personnel Requirements (2005 – 2025)

	2005	2010	2015	2020	2025
Total Labor Supply	44	144	243	243	243
Total FTE Requirements	243	243	243	243	243
Personnel Supply Gap: Surplus / (Deficit)	(199)	(100)	-	-	-
Total Cost of Supply [Inflation Adjusted Millions of Maloti]	1.88	4.50	8.84	10.25	11.88
Total Cost of Requirements [Inflation Adjusted Millions of Maloti]	6.07	7.63	8.84	10.25	11.88
Total Cost of Supply Gap [Inflation Adjusted Millions of Maloti]	4.19	3.12	-	-	-
Supply Cost as % of 2003/04 Approved MOHSW PE Budget	*2.20%*	*5.29%*	*10.38%*	*12.03%*	*13.95%*
Requirements Cost as % of 2003/04 Approved MOHSW PE Budget	*7.12%*	*8.95%*	*10.38%*	*12.03%*	*13.95%*
Gap Cost as % of 2003/04 Approved MOHSW PE Budget	*4.92%*	*3.67%*	*0.00%*	*0.00%*	*0.00%*
Supply Cost as % of 2003/04 Approved Total MOHSW Budget	*0.76%*	*1.83%*	*3.59%*	*4.16%*	*4.82%*
Requirements Cost as % of 2003/04 Approved Total MOHSW Budget	*2.46%*	*3.09%*	*3.59%*	*4.16%*	*4.82%*
Gap Cost as % of 2003/04 Approved Total MOHSW Budget	*1.70%*	*1.27%*	*0.00%*	*0.00%*	*0.00%*

5.2.6 Minimum Staffing Requirements by Institution Type

Table 50 summarizes the minimum staffing requirements per facility type. These minima are presented to provide guidance in determining the appropriate minimum staffing complement for different facility levels. They are not intended to be prescriptive since many facilities will require more than these minimum staffing complements to adequately serve their patient load in an effective and qualitative manner.

Table 50: Minimum Personnel Requirements by Institution Type

Job	Abbreviation	Minimum Requirements Per Facility	Total	Core responsibilities	Basis for deriving FTE
2nd Level Referral	**Type I Hospital (QEII)**				
Medical Cadre					
Specialists Consultant	SC	17	17	Delivery of specialist level care for inpatients and outpatients	Service coverage
Specialist Registrar	SR	NA[1]	NA[1]	In-service training rotational post from Type II hospital in specialist service area (inpatients and outpatients)	Service coverage
Registrar	R	19	19	Specialist service delivery for inpatients and outpatients under supervision of Specialists / Specialist Registrars	Workload and task analysis
Senior House Officers	SHO	45	45	Service delivery (inpatient and outpatient) under supervision of Registrars	Workload and task analysis
House Officers	HO	NA	NA	Intern post confined to QEII and available only to Basotho nationals as part of their pre-registration training. Will largely act as SHO under more stringent supervision	Workload and task analysis
Nursing Cadre					
Senior Nursing Officer (Nurse Manager)	SNO	6	6	Management of nursing services within QEII	Workload and task analysis
Specialist Nurse	SP	90	90	Anesthetists, ICU, Orthopedics, Surgical Theatre, Ophthalmic	Service coverage
Clinical Nurse	NC	79	79	Inpatient care, outpatient care for non-primary cases, orientation, supervision and in-service training for junior nursing staff	Workload and task analysis
Nursing Sister	NS	27	27	Midwifery / Obstetric services	Workload and task analysis
General Nurse	GN	131	131	Basic general nursing services	Workload and task analysis
Nursing Assistant	NA	39	39	MCH/FP / preventive and promotive care	Workload and task analysis
Oral Health Cadre					
Dental Specialist - Surgeon	DS	2	2	Dental surgery	Service coverage
Dental Officers	DO	2	2		Service coverage
Dental Hygienist	DH	2	2		Service coverage
Dental Mechanic	DM	2	2		Service coverage
Chairside Assistant	CA	4	4		Service coverage
Oral Health Assistant	OHA	1	1		Service coverage
Orthopedic Cadre					
Orthopedic Technologist	ORT	8	8		Service coverage
Rehabilitation Cadre					
Physiotherapist	PT	2	2		Service coverage
Physiotherapy Assistant	PTA	5	5		Service coverage
Occupational Therapist[2]	OT	2	2		Service coverage
Speech and Language Therapist	SLT	1	1		Service coverage
Radiography Cadre					
Radiologist	RST	1	1		Service coverage
Ultrasonographer	US	1	1		Service coverage
Radiographer	R	5	5		Service coverage
Radiographic Technicians	RT	6	6		Service coverage
Radiographic Assistants	TA	2	2		Service coverage
Pharmacist Cadre					
Pharmacist	PH	4	4		Service coverage
Pharmacy Technologist	PHTNO	8	8		Service coverage
Pharmacy Technicians[3]	PHT	7	7		Service coverage
Laboratory Cadre					
Laboratory Technologists	LTNO	26	26		Service coverage
Laboratory Technicians	LT	41	41		Service coverage
Estates Management & Biomedical Engineering					
Technical Officer - Electricity & Plumbing	TO-EP	8	8		Service coverage
Technical Officer - BME	TO-BME	3	3		Service coverage
Nutrition Cadre					
Nutrition Officer	NO	1	1		Service coverage
Nutrition Assistant	NTA	1	1		Service coverage
Environmental Health Cadre					
Health Assistant	HA	1	1		Service coverage
Social Welfare Cadre					
Clinical Social Worker	CSW	2	2		Service coverage
Social Worker Auxiliary	SWA	2	2		Service coverage
General Support Staff Cadre					
Ward Attendant	WA	88	88	Basic non-nursing patient care largely on an inpatient basis	Workload and task analysis
2nd Level Referral	**Type I Hospital (Mohlomi)**				
Mental Health Cadre					
Psychologist	PSY	1	1		Lesotho Health Study
Consultant Psychiatrist	CPSY	1	1		Lesotho Health Study
Senior Nursing Officer - Mental Health	SNO-MH	3	3	Management of nursing services within Mohlomi	Lesotho Health Study
Mental Health Nurse	MHN	27	27	Nursing care for psychiatric patients	Lesotho Health Study
General Nurse - Mental Health	GN-MH	25	25	Basic mental health care	Lesotho Health Study
Pharmacist Cadre					
Pharmacist	PH	1	1		Service coverage
Pharmacy Technologist	PHTNO	1	1		Service coverage
Pharmacy Technicians[3]	PHT	5	5		Service coverage
Estates Management & Biomedical Engineering					
Technical Officer BME & PE	TO	1	1		Lesotho Health Study
Social Welfare Cadre					
Clinical Social Worker	CSW	2	2		Service coverage
Social Worker Auxiliary	SWA	2	2		Service coverage
General Support Staff Cadre					
Ward Attendant - MH	WA-MH	44	44	Basic non-nursing patient care largely on an inpatient basis	Lesotho Health Study

Job	Abbreviation	Minimum Requirements Per Facility	Total	Core responsibilities	Basis for deriving FTE
1st Level Referral	**Type IIA (n=6)**				
Medical Cadre					
Specialist Registrar	SR	7	42	Principal specialist service providers	Service coverage
Senior House Officer	SHO	9/10	56	Service delivery (inpatient and outpatient) under supervision of Specialist Registrars	Workload and task analysis
Nursing Cadre					
Senior Nursing Officer (Nurse Manager)	SNO	14	84	Management of nursing services within the hospital	Service coverage
Specialist Nurse	SN	6	36	Anesthetists, Orthopedics, Surgical Theatre, Ophthalmic,	Service coverage
Clinical Nurse	NC	5/6	35	Inpatient care, outpatient care for non-primary cases, orientation, supervision and in-service training for junior nursing staff	Workload and task analysis
Nursing Sister	NS	3	18	Midwifery / Obstetric services	Workload and task analysis
General Nurse	GN	21	126	Basic general nursing services	Workload and task analysis
Nursing Assistant	NA	11/12	67	MCH/FP / preventive and promotive care	Workload and task analysis
Mental Health Cadre					
Specialist Registrar - Psychiatry	SR-PSY		2		Lesotho Health Study
Senior Nursing Officer - Mental Health	SNO-MH	1	4	Management of nursing services within MOTU	Lesotho Health Study
Mental Health Nurse	MHN	2	12	Nursing care for psychiatric patients	Lesotho Health Study
General - Mental Health	GN-MH	2	12	Basic mental health care	Lesotho Health Study
Oral Health Cadre					
Dental Officers	DO	1	6		Service Coverage
Dental Hygienist	DH	1	6		Service Coverage
Chairside Assistant	CA	1	6		Service Coverage
Oral Health Assistant	OHA	1	6		Service Coverage
Orthopedic Cadre					
Orthopedic Technologist	ORT	0/1	4		Service coverage
Rehabilitation Cadre					
Physiotherapist	PT	2	12		Service Coverage
Physiotherapy Assistant	PTA	2	12		Service Coverage
Radiology Cadre					
Ultrasonographer	US	1	6		Service Coverage
Radiographer	R	1	6		Service Coverage
Radiographic Technicians	RT	1	6		Service Coverage
Radiographic Assistants	RA	2	12		Service Coverage
Pharmacist Cadre					
Pharmacist	PH	1	6		Service Coverage
Pharmacy Technologist	PHTN	5	30	1 on duty 24/7	Service Coverage
Pharmacy Technicians [3]	PHT	3	18	1 for inpatient and 2 for outpatient during day	Service Coverage
Laboratory Cadre					
Laboratory Technologists	LTNO	1/2	10		Service Coverage
Laboratory Technicians	LT	4/5	27		Service Coverage
Estates Management & Biomedical Engineering					
Technical Officer - Electricity & Plumbing	TO-EP	2	12		Lesotho Health Study
Technical Officer - BME	TO-BME	1	6		Lesotho Health Study
Nutrition Cadre					
Nutrition Assistant	NTA	1	6		Service Coverage
Environmental Health Cadre					
Health Assistant	HA	1	6		Service Coverage
Social Welfare Cadre					
Clinical Social Worker	CSW	1	6		Service coverage
Social Worker Auxiliary	SWA	1	6		Service coverage
General Support Staff Cadre					
Ward Attendant	WA	9	54	Basic non-nursing patient care largely on an inpatient basis	Workload and task analysis
Ward Attendant - MH	WA-MH	2/3	14	Basic non-nursing patient care largely on an inpatient basis	Lesotho Health Study
1st Level Referral	**Type IIB (n=6)**				
Medical Cadre					
Specialist Registrar	SR	4	24	Principal specialist service providers	Service structure
Senior House Officer	SHO	6/7	38	Service delivery (inpatient and outpatient) under supervision of Specialist Registrars	Workload and task analysis
Nursing Cadre					
Senior Nursing Officer (Nurse Manager)	SNO	1	6	Management of nursing services within the hospital	Service coverage
Specialist Nurse	SN	5	30	Anesthetists, Surgical Theatre, Ophthalmic,	Service coverage
Clinical Nurse	CN	8/9	49	Inpatient care, outpatient care for non-primary cases, orientation, supervision and in-service training for junior nursing staff	Workload and task analysis
Nursing Sister	NS	2/3	15	Midwifery / Obstetric services	Workload and task analysis
General Nurse	GN	15/16	94	Basic general nursing services	Workload and task analysis
Nursing Assistant	NA	9/10	57	MCH/FP / preventive and promotive care	Workload and task analysis
Mental Health Cadre					
Senior Nursing Officer - Mental Health	SNO-MH	1	4	Management of nursing services within MOTU	Lesotho Health Study
Mental Health Nurse	MHN	2	12	Nursing care for psychiatric patients	Lesotho Health Study
General Nurse - Mental Health	GN-MH	1	6	Basic mental health care	Lesotho Health Study
Rehabilitation Cadre					
Physiotherapy Assistant	PTA	2	12		
Oral Health Cadre					
Dental Therapist / Technologist	DT	2	12		Service Coverage
Dental Hygienist	DH	1	6		Service Coverage
Chairside Assistant	CA	1	6		Service Coverage
Oral Health Assistant	OHA	1	6		Service Coverage
Radiology Cadre					
Radiographer	R	1	6		Service Coverage
Radiographic Technicians	RT	1	6		Service Coverage
Radiographic Assistants	RA	2	12		Service Coverage
Pharmacist Cadre					
Pharmacist	P	1	6		Service Coverage
Pharmacy Technologist	PTNO	5	30	1 on duty 24/7	Service Coverage
Pharmacy Technicians [3]	PT	3	18	1 for inpatient and 2 for outpatient during day	Service Coverage
Laboratory Cadre					
Laboratory Technologists	LTNO	0/1	4		Service Coverage
Laboratory Technicians	LT	2/3	17		Service Coverage
Estates Management & Biomedical Engineering					
Technical Officer - Electricity & Plumbing	TO-EP	2	12		Service Coverage
Technical Officer - BME	TO-BME	1	6		Service Coverage
Nutrition Cadre					
Nutrition Assistant	NTA	1	6		Service Coverage
Environmental Health Cadre					
Health Assistant	HA	1	6		Service Coverage
Social Welfare Cadre					
Clinical Social Worker	CSW	1	6		Service coverage
Social Worker Auxiliary	SWA	1	6		Service coverage
General Support Staff Cadre					
Ward Attendant	WA	5/6	32	Basic non-nursing patient care largely on an inpatient basis	Workload and task analysis
Ward Attendant - MH	WA-MH	2/3	14	Basic non-nursing patient care largely on an inpatient basis	Workload and task analysis

Job	Abbreviation	Minimum Requirements Per Facility	Total	Core responsibilities	Basis for deriving FTE
1st Level Referral	**Type IIC (n=3)**				
Medical Cadre					
Registrar	R	2	6	Senior service provider for inpatient and outpatient care	Service structure
Senior House Officer	SHO	2	6	Service delivery (inpatient and outpatient) under supervision of Registrars	Workload and task analysis
Nursing Cadre					
Specialist Nurse	SN	1	3	Anesthetists, Surgical Theatre	Service coverage
Clinical Nurse	CN	6	18	Inpatient care, outpatient care for non-primary cases, orientation, supervision and in-service training for junior nursing staff	Workload and task analysis
Nursing Sister	NS	4	12	Midwifery / Obstetric services	Workload and task analysis
General Nurse	GN	10	30	Basic general nursing services	Workload and task analysis
Nursing Assistant	NA	2/3	13	MCH/FP / preventive and promotive care	Workload and task analysis
Mental Health Cadre					
Mental Health Nurse	MHN	2	6	Nursing care for psychiatric patients	Lesotho Health Study
General Nurse - Mental Health	GN-MH	1	3	Basic mental health care	Lesotho Health Study
Oral Health Cadre					
Dental Therapist / Technologist	DT	1	3		Service Coverage
Dental Hygienist	DH	1	3		Service Coverage
Chairside Assistant	CA	1	3		Service Coverage
Oral Health Assistant	OHA	1	3		Service Coverage
Rehabilitation Cadre					
Physiotherapy Assistant	PTA	1	3		Service Coverage
Radiology Cadre					
Radiographic Technicians	RT	1	3		Service Coverage
Radiographic Assistants	RA	2	6		Service Coverage
Pharmacist Cadre					
Pharmacist	P	1	5		Service Coverage
Pharmacy Technologist	PHTNO	5	25	1 on duty 24/7	Service Coverage
Pharmacy Technicians[3]	PHT	3	15	1 for inpatient and 2 for outpatient during day	Service Coverage
Laboratory Cadre					
Laboratory Technologists	LTNO	0/1	1		Service Coverage
Laboratory Technicians	LT	2/3	8		Service Coverage
Estates Management & Biomedical Engineering					
Technical Officer - Electricity & Plumbing	TO-EP	2	6		Service Coverage
Technical Officer - BME	TO-BME	1	3		Service Coverage
Nutrition Cadre					
Nutrition Assistant	NTA	1	3		Service Coverage
Environmental Health Cadre					
Health Assistant	HA	1	3		Service Coverage
Social Welfare Cadre					
Clinical Social Worker	CSW	1	3		Service coverage
Social Worker Auxiliary	SWA	1	3		Service coverage
General Support Staff Cadre					
Ward Attendant	WA	4/5	14	Basic non-nursing patient care largely on an inpatient basis	Workload and task analysis
Ward Attendant - MH	WA-MH	2/3	7	Basic non-nursing patient care largely on an inpatient basis	Lesotho Health Study
Primary Care	**Type III Hospital/FC (n=5)**				
Nursing Cadre					
Clinical Nurse	CN	4/5	21	Basic curative care	Workload and task analysis
Nurse Clinician	NC	1	5	Management and supervision (NA and CHW) of primary preventive and promotive care + basic curative care	Workload and task analysis
Nursing Sister	NS	1	5	Midwifery under supervision of PHN	Service coverage
General Nurse	GN	1	5	Basic patient care under the supervision of the CO	Service coverage
Nursing Assistant	NA	5/6	27	Preventive and promotive health, IMCI/Reproductive Health	Workload and task analysis
Mental Health Cadre					
General Nurse - Mental Health	GN-MH	5/6	27	Basic mental health care	Lesotho Health Study
Oral Health Cadre					
Dental Therapist / Technologist	DT	1	5		Service Coverage
Dental Hygienist	DH	1	5		Service Coverage
Chairside Assistant	CA	1	5		Service Coverage
Oral Health Assistant	OHA	1	5		Service Coverage
Radiology Cadre					
Radiographic Assistants	RA	1	5		Service Coverage
Pharmacist Cadre					
Pharmacy Technologist	PHTNO	2	10	1 on day Day duty - year round coverage	Service Coverage
Pharmacy Technicians[3]	PHT	2	10	2 for outpatient during day	Service Coverage
Laboratory Cadre					
Laboratory Technicians	LT	1	5		Service Coverage
Estates Management & Biomedical Engineering					
Technical Officer - E&P and BME	TO	1	5		Service Coverage
Nutrition Cadre					
Nutrition Assistant	NTA	1	5		Service Coverage
Environmental Health Cadre					
Health Assistant	HA	1	5		Service Coverage
Social Welfare Cadre					
Social Worker Auxiliary	SWA	1	5		Service coverage
General Support Staff Cadre					
Ward Attendant - MH	WA-MH	2/3	12	Non-nursing patient care for inpatients	Lesotho Health Study
Primary Care	**Health Centers (n=144)**				
Nurse Clinician	NC	1/3	304	Management and supervision (NA and CHW) of primary preventive and promotive care + basic curative care	Workload and task analysis
General Nurse	GN	1/2	288	Primary outpatient curative care / OPD	Workload and task analysis
Nursing Assistant	NA	1	144	Preventive and promotive health, IMCI/Reproductive Health	Workload and task analysis
Oral Health Cadre					
Oral Health Assistant	OHA	1	144		Service Coverage
Environmental Health Cadre					
Health Assistant	HA	1	144		Service Coverage
Social Welfare Cadre					
Social Welfare Assistant	SWA	1	144		Service Coverage

Notes:
(1) 2 Specialist Registrars in psychiatry will be deployed at Mohlomi.
(2) One of these Occupational Therapist is needed at Mohlomi Hospital
(3) Technicians are trained trhough Continuing Education

5.3 Substantive (Pre-Service and Post-Basic) Training Requirements

5.3.1 Health Service Occupations

5.3.1.1 Medical Doctors

The majority of this cadre will remain non-nationals and will be recruited with adequate basic and post-basic substantive training.

Substantive training following recruitment in this cadre should of necessity be confined to Basotho nationals. Since it will depend on relatively costly out-of-country training grants, and since so few of the individuals that Lesotho has trained in the past are currently working for the MOHSW or CHAL, particular care must be take to screen prospective candidates and to authorize training grants of this nature only when the GOL feels that it has instituted improved bonding procedures.

The HRDSP introduces two (02) training grants per year for Medical Officers starting in Year 2 of the plan period, allowing for time to develop improved bonding procedures and to develop and introduce improved schemes of service for MDs that will also serve as a pull factor for getting MDs to return to Lesotho after completing their training. In addition, two (02) training grants per year will be offered for diploma-level post-basic training of Specialist Registrars who will provide specialist services at the district hospital level.

Table 51: Substantive Training Requirements – Medical Officers (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Medical Officer	Medical Degree	6	0	2	4	6	8
Specialist Registrar	Diploma in specialty area	1.5	0	2	4	4	4

5.3.1.2 Nursing

Given the need to substantially increase nursing supply, it is clear that substantive pre-service and post-basic training will need to be strengthened and expanded. The need to produce new occupations - notably the Clinical Nurse, and the single-qualified General Nurse – will also require that new programs be established and/or enhancements be made to the existing curricula.

5.3.1.2.1 Nursing Officers

The training requirements for Nursing Officers are substantial (see Table 23 on page 5-21). A total of 580 additional NOs will be required to close the current supply gap. It would take 20 years to close the current gap if 30 NOs were trained per year assuming no further attrition. Clearly, therefore, it will be impossible to produce this number within the next decade. A detailed training production plan that takes into account both the need to upgrade Nursing Sisters to NO status and realistic expectations of training capacity at national training institutions is presented in the Strategic Plan (see section 6.3.1).

In addition to the substantial level of substantive pre-service training that will be required to produce the number of Nursing Officers needed to close the current supply gap, there is also a high level training demand among existing Nursing Officer in areas of post-basic education that will need to be addressed. The greatest expressed demand is in the areas of nursing administration and management, HIV/AIDS care and counseling, public health and primary care nursing.

Training in these areas is considered essential as part of the rationalized nursing career structure, particularly for the Clinical Nurse and Nurse Clinician occupations that will be assuming a critical role in terms of assuring service quality at the hospital and health center levels.

There are currently 164 Nursing Officers working in the system. A large number of these who still have at least 10 years of service left before mandatory retirement will need to be provided substantive post-basic training opportunities in order to meet the sector requirements. Providing training for these existing NOs (most of whom have received no in-service training since being employed) will also be an essential component of the HRDSP loss abatement effort.

The number of annual training opportunities for existing NOs will need to be carefully regulated, however, in order to ensure that service capacity is not undermined. The sector should therefore begin to offer diploma level grant opportunities for regional training to existing NOs only when they can be replaced by the first batches of Nurse Clinicians and Clinical Nurses. As can be seen in Table 64 on page 5-62, this situation will begin in FY 07/08 or Year 4 of the plan. Starting in Year 4, therefore, ten (10) 1-year regional training grants will be provided to upgrade existing NOs to become Nurse Clinicians and Clinical Nurses, and ten (10) 1-year regional training grants will be provided to upgrade existing NOs to be Nurse Specialists in the areas of orthopedic nursing, theatre nursing, accident and emergency nursing, intensive care nursing and neonatal/pediatric nursing.

Table 52 summarizes the substantive post-basic training recommendations for Nursing Officers for the next five years. It includes requirements for Nurse Clinicians, Clinical Nurses and Specialist Nurses (excluding Mental Health Nurses).

Table 52: Substantive Training Requirements – Nursing Officers (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Nurse Clinicians	Public Health + Primary Care Nursing	1	0	0	5	5	5
Clinical Nurses	Clinical Case Management	1	0	0	5	5	5
Orthopedic Nurse	Orthopedics	1	0	0	2	2	2
Theatre Nurse	Surgery	1	0	0	2	2	2
A&E Nurse	Emergency and Accident Medicine	1	0	0	2	2	2
ICU Nurse	Intensive Care	1	0	0	2	2	2
Pediatric/Neonatal Nurse	Neonatal and pediatric care	1	0	0	2	2	2

In order to meet the future requirements for Nurse Clinicians, the current training program at NHTC will need to revitalized and promoted. It is evident that interest in becoming a Nurse Clinician has waned in recent years given the lack of perceived career advancement opportunities or adequate compensation. The institution of improved schemes of services as recommended elsewhere in the HRDSP is anticipated to enhance the interest in this occupation.

It is also recommended that a Clinical Nurse training program be developed at NHTC. This will require the production of a new curriculum and the training of instructors. In the interim, existing NOs will be sent out for training in clinical case management in order to begin producing the required Clinical Nurses.

5.3.1.2.2 Nursing Sisters

Under the rationalized career structure for the nursing cadre the need for Nursing Sisters has been substantially diminished (only 73 of the 324 currently employed will be required in the future). Many of their current functions will be assumed by General Nurses and Nurse Clinicians.

Most Nursing Sisters will need to be upgraded to Nursing Officer status to serve as Nurse Clinicians and Clinical Nurses. Fortunately, there is a high level of training demand among current Nursing Sisters for post-basic education to obtain a higher level nursing qualifications. Roughly ¼ of this demand is nursing administration and management, while another ¼ is in public health nursing (Nurse Clinicians). A further 1/7 of the demand for post-basic training is mental health. The relatively high demand for training in nursing administration and management undoubtedly reflect the fact that it is a way of achieving Senior Nursing Officer status which includes a salary grade increment. Introduction of the Clinical Nurse occupation along with a pay mechanism for accelerated step and grade advancement for Nursing Officers in essential posts with little or no career advancement opportunities other than leaving the cadre (i.e. no longer practicing nursing), should reduce the demand for nursing administration and management and increase the demand for Nurse Clinician and Clinical Nurse training.

The training requirements for upgrading Nursing Sisters to Nursing Officers is presented later in Table 64 on page 5-62.

5.3.1.2.3 General Nurses

Training for General Nurses should be based on a modified curriculum that takes into account the fact that they will be entering the labor market in a direct service capacity without going on for midwifery training as they have done in the past. The curriculum will need to be enhanced to accommodate the new expanded role that General Nurses will play in the system. This will entail a strengthening of content in the areas of clinical case management, MCH/FP, oral health, etc.

The first intake of General Nurses can only occur after the current curriculum has been revised and strengthened, a decision has been taken on Roma, and capacity has been expanded both in terms of physical capacity (classrooms, dormitories etc.) and tutors. This curriculum review and revision will need to be funded as a matter of priority since tutors will need to be trained in the new curriculum before the training of General Nurses can commence.

The training requirements for General Nurses are presented later in Table 64 on page 5-62.

5.3.1.2.4 Nursing Assistants

There is considerable demand among Nursing Assistants for training in substantive post-basic content areas that would enable them to be promoted to General Nurse status. The HRDSP encourages the upgrading of Nursing Assistants to General Nurse status by initially giving priority for GN training to any NA who satisfies the entry requirements for general nursing and who has a good performance record. A limited number of educational bridging scholarships will also be provided to NAs who have performed in an exemplary manner, who do not have the minimum entry requirements for GN training, and who are younger than 45 years of age (i.e., have at least 10 years of service left before mandatory retirement at 55).

The training requirements for Nursing Assistants are presented later in Table 64 on page 5-62.

5.3.1.3 Mental Health

This special service is very inadequately resourced at this time to fulfill the key role envisioned for mental health in the new Health and Social Welfare Policy, but efforts are underway with external funding support to improve capacity in this vital area.

The HRDSP fully incorporates the service development requirements for mental health as outlined in the Lesotho Health Study (MCDI, 2002) and subsequent refinements arising from the ADB Project. A substantive level of basic and post-basic training as well as a dynamic continuing education program are required, all of which should be developed and delivered in-country. This includes the training of Mental Health Nurses (NOs with specialization in mental health), a new occupation of Mental Health General Nurse (a single-qualified General Nurse who will receive in-service training in mental health).

During the first four years of the plan period, the production of Mental Health Nurses will be based upon upgrading existing Nursing Sisters (see Table 64 on page 5-62). Thereafter, Mental Health Nurses will be sourced from General Nurse graduates.

5.3.1.4 Oral Health

This special service is poorly equipped to fulfill the prominent role given to oral health in the new Health and Social Welfare Policy. A substantive training effort is identified in the HRDSP to bring this service up to the minimum standards required to fulfill the objectives of the policy, particularly in extending services at community level. The provision of community-based oral health will be achieved through the deployment of Oral Health Assistants and/or through the integration of oral health into the services offered by General Nurses, Nursing Assistants, Health Assistants etc. This will be accomplished through a structured program of in-service continuing education (see section 5.4.2.4).

In order to close the supply gap for oral health professionals, a comprehensive set of regional (out-of-country) training grants will be offered for substantive pre-service training as summarized in Table 53. These training grants will only be initiated in the second year of the plan period in order to provide time to institute improved bonding procedures and improved career management systems.

Table 53: Substantive Training Requirements – Oral Health (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Dental Officers	Dental Officer degree	5	0	1	2	3	4
Dental Technologists	Dental Technology Diploma	3	0	4	8	12	12
Dental Hygienists	Dental Hygiene	2	0	5	10	10	10
Dental Mechanics	Orthodontestry	2	0	2	2	0	0

5.3.2 Allied Health Service Occupations

5.3.2.1 Orthopedics

Training is required in order to extend orthopedic services to the regional level via workshops at Leribe and Mohale's Hoek and in order to integrate this service into social welfare services. A total of six (06) Orthopedic Technologists are required to close the current supply gap. Given the relatively small numbers in this occupation, their training should occur outside Lesotho and will likely need to be sourced outside the region (e.g. in Brazil). A summary of the training requirements is presented in Table 54. Here again, training will begin in the second year of the plan in order to ensure that improved bonding and career management systems are in place as a precondition for investing in further human resources development.

The Needs Assessment revealed that there is considerable demand among existing Orthopedic Technologists for substantive post-basic training in prosthetics and orthotics. In order to enhance service capacity in these areas, a limited number of post-basic training grants are included for existing Orthopedic Technologists.

Table 54: Substantive Training Requirements – Orthopedic Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Orthopedic Technologists	Orthopedics	3	0	2	4	6	6
Orthopedic Technologists	Prosthetics and Orthotics	0.5	2	2	2	2	0

5.3.2.2 Rehabilitation

This is a grossly under-resourced core service area. Very few adequately trained staffs are deployed at this time and only in the domain of physiotherapy. Occupational therapy, speech and language therapy, and audiology/audiometry are not represented at all. Substantial service returns can be expected from a well structured catch-up in-service training initiative for Physiotherapy Assistant level instituted as part of a national Continuing Education program.

The training requirements for Physiotherapists, Occupational Therapists, a Speech and Language Therapist and an Audiologist are presented in Table 55.

Table 55: Substantive Training Requirements – Rehabilitation Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Physiotherapists	Physiotherapy	4	0	3	6	8	12
Occupational Therapists	Occupational Therapy	4	0	1	2	3	4
Speech and Language Therapist	Speech and Language Therapy	4	0	1	1	1	1
Audiologist	Audiology	4	0	1	1	1	1

Dependence on external recruitment of core professional skills is inevitable pending the training of nationals in the various specialty areas over the next 10 years.

5.3.2.3 Radiography

This is a seriously under-trained occupation given its importance in clinical service. It is highly dependent on Technicians with diploma level training and Assistants with only on-the-job and in-service training.

A catch-up training program for Radiographic Assistants with recruited trainers is defined in the HRDSP/HRSP coupled with the establishment of regular in-service training through the Continuing Education Program[19].

Regional out-of-country training grants will be required to produce Ultrasonographers, Radiographers and Radiographic Technicians. The radiologist should be sourced on a contract basis until such time as a Masotho candidate can be produced.

Table 56: Substantive Training Requirements – Radiography Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Radiologist	Radiology	3	0	0	1	1	1
Ultrasonographer	Ultrasonography	1	0	2	2	2	2
Radiographer	Radiography	3	0	3	3	3	3
Radiographic Technicians	Radiography	2	0	4	8	8	8

5.3.3 Technical Support Service Occupations

5.3.3.1 Pharmacy

This is an under-resourced service area with few trained Pharmacists, hardly any key service supervisory skills (e.g. drug quality assurance, regulation and drug supply management), and a high dependence on untrained personnel at dispensing level.

With the advent of the Pharmacist training program at the NUL, the MOHSW and CHAL should be in a strong position to recruit well qualified candidates. To close the gap of 19 Pharmacists within the next decade, the training of five (05) Pharmacists will need to be financed each year starting in Year 1 of the plan. Continuing at this production level should sustain supply at the required level so long as attrition and turnover can be controlled. The needs of the sector should not be surpassed because of the availability of graduates from NUL. Rather, unless NUL is able to produce for the regional marketplace (something that may well be the case), it should regulate its intake to conform to sectoral requirements as stipulated in the HRDSP.

Pharmacy Technicians will be sourced from NHTC whose program will be revitalized to supply the large number of technicians required to close the current supply gap. Intake levels in the Pharmacy Technician training program at NHTC will need to be set at 25 per three-year class for Years 2, 3 and 4 and then will likely need to be reduced to 20 per class unless future attrition and turnover are higher than projected.

[19] Rotational training schemes through QEII will only become effective and obligatory if, and when, a Radiologist is appointed.

Table 57: Substantive Training Requirements – Pharmacy Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Pharmacists	Pharmacy	4	5	10	15	20	20
Pharmacy Technicians	Pharmacy	3	0	25	50	75	70

5.3.3.2 Laboratory

This is a relatively well-trained cadre reflecting significant levels of external and local investment in recent years. However, considerable additional training will be required to close the current supply gap. Training for Laboratory Technologists at the degree level will need to take place out-of-country within the region. In addition, existing Laboratory Technologists will need to be offered a 1-year substantive post-basic training in an area of laboratory specialization (e.g. cytology, hematology etc).

The 3-year Laboratory Technician diploma-level training course offered at NHTC will need to be bolstered to meet current and future requirements. A comprehensive Continuing Education program will need to be established as well to sustain and fortify the quality of service provided.

Table 58: Substantive Training Requirements – Laboratory Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Laboratory Technologists	Laboratory Science	4	8	16	24	32	32
Laboratory Technologists	Post-basic specialist diploma	1	0	0	0	0	2
Laboratory Technicians	Laboratory Science	3	0	20	40	60	60

5.3.3.3 Biomedical Engineering and Estates Management

An insufficient number of trained biomedical engineers exist in this service area. Out-of-country training will be required to supplement those already deployed as well as a comprehensive Continuing Education program to ensure appropriate and adequate skill levels among the range of technical officers that will be required each facility.

Other Technical Officers required for building, electric and plumbing maintenance and repair should be recruited with requisite skills in the open market. An in-service continuing education course should be established to maintain competencies and provide orientation to new systems, designs or technologies.

Table 59: Substantive Training Requirements – Biomedical Engineers (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Technical Officer - BME	Biomedical equipment maintenance	3	3	6	9	9	9

5.3.4 Special Health Service Occupations

5.3.4.1 Nutrition

There are substantial deficiencies in the supply of nutrition personnel that will need to be addressed under the HRDSP in order to effectively respond to the objectives of the new Health and Social Welfare Policy. Closing the supply gap for Nutrition Officers will require funding regional out-of-country training grants, while the gap for Nutrition Assistants should be closed through a structured in-service course offered through the national Continuing Education Program. It is recommended that expert training be

sourced for developing and initiating the CEP course for Nutrition Assistants in order to close the supply gap within the next five years.

Table 60: Substantive Training Requirements – Nutrition Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Nutrition Officers	Nutrition	3	0	3	6	9	12

5.3.4.2 Health Education

Closing the supply gap among health education personnel will be a priority of the HRDSP. This will require funding a limited number of out-of-country regional training grants for Health Educators and the development of an in-service course for Assistant Health Educators offered through the national Continuing Education Program. This latter can also be offered to other frontline health and social welfare personnel in order to enhance effective communications and education capacity.

Table 61: Substantive Training Requirements – Health Education Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Health Educators	Health Education	3	0	2	4	6	6

5.3.4.3 Environmental Health

The principal supply shortfall within the environmental health domain is for Health Assistants who will be trained through a structured 3-month in-service training course offered through the national Continuing Education Program. There are currently enough Environmental Health Officers in the training pipeline to fill the small gap for this occupation so no additional substantive pre-service training is required for the next five years.

5.3.5 Social Welfare Occupations

5.3.5.1 Social Work

Social Welfare is a relatively new service area and is seriously under-developed with few appropriately trained personnel deployed at this time. The gap between the limited current service capacity and the extensive services envisaged in the new Health and Social Welfare Policy is very large indeed. In addition to the requirement for a substantial cadre of trained welfare personnel that will need to be developed and deployed almost from scratch, a major initiative to create awareness and competence in welfare issues for all service providers will need to be developed through a Continuing Education Program.

Training for Social Workers will be provided by NUL. These Social Workers will then need additional post-basic training to serve as Clinical Social Workers, Rehabilitation Officers, Child Welfare Officers and Gerontologists. These 6-month post-basic courses will need to be sourced out-of-country. Closing the substantial supply gap for Social Welfare Auxiliaries will require the development of a structured in-service training program offered through the national Continuing Education Program. Here again it is recommended that expertise be sourced to develop this course and to initiate the training.

Table 62: Substantive Training Requirements – Social Work Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Social Workers	Degree in Social Work	4	6	12	18	24	24
Social Workers	Post-basic specialist diploma	0.5	2	2	2	2	2

5.4 In-Service Training Requirements

5.4.1 Health Service Occupations

5.4.1.1 Medical Doctors

Medical Doctors identified the greatest need for in-service training in the areas of **computers and information technology (IT)**, and **service management**. Both of these will be provided through the national Continuing Education Programme (CEP). The service management course should be offered within the first year of service in a new institution or service. IT training should be provided as part of the generic in-service training program, though some occupation-specific content may need to be provided as well in the use of computerized information for clinical decision-making or for service management.

Specialist Registrars will be rotated for a two-week period at least once a year through QEII (or other existing in-country site of Specialist skill, e.g. Maluti) to receive in-service training in areas of **clinical specialization** as required for the hospitals where they serve.

5.4.1.2 Nursing

5.4.1.2.1 Nursing Officers

The expressed demand for in-service training by Nursing Officers in the HR Needs Assessment was relatively limited. This no doubt reflects the fact that NOs have had very little opportunity for in-service training in the past, and thus see that their greatest opportunity exists within the substantive post-basic content areas. The most frequently cited areas of in-service training desired by NOs are **IT**, **teaching skills**, **IMCI (patient care)** and **health education**.

The skills assessment suggests that NOs in a clinical setting are less likely to need general training in IT as they are training in **data entry and processing** – a skills area both the professional assessment team and the NOs deemed to be very deficient[20]. Given that this is a core skill area that impacts on clinical record management, the management of diagnostic procedures and results, and duty roster management, it will be accorded priority in the in-service training program for NOs.

[20] Recall from the HR Needs Assessment that "very deficient" means that that over half of the staff members in the designated occupation have no skills or knowledge in the specified skill area and therefore require complete training to develop the core skills or knowledge.

Other skill areas that both the professional assessment team and the NOs agreed are somewhat deficient[21] are **leadership**, **supervision**, and **teaching**. The professional assessment team also concluded that NOs are somewhat deficient in the area of **inventory management** – a skill required particularly for Nurse Clinicians who are responsible for overall management of the health centers.

A number of these skill areas will be amenable to generic in-service training offered to a range of occupations. These include teaching skills, inventory management, health education, leadership, supervision, and IT. Data entry and processing and IMCI training will be specifically designed for different institutional levels, and may need to be differentiated as well by the type of nurse being trained.

Enrollment in any of these courses will be based upon their relevance to the individual officer's current posting. For example, it will not be cost-effective to train NOs in IT who do not work in locations and jobs where computers are used. Advancements in this field are so rapid that what is learned one year will likely be somewhat obsolete the next.

Priority for enrollment in in-service courses will be given to Nurse Clinicians since they are one of the keys to enhancing the quality of service provision at the primary health care level.

5.4.1.2.2 Nursing Sisters

As in the case of NOs, the demand by Nursing Sisters for in-service training is much more limited than for substantive post-basic training. None-the-less, the most frequently cited areas of in-service training desired by NSs are in the areas **counseling** and **IT**.

Information technology and **data entry and processing** are skill areas that both the professional assessment team and the NSs deemed to be very deficient.

Other skill areas that both the professional assessment team and the NSs agree are somewhat deficient are **supervision**, **teaching**, **communication**, **personnel management**, and **leadership**.

Each of the deficient skill areas and areas of in-service training demand will be provided as part of a generic in-service training program offered to a range of occupations.

Given that many of the Nursing Sisters will be upgraded to Nursing Officer status, some of these topics will be addressed within substantive training program. This will particularly be the case for the Nurse Clinicians who are trained in-country. To the extent that the Clinical Nurse training program is also implemented in Lesotho, it too should place emphasis on these areas of skill deficiency.

5.4.1.2.3 Nursing Assistants

Demand for in-service training by NAs is higher than for NOs and NS, accounting just under 1/3 of the total training demand among those in this occupation. The most frequently cited areas of in-service training desired by NAs are **counseling**, **TB**, and **IMCI**.

[21] "Somewhat deficient" means that over half of the staff members in the designated occupation have some knowledge or skill level but do not satisfy the minimum competency threshold and therefore require additional training to strengthen core skills or knowledge.

Counseling skills should be provided as part of a generic in-service training program offered to a range of occupations, though specific content for NAs in the area of HIV/AIDS counseling is also warranted. Both TB and IMCI training should be specifically designed for the institutional level where it is to be provided, differentiated by level of nurse being trained.

5.4.1.3 Mental Health

One of the keys to expanding mental health service provision will be to develop an in-service continuing education course for all primary health care providers in basic mental health.

Mental Health Nurses also express considerable demand for in-service training in the areas of management and HIV-AIDS counseling. This latter reflects the substantial increased mental health burden caused by the epidemic and is a domain of training that can be offered as part of a generic in-service training program offered to a range of occupations.

5.4.1.4 Oral Health

The training of Chairside Assistants and Oral Health Assistants will be undertaken through structured 3-month in-service training programs offered through the national Continuing Education Program. Given the number of Oral Health Assistants who will need to be trained (n=165), it is recommended that this course be developed and implemented on an outsourced basis and then integrated into the CEP through at training of trainers course. The Chairside Assistant training should be offered in the same way, though the numbers required are fewer (n=17).

Future training of Chairside Assistants and Oral Health Assistants could then be undertaken on an as-needed basis through the CEP.

5.4.2 Allied Health Service Occupations

5.4.2.1 Orthopedics

There is relatively little expressed demand for in-service training among Orthopedic Technologists or Technicians[22]. What in-service training is demanded is in the area of administration and management, which, to the extent it is offered, can be provided through a generic in-service course offered as part of the CEP.

5.4.2.2 Rehabilitation

The training of Physiotherapy Assistants will be undertaken through a structured 3-month in-service training program offered through the national Continuing Education Program. Twenty seven (27) Physiotherapy Assistants need to be trained in this way. In order to develop training capacity in this technical domain and in order to expedite the training and deployment of Physiotherapy Assistants, it is recommended that this course be developed and implemented on an outsourced basis and then integrated into the CEP through a training of trainers course.

[22] Most training desires are in the substantive post-basic domain. See Table 54 on page 5-49.

5.4.2.3 Radiography

The training of Radiographic Assistants will be undertaken through a structured 3-month in-service training program offered through the national Continuing Education Program. Thirty four (34) Radiographic Assistants need to be trained in this way. In order to develop training capacity in this technical domain and in order to expedite the training and deployment of Radiographic Assistants, it is recommended that this course be developed and implemented on an outsourced basis and then integrated into the CEP through a training of trainers course.

5.4.3 Technical Support Service Occupations

5.4.3.1 Pharmacy

The Needs Assessment revealed that there is considerable demand by all occupations within this cadre for training in **computers and information technology**. There is also considerable demand by Pharmacy Technologists and Technicians for further training in **pharmaceutical supplies management** (stores management, drug supply management, and procurement). The former will be provided as part of a generic in-service training course offered through the CEP for relevant occupations. The latter should be developed as a specialized in-service course that is offered not only to pharmacy staff but also to frontline health staff who are responsible for inventory management as one of the facets of their job.

5.4.3.2 Laboratory

Then Needs Assessment revealed that nearly one third of laboratory professionals are seeking training in **computers and information technology** and **biomedical informatics**. There is also considerable demand by Laboratory Technologists and Technicians for further training in **laboratory management**. Each of these can be provided through a generic in-service training offered as part of the CEP.

5.4.3.3 Biomedical Engineering and Estates Management

The Needs Assessment revealed that there is a wide range of training desired by Technical Officers and Technicians. Much of the training is in technical areas related to the biomedical equipment / systems that they are responsible for maintaining and repairing such as **refrigeration**, **electrical, boilers, EEG machines, mechanical, sound** and **solar**. There is also considerable demand for training in the area of **computers and information technology / computer repairs**. Finally, there is demand for training in the areas of **management** (general and specifically for maintenance systems), and more specifically in the area of **Total Quality Management**.

It is recommended that a specific program of in-service continuing education be developed for Technical Officers and their support staff on an outsourced basis and then be integrated into the CEP through training of trainers. In addition generic training in management can be provided as part of general CEP training for relevant occupations.

5.4.4 Special Health Service Occupations

5.4.4.1 Nutrition

The training of Nutrition Assistants will be undertaken through a structured 3-month in-service training program offered through the national Continuing Education Program. Thirty eight (38) Nutrition Assistants need to be trained in this way. In order to develop training capacity in this technical domain and in order to expedite the training and deployment of Nutrition Assistants, it is recommended that this course be developed and implemented on an outsourced basis and then integrated into the CEP through a training of trainers course.

5.4.4.2 Health Education

The training of Health Education Assistants will be undertaken through a structured 3-month in-service training program offered through the national Continuing Education Program. Fourteen (14) Health Education Assistants need to be trained in this way. In order to develop training capacity in this technical domain and in order to expedite the training and deployment of Health Education Assistants, it is recommended that this course be developed and implemented on an outsourced basis and then integrated into the CEP through a training of trainers course.

5.4.4.3 Environmental Health

The training of Health Assistants will be undertaken through a structured 3-month in-service training program offered through the national Continuing Education Program. One hundred thirty seven (137) Health Assistants need to be trained in this way. In order to develop training capacity in this technical domain and in order to expedite the training and deployment of Health Assistants, it is recommended that this course be developed and implemented on an outsourced basis and then integrated into the CEP through a training of trainers course.

5.4.5 Social Welfare Occupations

5.4.5.1 Social Work

The training of Social Welfare Auxiliaries will be undertaken through a structured 3-month in-service training program offered through the national Continuing Education Program. One hundred eighty five (185) Social Welfare Auxiliaries need to be trained in this way. In order to develop training capacity in this technical domain and in order to expedite the training and deployment of Social Welfare Auxiliaries, it is recommended that this course be developed and implemented on an outsourced basis and then integrated into the CEP through a training of trainers course.

5.5 Feasibility

5.5.1 Necessary Conditions for Closing the Supply Gap

Closing the substantial supply gap for health and social welfare sector personnel will be an enormous challenge that will only be remotely feasible if a number of structural and management-related reforms are instituted as a matter of priority. These structural and

management-related reforms are a necessary condition for closing the supply gap since they offer the only realistic strategy for producing and deploying adequate numbers of staff capable of satisfying the demand for services in a quality manner.

There are a number of necessary (thou insufficient) conditions for closing the supply gap in a cost-effective way.

On a structural level, the latest reforms specified with respect to the career ladders for nursing and medical doctors need to be fully reviewed and discussed with and adopted by the medical and nursing councils. These changes to the medical and nursing career ladders will enable the sector to devolve lower-level technical and non-technical responsibilities down the career ladder in a manner that minimizes the need for the most highly trained and costly occupations while safeguarding and actually enhancing the overall quality of care offered to patients in Lesotho.

- Restructuring the career ladders for the medical and nursing cadres

Though there should be some scope for a final round of modifications to these revised career ladders, the evidence presented in the *Health Sector Human Resources Needs Assessment* makes clear that the objectives of the new Heath and Social Welfare Policy cannot be attained without a willingness to realign work responsibilities and workload as envisaged. As such, it is recommended that one last review of the proposed structural reform to the medical and nursing career ladders be undertaken prior to producing the 3-year rolling Health and Social Welfare Training Plan for FY 2005/06 through FY2007/08[23].

On a management level, the reforms required include the introduction of effective loss abatement strategies, including most importantly the introduction of vastly improved career management that "ensures that employees are placed in positions/jobs that are most relevant to their qualifications" (*National Policy on Strategic Development, Utilization and Retention of Human Resources,* p. 13), thus effectively matching skills and qualifications of jobs and minimizing the substantial losses in human capital investment that have occurred in the recent past within the health sector.

- Vastly improved career management as an integra part of a strengthened loss abatement strategy

The loss abatement reforms must also include tangible improvements to the schemes of service for health and social welfare professionals and a reinforcement of incentives for the retention of staffs in jobs that are qualitatively less attractive either because of the risks involved in the work or the geographic location of the posting. These reforms must include pecuniary enhancements to the existing benefits package as well as investments in enhancing the physical and social working environment. This should not only involve investments in improved workplace infrastructure but also the institution of measures that enhance staff safety (particularly for women and for personnel working in remote areas). Safety can be improved both through measures designed to secure the workplace and staff housing, but also to provide reliable staff transport. This latter is particularly critical since many health personnel are women who are at particular risk when getting out late from work[24].

- Substantive improvement in the schemes of service

Among the pecuniary incentives that will need to be introduced are preferential remuneration for scarce skills (see *Scarce Skills Policy* of the Government of Lesotho), as well as a new accelerated grade/step incrementing policy for personnel employed in

- Job regarding to eliminate pay inequities

[23] The current career ladder recommendations reflect the input obtained from the National HR Development Planning Workshop held in Maseru in 2004.

[24] Providing transportation will also relieve some of the time pressure on female employees who still assume a disproportionate share of the domestic responsibilities in their homes.

relatively high-skilled (costly and/or scarce) occupations with limited career advancement opportunities. This will best be achieved as part of a general job regarding exercise that will have the added benefit of addressing prevailing perceptions that there are job/pay inequities (i.e., that people with the same qualifications are paid at different grade levels).

- Introduction of preferential remuneration for scarce skills
- Grade/step accelerator for jobs with limited caree advancement opportunity

Improvements to the schemes of service should also include the provision of on-call allowances to compensate staff for overtime and repeated night duty.

The creation of a national Continuing Education Program that provides regular in-service training opportunities for all personnel will also be a key to reducing job dissatisfaction and thus enhancing retention.

- Development of a national Continuing Education Program (CEP)

Finally, the loss abatement strategies need to include measures designed to manage the brain drain among Basotho working in highly skilled occupations where there has been substantial attrition out-of-country. Efforts should be made to establish conventions with "pull" countries through which a regular supply of Basotho personnel are provided on a fixed term contractual basis in return for financing by the "pull" country not only of the salary of the employee but also a contribution to the Government of Lesotho to cover contributions to the employees' retirement benefits while out of country, for the cost of replacing the employees within the Lesotho health sector (both the cost of substantive and continuing education), and potentially for upgrading the quality of care offered in Lesotho through the provision of short term reciprocal service arrangements (fielding of specialists for example for short term work assignments at QEII or elsewhere and/or for training workers in Lesotho)[25]. Basotho personnel participating in this managed "brain drain" scheme would be accorded an official sabbatical that enables them to retain their employment status and benefits so long as they return as required at the end of the fixed term. To the extent that the scheme enhances the skills of the participating personnel, arrangements should be made to ensure that they are appropriately promoted upon return to public service.

- Regulating the market for out-of-country employment (brain drain)

A final loss abatement strategy that will need to be instituted is the selective job-specific extension of the mandatory retirement age to 65. The *Health Sector Human Resources Needs Assessment* revealed clearly that there is a high level of demand among retirees to continue working in the public sector and that the current retirement age robs the sector of some of its most experienced personnel.

- Selective extension of mandatory retirement age

In addition to these structural and management related reforms, closing the supply gap will necessitate substantive improvements in the capacity of the existing training institutions engaged in pre-service and post-basic education. The greatest challenge relates to improving the capacity and performance of NHTC, though there is also need to strengthen and potentially diversify the training offered at CHAL institutions. The particular case of the Nursing School at St Josephs will also need to be thoroughly reviewed given the continued apparent inadequacies in the number of patients to support effective clinical education. The demand being placed on QEII by CHAL schools needs to be addressed since it is crowding out capacity that is required for student at NHTC.

- Substantive improvement to capacity o national training institutions

[25] Twinning agreements between "pull" country hospitals or training institutions and Basotho hospitals or training institutions should also be explored as part of this arrangement.

Expanding the capacity of NHTC and improving its performance will require implementing the reforms and recommendations articulated in the Mandala report that have been agreed to by the MOHSW. This will entail restructuring the institution to operate on an autonomous basis, though in conformity with the production requirements established by the Government as expressed in the HRDSP and 3-year rolling Health and Social Welfare Training Plan. Enhancing the capacity of NHTC will also require investing in upgrading and expanding the infrastructure in accordance with the plans articulated under the *Lesotho Health Study Phase II Report* (MCDI, 2001). There will also be a need to increase the number of adequately trained faculty and to ensure that they are adequately compensated. This is a domain where the autonomy provisions should enhance the capacity of the institution to recruit and retain qualified faculty. Filling the supply gap in teaching staff in the short run may require the recruitment of non-nationals to fill required educator positions or the provision of educators under a bilateral agreement with donor countries.

- Implementation of Mandala report reforms for NHTC
- Refurbish and expand NHTC infrastructure
- Increase number of trained faculty

Given the size of the supply gap every effort will need to be made to retain and expand on existing capacity and to focus on the development of the most urgently needed occupations – those that will ensure adequate coverage of PHC services as well as cost-effective and qualitatively enhanced referral capacity.

- Priority to development of PHC staff with balanced development of HR for improved quality referral services

Even with these enhancements to national training capacity, there will remain a need for substantial out-of-country training of the smaller occupations whose overall numbers do not warrant the development of an in-country production capacity. Though the concept of Lesotho serving as a regional training venue for some of these smaller occupations may seem attractive (and might be feasible through production agreements with Swaziland etc), given the scale of the supply deficit that will need to be overcome in the larger occupations (e.g. General Nurses etc), it is strongly recommended that efforts be directed initially at enhancing capacity and performance for the production of these larger occupations.

- Out-of-country training for smaller occupations

The continued dependence on substantial quantities of out-of-country training makes it absolutely imperative that substantive improvements be made to the existing bonding arrangements and/or their enforcement. Among the innovations that should be evaluated is the introduction of a pre-educational grant work obligation that requires personnel seeking out-of-country training to training to serve in hard-to-fill posts (e.g. those located in more remote areas of the country)[26].

- Improved enforcement of bonding arrangement

In addition to needing to finance out-of-country training, it will also be necessary to expand the hiring of non-nationals as a highly cost-effective strategy for closing the supply gap for occupations that are highly trained, costly and susceptible to atttrition. As revealed in the *Health Sector Human Resources Needs Assessment*, Lesotho is in an extremely advantageous labor market situation where it is able to attract a ready supply of non-nationals who are seeking employment in South Africa but require time to pass the South African licensing examinations. This labor market phenomenon permits Lesotho to attract and hire qualified personnel in occupations that are costly to produce and are highly susceptible to the brain drain. In order to maximize the advantages from this situation, the MOHSW will need to (i) strengthen its capacity to screen foreign workers

- Expanded hiring of non-nationals for highly trained occupations that are very costly to produce and susceptible to the brain drain

[26] Similar pre-educational service obligations should also be evaluated for in-country training.

(i.e., ensure that they have the requisite qualifications from reputable institutions), (ii) fast-track their appointment subject to compliance with public service regulations in a flexible manner that enables the sector to evaluate and offer contracts on a case-by-case basis when candidates present themselves, (iii) increase the duration of the contracts with the inclusion of an end-of-assignment bonus given only upon satisfactory completion of the contract for each month of service provided, and (iv) moderately and selectively enhance the salary and benefit package offered[27].

- Improved recruitment within the sector

In addition to the aforementioned structural and management-related reforms, the development of a national Continuing Education Program to upgrade the skills of existing personnel, the investments in enhancing pre-service and post-basic training capacity, and the continued reliance on hiring of non-nationals for certain occupation, closing the supply gap will require improving recruitment within the sector. Unless hiring rates from national training institutions can be appreciably increased through the creation of requisite posts and the streamlining of the recruitment process in conformity with the new HR management procedures[28], investing in human resources development will be insufficient to close the supply gap.

5.5.2 Budgetary Implications

The total estimated human resource investment cost of closing the current supply gap for health and social welfare personnel requiring substantive pre-service or post-basic training is roughly Maloti 222 million (approximately US$ 36 million) unadjusted for inflation. This is essentially equivalent to the total Ministry of Health and Social Welfare recurrent budget for FY 03/04.

Table 63: Estimated Total Costs of Human Resources Development to Close Current Supply Gap

Cadre	Trainees	Training Cost (Millions of Maloti)
Nurses	1,352	15.9
Medical Doctors	166	116.4
Oral Health	47	15.3
Social Welfare	18	8.4
Environmental Health	-	-
Laboratory	73	17.5
Pharmacy	96	16.4
Radiography	37	9.3
Biomedical Engineering & Estates Management	8	2.8
Nutrition	12	4.2
Rehabilitation	17	7.5
Health Education	11	3.9
Orthopedics	6	4.2
Mental Health Specialists	-	-
Total	1,843	221.8

[27] The Health Sector Human Resources Needs Assessment suggested that the pay differential with South Africa is not that large and that non-nationals could be enticed to stay on even after being licensed for work in South Africa with a moderate enhancement to the level of pay and/or benefit package.

[28] See the new *Ministry of Health and Social Welfare Human Resources Policy and Procedure Manual* (2004).

The estimated total incremental recurrent costs of the additional personnel required to close the supply gap is estimated to be roughly Maloti 90 million (approximately US$ 14.5 million) unadjusted for inflation. As revealed in Table 64, financing this incremental recurrent cost would require a doubling of the Personnel Emoluments budget of the MOHSW relative to its value in FY 2003/04 or a 37% increase in the total MOHSW budget.

Table 64: Total Cost of Financing the HR Supply Gap

	Supply		Requirements		Gap		Supply Cost		Requirements Cost		Gap	
Occupation	N	Col %	N	Col %	N	Col %	Maloti Millions	Col %	Maloti Millions	Col %	Maloti Millions	Col %
Nurses	1,064	71.0%	1,980	55.7%	(916)	44.5%	36.31	57.6%	80.43	52.5%	(44.12)	48.8%
Medical Doctors	111	7.4%	277	7.8%	(166)	8.1%	12.09	19.2%	28.84	18.8%	(16.76)	18.5%
Oral Health	14	0.9%	243	6.8%	(229)	11.1%	0.69	1.1%	5.58	3.6%	(4.90)	5.4%
Social Welfare	44	2.9%	243	6.8%	(199)	9.7%	1.88	3.0%	6.07	4.0%	(4.19)	4.6%
Environmental Health	60	4.0%	198	5.6%	(138)	6.7%	2.29	3.6%	5.71	3.7%	(3.42)	3.8%
Laboratory	75	5.0%	148	4.2%	(73)	3.5%	4.01	6.4%	8.11	5.3%	(4.10)	4.5%
Pharmacy	51	3.4%	145	4.1%	(94)	4.6%	2.33	3.7%	6.94	4.5%	(4.61)	5.1%
Radiography	11	0.7%	83	2.3%	(72)	3.5%	0.42	0.7%	3.04	2.0%	(2.62)	2.9%
Biomedical Engineering & Estates Management	28	1.9%	75	2.1%	(47)	2.3%	0.83	1.3%	2.21	1.4%	(1.38)	1.5%
Nutrition	4	0.3%	54	1.5%	(50)	2.4%	0.12	0.2%	1.63	1.1%	(1.51)	1.7%
Rehabilitation	12	0.8%	53	1.5%	(41)	2.0%	0.39	0.6%	1.62	1.1%	(1.22)	1.4%
Health Education	10	0.7%	35	1.0%	(25)	1.2%	0.43	0.7%	1.56	1.0%	(1.12)	1.2%
Orthopedics	8	0.5%	14	0.4%	(6)	0.3%	0.34	0.5%	0.60	0.4%	(0.26)	0.3%
Mental Health Specialists	7	0.5%	8	0.2%	(1)	0.0%	0.87	1.4%	0.99	0.6%	(0.12)	0.1%
Total	***1,499***	***100.0%***	***3,556***	***100.0%***	***(2,057)***	***100.0%***	***62.99***	***100.0%***	***153.32***	***100.0%***	***(90.33)***	***100.0%***
% of MOHSW FY 2003/04 PE Budget							*74%*		*180%*		*106%*	
% of MOHSW FY 2003/04 Total Budget							*26%*		*62%*		*37%*	

6 Strategic Plan

6.1 Introduction

Closing the large supply gap in health and social welfare personnel will be an enormous challenge that will be difficult to achieve within the next 20 years even if the adverse labor market conditions identified in the *Health Sector Human Resources Needs Assessment* are successfully redressed and the career structures are rationalized as prescribed in this HRDSP. Projections for the nursing cadre alone indicate that training intake levels will need to reach 325 per year in order to close the supply gap by FY 2024/2025 (i.e., in 20 years). This represents an enormous increase in productive capacity relative to current levels and it is not at all clear that this can be achieved. Moreover, even if it is achieved, it will be impossible to close the supply gap if the management-related constraints identified in section 5.5.1 above are not adequately resolved or if attrition due to HIV-AIDS and other exogenous labor market factors remain at their current levels or increase.

Discussions with the Ministry of Public Service suggest that financing the required new posts will not be the binding constraint to closing the supply gap *so long as the MOHSW makes concerted progress in improving its use of existing trained staff through improved career management and addresses the inefficiencies associated with the large current outlays on non-technical staffs* – both issues that are addressed in this Strategic Plan. The potential for closing the supply gap will be much more a function of the ability of the sector to produce the requisite human resources.

In light of these realities, the Strategic Plan presents a human resources development strategy focusing on the next ten years that seeks to (i) improve the efficiency of the current labor supply, (ii) redress the labor market constraints identified in section 5.5.1, (iii) enhance in the national training capacity and performance, and (iv) place emphasis on the development of human resources that will expand the coverage of primary health care while simultaneously enhancing the quality of referred care and social welfare services through a balanced development approach.

6.2 Implementation Plan

6.2.1 Improving the Efficiency of the Prevailing Labor Supply

The *Health Sector Human Resources Needs Assessment* revealed that non-technical support personnel account for one third of the MOHSW labor force - a level that far exceeds the share within the CHAL sector and that has raised real concerns within the Ministry of Public Service. The needs assessment argued that the relative efficiency of these non-technical support personnel (a high percentage of whom are Ward Attendants) depends critically on the job responsibilities they are ascribed and whether or not they have been adequately trained for these job responsibilities. The evidence suggests that the inefficiency observed in the public health sector is not so much a function of the number of non-technical support staff as it is the fact that they have been assigned service functions for which they have received no training. The reality is that because of the supply gap among technical service personnel (particularly nurses), Ward Attendants and

other non-technical support personnel are given service responsibilities that would otherwise be performed by technical staff (at least under their current job descriptions) in the default setting. Many of these responsibilities are deemed to be completely suitable for non-technical support staff **if** they have received adequate training. In fact, officially transferring/devolving responsibility for these tasks to trained non-technical support staff from higher level technical personnel will not only enhance efficiency by minimizing the cost of producing these services at an acceptable standard of quality, but will actually be the only feasible and cost-effective way of closing the supply gap for technical occupations.

In order to improve the efficiency of the prevailing health and social welfare labor supply and in order to position the sector to feasibly and cost-effectively closing the enormous supply gap for technical occupations, it will be necessary to:

1. Restructure the career ladders for cadres with a large quantitative supply gap that is driven in part by an appreciable non-technical workload. Cadres that have these characteristics will by necessity need to devolve non-technical work responsibilities (i.e., those that do not have a direct bearing on patient outcomes), as well as certain promotive responsibilities to "Assistant" level occupations that are trained on-the-job through a structured in-service, continuing education program. Cadres that have these characteristics include:
    a. Nursing (a supply gap of 916 personnel and appreciable workload in non-technical patient care domain such as patient feeding, cleaning, etc.);
    b. Oral Health (a supply gap of 229 personnel and appreciable workload in the promotive domain and in relatively low skill palliative procedures such as tooth extractions);
    c. Social Welfare (a supply gap of 199 personnel and appreciable workload in outreach, problem identification and service coordination that could be initiated by "Auxiliaries" (under the supervision of Social Workers) who are trained on-the-job and through in-service education);
    d. Environmental Health (a supply gap of 138 personnel and appreciable workload in promotive domain, the content of which can be taught effectively in short in-service courses); and,
    e. Pharmacy (a supply gap of 94 personnel and appreciable workload in inventory-related domain that do not require technical skills particularly if carried out under the supervision of trained personnel);
2. Establishing a structured national Continuing Education Program that adequately trains all "Assistant" level non-technical support occupations to perform enhanced service functions that minimize the need for higher level and more costly technical personnel. The CEP should offer regular (at least every other year) opportunities for refresher training.
3. Institute strengthened supervisory procedures for these "Assistant" level occupations. This will entail adding specific supervisory responsibilities to technical staffs within these cadres and providing adequate training for these

supervisors through enhancements to the substantive pre-service and post-basic curricula as well as through generic in-service courses offered through the CEP.

4. Re-grading jobs such as the Ward Attendant, Social Welfare Auxiliaries, Oral Health Assistants, Environmental Health Assistants, and Pharmacy Assistants[29] whose productivity has been enhanced through in-service skills upgrading.
5. Undertake a critical review of the desired roles and work responsibilities of the Oral Health Assistant and Health Assistant who are slated to be deployed at the health center level vis-à-vis the role and responsibility of the Nursing Assistant who will revert to a promotive role under the newly restructure nursing career ladder to determine whether or not each of these occupations are required or whether a multi-tasking occupation would feasible and more cost-effective. Particular care should be taken to ensure that the emphasis on new service delivery articulated in the Health and Social Welfare Policy are achieved including in such domain as health education and nutrition / nutrition supplementation.
6. Introduce a vastly improved career management system under the oversight of the Human Resources Department of the MOHSW that includes a revised *Posting Policy* and *Human Resources Development Policy* that ensure that the first strategy for closing the supply gap (i.e., before financing the training of new workers) is the re-deployment of qualified personnel to jobs for which they have the requisite technical training and skills. In all cases where this is potentially applicable, the total needs of the sector will need to be assessed to ensure that re-deployment does not undermine service effectiveness or coverage in other domain of labor scarcity. This proviso should, however, be applied on a case-by-case basis and should not negate the overall objective of maximizing the potential redeployment of qualified personnel as a first strategy for closing the supply gap. Among the occupations for which this strategy should be considered are:
    a. Mental Health Nurses (only 20% of those currently employed with this specialist training are currently deployed in the mental health sector);
    b. Nurse Anesthetists (only 43% of those currently employed with this specialist training are currently deployed as Nurse Anesthetists)[30]; and,

[29] The recent pharmacy sector review provides relatively little guidance on the type of staffing required, but it is clear that the cadre itself is desirous of substantially upgrading its complement of workers, deploying a large number of pharmacists who would be charged even with routine tasks such as relatively high-volume and repetitive mixing and packing of medications, inventory stock taking and record keeping etc. The HR Development Plan (see Table 36) identifies the need for a substantial number of Pharmacy Technicians to carry out many of these functions. Pharmacy Technicians require a 3-year training from NHTC and so it will not be possible to close the supply gap in the short run. It is recommended, therefore, that Pharmacy Assistants be deployed in the interim after receiving a structure 3-month in-service training to fill the gap for Pharmacy Technicians.

[30] This may be a case where the training of Nurse Anesthetists exceeds the requirements. The total requirement for this occupation is 58 throughout the country – a number that most likely does not justify a national training program, at least one that accepts classes on a regular basis. The lack of need for this training program is evidenced by the fact that only 3 classes of 10 students and one class of 6 students have been admitted to NHTC since 1993. No classes were admitted in 5 of the 10 years between 1993 and 2003.

c. Nurse Clinicians (only 61% of those currently employed with this specialist training are currently deployed as Nurse Clinicians).

6.2.2 Improving Equity of Coverage of the Prevailing Labor Supply

The *Health Sector Human Resources Needs Assessment* revealed that there are regional disparities in the supply of human resources with the Southern Region being the least well covered. Though some of this disparity is warranted because of the concentration of tertiary care, training and administrative institutions in the capitol district, there are disparities in the primary health care human resource coverage that cannot be justified on these grounds.

In order to redress these inequities and ensure that minimum acceptable human resource coverage levels are achieved, it will be necessary to:

1. Accord priority to the production and deployment of personnel required for primary health care and frontline social welfare services.
2. Develop a *Posting Policy* that ensures that staffs are distributed in a geographically equitable manner and that personnel working in occupations that are required at the primary care and 1st level referral levels are rotated (transferred) on a regular basis after fixed term (e.g., 3-year) assignments, or are adequately compensated through accelerated grade/step salary increments and mountain allowances for longer term assignments. The *Posting Policy* should also institute mandatory deployment to primary care settings for a fixed term assignment as a pre-condition for promotion and as a pre-condition for receiving Government funding for post-basic training.
3. Institute a gate-keeping function within the Human Resources Department that ensures that all deployment or re-deployment of personnel adhere to the guidelines of the *Posting Policy* and thus conform to the strategic objectives of the sector. Particular attention will need to be given to developing and adapting these systems and procedures to the requirements of a decentralized health system. Care will also need to be taken that there is sufficient technical input both from the affected cadres as well as from health systems planners and managers in the articulation of the *Posting Policy* and in its implementation or enforcement. The creation of an ombudsman function (either an individual or preferably a committee) within the MOHSW to hear and adjudicate on controversial or contentious cases is advisable. This role should be accommodated within the Employee Relations Section of the MOHSW Human Resources Department. Assistance in developing and instituting this capacity should be secured.

Given the enormous supply gap for other nursing occupations, it is recommended that these smaller occupations be trained on an outsourced basis (probably within the region). A similar situation pertains to Ophthalmic Nurses as well as other smaller non-nursing occupations.

6.2.3 Institution of Loss Abatement Strategies

The *Health Sector Human Resources Needs Assessment* revealed that many of the more highly skilled and costly to produce occupations have been subject to very high loss rates that have offset the potential gains from human resources development and created a situation where future supply levels are predicted to decline (in some cases precipitously). Though considerable national concern has been voiced already about the role that the brain drain plays in contributing to attrition and thus the overall loss rate among these skilled occupations, the *Health Sector Human Resources Needs Assessment* revealed that in many cases other management-related factors over which Lesotho has direct control are contributing even more to overall losses. Paramount among these management-related factors is the excessively high occupational turnover that has been permitted – i.e., the re-deployment of personnel to posts outside the occupation for which they have received substantive pre-service or post-basic training. In some cases, this turnover has been the result of an explicit strategy to upgrade a given cadre by offering successive post-basic training opportunities for personnel to attain the highest level diploma or in some cases degree status. In too many cases these successive training opportunities have come within very short time intervals that have limited the duration in post at lower levels and thus minimized the return to investment on the part of the Government which has funded this education.

In other cases, the excessive occupational turnover has been the result of the absence of any type of objective career management system that offers the opportunity for advancement only after weighing the cost-benefit to the sector as a whole.

In too many cases the turnover has involved re-deploying personnel to non-technical, management-related jobs that represent a virtual complete loss in technical capacity to the sector. These types of re-deployment have invariably occurred because management posts offer the only means by which technical staff can achieve an increment in the salary grade they are working at.

The result of this excessive occupational turnover has been an inefficient allocation of scarce human capital investment resources, a shortage of frontline workers, and a tendency to concentrate staff at the higher level institutions that are not providing primary care or community-based services. In other words, the absence of an effective career management system that is able to regulate the deployment of staff has propagated a labor supply that contravenes the objectives of the *Health and Social Welfare Policy.*

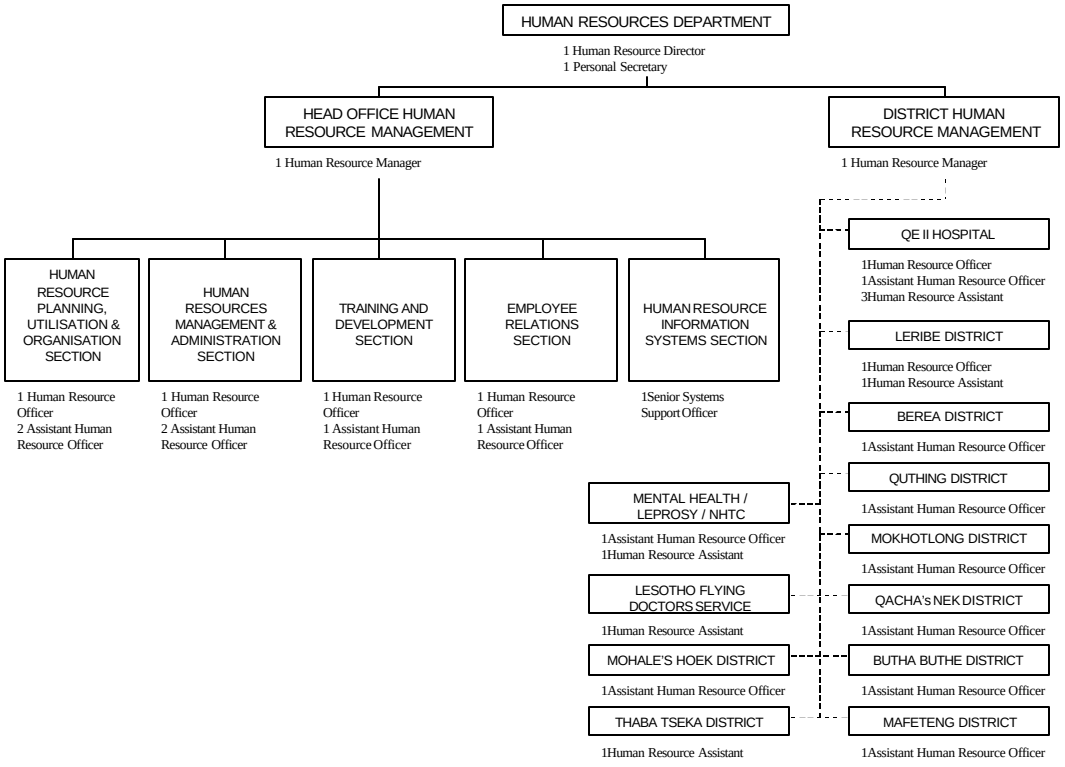
None of this negates the importance of attrition as a contributor to overall human resources within the sector. The *Health Sector Human Resources Needs Assessment* revealed a pervasive high level of job dissatisfaction that is correlated significantly and positively with the likelihood of leaving the sector either for work out-of-country or for work outside the sector within Lesotho. Job dissatisfaction in turn is shown to be a direct function of inadequacies in remuneration and working conditions, inadequate training opportunities and a sense that personnel do not have the requisite skills to do their job, inadequacies in supervision, and lack of career advancement opportunities. Addressing these areas of job dissatisfaction will need to be a key component of the Strategic Development Plan for human resources.

6.2.3.1 Improved Career Management

A vastly improved career management system needs to be developed and instituted within the MOHSW and CHAL. Given the complexity of the issues involved and the lack of domestic models for the types of systems and procedural improvements that will be required, external technical assistance will be sought to help institute improved career management.

The improved career management system and procedures will include:

1. The Human Resources Management and Administration Section of the HRD (see organogram below) will need to be strengthened to oversee career management within the sector.



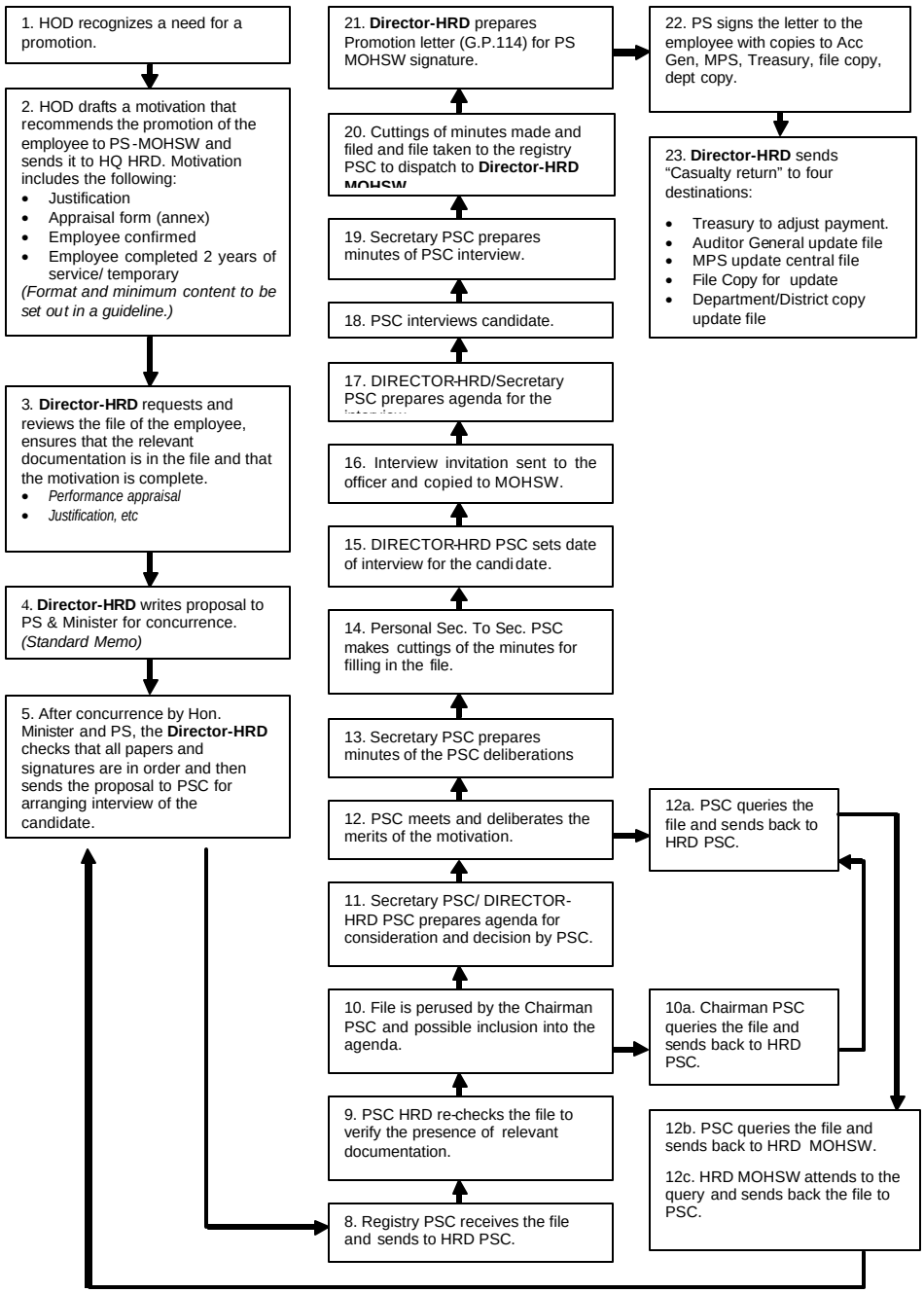
Source: Human Resources Department Evaluation Report (MCDI, 2002)

2. The development of a *Posting Policy* that will define the criteria for promotion or re-deployment outside the occupation. The promotion criteria should include among others:
    a. Duration of assignment requirements for the occupation from which the individual is seeking to leave (i.e., is currently work in) that depends upon the number of years of training financed by Government; and,

b. Occupational turnover rate targets that will determine the number of potential promotions or re-deployments that can occur within a fixed period of time (e.g. each year, within a five-year period). This will ensure that the needs of the sector are given precedence over the aspirations of the individual while still providing opportunities for career advancement.

3. Implementation of the new human resources policies and procedures related to the direct promotion of an employee as reproduced below.

Figure 7: Flow chart of procedure for direct promotion



Source: Ministry of Health and Social Welfare Human Resources Policies and Procedures Manual (MCDI, 2004)

4. Review and finalize the revised career ladders prescribed in this HRDSP that seek to expand the avenues for career advancement within the medical, nursing, and laboratory cadres and institute the steps necessary to create the new occupations identified.
5. Institute measures to eliminate structural impediments to career advancement within a cadre such as the one that has existed for Nursing Assistants to aspire to become General Nurses.
6. Develop and introduce an accelerated salary grade/step incrementing policy for jobs that in relatively scarce, high skilled occupations that have limited career advancement opportunity as a means of retaining staff in post and minimizing the propensity to seek higher paying management-related jobs outside the occupation.

6.2.3.2 Minimizing Attrition

Systematic measures designed to minimize attrition (individuals leaving the sector) will be implemented. These will include:

1. Conduct a formal benefits review that is charged with recommending specific measures to eliminate inter-occupational, inter-jurisdictional, inter-institutional or other inequities. Among the inequities that will need to be addressed are:
    a. The current provisions of the CHAL SEFF agreement that restrict CHAL institutions to paying employees at the first notch of whatever salary grade they are in and instead allowing them to pay employees at levels that are commensurate with what they would be paid if they worked for Government.
    b. The Risk Allowance which currently is only extended to nurses working with psychiatric patients but should be extended to staff working with AIDS patients or others suffering from infectious diseases. A graduated Risk Allowance will allow for inter-occupational differences to be retained commensurate with the risks involved while eliminating structural inequities.
    c. The On-Call Allowance which is currently only paid to Medical Doctors but which needs to be extended to all members of the patient care team who are required to work extra shifts to complement the services offered by the Medical Doctor.
    d. The Mountain Allowance which is currently only paid to staff working in Mokhotlong and Qacha's Nek but which should be extended to any staff working in remote highland areas. An explicit "remoteness" criteria will need to be developed and all facilities within the GOL and CHAL sub-sectors should be classified according to this remoteness criteria so that inequities in the Mountain Allowance can be eliminated.
2. Conduct a formal job grading/re-grading exercise that (i) eliminates pay intra-sectoral inequities between jobs/occupations with similar qualifications that are

paid differentially and (ii) ensures that graduated or preferential remuneration is paid for scarce skilled jobs. The latter conforms to the recommendations of the National Policy on the *Strategic Development, Utilization and Retention of Human Resources in Lesotho*. A comparison of the alternative quantitative and qualitative job grading methodologies is presented in Annex 13 and should serve as the basis for initiating work in this domain. MCDI has presented the Hay Grading System to the MOHSW under the auspices of the Lesotho Human Resources Consultancy as a possible approach for the Medical Doctor cadre.

3. Invest in improvements to the physical and social working environments for health and social welfare personnel. This will entail:
    a. Upgrading workplace infrastructure to ensure that workplace aesthetics are conducive to good productivity and are motivating to the workers.
    b. Ensuring that necessary workplace equipment and furniture is provided. This should include, as relevant, access to computers and other appropriate information technology.
    c. Ensuring that adequate communications systems are installed and available to ultimately include access to Internet connectivity as a means of communicating with headquarters, DHMTs etc and as a source of distance learning and resource acquisition.
    d. Enhancing the security of the workplace and of staff housing particularly in more remote locations where worker safety is of concern and where there are issues of safeguarding revenues generated from cost-sharing.
    e. Provision of suitable staff housing for all technical personnel particularly in health facilities located in outlying areas where suitable rental housing is not available. Provision of rental subsidies for staff residing in urban areas where adequate rental housing opportunities are available.
    f. Provision of reliable staff transport particularly for staffs working in evening shifts where there are legitimate concerns for staff welfare when traveling home after hours.
    g. Establish Employee Support Centers as recommended in the *National Policy on the Strategic Development, Utilization and Retention of Human Resources in Lesotho*. These centers should provide support services for employees and their families and should promote social cohesion and an "atmosphere free of political, religious, gender, disability, HIV/AIDS infection, family name, and other forms of discrimination (p.16)."
    h. Create a workplace where professional authority is recognized in technical matters that affect the performance of the institutions in their core functions (See *National Policy on the Strategic Development, Utilization and Retention of Human Resources in Lesotho*, p. 16).
4. Create opportunities for national experts to participate in Task Forces and in consulting assignments on remunerative basis without having to take official

leave of absence from work. (See *National Policy on the Strategic Development, Utilization and Retention of Human Resources in Lesotho*, p. 17).

5. Selectively extend the mandatory retirement age to 65 for high skilled jobs for which the existing supply gap cannot be filled by the production and recruitment of sufficient younger workers.
6. Institute a system for hiring particularly well qualified retirees for other jobs/assignments on a contract basis.
7. Develop and introduce systems and procedures for managing the brain drain and minimizing its negative impact on the sector. This should include:
    a. The introduction of sabbatical leaves for personnel working in affected occupations that will enable them to take a leave of absence for up to 2 years during each 10 years of employment without loss of civil service status, and a guarantee of being able to return to the job they have left or a suitable alternative. Where individuals on sabbatical have been deemed to have improved their skills due to a combination of work experience and/or education, the staff should be re-deployed to a job commensurate with the new skill/experience set and at an appropriately higher salary/grade/step.
    b. Negotiation and institution of a regulated out-of-country employment convention with a partner "pull" country that will guarantee the "pull" country a regular source of fixed term contract workers from Lesotho in return for the "pull" country paying both the salary of the worker and a premium to the Government of Lesotho to compensate it for the displacement costs associated with having to replace the worker on sabbatical and in order to cover the worker's retirement benefits. The agreement should also seek to obtain reciprocal service arrangements where experts from the "pull" country are fielded for short-term assignments in Lesotho either to provide specialist services or to offer short courses for Basotho. Twinning agreements between "pull" country institutions (hospitals or universities) and Basotho institutions should also be fostered.

6.2.4 Strengthening Substantive Training Capacity

The draft *National Policy on the Strategic Development, Utilization and Retention of Human Resources in Lesotho* states:

> [the] "selection of training programs and institutions shall be based first and foremost on the relevance of the courses offered to the national priorities and the credibility of the institutions under consideration; and secondly on the proximity of the training venue to the place of work…" (p. 11)

The Policy also states:

> "Training institutes shall be pro-active and flexible in designing appropriate, up-to-date courses that address national development needs…" (p. 11)

In order to achieve these national human resource policy objectives and to strengthen the capacity for substantive pre-service and post-basic training, the following steps will be undertaken with the HRDSP:

1. Revitalization of the MOSHSW Training Committee, to be renamed the **Human Resources Development Committee (HRDC)** to meet under the direction of the Director of Human Resources with representation from the office of the Director General of Health Services, the office of the Deputy Principal Secretary (in the capacity of overseeing all administrative management departments within the Ministry), the office of the Director of Primary Health Care, all training institutions (NHTC, NUL, CHAL, Lesotho Technical Institute and others…), the DHMTs, CHAL, and donor partners. The HRDC will be charged with:

    a. Overseeing the implementation and updating of the HRDSP and the production of a detailed rolling three-year Health and Social Welfare Training Plan based on the HRDSP which stipulates the annual intake levels for all courses and all occupations within the sector by training institution.

    b. Advising the Ministry (and the National Manpower Development Secretariat) on which courses should be offered and financed with public funds at which training institutions, and which courses should be sourced out-of-country and at which training institutions. A priority in this regard will be the stipulation that the NUL's BSc in Nursing be offered only to existing nurses as a means of supplying needed *scarce skills in specialist domain* within the sector, not of upgrading general nursing[31].

    c. Advising the Ministry on intake levels for all courses that should be financed by the Government[32].

    d. Monitoring training institution performance in accordance with newly defined quality assurance standards (see Step 2), recommending measures that will enhance performance and ultimately advising the Government on whether to continue sourcing training from particular training institutions if they persistently fail to conform to minimum acceptable quality standards. A Quality Assurance Sub-Committee of the HRDC should be established to ensure that this function is performed in a consistent and timely manner.

    e. Overseeing the periodic review of all curricula to ensure compatibility with the objectives of the HRDSP. There is an immediate need for a

[31] The practice of admitting candidates with no formal nursing background should be abandoned.

[32] It will be important for the MOHSW to be able to establish the number of trainees that it is willing to fund. This number should be in conformity with the requirements for staffing and the availability of posts rather than on the level of output of the training institutions.

review and enhancement of the General Nursing curriculum as well as the Nursing Assistant Curriculum. A Curriculum Sub-Committee of the HRDC should be established to ensure that this function is performed in a consistent and timely manner.

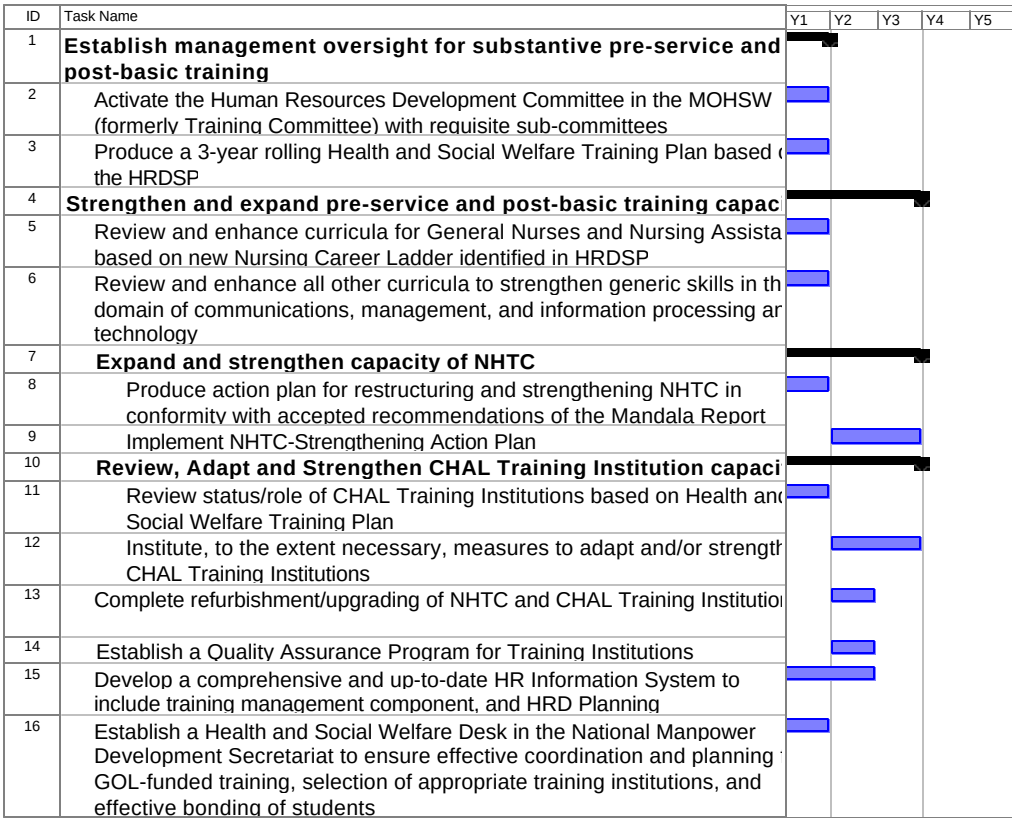
2. Establishment of a Quality Assurance Program (QAP) for all national training institutions engaged by the MOHSW to train health and social welfare human resources. This QAP should set the minimum performance criteria for these institutions and these should be monitored on a regular basis to ensure that all institutions are compliant. Where lack of compliance is observed, directions should be given in a timely manner to the training institutions to make the necessary adjustments/improvements. The QAP should be administered by the Training Unit of the MOHSW's HRD in collaboration with the CHAL Secretariat which should perform a similar function vis-à-vis CHAL training institutions.
3. Produce an action plan for the restructuring and strengthening of NHTC to achieve the objectives stated in the Mandala report.
4. Implement NHTC-Strengthening Action Plan.
5. Review status and role of all CHAL training institutions based on Health and Social Welfare Training Plan and to the extent necessary identify resources for adapting/strengthening these institutions as required.
6. Establish a viable and up-to-date Human Resources Management Information System that builds on the HR database created under the Lesotho Human Resources Consultancy and links to the ***MedSolve Human Resources Planning Modules*** that were established to forecast the future supply, requirements and gap for each occupation. This will involve:
    a. Implementing the recommendations of the *Human Resources Management Information Systems Analysis* (de Jong, 2003), which includes articulating a Strategic Technology Plan for the MOHSW, implementing the proposed network infrastructure plan, introducing the use of the Government's UniQue HR software in conjunction with MedSolve, and integrating HR data with other essential data from the HMIS, and linking the MOHSW HR database to the training database that is to be established under the National Manpower Development Secretariat (see Step 5);
    b. Upgrading the technical capacity of the HRD in the domain of information systems management in order to ensure that up-to-date and reliable human resources information is available for planning and management purposes; and,
    c. Developing the capacity of the HR Planners within the HRD and the Planning Unit of the MOHSW to update the MedSolve HR Planning Modules as the basis for a periodic reformulation of the HRDSP.
7. Refurbishment and enhancement of all training institution infrastructure as required to ensure that adequate classroom, library, dorms, staff accommodations etc are available to meet required intake/production levels, and that the facilities

are maintained in good condition. Particular attention should be paid to ensuring that the institutions have adequate reference libraries and that these are linked to the Internet. The budget for these investments has been stipulated elsewhere (see *Lesotho Health Study Phase II Report* (MCDI, 2001)) and investments have been initiated under funding from the ADB.

8. Establish and/or revitalize a Health and Social Welfare Desk in the National Manpower Development Secretariat (NMDS) which is the Government's executive arm in the administration of scholarships, for the identification and selection of credible training institutions, and for overseeing the institution of effective bonding contracts between the Government and students.

A detailed action plan for strengthening substantive training is presented in Figure 8.

Figure 8: Action Plan for Strengthening Substantive Training



6.2.5 Development of National Continuing Education Program

A pre-investment proposal for the development a national Continuing Education Program was presented in the *Lesotho Health Study* (MCDI, 2002). The need for the establishment of a national CEP has been made even clearer from the findings of the *Health Sector Human Resources Needs Assessment* (Schwabe, McGrath and Lerotholi, 2004), which reported on the virtual absence of continuing education within the sector and the link between this phenomenon and the high levels of observed job dissatisfaction and attrition.

Development of a National Continuing Education Program within the MOHSW (to include the CE requirements of CHAL). The proposal seeks to create a dedicated CEP infrastructure with its own facilities, faculty and administration. It foresees the establishment of a National Resource Center for Continuing Education and two subsidiary Regional Continuing Education Centers that would be charged with providing in-service training for all categories of service (whether clinical, technical, administrative, financial, etc.).

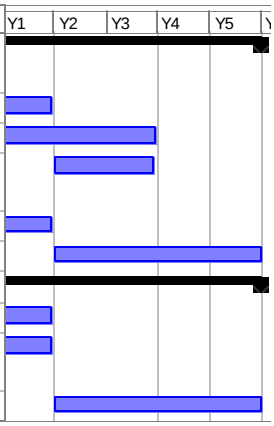
The National Resource Center and Regional Continuing Education Centers would fall under the oversight of the HRD of the MOHSW, and would have the capacity to be responsive to all in-service training needs in the sector. It would be vested with the authority to be prescriptive with respect to pre-requisite orientation training for key service providers and for enforcing the continuing education requirements of all personnel in areas such as MOHSW policy, standard service delivery protocols and procedures, clinical management guidelines, etc. It would have the responsibility of ensuring compliance with CE Needs Assessments in every service area.

Strengthen the HRD capacity of the CHAL Secretariat and selected CHAL Training Institutions. The proposal called for the establishment of a Human Resources Management capacity in the CHAL Secretariat. The MOU/OA between GOL and CHAL will impose a range of certification requirements on CHAL service and training institutions and an HR Management office would enable CHAL and the various institutions to fulfill these certification requirements. This office would use the same HR management tools as the HRD of the MOHSW and would comply fully with all curricula, protocols and procedures of the MOHSW with regard to Human Resource deployment and development.

A detailed action plan for the development of the CEP is presented in Figure 9.

Figure 9: Action Plan for Development of National Continuing Education Program

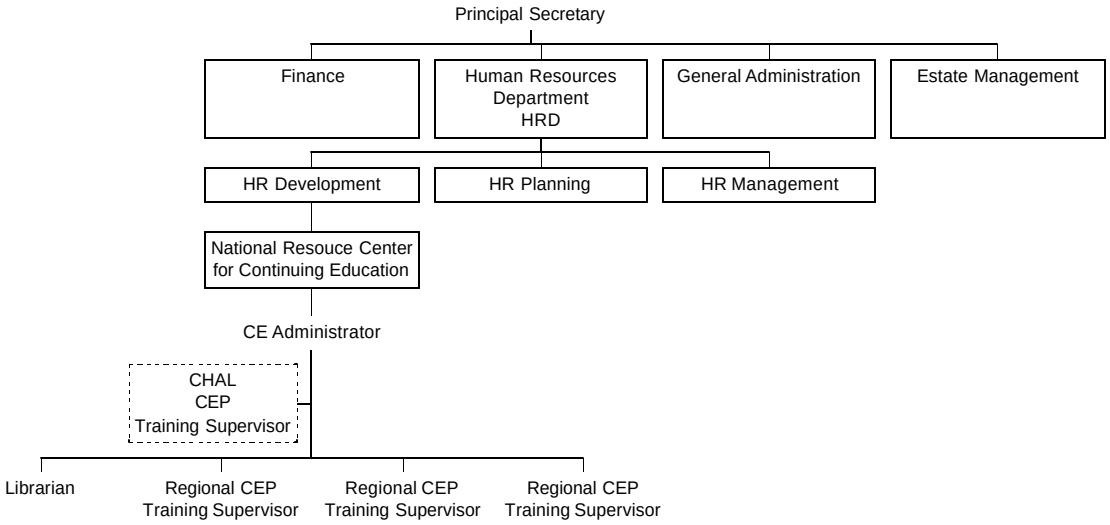
ID	Task Name
1	**Develop a national Continuing Education Program (CEP) for the MOHSW to include CE requirements for CHAL**
2	Develop CEP administration and coordination capacity
3	Develop dedicated technical capacity for Continuing Education
4	Establish the required physical infrastructure at central and regional lev
5	Develop CEP planning and monitoring methodologies
6	Impement CEP according to prioritized Annual Training Plan
7	**Strengthen HRD capacity within CHAL**
8	Develop CEP coordination capacity in CHAL Secretariat
9	Strengthen management capacity (technical and administrative) of CHA training institutions involved in CEP
10	Implement CEP within CHAL facilities and services



6.2.5.1 Implications for the organization and staffing of the MOHSW

The proposal calls for the creation of a National Resource Center for Continuing Education (NRCCE) with two subsidiary Regional Continuing Education Centers. The NRCCE would fall organizationally under the new Human Resources Department of the MOHSW. This organizational structure is presented in Figure 10 below.

Figure 10: Proposed Organizational Structure for the NRCCE



Management of the National Resource Center for Continuing Education would be under a CEP Administrator who has been proposed at a Grade H. Three Continuing Education Regional Training Supervisor (one located at the National Center and the other two at the two regional centers) are proposed at Grade G. A Librarian would also be appointed to the national center at Grade level G. For CHAL, it is proposed that a CEP Training Supervisor be appointed at the Secretariat at Grade level G. In all, a total of 6 new positions are being proposed: five in the MOHSW and 1 in CHAL. Brief job descriptions for the CEP Administrator and the Continuing Education Regional Training Supervisor posts are presented in Annex 8.

6.2.5.2 Input Requirements

6.2.5.2.1 Training

The proposal foresees the need for investments in human resources development to fully establish an effective Continuing Education Program within the MOHSW and CHAL. A summary of these training requirements is presented in Annex 9. The US$267,917 training budget includes 27 person months of regional and national training in CE management and supervision for the CEP Administrator and the Regional CEP Training Supervisors; a regional study tour to observe the very effective Continuing Education Program in Zanzibar or other similarly successful context; 100 person days per year of training of trainers in-service courses offered in Lesotho, and 15,000[33] person days per year in funding for continuing education courses for MOHSW and CHAL health staff supplied through the new CEP.

6.2.5.2.2 Technical Assistance

It is also recommends that a total of 32 person months of short-term local technical assistance be supplied within the context of a series of taskforces charged with developing the technical content for the Continuing Education Program over the 5-year

[33] This represents an average of 20 trainees being trained per work day per year at the three training centers.

investment period. An itemization of the proposed technical assistance requirements costing a projected US$ *21,236* is presented in Annex 10.

6.2.5.2.3 Equipment and Furniture

The proposal also calls for investment in audio-visual, computer and office equipment as a means of developing the CEP capacity. A total of US$*67,693* is budgeted for this purpose. These input requirements are itemized in Annex 11.

6.2.5.2.4 Vehicles

The Project further recommends investment of US$ 197,600 in the procurement of new vehicles to support the CEP training centers. These input requirements are itemized in Annex 12.

6.3 Substantive (Pre-Service and Post-Basic) Training Requirements

6.3.1 Medical Doctors

Medical Doctors should continue to be recruited primarily on a contract basis. In order to foster opportunities for Basotho to aspire to being Medical Doctors two (02) training grants per year will be offered starting in Year 2 of the plan period, allowing for time to develop improved bonding procedures and to develop and introduce improved schemes of service for MDs that will also serve as a pull factor for getting MDs to return to Lesotho after completing their training. In addition, two (02) training grants per year will be offered for diploma-level post-basic training of Specialist Registrars who will provide specialist services at the district hospital level.

Table 65: Substantive Training Requirements – Medical Officers (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Medical Officer	Medical Degree	6	0	2	4	6	8
Specialist Registrar	Diploma in specialty area	1.5	0	2	4	4	4

6.3.2 Nursing

Closing the supply gap for nurses in the next decade will be impossible even under the best of circumstances. Given the need to diversify the career structure through the introduction of the General Nurse and the Clinical Nurse, investments will need to occur at the beginning of the plan period in developing the curricula for these programs, training the educators, and expanding the capacity of NHTC and the CHAL training institutions to produce these and the other required nursing occupations.

A summary of the recommended training intake and output levels for the various nursing occupations is presented in

Table 66. It assumes that NA training will continue at a reduced rate relative to current levels, with existing NAs being upgraded to General Nurses starting in FY 2007/08. It introduces the training of GNs starting with a first intake in FY 2007/08 and then uses these GNs both to provide inpatient care as well as to serve as a source for the future training of Clinical Nurses, Mental Health Nurses, Nursing Sisters, and Nurse Clinicians. It provides for a substantial upgrading of existing Nursing Sisters to become Nurse Clinicians, Clinical Nurses, Mental Health Nurses and Specialist Nurses.

6.3.2.1 Clinical Nurses

It is assumed that 30% of the Nursing Sister trainees currently enrolled as well as those who are enrolled before FY 2007/08 will be trained to be Clinical Nurses. It is estimated that 200 NS graduates will be produced in the interim (assuming that graduation rates can be substantively improved in the short run at NHTC), of which 71 will be directed towards the Clinical Nurse vocation. These dually qualified nurses – beginning with those graduating in FY2003/04 - will be sent out-of-country to complete a one-year diploma in Clinical Case Management. Assuming that 80% of them successfully graduate, this would yield a total supply of 57 additional Clinical Nurse candidates, who would begin to come onto the labor market in FY 2007/08, upon completion of their four-year training.

Once the first batch of General Nurses is produced and hired in FY 2008/09 (see details below), it will be possible to begin removing existing Nursing Sisters from their posts to be upgraded to Clinical Nurses[34]. The recommendation is that a total of 54 existing Nursing Sisters be upgraded to Clinical Nurses between FY 2008/09 and FY 2011/12.

6.3.2.2 Nurse Clinicians

It is assumed that 50% of the Nursing Sister trainees currently enrolled as well as those who are enrolled before FY 2007/08 will be trained to be Nurse Clinicians. It is estimated that 200 NS graduates will be produced in the interim (assuming that graduation rates can be substantively improved in the short run at NHTC), of which 138 will be directed towards the Nurse Clinician vocation. These dually qualified nurses – beginning with those graduating in FY2003/04 - will be sent out-of-country to complete a one-year diploma in Public Health Nursing. Assuming that 80% of them successfully graduate, this would yield a total supply of 110 additional Nurse Clinicians, who would begin to on the labor market in FY 2007/08, upon completion of their four-year training.

6.3.2.3 Nursing Sisters

As indicated above, Nursing sisters will begin to be upgraded to Nurse Clinician status once the first batch of General Nurses has graduated and can come into the labor market to take their place. As revealed in the next section, it is estimated that 85 General Nurses will come on the labor market per year starting in FY 2008/09. In order to enable the total supply of nurses to grow in the short run, it is recommended that between 77 and 90 Nursing Sisters be taken off duty per year from this point forward. In order to keep the

[34] These Nursing Sisters should be in their early mid-careers with at least 5 years of work experience as an NS and at least 15 years left before they must retire.

supply level at the required level, it is projected that it will be necessary to begin training 25 new Nursing Sisters from the General Nurse pool starting in FY 2008/09.

6.3.2.4 General Nurses

In order to provide sufficient time for the adaptation and introduction of the General Nurse curriculum, as well as for training of educators and strengthening of the capacity of training institutions, the training of General Nurses will not begin until FY 2007/08.

Three institutions are currently involved in producing the dually qualified Nursing Sisters and thus are positioned to train the single-qualified General Nurse. These institutions are NHTC, Maluti and Roma. The *Health Sector Human Resources Needs Assessment*, however, concluded that there is a need for a re-assessment of the feasibility and desirability of using the Roma School of Nursing in the future for substantive pre-service training of nurses given the inadequacies of its hospital as a venue for the practical clinical training of its students. In addition the needs assessment called for the development and implementation of a strategic plan for strengthening NHTC (to include it being restructured as a semi-autonomous entity along the lines of the recommendations of earlier studies).

Assuming all three training institutions are involved in producing General Nurses, the combined student intake based on prevailing levels will be approximately 80 per year (25 at Maluti, 35 at NHTC, and 20 at Roma). It is assumed that it will be possible to increase the intake level modestly to 100 per year for the first two years and then again to an intake level of 180 per year starting in FY 2009/10. As indicated above, GNs will begin to feed training for Nursing Sisters, Clinical Nurses, Nurse Clinicians and Mental Health Nurses starting in FY 2008/09, thus offsetting supply. Even so, it is projected that at these training levels, and with an annual attrition rate of 6%, the sector will produce nearly half of the required GNs in the next 10 years.

6.3.2.5 Nursing Assistants

Under the rationalized nursing requirements formulation (see Table 25) there is a projected surplus of Nursing Assistants in the system. Nursing Assistants will revert to providing essential promotive services and will be replaced in their default clinical capacity by General Nurses once they come on stream. In order to relieve the structural impediment to career mobility that has plagued the Nursing Assistant occupation, the plan identifies 40 training slots per year for qualified NAs to be re-trained as General Nurses. Their intake will start in FY 07/08 when the General Nurse training program is officially launched. At this rate, and with 40 new NAs being trained per year at an annual loss rate of 6%, the future supply will diminish as projected in Table 65, achieving the desired numbers by the end of the decade. Since it is difficult to predict future loss rates, it will be essential for the HRD to track NA loss rates (as well as those of workers in other occupations) to ascertain whether training intake levels need to be adjusted over the medium term.

Table 66: Summary of Proposed Nursing Training 2004 – 2014

Occupation / Year	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	10-Year Supply Level	Required	ISN	Remaining Gap
Nursing Assistants (2yrs)														
Intake	40	40	40	40	40	40	40	40	40	40				
Output[1]			40	40	40	40	40	40	40	40				
Projected Supply	512	481	452	425	400	376	353	332	332	332	332	345	96%	13
General Nurse (3yrs)														
Intake			180	180	180	180	180	180	180	180				
From existing NAs			40	40	40	40	40	40	20	20				
From open market			60	60	60	140	140	140	160	160				
Output[2]						153	153	153	153	153				
Projected Supply						118	189	256	298	338	338	697	49%	359
Nursing Sisters (1yr)														
Intake						25	25	25	25	25				
From GN trainees						25	25	25	25	25				
Output[2]							21	21	21	21				
Projected Supply	295	277	260	244	184	134	96	62	59	56	56	77	72%	21
Clinical Nurses (2yr)														
Intake	26	30	15	0	15	13	13	13	20	20				
Currently in NS pipeline	26	30	15	0	0	0	0	0	0	0				
From existing NSs	0	0	0	0	15	13	13	13	0	0				
From existing GNs	0	0	0	0	0	0	0	0	20	20				
Output	0	0	21	24	12	0	12	10	10	10				
Currently in NS pipeline[2][3]	0	0	21	24	12	0	0	0	0	0				
From existing NSs	0	0	0	0	0	0	12	10	10	10				
From existing GNs	0	0	0	0	0	0	0	0	0	0				
Projected Supply	94	88	83	99	117	122	115	120	123	126	126	220	57%	94
Nurse Clinicians (2yrs)														
Intake	43	50	25	0	35	29	69	69	40	40				
Currently in NS pipeline	43	50	25	0	0	0	0	0	0	0				
From existing NSs	0	0	0	0	35	29	29	29	0	0				
From existing GNs	0	0	0	0	0	0	40	40	40	40				
Output	0	0	34	40	20	0	30	25	25	59				
Currently in NS pipeline[2][4]	0	0	34	40	20	0	0	0	0	0				
From existing NSs	0	0	0	0	0	0	30	25	25	25				
From existing GNs	0	0	0	0	0	0	0	0	0	34				
Projected Supply	16	15	14	47	84	99	93	117	135	152	152	304	50%	152
Mental Health Nurses (2yrs)														
Intake	17	20	10	0	0	10	10	10	10	10				
Currently in NS pipeline	17	20	10	0	0	0	0	0	0	0				
From GN trainees						10	10	10	10	10				
Output[2]		0	14	17	9	0	0	9	9	9				
Projected Supply	10	9	22	38	45	42	39	46	52	58	58	77	75%	19
Other Specialist Nurses (2yrs)														
Intake					10	10	10	10	10	10				
From existing NSs					10	10	10	10	10	10				
Output[2]					0	0	9	9	9	9				
Projected Supply						0	9	17	25	33	33	90	37%	57

Notes:

(1) Assumes 100% graduation rate and hire 100% of graduates

(2) Assumes 85% graduation rate and hire 100% of graduates

(3) NS candidates currently being trained at Maluti, Roma and NHTC. These candidates will need to sent out-of-country for a 1-year diploma in Clinical Nursing in order to complete their Clinical Nurse training. It is assumed that 80% of those sent out-of-country will graduate and return given introduction of improved measures to manage attrition.

(4) NS candidates currently being trained at Maluti, Roma and NHTC. These candidates will need to sent out-of-country for a 1-year diploma in Public Health Nursing in order to complete their Nurse Clinician training. It is assumed that 80% of those sent out-of-country will graduate and return given introduction of improved measures to manage attrition.

6.3.3 Oral Health

In order to close the supply gap for oral health professionals, a comprehensive set of regional (out-of-country) training grants will be offered for substantive pre-service training. Training levels will be as stipulated in the HR Development Plan as reproduced in Table 67.

Table 67: Substantive Training Requirements – Oral Health (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Dental Officers	Dental Officer degree	5	0	1	2	3	4
Dental Technologists	Dental Technology Diploma	3	0	4	8	12	12
Dental Hygienists	Dental Hygiene	2	0	5	10	10	10
Dental Mechanics	Orthodontestry	2	0	2	2	0	0

6.3.4 Orthopedics

Out-of-country training grants will be provided for the six (06) Orthopedic Technologists required to close the supply gap in this occupation. A limited number of post-basic training grants in prosthetics and orthotics will be offered as per the recommendations of the HR Development Plan. The total training requirements are reproduced in Table 68.

Table 68: Substantive Training Requirements – Orthopedic Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Orthopedic Technologists	Orthopedics	3	0	2	4	6	6
Orthopedic Technologists	Prosthetics and Orthotics	0.5	2	2	2	2	0

6.3.5 Rehabilitation

Twelve out-of-country training grants will be provided for Physiotherapists, four (04) for Occupational Therapists, one (01) for a Speech and Language Therapist and one (01) for an Audiologist as recommended in the HR Development Plan and as summarized in Table 69.

Table 69: Substantive Training Requirements – Rehabilitation Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Physiotherapists	Physiotherapy	4	0	3	6	8	12
Occupational Therapists	Occupational Therapy	4	0	1	2	3	4
Speech and Language Therapist	Speech and Language Therapy	4	0	1	1	1	1
Audiologist	Audiology	4	0	1	1	1	1

6.3.6 Radiography

As recommended in the HR Development Plan, one (01) post-basic fellowship will be offered to a Basotho Radiographer to study Radiology, eight (08) out-of-country training grants will be provided for Radiographers to study ultrasonography, six (06) out-of-country training grants will be provided to train new Radiographers, and sixteen (16) grants will be provided to train Radiographic Technicians.

Table 70: Substantive Training Requirements – Radiography Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Radiologist	Radiology	3	0	0	1	1	1
Ultrasonographer	Ultrasonography	1	0	2	2	2	2
Radiographer	Radiography	3	0	3	3	3	3
Radiographic Technicians	Radiography	2	0	4	8	8	8

6.3.7 Pharmacy

As recommended in the HR Development Plan, a total of nineteen (19) will be recruited from the Pharmacy training program at NUL over the next decade. In addition, one hundred and thirty five (135) Pharmacy Technicians will be trained at NHTC over the course of the next decade. The training requirements for the next five years are summarized in Table 71.

Table 71: Substantive Training Requirements – Pharmacy Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Pharmacists	Pharmacy	4	5	10	15	20	20
Pharmacy Technicians	Pharmacy	3	0	25	50	75	70

6.3.8 Laboratory

Eighty (80) Laboratory Technologists will need to be trained over the course of the next decade to close the projected supply gap. As recommended in the HR Development Plan, forty (40) of these will be trained in the first five years of the plan. Two (02) one-year post-basic training grants will begin to be provided in Year 5 of the plan period for training in specialist areas such as cytology, hematology etc. One hundred and eight (180) Laboratory Technicians will be trained at NHTC over the next decade (20 per class). A summary of training for the first five years of the plan is reproduced in Table 72.

Table 72: Substantive Training Requirements – Laboratory Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Laboratory Technologists	Laboratory Science	4	8	16	24	32	32
Laboratory Technologists	Post-basic specialist diploma	1	0	0	0	0	2
Laboratory Technicians	Laboratory Science	3	0	20	40	60	60

6.3.9 Biomedical Engineering

As recommended in the HR Development Plan, a total of fourteen (14) out-of-country training grants will be provided for training Biomedical Engineers (Technical Officers) during the next decade. A summary of the training level over the next five years is reproduced in Table 73.

Table 73: Substantive Training Requirements – Biomedical Engineers (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Technical Officer - BME	Biomedical equipment maintenance	3	3	6	9	9	9

6.3.10 Nutrition

As recommended in the HR Development Plan, a total of twelve (12) out-of-country training grants will be provided for training Nutrition Officers. The timing of the proposed training is summarized in Table 74.

Table 74: Substantive Training Requirements – Nutrition Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Nutrition Officers	Nutrition	3	0	3	6	9	12

6.3.11 Health Education

As recommended in the HR Development Plan, a total of eleven (11) out-of-country training grants will be provided to train Health Educators. The timing of the training over the next five years is reproduced in Table 75.

Table 75: Substantive Training Requirements – Health Education Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Health Educators	Health Education	3	0	2	4	6	6

6.3.12 Environmental Health

The required number of Environmental Health Officers are currently in the training pipeline, and Health Assistants will be trained on-the-job and through a structure 3-month in-service training program offered by the national Continuing Education Program.

6.3.13 Social Welfare

As recommended in the HR Development Plan, a total of eighteen (18) Social Workers will be recruited to new posts from NUL graduates over the next decade. In order to compensate for attrition, a total of twenty four (24) trainees will need to be trained and recruited as reflected in Table 76. Two (02) half-year out-of-country training grants will be provided per year to existing social workers in areas of social work specialization over the course of the plan period.

Table 76: Substantive Training Requirements – Social Work Personnel (2005 – 2010)

Occupation	Subject	Duration (Years)	Students per Year				
			Y1	Y2	Y3	Y4	Y5
Social Workers	Degree in Social Work	4	6	12	18	24	24
Social Workers	Post-basic specialist diploma	0.5	2	2	2	2	2

6.4 In-Service Training Requirements

Considerable in-service training is required as stipulated in the HR Development Plan. The Strategic Plan identifies funding for 15,000 person days of in-service continuing education for health sector personnel per year over the course of the plan period. This will be sufficient to train 20 personnel each work day at each of the three CEP training centers. The total projected cost

6.5 Projected Costs and Financing

The total projected costs of the HR Strategic Plan over the first five years of the plan period are estimated at Maloti 157.12 million (approximately US $ 25 million). Seventy percent of the project costs are associated with the financing of substantive pre-service and post-basic training required to begin to close the enormous supply gap in health and social welfare personnel. Maloti 44.5 million or 41% of the total financing required for substantive training is for in-country training at NHTC, the CHAL training institutions and the NUL – a large part of which represents funding commitments that the GOL would already be making[35]. Roughly Maloti 64 million (approximately US$ 10 million) in additional financing will be required for out-of-country training grants over the five year period. Given the importance of HR development to attaining the objectives of the new Health and Social Welfare Policy and to adequately addressing the burden of disease in Lesotho, it is anticipated that donor partners will provide financial assistance to defray these investment costs.

Twenty percent of the projected five-year cost is attributable to the development and initiation of the national Continuing Education Program. In addition to building the CEP training infrastructure and securing the requisite staffing, the budget includes roughly Maloti 7 million (US$ 1.1 million) per year to finance the costs of 15,000 person days in in-service training.

Finally, 10% of the total projected costs are for the refurbishment and expansion of the NHTC infrastructure and the provision of necessary furniture and equipment. The needs for this funding have already been identified in the Lesotho Health Study but are replicated here for purposes of completeness.

No estimates have been generated for the refurbishment and expansion of CHAL training institutions, although it is known that some of this has recently occurred anyway. It will be important to assess the needs for any further expansion when the HRDSP has been finalized and officially adopted by Government.

The cost projections make no attempt either to calculate the costs of the loss abatement strategy – an essential component of the HRDSP. Implementing the recommendations will result in increased budgetary implications, but these will be relatively small as compared to the total annual incremental cost of funding the additional posts required to close the supply gap (see Table 78) - Maloti 90 million (approximately US$ 14.5 million) per year unadjusted for inflation when the supply gap is ultimately closed (i.e., in 20 or more years).

[35] As indicated there will need to be an expansion in training capacity at NHTC and the CHAL training institutions, so in reality some of this projected in-country costs represents an increment above what would otherwise be expended if training capacity were to remain at its current level.

Table 77: Investment Costs of Human Resources Development (2005 – 2010)

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Development of National Continuing Education Program						
Construction/Civil Works	0.52	0.86	-	-	-	1.38
Equipment/Instruments/Furniture	0.15	0.21	0.09	-	-	0.44
Initial Supply Stock	0.01	0.01	0.00	-	-	0.02
Materials	0.01	0.01	0.02	0.03	0.03	0.11
Media Production & Social Mobilization	0.06	-	-	-	-	0.06
Studies and Analyses	-	-	-	-	-	-
Technical Assistance	0.12	-	0.01	-	-	0.13
Training and Workshops	0.12	6.64	6.97	7.23	7.59	28.54
Vehicles	0.50	0.46	0.27	-	-	1.23
Sub-Total National CEP	*1.49*	*8.19*	*7.37*	*7.25*	*7.62*	*31.91*
Substantive Pre-Service and Post-Basic Training						
Infrastructure Rehabilitiation and Development - NHTC						
Construction/Civil Works	7.06	7.77	-	-	-	14.83
Equipment/Instruments/Furniture	-	1.85	-	-	-	1.85
Sub-Total NHTC	*7.06*	*9.62*	*-*	*-*	*-*	*16.68*
Training Costs						
Medical Doctors	*-*	*0.49*	*1.03*	*1.35*	*1.70*	*4.57*
Medical Officers - Degree Program [A]	-	0.25	0.51	0.81	1.13	2.71
Specialist Registrars - Diploma in Specialty Area [A]	-	0.25	0.51	0.54	0.57	1.87
Nurses	*0.58*	*1.22*	*1.89*	*4.96*	*5.93*	*14.58*
In-Country Production	*0.58*	*1.22*	*1.89*	*2.26*	*3.09*	*9.04*
Nursing Assistants (2yrs) [E]	0.18	0.37	0.37	0.37	0.37	1.66
General Nurses (3yrs) [D]	-	-	0.83	1.66	2.49	4.98
Nursing Sisters (1yr)	-	-	-	-	-	-
Clinical Nurses (2yrs) [C]	0.12	0.26	0.21	0.07	0.07	0.72
Nurse Clinicians (2yrs) [D]	0.20	0.43	0.34	0.12	0.16	1.25
Mental Health Nurses (2yrs) [C]	0.08	0.17	0.14	0.05	-	0.43
Other Specialist Nurses (2yrs) [C]	-	-	-	-	0.05	0.05
Out-of-Country Training Grants for existing Nos	-	-	-	*2.70*	*2.84*	*5.54*
Nurse Clinicians - Public Health + Primary Care Nursing [A]	-	-	-	0.68	0.71	1.38
Clinical Nurses - Clinical Case Management [A]	-	-	-	0.68	0.71	1.38
Orthopedic Nurse - Orthopedics [A]	-	-	-	0.27	0.28	0.55
Theatre Nurse - Surgery [A]	-	-	-	0.27	0.28	0.55
A&E Nurse - Emergency and Accident Medicine [A]	-	-	-	0.27	0.28	0.55
ICU Nurse - Intensive Care [A]	-	-	-	0.27	0.28	0.55
Pediatric/Neonatal Nurse - Neonatal and pediatric care [A]	-	-	-	0.27	0.28	0.55
Oral Health Personnel	*-*	*1.47*	*2.83*	*3.38*	*3.69*	*11.37*
Dental Officers - Dental Officer Degree [A]	-	0.12	0.26	0.41	0.57	1.35
Dental Technologists - Dental Technology Diploma [A]	-	0.49	1.03	1.62	1.70	4.84
Dental Hygienists - Dental Hygiene [A]	-	0.61	1.29	1.35	1.42	4.67
Dental Mechanics - Orthodontestry [A]	-	0.25	0.26	-	-	0.50
Orthopedic Personnel	*0.23*	*0.74*	*1.29*	*1.89*	*1.70*	*5.85*
Orthopedic Technologists - Orthopedics [A]	-	0.49	1.03	1.62	1.70	4.84
Orthopedic Technologists - Prosthetics and Orthotics [A]	0.23	0.25	0.26	0.27	-	1.01
Rehabilitation Personnel	*-*	*0.74*	*1.29*	*1.76*	*2.55*	*6.33*
Physiotherapists - Physiotherapy [A]	-	0.37	0.77	1.08	1.70	3.92
Occupational Therapists - Occupational Therapy [A]	-	0.12	0.26	0.41	0.57	1.35
Speech and Language Therapist - Speech and Language Therapy [A]	-	0.12	0.13	0.14	0.14	0.53
Audiologist - Audiology [A]	-	0.12	0.13	0.14	0.14	0.53
Radiography Personnel	*-*	*1.10*	*1.80*	*1.89*	*1.99*	*6.78*
Radiologist - Radiology [A]	-	-	0.13	0.14	0.14	0.41
Ultrasonographer - Ultrasonography [A]	-	0.25	0.26	0.27	0.28	1.06
Radiographer - Radiography [A]	-	0.37	0.39	0.41	0.43	1.58
Radiographic Technicians - Radiography [A]	-	0.49	1.03	1.08	1.13	3.73
Pharmacy Personnel	*0.58*	*2.08*	*3.73*	*5.54*	*5.62*	*17.55*
Pharmacists - Pharmacy [B]	0.58	1.23	1.93	2.70	2.84	9.28
Pharmacy Technicians - Pharmacy [C]	-	0.86	1.80	2.84	2.78	8.28
Laboratory Personnel	*0.93*	*2.65*	*4.53*	*6.59*	*7.21*	*21.91*
Laboratory Technologists - Laboratory Science [A]	0.93	1.96	3.09	4.32	4.54	14.84
Laboratory Technologists - Post-basic specialist diploma [A]	-	-	-	-	0.28	0.28
Laboratory Technicians - Laboratory Science [C]	-	0.69	1.44	2.27	2.38	6.78
Biomedical Engineering Personnel	*0.35*	*0.74*	*1.16*	*1.22*	*1.28*	*4.74*
Technical Officer - BME - Biomedical equipment maintenance [A]	0.35	0.74	1.16	1.22	1.28	4.74
Nutrition Personnel	*-*	*0.37*	*0.77*	*1.22*	*1.70*	*4.06*
Nutrition Officers - Nutrition [A]	-	0.37	0.77	1.22	1.70	4.06
Health Education Personnel	*-*	*0.25*	*0.51*	*0.81*	*0.85*	*2.42*
Health Educators - Health Education [A]	-	0.25	0.51	0.81	0.85	2.42
Social Welfare Personnel	*0.93*	*1.72*	*2.57*	*3.51*	*3.69*	*12.42*
Social Workers - Degree in Social Work [B]	0.70	1.47	2.32	3.24	3.40	11.13
Social Workers - Post-basic specialist diploma [A]	0.23	0.25	0.26	0.27	0.28	1.29
Sub-Total Substantive Training	*3.62*	*13.18*	*22.63*	*32.90*	*36.20*	*108.52*
Grand Total	***12.16***	***30.99***	***30.00***	***40.15***	***43.82***	***157.12***

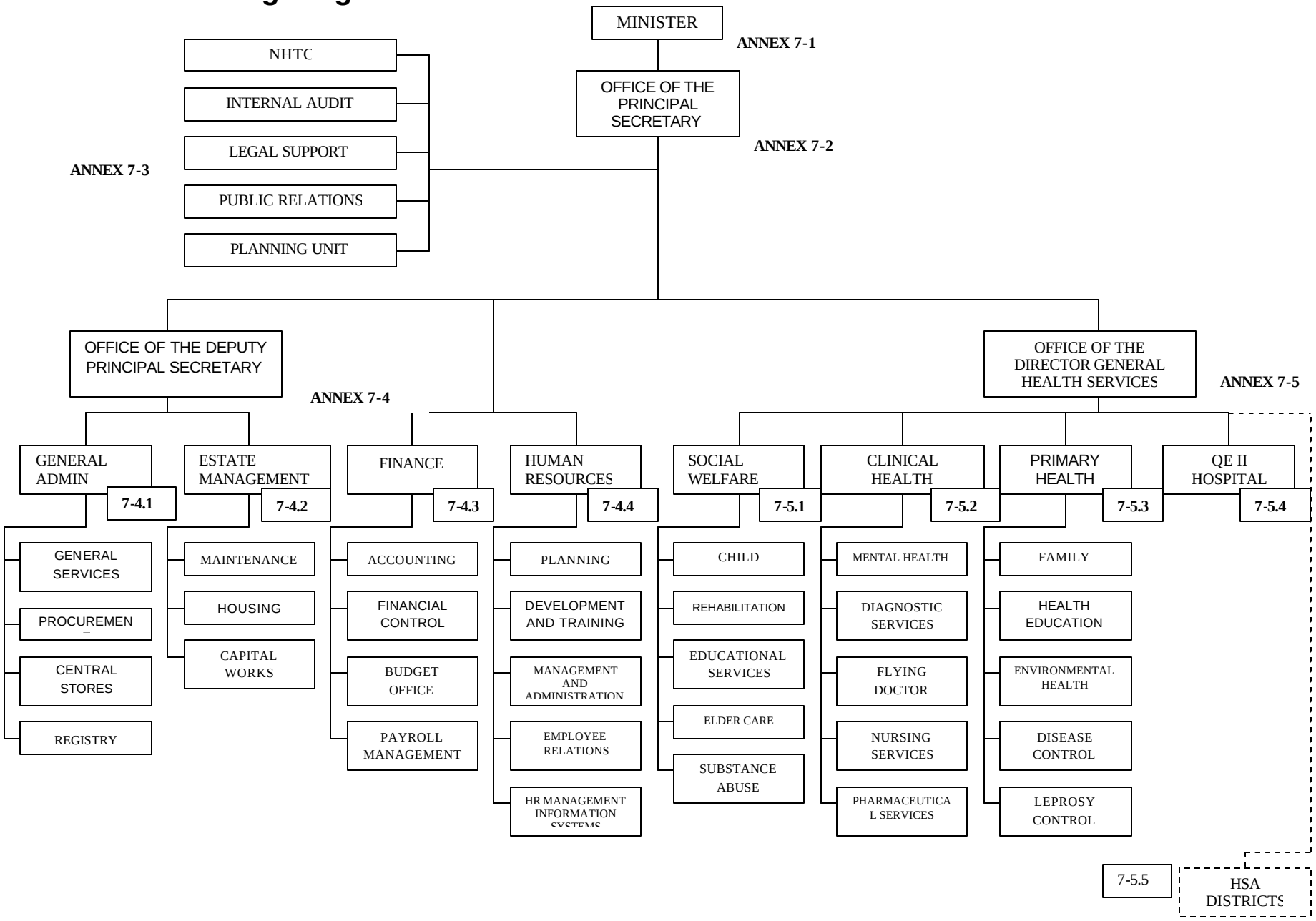
Notes:

[A] Out-of-Country
[B] In-Country - NUL
[C] In-Country - NHTC
[D] In-Country - NHTC + CHAL
[E] In-Country - CHAL

Table 78: Total Cost of Financing the HR Supply Gap

	Supply		Requirements		Gap		Supply Cost		Requirements Cost		Gap	
Occupation	N	Col %	N	Col %	N	Col %	Maloti Millions	Col %	Maloti Millions	Col %	Maloti Millions	Col %
Nurses	1,064	71.0%	1,980	55.7%	(916)	44.5%	36.31	57.6%	80.43	52.5%	(44.12)	48.8%
Medical Doctors	111	7.4%	277	7.8%	(166)	8.1%	12.09	19.2%	28.84	18.8%	(16.76)	18.5%
Oral Health	14	0.9%	243	6.8%	(229)	11.1%	0.69	1.1%	5.58	3.6%	(4.90)	5.4%
Social Welfare	44	2.9%	243	6.8%	(199)	9.7%	1.88	3.0%	6.07	4.0%	(4.19)	4.6%
Environmental Health	60	4.0%	198	5.6%	(138)	6.7%	2.29	3.6%	5.71	3.7%	(3.42)	3.8%
Laboratory	75	5.0%	148	4.2%	(73)	3.5%	4.01	6.4%	8.11	5.3%	(4.10)	4.5%
Pharmacy	51	3.4%	145	4.1%	(94)	4.6%	2.33	3.7%	6.94	4.5%	(4.61)	5.1%
Radiography	11	0.7%	83	2.3%	(72)	3.5%	0.42	0.7%	3.04	2.0%	(2.62)	2.9%
Biomedical Engineering & Estates Management	28	1.9%	75	2.1%	(47)	2.3%	0.83	1.3%	2.21	1.4%	(1.38)	1.5%
Nutrition	4	0.3%	54	1.5%	(50)	2.4%	0.12	0.2%	1.63	1.1%	(1.51)	1.7%
Rehabilitation	12	0.8%	53	1.5%	(41)	2.0%	0.39	0.6%	1.62	1.1%	(1.22)	1.4%
Health Education	10	0.7%	35	1.0%	(25)	1.2%	0.43	0.7%	1.56	1.0%	(1.12)	1.2%
Orthopedics	8	0.5%	14	0.4%	(6)	0.3%	0.34	0.5%	0.60	0.4%	(0.26)	0.3%
Mental Health Specialists	7	0.5%	8	0.2%	(1)	0.0%	0.87	1.4%	0.99	0.6%	(0.12)	0.1%
Total	***1,499***	***100.0%***	***3,556***	***100.0%***	***(2,057)***	***100.0%***	***62.99***	***100.0%***	***153.32***	***100.0%***	***(90.33)***	***100.0%***
% of MOHSW FY 2003/04 PE Budget							*74%*		*180%*		*106%*	
% of MOHSW FY 2003/04 Total Budget							*26%*		*62%*		*37%*	

7 Annex: Organogram of the MOHSW



ANNEX 7-1

OFFICE OF THE MINISTER
OF HEALTH AND SOCIAL WELFARE

FUNCTIONS:

1. To provide political leadership in the planning and provision of health and welfare services in Lesotho.
2. To ensure the effective and efficient management of the Ministry.
3. To provide political advice regarding the health and welfare portfolios to the Hon Prime Minister and the GOL.
4. To provide political direction to the following health parastatals and institutions:
   - Drug Regulatory Authority
   - National Drug Supply Authority
   - Lesotho Pharmaceutical Corporation
   - National Health Training College
5. To provide political direction to non-government organisations involved in the provision of health and welfare services, eg:
   - Christian Health Association of Lesotho (CHAL)

01	1	POT005	1	Minister
01	2	POT003	1	Personal Aide
01	3	SEC003	1	Ministerial Secretary
01	4	ANC007	1	Chauffeur

ANNEX 7-2

OFFICE OF THE PRINCIPAL SECRETARY

FUNCTIONS:

1. To provide leadership in the planning and provision of health and welfare services in Lesotho.
2. To ensure the effective and efficient financial management of the Ministry.
3. To ensure the appropriate organisation and establishment, staffing and skills to perform the functions of the Ministry.
4. To provide technical support to the Hon Minister.
5. To liase with, and ensure the proper functioning of the following health parastatals and institutions:
   - Drug Regulatory Authority
   - National Drug Supply Authority
   - Lesotho Pharmaceutical Corporation
   - National Health Training College
6. To liase with, and manage the partnership with major non-government health and welfare service providers:
   - Christian Health Association of Lesotho (CHAL)
   - Private providers

01	5	ADM005	1	Principal Secretary
01	14	SEC002	1	Executive Secretary

ANNEX 7-3

OFFICE OF THE PRINCIPAL SECRETARY

NHTC

FUNCTIONS:
1. To provide professional education to health personnel who deliver primary health care to the community in accordance with the country's needs.

ANNEXURE
3.1

No posts created

LEGAL SUPPORT

01	11	LEG033	1	Senior Legal Officer

PUBLIC RELATIONS

No posts created

PLANNING UNIT

FUNCTIONS:
1. Ensuring that policies are made operational.
2. Coordination of the preparation of capital budgets.
3. Translate the policies of the Ministry into short, medium and long-term plans.
4. Coordinate and identify research needs in the ministry and indicate research priorities.
5. advise on resource mobilisation.
6. Coordination of projects implementation.
7. Identify critical path in programs implementation
8. Assist in the formulation of project proposals.
9. Provide other departments with health management information systems.

01	26	1	Director, Economic Planning
01	18	1	Personal Secretary *(Bubgeted for under Admin.)*
01	41	1	Executive Officer
		1	Equipment Specialist
		2	Research Officer
		1	Training Officer
		1	Computer Operator
		2	Executive Officer

HEALTH INFORMATION SYSTEMS

01	32	1	Programmes Analyst
01	33	1	Health Info. Officer
01	34	1	Computer Programmer
01	40	1	Computer Operator
01	42	6	Data Collector

STATISTICS & RESEARCH UNIT

01	28	1	Chief Statistician
01	36	2	Assistant Statistician
01	35	2	Senior Research Officer
01	38	2	Research Officer
01	36	2	Assistant statistician

ECONOMIC PLANNING

01	27	1	Chief Economic Planner
01	30	2	Senior Economic Planner
01	31	2	Economic Planner
01	37	4	Assistant Econ. Planner

ANNEX 7-3.1

NATIONAL HEALTH TRAINING CENTRE (NHTC)

FUNCTIONS:
1. To provide professional education to health personnel who deliver primary health care to the community in accordance with the country's needs.
2. To ensure and maintain quality health professional education in the various courses taught.
3. To provide system of continuing education to meet the needs of staff.
4. To conduct health and health systems research and utilise the findings to improve teaching and health care services.
5. To liase and collaborate with training institutions locally and internationally.
6. To plan, design and develop curriculae for various programs in collaboration with all licensing bodies.
7. To coordinate clinical teaching and learning with relevant facilities.

08	1	1	Director
08	7	1	Personal Secretary

NHTC ADMINISTRATION

08	2	2	Administration Manager
08	5	2	Senior Accountant
08	6	1	Nutrition Officer
08	9	1	Storekeeper
08		1	Housekeeper
08	10	2	Assistant Librarian
08	11	1	Assistant Personnel Officer
08	12	1	Technical Officer
08	13	4	Driver
08	14	4	Typist
08	15	1	Accounts Clerk
08	16	1	Stores Assistant
08	17	3	Clerical Assistant
08		27	Office Assistant

MEDICAL LABORATORY

08	22	2	Principal Laboratory Technologist
08	20	5	Senior tutor

PHARMACY PROGRAMME

08	20	2	Pharmacist (Senior Tutor)
08	23	1	Principal Pharmacy Technician

GENERAL NURSING PROGRAMME

08	20	6	Senior Tutor

APPLIED SCIENCES AND RESEARCH PROGRAMME

08	20	3	
			1.1.1.1.4 Seni

MIDWIFERY PROGRAM

08	20	5	
			1.1.1.1.3 Seni

NURSE ANASTHETIC PROGRAM

08	20	1	
			1.1.1.1.2 Seni

PSYCHIATRIC HEALTH PROGRAM

08	20	2	
			1.1.1.1.1 Seni

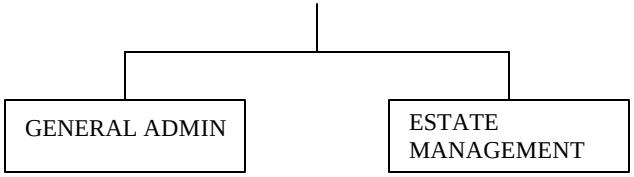
19 Tutor/Senior Tutor NOT ALLOCATED

ANNEX 7-4

OFFICE OF THE DEPUTY PRINCIPAL SECRETARY

FUNCTIONS:
1. Fleet management.
2. Manages divisions/units under the office of the DPS.
3. Assists the office of the PS.
4. To provide appropriate general administrative support to the Ministry.
5. To provide asset management services for the Ministry.

01	6	1	Deputy Principal Secretary
01	18	1	Personal Secretary



ANNEX 7-4.1

ANNEX 7-4.1

GENERAL ADMINISTRATION

FUNCTIONS:
1. To provide administrative support to the Head Office of the Ministry.
2. To manage the procurement policy of the Ministry.
3. To manage the Central Stores of the Ministry.
4. To control and monitor the postal service in the Head Office and to other Ministries, the Districts, hospitals, etc.

4	Assistant Administration Officer
1	Administration Officer

GENERAL SERVICES

FUNCTIONS:
1. To provide office cleaning, administrative support and typing.

01	22	10	Typist
01	23	19	Office Assistant
01	24	1	Switch board operator

PROCUREMENT

FUNCTIONS:
1. To manage the procurement policy of the MOHSW

01	43	1	Purchasing and Stores Officer

CENTRAL STORES

FUNCTIONS:
1. To manage the Central Stores of MOHSW.

01	44	1	Deputy Purchasing and Stores Officer
01	45	1	Assistant Purchasing and Stores Officer
01	46	5	Driver
01	47	4	Stores Assistant

REGISTRY

FUNCTIONS:
1. To provide a postal registry.
2. To manage the central filing.
3. To provide switchboard telephone services for the Head Office.

01	17	1	Registry Supervisor
01	20	1	Registry Superintendent
01	23	4	Clerical Assistant

ANNEX 7-4.2

ESTATE MANAGEMENT DEPARTMENT

FUNCTIONS:
1. To advise the PS by developing guidelines and standards for preventive maintenance.
2. To allocate offices for staff.
3. To formulate and implement a policy on maintenance, capital works and housing.
4. To liase and advise other departments about standard specifications for medical equipment, buildings construction, maintenance, land acquisition and maintenance.
5. To recruit, brief and monitor performance of consultants charged with the preparation of designs and tender documents and supervision of capital development and refurbishment schemes.
6. To liase with Finance Dept for the purchase, procurement and disposal of equipment.

01	7	1	Director (Estate Management)
01	18	1	Personal Secretary (*budgeted under admin)*

MAINTENANCE

FUNCTIONS:
1. To formulate and implement a policy on maintenance.
2. To develop guidelines and standards for preventive maintenance
3. To liase and advise other departments about standard specifications for medical equipment maintenance.

1	Chief Technical Officer
5	Senior Technical Officer
9	Technical Officer II/I
5	Technical Assistant
2	Principal Technical Officer *(n.b 2nd PTO budgeted for by admin physically with the mainta. Crew*.
1	Charge hand

HOUSING

FUNCTIONS:
1. To formulate and implement a policy on housing.

None

CAPITAL WORKS

FUNCTIONS:
1. To formulate and implement a policy on capital works.
2. To liase and advise other departments about standard specifications for buildings construction and land acquisition.
3. To recruit, brief and monitor performance of consultants charged with the preparation of designs and tender documents and supervision of capital development and refurbishment schemes.
4. To liase with Finance Dept for the management of capital works.

None

ANNEX 7-4.3

FINANCE DEPARTMENT

FUNCTIONS:
1. To provide advise to the chief accounting officer on matters relating to efficient use of financial resources of the ministry to achieve optimum output.
2. To prepare annual estimates and financial reports and answering queries relating to financial budget matters.
3. To give guidance and supervision on the overall accounting functions of the entire Ministry.
4. To monitor the district accounting functions.
5. To budget for and monitor the implementation of subventions to the NGOs.
6. To advise the PS on procument and disbursement of funds.

01 46 1 Financial Controller

ACCOUNTING

FUNCTIONS:
1. To ensure that all stores are entered in appropriate books (stores ledger).
2. To draw payment vouchers for the ministry.
3. To balance the vote book of the ministry.
4. To prepare the status of funds reports monthly.
5. To ensure implementation of revenue systems in terms of collection and depositing.

3 Senior Accountant
1 Accountant
2 Assistant Accountant
1 Accounts Assistant
1 Accounts Clerk

FINANCIAL CONTROL

FUNCTIONS:
1. To develop internal measures of control and see that public funds are not misappropriated.
2. To maintain the vote books and make sure reconciliation statements and status of funds reports are made monthly and submitted to Treasury on time.
3. To execute payment of invoices after ensuring that goods on invoices match with delivery notes and purchase order.

2 Senior Accountant
2 Assistant Accountant

BUDGET OFFICE

FUNCTIONS:
1. To prepare and administer the ministerial budget.
2. To prepare monthly status of funds reports.

1 Senior Accountant
1 Assistant Accountant

PAYROLL MANAGEMENT

FUNCTIONS:
1. To execute salaries payment vouchers and allowances for employees of the ministry.

1 Senior Accountant

ANNEX 7-4.4

HUMAN RESOURCES DEPARTMENT

FUNCTIONS:
1. To provide capacity for the development and training of the MOHSWs human resources and thus to ensure training and career progression for all cadres
2. To plan the Ministry's human resource requirements.
3. To administer all personnel functions of the ministry.
4. To develop a Human Resource Development and Planning System that will enable the Ministry to retain its staff.
5. To manage grievances and discipline in the ministry.

1 Director (Human Resources)

HUMAN RESOURCE PLANNING

FUNCTIONS:
1. To research the HR needs for health and welfare in the country
2. To plan for the changing HR requirements of the country to meet the MOHSW objectives
3. To advise on a relevant org. design for the MOHSW
4. To ensure that the official org. design of the MOHSW is kept up to date and communicated to all personnel
5. To analyse jobs and conduct work studies in order to determine workloads and the skills mix required for H&W

01	8	1	Senior Human Resource Development Officer
		1	Human Resources Officer
		1	Assistant Human Resources Officer

TRAINING AND DEVELOPMENT

FUNCTIONS:
1. To identify the training needs of H&W personnel
2. To develop a Training and Development Plan to meet the identified needs of the MOHSW personnel
3. To administer the implementation of the Training and Development Plan
4. To provide personnel with career development advice
5. To liase with professional and public service training institutions

01	8	1	Senior Human Resource Development Officer
01	10	1	Human Resources Officer

HR MANAGEMENT & ADMIN

FUNCTIONS:
1. To administer employment issues of MOHSW personnel, including management of personnel files
2. To administer the compensation of MOHSW personnel
3. To administer the performance management system of the MOHSW

1	Principal Human Resource Development Officer
1	Senior Human Resource Development Officer
1	Human Resources Officer
2	Assistant Human Resources Officer
1	Assistant Personnel Officer

EMPLOYEE RELATIONS

FUNCTIONS:
1. To manage the disciplinary process in the ministry.
2. To manage personnel grievances.

1	Human Resources Officer
1	Assistant Human Resources Officer

HR MANAGEMENT INFORMATION SYSTEM

FUNCTIONS:
1. To ensure that the personnel records are up to date in the HR MIS.

None

ANNEX 7-5

OFFICE OF THE DIRECTOR GENERAL HEALTH SERVICES

FUNCTIONS:
1. To advise the PS on technical health issues.
2. To coordinate the formulation of health.
3. To monitor implementation of health.
4. To supervise the technical departments of the ministry.
5. To participate in budget planning, implementation and monitoring.
6. To initiate and make recommendations in respect of human resources development for the technical disciplines.
7. To ensure the quality of health services.
8. To update technical professionals on new developments in health.

01	52	1	Director General (Health Services)
01	18	1	Personal Secretary
01	54	1	Chief Nursing Officer
01	53	1	Director PHC

MENTAL HEALTH — **ANNEX 7-5.2.1**

FLYING DOCTOR — **ANNEX 7-5.2.3**

PHARMACEUTICAL SERVICES — **ANNEX 7-5.2.5**

QUEEN ELIZABETH II HOSPITAL — **ANNEX 7-5.4**

DIAGNOSTIC SERVICES — **ANNEX 7-5.2.2**

NURSING SERVICES — **ANNEX 7-5.2.4**

PRIMARY HEALTH CARE DEPARTMENT — **ANNEX 7-5.3**

HEALTH SERVICE AREA (HSA) DISTRICTS

ANNEXURE 7-5.1

SOCIAL WELFARE DEPARTMENT

FUNCTIONS:
1. To plan, implement, monitor poverty alleviation.
2. To provide services to the vulnerable groups, children, elderly and the disabled.
3. To coordinate, assist and monitor organisations and families that provide welfare services to the country.
4. To develop and monitor innovative social welfare policies.
5. To provide coordinated action of activities by the relevant sections.
6. To initiate the formulation and review of policies and legislation.
7. To develop and manage human resources.

09	1	1	Director (Social Welfare)
09	15	1	Personal Secretary
09		1	Senior Administrative Secretary
09		2	Assistant Administration Officer
09		1	Accountant
09		2	Assistant Accountant
09		4	Driver
09		3	Typist
09		17	Office Assistant

CHILD WELFARE

FUNCTIONS:
1. To facilitate formation of Youth Clubs.
2. To provide recreational facilities to enhance development of children.
3. To provide school fees and public assistance to needy children.

1	Principal Social Welfare Officer
3	Senior Social Welfare Officer
3	Senior Social Worker
11	Social Welfare Assistant
1	Matron
2	Storekeeper
1	Executive Officer
1	Clerical Assistant
2	Switchboard Operator

DISABILITY REHABILITATION (Ithuseng voc. Rehab.Center)

FUNCTIONS:
1. To promote welfare of the disabled through skills/vocational training in order to attain self-sufficiency.
2. To create awareness about the rights of the disabled in order to reduce negative attitudes.
3. To assist with the integration of the disabled into the mainstream society.

1	Senior Instructor
3	Instructor
1	Vocational Guidance Officer
1	Assistant Administration Officer
1	Matron
1	Storekeeper
1	Driver

EDUCATION SERVICES

FUNCTIONS:
1. To
2. To

3	Senior Social Worker
2	Social Worker

ELDER CARE SERVICES

FUNCTIONS:
1. To
2. To

SUBSTANCE ABUSE

FUNCTIONS:
1. To
2. To

3	Senior Social Worker
2	Social Worker
2	Senior Instructor
1	Vocational Guidance Officer
3	Instructor

ANNEX 7-5.2.1

MENTAL HEALTH

FUNCTIONS:
1. To disseminate information and education in techniques aimed at reducing and coping with psychological stress and strain.
2. To encourage health promoting activities such as sports and social activities.
3. To provide curative and rehabilitative services in the health institutions and in the communities.
4. To manage the institutionalisation of committed psychiatric patients.

04	2	1	Director (Mental Health)	04	1	1	Consultant
04	14	1	Personal Secretary	04	3	3	Specialist
04	7	1	Principal Mental Health Nurse	04	4	2	Registrar
				04	5	2	Psychologist

PSYCHAITRIC OUTPATIENT CLINIC

04	11	1	Nursing Sister
04	9	3	Nursing Officer
04	19	2	Nurse Assistant
04	26	3	Ward Attendant.

COMMUNITY MENTAL HEALTH SERVICES

04	11	1	Nursing Sister
04	9	3	Nursing officer
04	15	1	Senior Nurse Assistant
04	19	2	Nurse Assistant
04	26	2	Ward Attendant
04	12	1	Social Worker

CHILD AND ADOLESCENT MENTAL HEALTH SERVICES

04	11	1	Nursing Sister
04	9	1	Nursing Officer
04	19	1	Nurse Assistant
04	26	2	Ward Attendant

MOHLOMI HOSPITAL

04	6	1	Senior Nursing Officer
04	8	1	Principal Social Worker
04	12	2	Social Worker
04	11	15	Nursing Sister
		1	Pharmacy technician *(budgeted for at QEII)*
04	9	5	Nursing Officer
04	15	1	Senior Nurse Assistant
04	19	15	Nurse Assistant
04	13	1	Home Economics Instructor *(physically at QEII, budgeted for by mental)*
04	16	1	Hospital Administrative Assistant
		1	Assistant Home Economics Instructor *(not on the establishment)*
04	17	1	Assistant Accountant
04	18	1	Technical Assistant II/I
04	20	1	Accounts Assistant
04	21	2	Driver
04	22	1	Typist
04	23	1	Accounts Clerk
		1	Ward Clerk *(not on establishment paid for by QEII)*
04	24	1	Commissionaire
04	25	2	Senior Guard
04	26	38	Ward Attendant
04	27	4	Office Assistant
04	28	28	Hospital Assistant

ANNEX 7-5.2.2

DIAGNOSTIC SERVICES

FUNCTIONS:
1. To manage and control the Lesotho Blood Transfusion Service.
1. To formulate policy on laboratory services at all levels of the national health care delivery system.
2. To provide guidelines on laboratory tests, techniques and appropriate personnel for the health care deliverv svstem in Lesotho.

07	1	1	Director
07	9	1	Typist
		4	Driver

BLOOD TRANSFUSION SERVICES

FUNCTIONS:
1. To provide adequate and safe blood and blood products to the people of Lesotho

07	2	1	Laboratory Manager
07	3	?	Principal Laboratory Technologist
07	5	42	Senior Laboratory Technologist
07	4	1	Nursing Sister
07	5	11	Senior Laboratory Technologist
07	6	10	Assistant Medical Laboratory Technician
		4	Driver
		1	Typist
		6	Office Assistant

MEDICAL LABORATORY SERVICES

FUNCTIONS:
1. To provide a comprehensive medical laboratory service including a referral service for all hospitals and health centres.

07	2	1	Laboratory Manager
07	3	?	Principal Lab. Technologist
07	5	?	Senior Lab. Technologist
07	05	5	Donor Attendant
		1	Nurse (Phlebotomist)
		1	Senior Laboratory Technician
		?	Office Assistant

ANNEX 7-5.2.3

LESOTHO FLYING DOCTORS SERVICE

03	1	1	Registrar
03	2	5	Nursing Officer
03	3	5	Nursing Sister
03	4	5	Staff Nurse
03	5	1	Pharmacy Technician
03	6	1	Senior Health Assistant
03	7	1	Dental Mechanic
03	8	1	Health Assistant
03	9	12	Nurse Assistant
03	10	2	Driver
03	11	1	Clerical Assistant
		1	*(1 unbudgeted)*
03	12	6	Ward Attendant
03	13	5	Office Assistant

03	2	1	Nursing Officer
03	9	1	Nurse Assistant
03	12	1	Ward Attendant
03	13	2	Office Assistant

KEBUYANE HC

03	2	1	Nursing Officer
03	3	1	Nursing Sister
03	9	1	Nurse Assistant
03	12	1	Ward Attendant
03	13	1	Office Assistant

METHALANENG HC

03	2	1	Nursing Officer
03	9	2	Nursing Assistant
03	13	2	Office Assistant

LEBAKENG HC

03	2	1	Nursing Officer
03	3	1	Nursing Sister
03	9	1	Nurse Assistant
03	13	3	Office Assistant

03	2	1	Nursing Officer
03	3	1	Nursing Sister
03	9	1	Nurse Assistant
03	12	1	Ward Attendant
03	13	2	Office Assistant

SEMENANYANE HC

03	2	1	Nursing Officer
03	3	1	Nursing Sister
03	9	2	Nurse Assistant
03	13	2	Office Assistant

03	2	1	Nursing Officer
03	3	1	Nursing Sister
03	9	1	Nurse Assistant
03	13	2	Office Assistant

BOBETE HC

03	2	1	Nursing Office
03	9	1	Nursing Assistant
03	13	2	Office Assistant

MASERU HEALTH POST

03	9	1	Nurse Assistant
03	12	1	Ward Attendant
03	13	3	Office Assistant

ANNEX 7-5.2.4

NURSING SERVICES

FUNCTIONS:
1. To develop policy on nursing in Lesotho.
2. To ensure that nurse training meets the needs of the services.
3. To work with the HRD to ensure that nurses are optimally deployed.

01	54	1	Chief Nursing Officer

ANNEX 7-5.2.5

PHARMACEUTICAL SERVICES

FUNCTIONS:

1. To ensure the provision of effective, high quality and affordable drugs, vaccines and pharmaceutical & surgical supplies to the entire health system in Lesotho from National Drug Service Organisation.
2. To monitor and quantify the extent and quality of imported drugs.
3. To develop policies and legal instruments to control drug movement and use.
4. To introduce and maintain the Drug Management Information Systems.
5. To develop, implement and monitor policy on drug management and use.
6. To establish the National Drug Regulatory Authority.

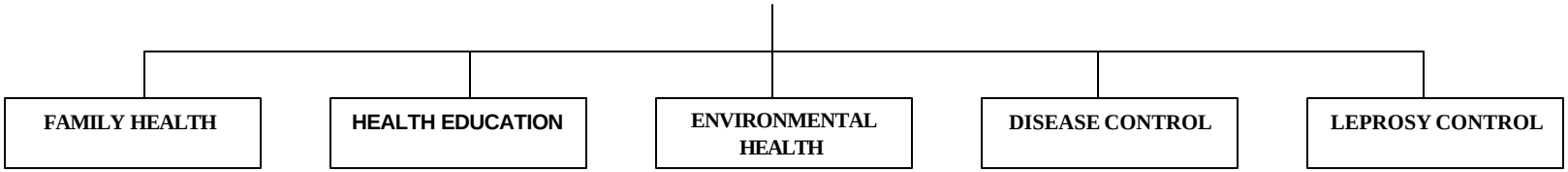
02	61	1	Senior Pharmacist

ANNEX 7-5.3

PRIMARY HEALTH CARE DEPARTMENT

FUNCTIONS:
1. To provide immunisation coverage of EPI targeted diseases.
2. To provide policy on antenatal facility deliveries and post-natal services.
3. To reduce maternal and peri-natal mortality.
4. To ensure timely and rational referral of patients and rational drug use.
5. To reduce the prevalence of communicable diseases and ensure environmental improvement and increased water and sanitation coverage.
6. To promote health and well being of the population of Lesotho.
7. To develop and monitor the provision of primary health care.
8. To facilitate PHC education and training programmes.

01	53	1	Director Primary Health Care



ANNEX 7-5.5.1 **ANNEX 7-5.5.2** **ANNEX 7-5.5.3**

ANNEX 7-5.3.1

FAMILY HEALTH

FUNCTIONS:

1. To develop, implement and monitor policies, programmes and projects aimed at reducing maternal, child and infant morbidity and mortality.

Maternal Services (Reproductive Health)

2. To establish an effective surveillance, supervision, monitoring, screening and referral system.
3. To develop and maintain village health posts and mobile out reach clinics for the underserved and remote areas.
4. To provide and educate the population about the use of contraceptives.
5. To encourage greater involvement of other Ministries and Private sector on the provision and promotion of safe motherhood.

Child Health

1. To provide EPI coverage through immunisation campaigns.
2. To ensure social participation by embarking on childhood programmes.
3. To provide all health facilities with vaccines, ORS, and other services that will ensure the well being of children.

Nutrition.

1. To provide a legal framework and environmental conditions to promote breastfeeding and discourage access to breast milk substitutes.
2. To mobilise health professionals and other stake-holders to advocate breastfeeding.
3. To promote nutrition rehabilitation and follow up.
4. To create nutrition awareness through education, communication and social mobilisation.

		1	Registrar (budgeted for elsewhere)
05(01)	43	1	Assistant Executive Officer
05(01)	46	1	Typist
05(01)	45	4	Driver

1	Chief Nutritionist Officer
1	Principal Nursing Officer
1	Senior Nursing Officer
2	Nursing Officer
2	Senior Nutritionist Officer
3	Senior Nursing Sister
7	Nursing Sister
1	Nutritionist Officer
1	Nurse Assistant
3	Cold Chain Technician
1	Assistant Executive Officer
2	Data Collector
4	Driver
1	Typist

REPRODUCTIVE HEALTH

05(2)	35	1	Senior Nursing Officer
05(02)	36	3	Nursing Officer
05(02)	38	1	Senior Nursing Sister

CHILD AND ADOLESCENCE HEALTH

05(02)	36	4	Nursing officer
05(02)	39	1	Nursing sister
05(02)	41	1	Nurse Assistant
05(02)	44	1	Data collector
05(02)	42		Cold chain technician

NUTRITION

05(02)	33	1	Chief Nutritionist Officer
05(02)	37	2	Senior Nutritionist Officer
05(02)	40	1	Nutritionist Officer

COMMUNITY BASED HEALTH CARE

05(02)	36	1	Nursing Officer
05(02)	39	1	Nursing Sister

ANNEX 7-5.3.2

HEALTH EDUCATION

FUNCTIONS:

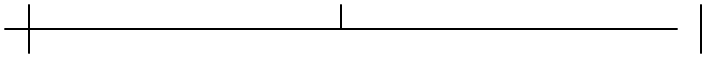
1. To develop, implement and monitor the health education and promotion policy.
2. To provide specialised and targeted information, education and follow up to specific groups.
3. To design and develop IEC messages, materials, media and other professional services for use by health workers and the Community.
4. Coordinate the design and production of health education training materials for health workers and community groups.
5. To distribute and ensure effective and efficient use of information, education and communication (IEC) materials.
6. To review and improve the effectiveness of health education materials.
7. To conduct appropriate research regarding target audiences, media, channel of message and impact.
8. To attain and sustain functional education and health promotion at HSA, Health Centre and village level.

05(01)	24	1	Chief Health Educator
05(01)	25	1	Principal Health Educator
05(01)	26	4	Senior Health Educator
05(01)	27	2	Health Educator
05(01)	28	1	Senior Graphic Designer
05(01)	29	2	Educator
05(01)	30	1	Graphic Designer
05(01)	31	2	Technical Officer II/I
05(01)	1	1	Driver/Operator

ANNEX 7-5.3.3

ENVIRONMENTAL HEALTH

FUNCTIONS:
1. To formulate, implement and monitor policy on environmental health.
2. To enforcement of public and /or environmental laws.
3. To create awareness about environmental factors that contribute to poor health.



ADMINISTRATION

3	Registrar (*not budgeted for under environmental health, but under PHC administration)*
1	Personal Secretary
1	Accountant
1	Assistant Accountant
8	Driver
2	Clerical Assistant
4	Office Assistant

INSPECTORATE

1	Chief Health Inspector
1	Principal Health Inspector
7	Senior Health Inspector
	Nursing Officer
13	Health Inspector
1	Laboratory Technician
3	Senior Health Assistant
4	Senior Sanitation Assistant
40	Health Assistant

ANNEX 7-5.3.4

DISEASE CONTROL

FUNCTIONS:
1. To develop, implement and monitor TB, STIs, HIV/AIDS and non-communicable disease control policies.
2. To provide effective treatment and control of TB, STIs, HIV/AIDS and non-communicable diseases.
3. To provide intensive education on TB, STIs, HIV/AIDS and non-communicable diseases.

? *Nobody in charge of administra tion*

1 Typist
5 Driver
? Office Assistant

NON-COMMUNICABLE DISEASE PROGRAMME

1 Registrar
(budgeted elsewhere)

STI PROGRAMME

1 Registrar
(*Budgeted elsewhere)*
1 Nursing Sister

TB CONTROL PROGRAMME

1 Registrar
(budgeted for elsewhere)
1 Senior Health Assistant
(not on establishment)
1 Health Assistant
(not on establishment)

AIDS PREVENTION PROGRAMME

1 AIDS Prevention & Control Programme Manager

PATIENT CARE

2 Principal Nursing Officer
9 Senior Nursing Officer
7 Nursing Officer
1 Nursing Sister

EDUCATION AND COUNSELLING

1 Principal IEC Officer
1 Principal Counsellor
4 Senior IEC Officer
4 Senior Counsellor
2 Assistant Counsellor

ANNEX 7-5.3.5

LEPROSY CONTROL
(BOTSABELO HOSPITAL)

FUNCTIONS:
1. To develop, implement and monitor a Leprosy control policies.
2. To provide effective inpatient treatment and patient care of Leprosy patients.
3. To provide intensive education on Leprosy.

1 Superintendent

PATIENT CARE

06	1	1	Senior Nursing Officer
06	2	1	Nursing Officer
06	3	4	Nursing Sister
06	5	1	Senior Health Assistant
06	7	4	Nurse Assistant

ADMINISTRATION

06	6	1	Assistant Accountant
06	8	2	Driver
06	9	1	Home Economics Assistant
06	10	1	Clerical Assistant
06	11	4	Senior Guard
06	12	1	Shopman
06	13	26	Hospital Assistant

ANNEX 7-5.4.1

QUEEN ELIZABETH II HOSPITAL

FUNCTIONS:
1. To provide quality specialised clinical care for all referred patients.
2. To provide clinical support services.
3. To provide quality and specialised nursing care.
4. To provide administrative support for the hospital.
5. To supervise the running of the filter clinic to reduce direct admissions to hospital.
6. To provide clinical teaching for district health personnel.

02 1 1 Medical Superintendent

QE II HEALTH CENTRES AND CLINICS

ADMINISTRATION

02 2 1 Hospital Administrator
02 3 1 District Hospital Administrator

NURSING MANAGEMENT

1 Nursing Manager

GENERAL ADMINISTRATION

02 10 1 Hospital Administrative Assistant
02 2 Assistant Medical Records Officer
02 1 Driver
02 2 Typist
02 4 Switchboard Operator
02 27 Porter
02 15 Office Assistant
02 124 Hospital Assistant

HOSPITAL FINANCES

02 8 1 Senior Accountant
02 8 2 Accountant
02 13 4 Assistant Accountant
02 18 10 Accounts Assistant
02 23 2 Accounts Clerk

HUMAN RESOURCES

02 5 1 Assistant Human Resources Officer

HOSPITAL STORES

1 Storekeeper
22 Stores Assistant

HOSPITAL SECURITY

02 21 1 Senior Commissionaire
02 27 4 Gateman

MORTUARY

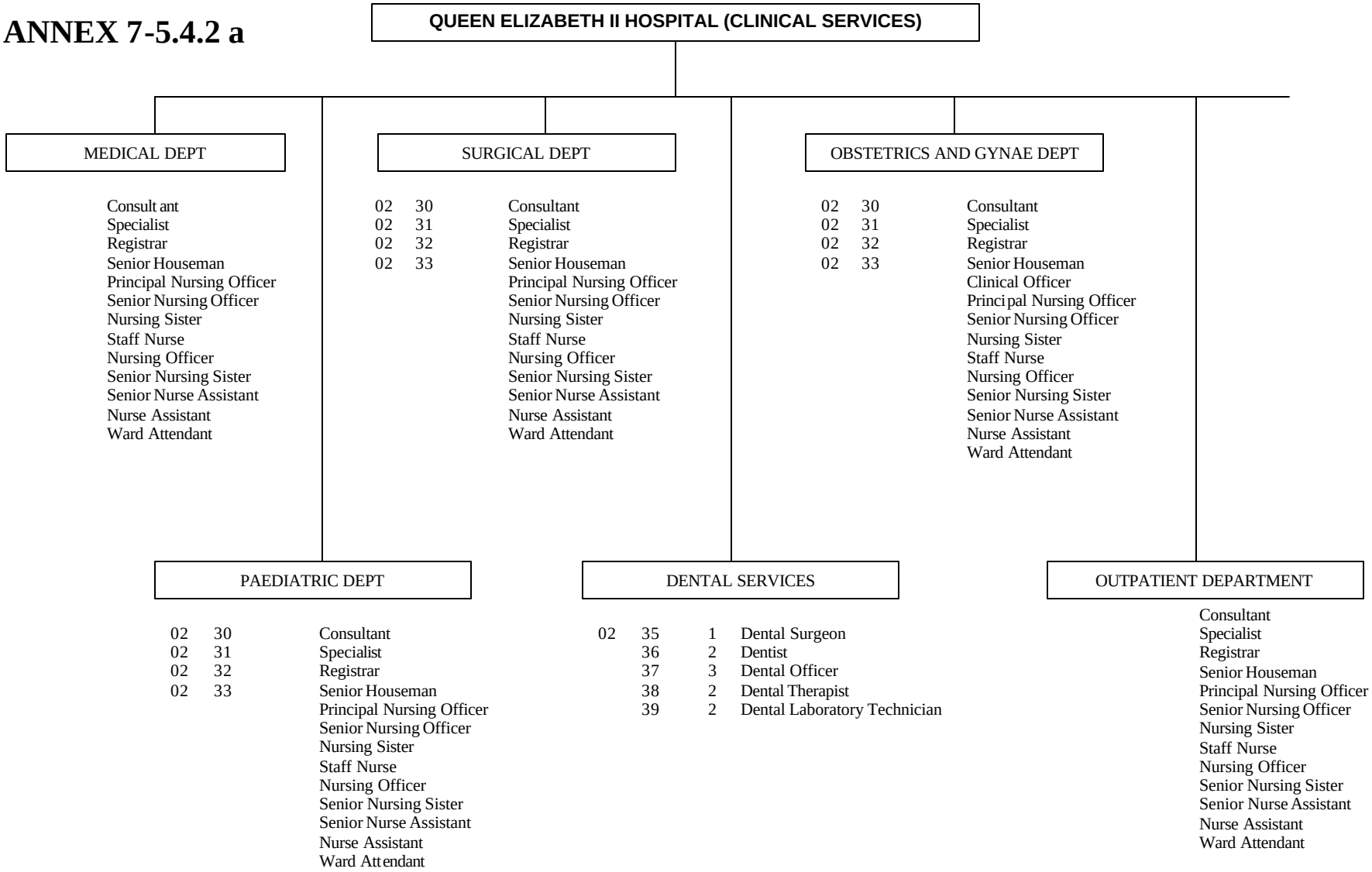
02 7 1 Mortuary Officer
02 12 1 Senior Mortuary Assistant
02 1 Mortuary Assistant

MAINTENANCE & REPAIRS

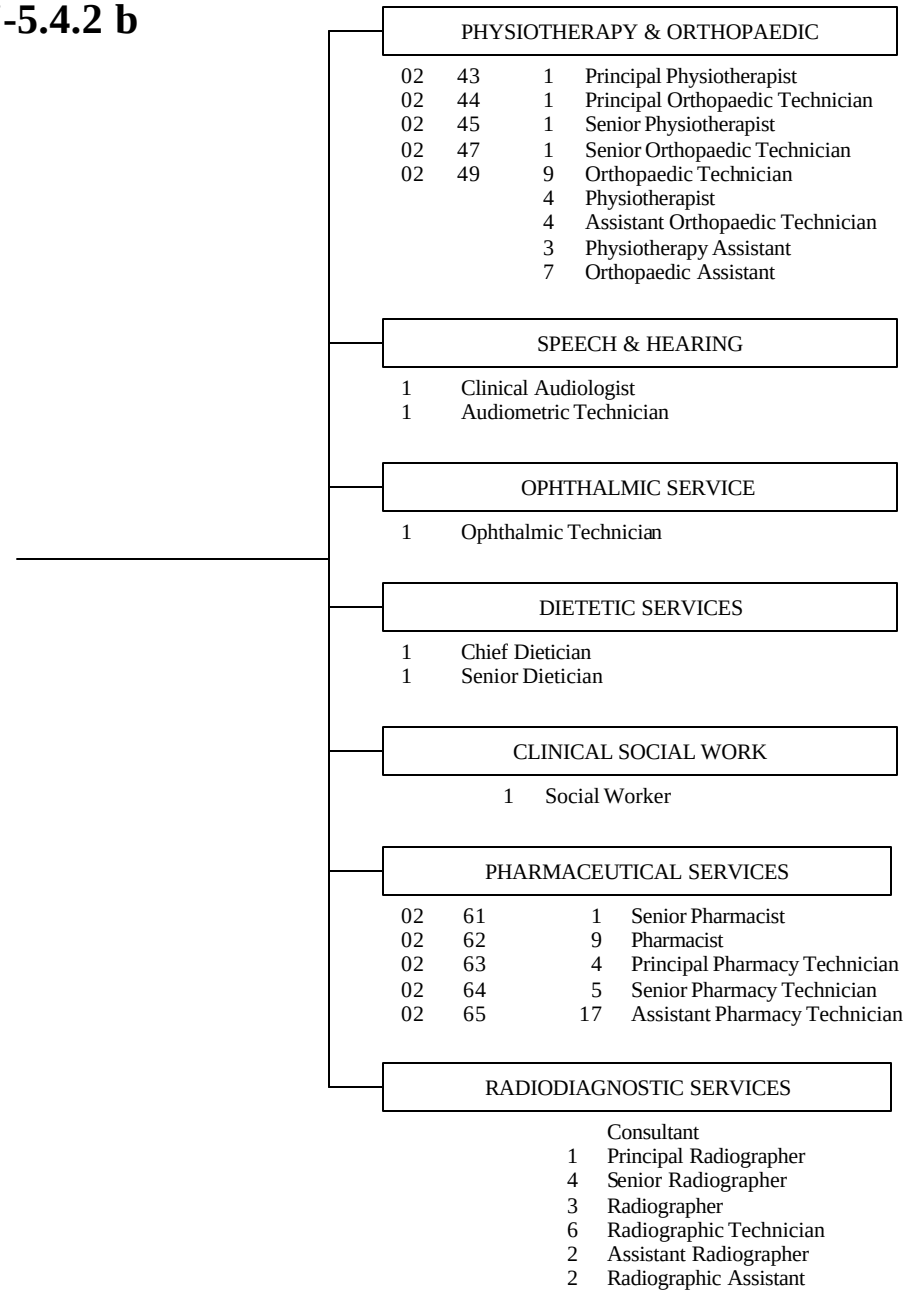
02 68 1 Chief Technical Officer
02 69 1 Principal Technical Officer
02 70 5 Senior Technical Officer II/I
02 71 9 Technical Officer II/I
02 72 5 Technical Assistant
02 73 1 Charge Hand

- EAR, NOSE & THROAT
- MEDICAL WARDS
- SURGICAL WARDS
- OBSTETRICS & GYNAE WARD
- PAEDIATRICS WARDS
- DENTAL SERVICES
- RADIODIAGNOSTIC SERVICES
- OUTPATIENT SERVICES
- PHARMACEUTICAL SERVICES
- PHYSIOTHERAPY & ORTHOPAEDIC
- SPEECH AND HEARING SERVICE
- OPHTHALMIC SERVICE
- DIETETIC SERVICES
- CLINICAL SOCIAL WORK

ANNEX 7-5.4.2 a


QUEEN ELIZABETH II HOSPITAL (CLINICAL SERVICES)
MEDICAL DEPT
Consult ant
Specialist
Registrar
Senior Houseman
Principal Nursing Officer
Senior Nursing Officer
Nursing Sister
Staff Nurse
Nursing Officer
Senior Nursing Sister
Senior Nurse Assistant
Nurse Assistant
Ward Attendant
SURGICAL DEPT
02 30 Consultant
02 31 Specialist
02 32 Registrar
02 33 Senior Houseman
Principal Nursing Officer
Senior Nursing Officer
Nursing Sister
Staff Nurse
Nursing Officer
Senior Nursing Sister
Senior Nurse Assistant
Nurse Assistant
Ward Attendant
OBSTETRICS AND GYNAE DEPT
02 30 Consultant
02 31 Specialist
02 32 Registrar
02 33 Senior Houseman
Clinical Officer
Princi pal Nursing Officer
Senior Nursing Officer
Nursing Sister
Staff Nurse
Nursing Officer
Senior Nursing Sister
Senior Nurse Assistant
Nurse Assistant
Ward Attendant
PAEDIATRIC DEPT
02 30 Consultant
02 31 Specialist
02 32 Registrar
02 33 Senior Houseman
Principal Nursing Officer
Senior Nursing Officer
Nursing Sister
Staff Nurse
Nursing Officer
Senior Nursing Sister
Senior Nurse Assistant
Nurse Assistant
Ward Att endant
DENTAL SERVICES
02 35 1 Dental Surgeon
36 2 Dentist
37 3 Dental Officer
38 2 Dental Therapist
39 2 Dental Laboratory Technician
OUTPATIENT DEPARTMENT
Consultant
Specialist
Registrar
Senior Houseman
Principal Nursing Officer
Senior Nursing Officer
Nursing Sister
Staff Nurse
Nursing Officer
Senior Nursing Sister
Senior Nurse Assistant
Nurse Assistant
Ward Attendant

ANNEX 7-5.4.2 b


PHYSIOTHERAPY & ORTHOPAEDIC
02 43 1 Principal Physiotherapist
02 44 1 Principal Orthopaedic Technician
02 45 1 Senior Physiotherapist
02 47 1 Senior Orthopaedic Technician
02 49 9 Orthopaedic Technician
4 Physiotherapist
4 Assistant Orthopaedic Technician
3 Physiotherapy Assistant
7 Orthopaedic Assistant
SPEECH & HEARING
1 Clinical Audiologist
1 Audiometric Technician
OPHTHALMIC SERVICE
1 Ophthalmic Technician
DIETETIC SERVICES
1 Chief Dietician
1 Senior Dietician
CLINICAL SOCIAL WORK
1 Social Worker
PHARMACEUTICAL SERVICES
02 61 1 Senior Pharmacist
02 62 9 Pharmacist
02 63 4 Principal Pharmacy Technician
02 64 5 Senior Pharmacy Technician
02 65 17 Assistant Pharmacy Technician
RADIODIAGNOSTIC SERVICES
Consultant
1 Principal Radiographer
4 Senior Radiographer
3 Radiographer
6 Radiographic Technician
2 Assistant Radiographer
2 Radiographic Assistant

ANNEX 7-5.4.3

QE II CLINICS

QOALING FILTER CLINIC

02	83	1	Specialist
02	84	3	Registrar
02	85	1	Senior Houseman
02	86	2	Senior Nursing Officer
02	87	7	Nursing Officer
02	88	2	Laboratory Technician
02	89	15	Nursing Sister
02	90	2	Pharmacy Technician
02	91	2	Social Worker
02	93	4	Staff Nurse
02	94	2	Dental Mechanic
02	95	2	Assistant Radiographer
02	98	2	Technical Officer II/I
02	99	15	Nurse Assistant
02	107	7	Ward Attendant
02	108	12	Hospital Assistant
02	109	2	Porter

MABOTE FILTER CLINIC

02		1	Dentist
02	84		Registrar
02	85		Senior Houseman
02	86		Senior Nursing Officer
02	87		Nursing Officer
02	88		Laboratory Technician
02	89		Nursing Sister
02	90		Pharmacy Technician
02	91		Social Worker
02	93		Staff Nurse
02	94		Dental Mechanic
02	95		Assistant Radiographer
02	98		Technical Officer II/I
02	99		Nurse Assistant
02	107		Ward Attendant
02	108		Hospital Assistant
02	109		Porter

ADMINISTRATION

02	92	2	Accountant
02	96	1	Assistant Accountant
02	97	1	Hospital Administrative Assistant
02	98	2	Technical Officer II/I
02	100	1	Accounts Assistant
02	101	2	Driver
02	102	2	Typist
02	103	2	Accounts Clerk
02	104	1	Stores Assistant
02	105	3	Clerical Assistant
02	106	2	Switchboard Operator

DOMICILIARY CLINIC

02	86	Senior Nursing Officer
02	87	Nursing Officer
02	89	Nursing Sister
02	99	Nurse Assistant
02	107	Ward Attendant
02	108	Hospital Assistant

LIKOTSI CLINIC

02	86	Senior Nursing Officer
02	87	Nursing Officer
02	89	Nursing Sister
02	99	Nurse Assistant
02	107	Ward Attendant
02	108	Hospital Assistant

LDF CLINIC

02	86	Senior Nursing Officer
02	87	Nursing Officer
02	89	Nursing Sister
02	99	Nurse Assistant
02	107	Ward Attendant
02	108	Hospital Assistant

LIKALANENG CLINIC

02	86	Senior Nursing Officer
02	87	Nursing Officer
02	89	Nursing Sister
02	99	Nurse Assistant
02	107	Ward Attendant
02	108	Hospital Assistant

MATSIENG CLINIC

02	86	Senior Nursing Officer
02	87	Nursing Officer
02	89	Nursing Sister
02	99	Nurse Assistant
02	107	Ward Attendant
02	108	Hospital Assistant

TLALI CLINIC

02	86	Senior Nursing Officer
02	87	Nursing Officer
02	89	Nursing Sister
02	99	Nurse Assistant
02	107	Ward Attendant
02	108	Hospital Assistant

SEMONGKONG CLINIC

02	86	Senior Nursing Officer
02	87	Nursing Officer
02	89	Nursing Sister
02	99	Nurse Assistant
02	107	Ward Attendant
02	108	Hospital Assistant

HA SENG CLINIC

02	86	Senior Nursing Officer
02	87	Nursing Officer
02	89	Nursing Sister
02	99	Nurse Assistant
02	107	Ward Attendant
02	108	Hospital Assistant

ANNEX 7-5.5

HEALTH SERVICE AREA DISTRICTS

FUNCTIONS:

1. To provide a 24-hour clinical care.
2. To diagnose, treat, care and rehabilitate patients.
3. To provide for the well being of the entire population within the area it serves.
4. To support the development of primary health care.
5. To respond to the needs of patients referred from the health centres and refers them safely to more complex levels of care when necessary.
6. To refer patients back to their source of referral with appropriate information.

8 ANNEX: Job Description – Continuing Education Programme

Ministry: HEALTH AND SOCIAL WELFARE

Department: Human Resources Department

Section: Continuing Education Program

Job Title: National C E P Administrator

Reports to: Director of Human Resources, MOHSW

Supervises: CEP Regional Training Supervisors

Purpose and Scope: Coordinates all CEP activities in the MOHSW and maintains close liaison with counterpart in CHAL.

Purpose and Scope: To supervise all Continuing Education activities in the health sector (including CHAL) to ensure that these activities are conducted in accordance with CEP National Plans and comply with established CEP protocols and guidelines.

Duties and Responsibilities:

1. Member of the Human Resources Development Committee to report on and coordinate continuing education with substantive pre-service and post-service training.
2. Member of any Task Force or Working Group established to strengthen service delivery within the sector e.g. HSR, District Health Package, Training Needs Assessment etc.
3. Coordination all CE activities within the sector.
3. Establish and maintain an effective working relationship with CEP Coordinator at CHAL Secretariat.
4. Supervise CEP- Regional Training Supervisors.
5. Oversee the sector-wide implementation of CEP Plans and Initiatives as they are developed.
6. Oversee the production and implementation of Annual plans for CE within all Services and Technical Cadres.
7. Oversee the development and implementation of appropriate protocols for Orientation, Skills-mix assessment, Training needs assessment etc. throughout the sector.
8. Oversee the development and implementation of Quality Assurance Procedures throughout the CEP.
9. Compile quarterly and annual reports of the CE Program and prepare annual budget for the Program within the MOHSW/CHAL Budgetary process.
10. Perform other duties as determined by the DGHS.

Qualification:

Education: Masters or equivalent in Health Sciences with a basic degree in medicine, Nursing or other health discipline.

Experience: More than 10 years as a service provider, at least 5 of which in a supervisory capacity. Intimate knowledge of the health service and senior level management experience desirable.

Job Title: Regional Training Supervisor- C E P

Reports to: Director of Human Resources

Supervises: CE Trainers and service supervisors in all cadres and all service areas

Purpose and Scope: To supervise all Continuing Education activities in the health sector (including CHAL) within the assigned Region and to ensure that these activities are conducted in accordance with CEP National Plans and comply with established CEP protocols and guidelines.

Duties and Responsibilities:

1. Ensure that CEP planning protocols are fully implemented in all service arenas.
2. Ensure that CE Training Plans are adhered to and that the Plans in each Region are regularly reviewed and updated according to Training Needs Assessment protocols.
3. Conduct regular "ToT" for all CEP providers and service supervisors in the Region.
4. Identify areas of weakness in CE and supervision within the Region and mobilize additional CEP support to those areas of weakness.
5. Ensure that new personnel deployed in the Region receive proper orientation re. their prescribed scope of work and that appropriate action is taken to ensure that any identified skills deficiencies are rectified.
6. Maintain regular liaison with counterparts in other Regions and share resources as required to cover leave of absence etc.
7. Report regularly to the CEP Program Coordinator on all issues, technical and administrative.

Qualifications:

Education: Basic Degree/Diploma in a Health Science, preferably with a postgraduate Degree/Diploma in a field such as Education, HR management, Health Planning etc.

Experience: At least 10 years experience in a Health related field, 5 of which were in a supervisory capacity. Wide exposure and in-depth knowledge of the health services, both government and non-government sectors.

9 ANNEX: Training Investments for National Continuing Education Programme

Course	Personnel	Unit	Unit Cost	Quantity					Cost					
				Q1	Q2	Q3	Q4	Q5	Y1	Y2	Y3	Y4	Y5	Total
Regional														
Medium-Term														
Administrative Management	CEP Administrator (GOL)	Month	M 8,680	3	-	-	-	-	M 26,040	M 0	M 0	M 0	M 0	M 26,040
Supervisory Methods	Regional CEP Trainers	Month	M 8,680	3	3	3	-	-	M 26,040	M 27,342	M 28,709	M 0	M 0	M 82,091
Supervisory Methods	CEP Coordinator - CHAL	Month	M 8,680	3	-	-	-	-	M 26,040	M 0	M 0	M 0	M 0	M 26,040
Short-Term														
Study tour to observe CEP in Zanzibar or other country	CEP Supervisors (GOL & CHAL)	Day	M 1,426	28	-	-	-	-	M 39,928	M 0	M 0	M 0	M 0	M 39,928
National														
Medium-Term														
Administrative Management	CEP Coordinator - CHAL	Month	M 8,680	-	6	6	-	-	M 0	M 54,684	M 57,418	M 0	M 0	M 112,102
Short-Term														
Training of trainers	CE Trainers	Day	M 434	-	100	100	100	100	M 0	M 45,570	M 47,849	M 50,241	M 52,753	M 196,412
National CE Training	MOHSW and CHAL Staff	Day	M 434	-	15,000	15,000	15,000	15,000	M 0	M 6,510,000	M 6,835,500	M 7,177,275	M 7,536,139	M 28,058,914
Establishing National CEP Total									M 118,048	M 6,637,596	M 6,969,476	M 7,227,516	M 7,588,892	M 28,541,527

Source: Adapted from the *Lesotho Health Study Phase III Report* (MCDI, 2002)

10 ANNEX: Technical Assistance Requirements for National Continuing Education Programme

Technical Assistance Requirements	Unit	Unit Cost	Quantity					Cost					
			Q1	Q2	Q3	Q4	Q5	Y1	Y2	Y3	Y4	Y5	Total
National													
Short-Term													
Taskforce: Review/revise/develop CEP Protocols	Days	M 186	200	-	-	-	-	M 37,200	M 0	M 0	M 0	M 0	M 37,200
Taskforce: Review/revise/develop CE Needs Assessment Procedures	Days	M 186	50	-	-	-	-	M 9,300	M 0	M 0	M 0	M 0	M 9,300
Taskforce: Develop orientation package for all elements of service	Days	M 186	300	-	-	-	-	M 55,800	M 0	M 0	M 0	M 0	M 55,800
Taskforce: Develop CEP Planning Protocols	Days	M 186	20	-	-	-	-	M 3,720	M 0	M 0	M 0	M 0	M 3,720
Taskforce: Review/revise CE Plan	Days	M 186	30	-	-	-	-	M 5,580	M 0	M 0	M 0	M 0	M 5,580
Taskforce: Develop 3-Year rolling CE Training Plan	Days	M 186	50	-	-	50	-	M 9,300	M 0	M 0	M 10,766	M 0	M 20,066
Human Resources Development Total								M 120,900	M 0	M 0	M 10,766	M 0	M 131,666

Source: *Lesotho Health Study Phase III Report* (MCDI, 2002)

11 ANNEX: Equipment Requirements for National Continuing Education Programme

Equipment	Unit	Unit Cost	Quantity					Cost					
			Q1	Q2	Q3	Q4	Q5	Y1	Y2	Y3	Y4	Y5	Total
Audio Visual Equipment													
Color high performance Laser Printer	Printer	M 15,500	1	-	-	-	-	M 15,500	M 0	M 0	M 0	M 0	M 15,500
Multisystem Video	Video	M 2,480	1	1	1	-	-	M 2,480	M 2,604	M 2,734	M 0	M 0	M 7,818
Multisystem TV 21"	TV	M 2,170	1	1	1	-	-	M 2,170	M 2,279	M 2,392	M 0	M 0	M 6,841
Flip Chart Stand	Stand	M 217	1	1	1	-	-	M 217	M 228	M 239	M 0	M 0	M 684
Kit (Overhead, Screen, Slide Projector)	Kit	M 3,751	1	1	1	-	-	M 3,751	M 3,939	M 4,135	M 0	M 0	M 11,825
Multisystem Camcorder	Camcorder	M 3,720	1	1	-	-	-	M 3,720	M 7,812	M 8,203	M 0	M 0	M 19,735
Multisystem Video	Video	M 2,480	-	2	-	-	-	M 0	M 5,208	M 0	M 0	M 0	M 5,208
Multisystem TV 21"	TV	M 2,170	-	2	-	-	-	M 0	M 4,557	M 0	M 0	M 0	M 4,557
Flip Chart Stand	Stand	M 217	-	2	-	-	-	M 0	M 456	M 0	M 0	M 0	M 456
Kit (Overhead, Screen, Slide Projector)	Kit	M 3,751	-	2	-	-	-	M 0	M 7,877	M 0	M 0	M 0	M 7,877
Computer Equipment													
Computer Table	Table	M 1,240	1	-	-	-	-	M 1,240	M 0	M 0	M 0	M 0	M 1,240
Adjustable Computer Chair	Chair	M 620	1	-	-	-	-	M 620	M 0	M 0	M 0	M 0	M 620
Multi-system Fax, Photocopier, Scanner, Printer	Multi-System	M 6,200	1	-	-	-	-	M 6,200	M 0	M 0	M 0	M 0	M 6,200
Telephone + istallation	Telephone	M 1,550	1	-	-	-	-	M 1,550	M 0	M 0	M 0	M 0	M 1,550
Desktop Computer System (w/ printer, UPS, MS Office software)	System	M 18,600	1	1	1	-	-	M 18,600	M 19,530	M 20,507	M 0	M 0	M 58,637
Computer Table	Table	M 1,240	1	1	1	-	-	M 1,240	M 1,302	M 1,367	M 0	M 0	M 3,909
Adjustable Computer Chair	Chair	M 620	1	1	1	-	-	M 620	M 651	M 684	M 0	M 0	M 1,955
High performance Laser Printer	Printer	M 6,200	-	2	-	-	-	M 0	M 13,020	M 0	M 0	M 0	M 13,020
Kit (Desktop Computer, Table, Chair)	Kit	M 20,460	-	2	-	-	-	M 0	M 42,966	M 0	M 0	M 0	M 42,966
Office and Administrative Equipment													
Executive Desk and Chair	Unit	M 7,750	1	-	-	-	-	M 7,750	M 0	M 0	M 0	M 0	M 7,750
Conference table with 10 chairs (wood)	Unit	M 3,100	1	-	-	-	-	M 3,100	M 0	M 0	M 0	M 0	M 3,100
Filing Cabinet (large standup)	Filing Cabinet	M 930	1	-	-	-	-	M 930	M 0	M 0	M 0	M 0	M 930
Bookshelves (metal)	Unit	M 1,240	1	-	-	-	-	M 1,240	M 0	M 0	M 0	M 0	M 1,240
Photocopier (large)	Photocopier	M 16,740	1	1	1	-	-	M 16,740	M 17,577	M 18,456	M 0	M 0	M 52,773
Fax Machine	Fax	M 1,550	1	1	1	-	-	M 1,550	M 1,628	M 1,709	M 0	M 0	M 4,886
Telephone + istallation	Telephone	M 1,550	1	1	1	-	-	M 1,550	M 1,628	M 1,709	M 0	M 0	M 4,886
Executive Desk and Chair	Unit	M 7,750	1	1	1	-	-	M 7,750	M 8,138	M 8,544	M 0	M 0	M 24,432
Conference table with 10 chairs (wood)	Unit	M 3,100	1	1	1	-	-	M 3,100	M 3,255	M 3,418	M 0	M 0	M 9,773
Filing Cabinet (large standup)	Filing Cabinet	M 930	1	1	1	-	-	M 930	M 977	M 1,025	M 0	M 0	M 2,932
Bookshelves (metal)	Unit	M 1,240	3	3	3	-	-	M 3,720	M 3,906	M 4,101	M 0	M 0	M 11,727
e-mail radio system	unit	M 7,440	1	1	1	-	-	M 7,440	M 7,812	M 8,203	M 0	M 0	M 23,455
Photocopier (large)	Photocopier	M 16,740	-	1	-	-	-	M 0	M 17,577	M 0	M 0	M 0	M 17,577
Fax Machine	Fax	M 1,550	-	1	-	-	-	M 0	M 1,628	M 0	M 0	M 0	M 1,628
Telephone + istallation	Telephone	M 1,550	-	1	-	-	-	M 0	M 1,628	M 0	M 0	M 0	M 1,628
Office Desk and Chair (Local Wood)	Unit	M 2,356	-	1	-	-	-	M 0	M 2,474	M 0	M 0	M 0	M 2,474
Conference table with 10 chairs (wood)	Unit	M 3,100	-	4	-	-	-	M 0	M 13,020	M 0	M 0	M 0	M 13,020
Filing Cabinet (large standup)	Filing Cabinet	M 930	-	2	-	-	-	M 0	M 1,953	M 0	M 0	M 0	M 1,953
Bookshelves (metal)	Unit	M 1,240	-	4	-	-	-	M 0	M 5,208	M 0	M 0	M 0	M 5,208
e-mail radio system	unit	M 7,440	-	1	-	-	-	M 0	M 7,812	M 0	M 0	M 0	M 7,812
Executive Desk and Chair	Unit	M 7,750	1	-	-	-	-	M 7,750	M 0	M 0	M 0	M 0	M 7,750
Filing Cabinet (large standup)	Filing Cabinet	M 930	1	-	-	-	-	M 930	M 0	M 0	M 0	M 0	M 930
Bookshelves (metal)	Unit	M 1,240	1	-	-	-	-	M 1,240	M 0	M 0	M 0	M 0	M 1,240
Human Resources Development Total								M 123,628	M 208,646	M 87,426	M 0	M 0	M 419,700

Source: *Lesotho Health Study Phase III Report* (MCDI, 2002)

12 ANNEX: Vehicle Requirements for National Continuing Education Programme

Vehicles	Unit	Unit Cost	Quantity					Cost					
			Q1	Q2	Q3	Q4	Q5	Y1	Y2	Y3	Y4	Y5	Total
4x4	Vehicle	M 248,000	1	-	-	-	-	M 248,000	M 0	M 0	M 0	M 0	M 248,000
4x4	Vehicle	M 248,000	1	1	1	-	-	M 248,000	M 260,400	M 273,420	M 0	M 0	M 781,820
Mini Bus	Vehicle	M 186,000	-	1	-	-	-	M 0	M 195,300	M 0	M 0	M 0	M 195,300
Human Resources Development Total								M 496,000	M 455,700	M 273,420	M 0	M 0	M 1,225,120

Source: *Lesotho Health Study Phase III Report* (MCDI, 2002)

13 ANNEX: Job Grading Methodologies

Job grading methods can also be either quantitative or non-quantitative. Non-quantitative methods try to establish a relative order of jobs, while quantitative methods try to establish how much more one job is worth over another job by using a scaling system. Quantitative methods for job evaluation and grading require establishing a comparison standard. This standard is based on whether the job evaluation method compares a job to other jobs or to some predetermined standard. If a job is compared to a predetermined standard, then classes or grades are typically established that have corresponding descriptions of the amount of responsibility for the jobs falling into that class or grade.

A comparison of the different methods of job evaluation in terms of how they are categorized is presented in the following table.

Table 79: Comparison of Job Evaluation Methods

	Non-Quantified Methods	Quantified Methods
Job-to-Job Ranking	Job Ranking	Factor Comparison
Job-to-Predetermined-Standard Comparison	Job Classification	Point Factor Method

Source: Adapted from Frederick S. Hills. Compensation Decision Making. Chicago: The Dryden Press, 1987.

Non-quantitative methods evaluate the whole job and place different jobs in order without a numeric value being assigned to each job. As a result, one can tell that job A is more important than job B but not how much more important. Within the non-quantified methods, the *job ranking* involves establishing a hierarchy of jobs from lowest to highest based on overall importance to the organization. Ranking evaluates the whole job, rather than parts of it, and compares one job to another. The *job classification* method involves grouping jobs into a predetermined number of grades or classifications, each having a class description to use for job comparisons. One of the best-known classification systems is the General Schedule (GS) system used by the United States federal government. The job classification for GS-1 positions is shown in Table 68.

Table 80: GS-1 Job Class Description

Job Class Description for General Schedule Position GS-1
Grade GS-1 includes those classes of positions the duties of which are to perform, under immediate supervision with little or no latitude of the exercise of independent judgment (a) the simplest routine work in office, business, or fiscal operations, or; (b) elementary work of a subordinated technical character in a pre-professional, scientific, or technical field.

Classes may be described further by naming **benchmark jobs** that fall into each class and are defined as reference points. According to Milkovich and Newman (1966), a benchmark job has the following characteristics:

- The contents are well known, relatively stable, and agreed upon by the employees involved.
- They represent the entire range of jobs to be evaluated.
- A sizeable portion of the work force is employed in these jobs, and the jobs are common across a number of different employers.

- The jobs are accepted in the external labor market for setting wages.

Quantitative job evaluation and grading methods evaluate specific factors, use a scale, and provide a score that indicates how valuable one job is compared to another. The *Point-factor method* is one of the most commonly used job evaluation and grading methods. It involves using specific factors to evaluate relative job worth. Although the factors selected may vary among organizations, the compensable factors typically include:

- Skill
- Responsibility
- Effort
- Working conditions, and
- Supervision of others.

These factors reflect how work adds value to the organization. They flow from the work itself and the strategic direction of the business. Factors such as effort, skills, working conditions, and responsibilities are used to determine which jobs are worth more than others. According to Milkovich and Newman, (1996), in order to be useful, compensable factors should be:

- Based on the work performed;
- Based on the strategies and values of the organization; and,
- Acceptable to the stakeholders affected by the resulting pay structure.

Table 69 provides an example of how one organization looked at the compensable factor related to skill. Note that there are different degrees of skill mastery, which are reflected by the assigned points.

Table 81: Analysis of Skill Factors

Degree	Levels	Points
1	Knowledge of simple, routine tasks. Skill to operate simple equipment. Requires no previous training or experience.	60
2	Knowledge of basic procedures and operations. Skill and judgment to apply procedures or operate equipment. Requires moderate degree of experience or previous training.	120
3	Knowledge of standardized, moderately complex procedures. Skill to apply procedures or operate varied equipment. Requires training and experience.	180
4	Knowledge of technical or special procedures to perform complex assignments. Requires considerable training and experience. Requires judgment to operate and adjust varied equipment to perform standard or specialized procedures.	240
5	Knowledge of an extensive body of procedures or operations. Requires special skills based on extensive training and experience. Independent judgment is required.	300

Once this analysis has been completed for all compensable factors, the result is a table like the one in Table 70, which gives the complete range of points related to all compensable factors.

Table 82: Points Related to All Compensable Factors

Factors	Degrees/Points				
	1	2	3	4	5
Skill	60	120	180	240	300
Responsibility	60	120	180	240	300
Effort	50	100	150	200	
Working conditions	30	60	100		
Supervision	20				

Based on the complete position evaluation guide, jobs are then assigned point values so that their relative worth can be compared.

The **Guide Chart-Profile method,** or **Hay Plan**, is a well-known version of the point method that uses compensable factors. Universal factors used by the Hay Plan are:

- Know-how.
- Problem-solving.
- Accountability.

A number of these alternative job evaluation and grading methods, including the Hay Plan, are currently are currently marketed in South Africa under licensing agreements with commercial entities (see Table 71 for a summary comparison of several of these commercially marketed methods).

Table 83: Alternative Job Evaluation and Grading Systems in Use in South Africa

ADVANTAGES	DISADVANTAGES
PATTERSON	
Internationally recognized system. Easily understood. Quick to implement / update.	Weak in professional, skilled and top management level particularly where it is necessary to discriminate between jobs in organizations of different sizes. Not widely supported in South Africa.
PEROMNES	
Works well over the hierarchy. Supported through a Peromnes salary survey.	Weak at the top as with Paterson. Local system – not known internationally. Relatively slow to implement.
HAY	
International system – most commonly used package job evaluation system in use worldwide Deals very effectively with skilled jobs Hay salary surveys to support the system. Previously implemented at similar public entities such as the CSIR, MRC & Mintek.	Not easily explained Time consuming to implement
EQUATE (Public Service System)	
Recently developed by KPMG. Tailor made for Public Service. Understood by employees.	Not internationally supported. Costly to tailor make to new organization.