

Dissertation

Title

An Approach to National Health Workforce Planning for
Health Service Delivery in South Africa

by

Malixole Percival Mahlathi

A Thesis submitted in fulfillment of the requirements of the Degree
of Doctor of Philosophy: Social Studies

Faculty of Economic and Management Sciences
University of Fort Hare

Supervisor:

Professor D. R. Thakhathi

December 2009

DECLARATION

I, Malixole Percival Mahlathi hereby declare that the work contained in this dissertation is my own original work and that I have not previously in its entirety or in part submitted it at any university for degree purposes.

Signature:

A handwritten signature in purple ink, appearing to read 'Mahlathi', with a stylized flourish at the end.

Date:

December 2009

DEDICATION

This work is dedicated to my late mother Mrs Sylvia Sizakele Mahlathi, for all the encouragement, support, belief in me and instilling in me the discipline and a strong will to succeed.

Acknowledgements

I wish to thank Prof. Dovhani Thakhathi for the guidance he provided me with in the development and finalization of this dissertation. His patience and encouragement was outstanding.

A appreciation also goes to the Vice-Chancellor of the University of Fort Hare Dr Mvuyo Tom who has always nudged me towards excellence in various ways throughout my career.

My sincere gratitude goes to my wife Sithembisile and children Lindelwa, Nokuhle and Phakamani for the endless support and encouragement.

ABSTRACT

Background

Although South Africa educates and trains many health professionals of various categories, it continues to experience relative and critical shortages of these professionals especially at its rural health facilities. It boasts more than 15 Faculties of Health Sciences which train a variety of health professionals. In addition to training for its own purposes, it also offers training for several countries in the Southern African Development Community. The burden of disease is considered to be high and increasing, complicated by the HIV and AIDS epidemic. In the light of these challenges it is necessary that South Africa engages in careful health workforce planning as a long term approach to solve shortage of health professionals and improving the delivery of health services. This study examines the health workforce planning approaches by the various Provincial Departments of Health and the student planning approaches by the Faculties of Health Sciences of the Higher Education Institutions that train health professionals.

Objectives of the Study

The objectives of this study were therefore geared:

- a) To explore the extent to which joint planning for health sciences education and training takes place between the health policy planners and higher education institutions for the production of health professionals.
- b) To establish the critical role of health workforce planning in health service delivery, and
- c) To propose a method through which coordination of human resources for health planning can be done within the South African context

Study design

Because no workforce planning system exists at national level, the study design involved setting up interviews with policy planners at provincial level and with the Deans of Faculties of Health Sciences to solicit their views on workforce planning. Their responses were recorded and analysed to establish concurrence and divergence on a number of areas.

Results

All those interviewed (100%) concurred that there was no workforce planning system that brings together educators and policy planners. The academics revealed that there is no identifiable system of planning either between or within institutions. They are just guided by the Department of Education's student planning allocations that are provided to the University on a global basis. There is therefore no direct correlation between the number of students trained with the health system requirements. They all concurred that this contributes to the imbalance between categories of professions trained with the older ones getting the lion's share of funding. This is just based on history, not the needs of the future.

All academics concurred that the existence of a national health workforce planning system would assist in planning for the broad health sector, guide production of health professionals at health sciences academic institutions and serve as a mechanism to guide and coordinate provincial Departments of Health in decision making on prioritisation and funding of health science student training. There was also concurrence between policy makers and academics that there are issues which need to be urgently addressed on a national basis e.g. determining training targets, assessing

and quantifying services gaps, determining the supply gaps across professions and a situational analysis of existing annual intakes, production targets, and attrition factors.

Conclusion

A national health workforce planning system is required for the improvement of health service delivery. It will serve to guide policy makers and academic institutions on the type and extent of interventions that are required to respond to the complex burden of disease being experienced by South Africa. The proposed planning tool will require adequate resourcing of Departments of Health at national and provincial level with workforce planning professionals that have the understanding and appropriate attributes to plan for a health system that still has to address social and economic problems which lead to lack of access for mostly rural communities.

Further, the following recommendations are made: (a) National Department of Health to pronounce a set of principles to govern joint agreements between education and service (b) Creation of a national coordinating committee for academic health sciences planning to include the Departments of Health, Department of Higher Education, National Treasury and Department of Public Service and Administration to establish coherence at top government policy level (c) Set up of a national health sciences education and training committee made up of government, academic institutions, private health sector and funding bodies for planning purposes to respond rapidly to the health needs of the country (d) Invest heavily in local black universities to address faculty transformation fundamentally and (e) Develop academic leadership to enrich training and service quality.

TABLE OF CONTENTS:

	Page Number
Abbreviations	13
Chapter 1: Introduction	
1.1 Legislative and Operational Overview	14
1.2 Theoretical Overview	19
1.3 Statement of the Problem	22
1.4 The Research Question	22
1.5 Field of Study	23
1.6 Theoretical Framework	25
1.7 Research aim and objectives	30
1.8 Research methodology	32
1.9 Validity of the Study	32
1.10 Reliability of Research Instrument	33
1.11 Units of Analysis	34
1.12 Delimitations of the Study	35
1.13 Structure of the Thesis	36
1.14 Conclusion	38
Chapter 2: Health Workforce as a Concept	
2.1 Introduction	39
2.2 The Global Nature of Health Workforce Planning	41
2.3 Constitutional Relevance of Workforce Planning	43

2.4	Transformation Imperatives of the Public Health Sector	45
2.5	The Challenges of Planning	47
2.6	Significance of Workforce Planning	50
2.7	Existing Approaches to Workforce Planning Processes	52
2.8	Significance of Health Workforce Planning in South Africa	55
2.9	National Human Resource Information System	59
2.10	Millennium Development Goals – Human Resource Implications	61
2.11	Conclusion	64

Chapter 3: Public Administration and Public Policy

3.1	Introduction	66
3.2	Principles of Public Administration	66
3.3	Values and Public Policy Formulation	68
3.4	Stewardship for Public Policy	70
3.5	Conclusion	71

Chapter 4: Intersectoral nature of health workforce planning

4.1	Introduction	72
4.2	Higher Education and Training	72
4.3	The National Human Resource Development Strategy	80
4.4	The Public Service HRD Strategy and its Impact on the Health Sector	84
4.5	Joint Initiative on Priority Skills Acquisition	92
4.6	Accelerated Shared Growth Initiative for South Africa	96
4.7	Conclusion	101

Chapter 5: The supply and demand relationship in the health sector

5.1	Introduction	103
5.2	Enrolment Planning for Higher Education in South Africa	103
5.3	Determining the health needs	108
5.4	Determining the required skills mix	113
5.5	HIV and AIDS Training	117
5.6	Conclusion	119

Chapter 6: Health sciences education and training

6.1	Introduction	120
6.2	Structure of health sciences higher education and training	120
6.3	Education programmes in health sciences higher education	123
6.4	Role of Health and Welfare Sector Education and Training Authority	130
6.5	Changing student demographics	131
6.6	Conclusion	137

Chapter 7: Requisite resources for workforce planning

7.1	Introduction	138
7.2	Human Capital for Workforce Planning	138
7.3	Importance of Financial Resources	142
7.4	Intellectual Resources	149

7.5	Literature resources	150
7.6	Conclusion	151

Chapter 8: Improving the landscape: views on planning for the present and the future

8.1	Introduction	152
8.2	Discussion of the survey	153
8.3	Analysis, Interpretation and Discussion of Survey Results	154
8.4	Comparison with some approaches in international literature	172
8.5	Conclusion	175

Chapter 9: Analysis of survey recommendations on health workforce planning

9.1	Introduction	177
9.2	Envisaged Role of the Department of Education	177
9.3	Envisaged Role of Provincial Departments of Health	179
9.4	Envisaged Role of the National Department of Health	181
9.5	Envisaged Role of Education and Training Institutions	182
9.6	Conclusion	183

Chapter 10: Proposed Workforce Planning Tool

10.1	Introduction	185
10.2	Proposed Workforce Planning Tool	186
10.3	Recommendations	187
10.4	Conclusion on the Study	189

Bibliography	190
Appendix A (List of Interviewees)	198
Appendix B (Questions to guide interviews with Policy Makers)	199
Appendix C (Questions to guide interviews with Deans)	200
Appendix D (Letter requesting an interview)	202
Appendix E (Letter requesting permission to use Departmental information)	204

Abbreviations

AIDS	-	Acquired Immune Deficiency Syndrome
AU	–	African Union
CHE	–	Council on Higher Education
DoE	–	Department of Education
DPSA	–	Department of Public Service and Administration
HIV	-	Human Immuno-deficiency Virus
HPCSA	–	Health Professions Council of South Africa
HRD	–	Human Resource Development
HRH	–	Human Resources for Health
HSRC	–	Human Sciences Research Council
INMDC	–	Interim National Medical and Dental Council
MRC	-	Medical Research Council
NDoH	–	National Department of Health
NHS	–	National Health Service
NHRIS	-	National Human Resource Information System
OECD	–	Organisation for Economic Cooperation and Development
OSD	–	Occupation Specific Dispensation
PCAS	-	Policy Coordinating Advisory Services
PHC	–	Primary Health Care
SADC	–	Southern African Development Community
SAHR	–	South African Health Review
WHO	–	World Health Organisation

CHAPTER 1: INTRODUCTION

1.1 Legislative and Operational Overview

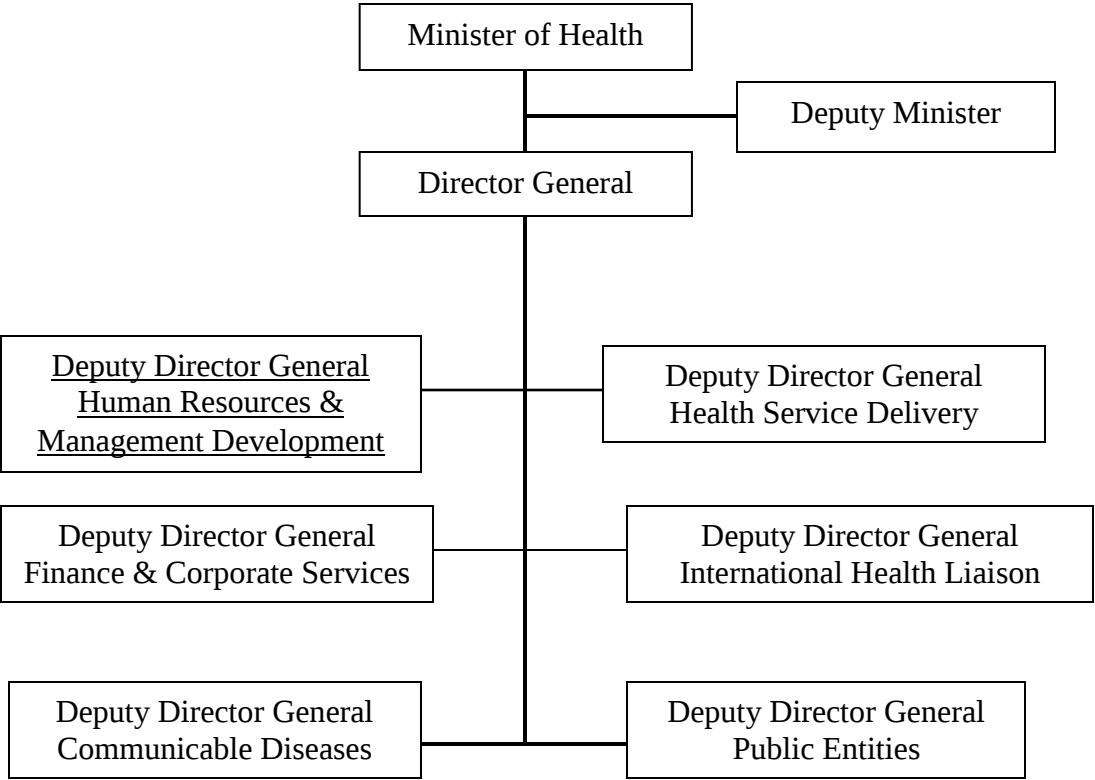
Health workforce planning is a legislative responsibility of the National Department of Health which is derived from the Constitution of the Republic of South Africa Act 108 of 1996. Health services are classified under Schedule 4 of the Constitution which lists these as functional areas of concurrent National and Provincial legislative competence. Guiding this concurrency between spheres of government and organs of State is the principle of cooperative governance which in terms of Chapter 3 Section 41 (1) (h) must co-operate with one another in mutual trust and good faith by assisting and supporting one another [(h) (ii)]; informing one another of, and consulting one another on matters of common interest [(h) (iii)]; coordinating their actions and legislation with one another [(h) (iv)] and adhering to agreed procedures [(h) (v)].

In terms of Chapter 10 Section 195 (1) provision of health services must be done through public administration which must be governed by the democratic values and principles enshrined in the Constitution. Subsection (b) relates to the ‘efficient, economic and effective use of resources’ whilst subsection (e) instructs that ‘people’s needs must be responded to, and the public must be encouraged to participate in policy making’ and subsection (h) instructs that ‘good human resource management and career development practices to maximize human potential must be cultivated’.

The organization of health services is based on these constitutional provisions and divided in the main into the National Department of Health and nine Provincial Departments of Health. The

National Department of Health is a policy making and standards generating entity whilst provinces are largely implementing agents. Concurrency forces these two spheres of government to cooperate in almost everything they do in carrying out their mandates. An additional sphere of government is Local Government but it does not feature much in health workforce planning or core health services delivery matters beyond those strictly provide for in the Constitution or delegated to them by provinces.

The National Department of Health is structured such that it oversees the major aspects of the health system. It is configured as indicated in the following diagram.



The vision of the National Department of Health is that of bringing about an accessible, caring and high quality health system. Its mission is to improve the health status of South Africans through the prevention of illnesses and promotion of healthy lifestyles and to consistently improve the health care delivery system by focusing on access, equity, efficiency, quality and sustainability.

Its priorities known as the 10-Point Plan are:

1. Provision of strategic leadership and creation of a social compact for better health outcomes;
2. Implementation of a National Health Insurance Plan;
3. Improving Quality of Services;
4. Overhauling the health care system and improve its management
5. Improving Human Resources Management
6. Revitalisation of physical infrastructure;
7. Accelerated implementation of HIV and AIDS¹ Plan and reduction of mortality due to TB and other communicable diseases;
8. Mass mobilisation for better health for the population;
9. Review of the Drug Policy;
10. Strengthening Research and Development

The health system is governed by the National Health No. 61 of 2003, which from a human resource point of view directs the Minister (in terms of Sections 48 to 52) through the National Health Council to develop policy and guidelines for, and monitor the provision, distribution, development, management and utilization of, human resources within the national health system.

¹ HIV – Human Immuno-Deficiency Virus; AIDS – Auto Immune Deficiency Syndrome

The division Human Resources and Management Development which falls under my leadership is responsible for the health sector workforce planning, development and management. In respect of these functions it has three major subdivisions also known as clusters namely;

- a) Human Resource Policy, Research and Planning
- b) Sector Labour Relations; and
- c) Development and Management

a) Human Resource Policy, Research and Planning

This cluster is responsible for health workforce policy development, research into several workforce issues and undertaking of workforce planning activities. This is the backbone of the health sector human resource branch and carries out its activities through engagement with various bodies and organisations ranging from small groups in the research area to academic bodies, academic institutions, labour organisations and professional associations. Another major piece of work is the interaction with Statutory Health Councils e.g. Health Professions Council of South Africa, South African Nursing Council, South African Pharmacy Council and the Allied Health Professions Council of South Africa on regulatory and accreditation matters. It also acts as a link with the Department of Education on higher education and training matters.

b) Sector Labour Relations

This cluster is responsible for development, maintenance and nurturing of relations between the Department of Health as an employer and various labour organisations. It leads and drives negotiations between the State and other parties at the Public Health and Social Development Sectoral Bargaining Council. These issues relate to working conditions and remuneration matters in the public health service. The cluster works very closely with the Department of Public Service and Administration.

c) Development and Management

This cluster is responsible for developing programme aimed at the improvement of competencies of the health workforce. Several training programmes for various cadres e.g. hospital managers, human resource practitioners are conceptualized, developed and managed by this division. It also interacts with the HWSETA² on skills development for general worker categories in the health sector. Some of the functions of this cluster are the management of foreign professional recruitment, placement of recently graduated professionals for internship and/or community service, development of sector wide remuneration systems, policy development on mid-level health workers, management of government-to-government agreements on recruitment or exchange of health professionals and assisting provincial human resource directorates on broader human resource development and management issues.

² HWSETA - Health and Welfare Sector Education and Training Authority

All the above clusters are led by Chief Directors who report to the Deputy Director General responsible for Human Resources and Management Development. The leadership from a policy development and planning point of view therefore resides with this branch at national level. Harmonization of policy development and implementation between national and provincial levels is critical. The success of planning and harmonisation depends on the capacity available in terms of intellectual capital, financial resources and working environments that are conducive to promoting innovation.

1.2 Theoretical Overview

Health systems can easily succumb to challenges of human resource demands associated with the *inadequate* supply and *inequitable* distribution of health professionals. These demands are accentuated in poor countries generally characterized by resource-constrained settings (Martineau, Willets 2006). Consequently, the developing countries' health systems such as that of South Africa face the most intricate human resource demands (SA National Department of Health, 2006). These demands are complicated by factors such as the increase in the disease burden, international migration of health professionals, poverty level wages, weak career development, skills mix and distributional imbalances (WHO, 2006). The term health profession is understood and used in this context to mean and refer to a group of individuals who are trained and qualified to make medical interventions and thus help in identifying, preventing or treating illness or disability.

Although the provision of an adequate human resource pool for the staffing of the public health sector in particular is a major task, *planning* and *production* of health professionals has

increasingly gained currency and form a fundamental base that guides *policy enactment, implementation* and *resource allocation* (WHO, 2006). Despite problems encountered at national level, the South African health system has made strides in the development of *strategies* to mitigate health workforce planning challenges. Planning is in this instance understood as a comprehensive process that provides policy-makers and decision-makers with a framework for making national policy decisions based on the health system's mission, strategic plan, budgetary resources, and a set of desired workforce competencies (Morrish, 2000).

During 2003 the National Department of Health realised the need to establish a strong division that would focus on human resources for health with a mandate of managing human resources at a national sector level as opposed to managing internal managerial human resource needs. This culminated in the development of a National Human Resources for Health Planning Framework, which was launched by the Minister of Health in April 2006 as an indication of a strategic focus on human resources in the health sector. This strategic document outlines various principles that should serve as guidance to national planning, development and management of human resources for health.

Pick et al (2001) earlier did work in this area which culminated in the adoption of a Human Resources Strategy report in July 2001. That report in its introduction stated: "In order to give expression to the Primary Health Care (PHC) approach, the vehicle through which basic health care will be made accessible to all, the Department is committed to ensuring, through proper planning, that a continuous supply of, suitably qualified, competent human resources will be available to staff primary, secondary and tertiary health facilities". This view was informed by the

White Paper for the Transformation of the Health System in South Africa (1997), which underpinned the importance of a number of principles to guide human resource planning, production and management.

Planning for the adequate supply of health professionals is therefore a critical aspect of national health workforce planning. It talks to two major strategic objectives of the Human Resource Development Strategy for South Africa namely, (1) improving the foundations for human development and (2) improving the supply of skills (DPSA 2001). In the health sector, health professionals provide the foundations of such human development through the application of their skills in medical interventions. Health service providers are essentially the personification of a system's core values – they heal and care for people, ease pain and suffering, prevent disease and mitigate risk – the human link that connects knowledge to health action (WHO 2006).

Production of health professionals relates to the country's capacity and investment preparedness to educate and train for self-sufficiency. It talks to the ability of the country to produce health professionals in sufficient numbers, the ability of the health system to distribute them equitably, based on health needs, in all health facilities where South Africans access health services.

Based on these observations, it is critical that planning and production of health professionals is done appropriately as a foundation for solid national human resources for health planning. This dissertation is dedicated to establishing an appropriate health workforce planning framework for the South African health system to meet the health service delivery needs. The dissertation will focus on production planning of the health workforce to meet the demands on the system. The envisaged framework to be proposed will be an approach or model to balancing supply with

demand for the health workforce in the South African health system. This is in line with the broad national policy goals because human resource planning is essential for any organisation to ensure that its human resources are capable of meeting its operational objectives (National HRH³ Planning Framework 2006, 2).

1.3 STATEMENT OF THE PROBLEM

The delivery of health care services to patients is dependent on the availability of appropriately trained health professionals deployed at facilities where patients will have easy access to them. However the deployment of such professionals depends on the number that is available in the public health sector after graduating from the health sciences education and training institutions. This all commences at the planning stage where a decision is normally taken on how many health professionals have to be trained for the country's health system. In South Africa there is currently no integrated, coordinated or synchronised planning for the production of health professionals between the health sciences education and training institutions and the policy planning division of the Department of Health.

1.4 The Research Question

The research question of this study is to establish the processes that are followed by health sciences education institutions in their student planning and those that the Department of Health policy planners utilize in allocating funds for the training of health professionals. The ultimate goal

³ HRH – Human Resources for Health

is to develop an approach to national health workforce planning which seeks the involvement of major role-players.

1.5 FIELD OF STUDY

Health workforce is a relatively new and growing field of study within the health systems of many countries. The Joint Learning Initiative (2006) noted that because out of 57 countries worldwide that are experiencing critical shortages of health workers 36 are located in Africa, it was not strange to see sub-Saharan Africa having the lowest ratio of health workers to population compared to others countries in the world. The reasons for these shortages are often country-specific, but generally linked to long-term underinvestment in health education and training (www.who.int/hrh/en/). The World Health Report (WHO 2006) estimated that Africa takes a share of 25% of the burden of disease, less than 1% of total global health expenditure and only 3% of the world's health workers.

If planning for the production of health professionals could be done in a proactive manner at a national level, South Africans would enjoy better health service delivery. Production refers to the process of educating and training health professionals thus forms part of the supply side of human resources for health sector. Despite the fact that South African institutions graduate a variety of health professionals annually, several studies have revealed that the country suffers from a shortage in various health professional categories (SA Health Review 2006).

By and large this problem leads to many public health facilities being unable to deliver some basic health services even at a primary health care level. A survey was designed in the form of face-to-face interviews involving policymakers and selected health science educators. This study explores national planning for and production of health professionals in South Africa and how these impact on health service delivery.

Specifically, questions were posed **firstly** to the Deans of Health Science Faculties at institutions of higher learning to solicit information that addresses the problem: (a) what role health sciences education and training institutions play in the national planning for the production of health professionals (b) what relevance health needs have in the academic planning of education and training of the health professions (c) how the overall institutional planning impacts on health sciences education and training student planning (d) what factors influence the division of students into the various categories of health sciences courses in comparison to other academic fields of training.

Secondly a set questions was posed to Policy Makers, namely: (a) what national planning framework exists for the health professions in South Africa (b) how the national planning process relates to student planning by the health sciences education and training institutions (c) how the country's health needs are factored into the national planning for the production of health professionals (d) what the impact of the shortage of health professionals is on the delivery of health services and (e) how this impact gets measured and mitigated.

1.6 THEORETICAL FRAMEWORK

Workforce planning is about understanding the dynamics of know-how in an organisation that are critical to organising and enhancing the capability of a sustainable and motivated workforce. The complexity theory of planning is most appropriate in addressing health systems and health workforce planning because it allows for development of a framework to make better sense of the dynamics at play in the social ecologies of a large public sector organisation like health. It also influences the different approaches to problem-solving specifically related to health workforce planning. The basic argument is that health operates in an environment (internal and external factors) that is defined by complex interactions which are inherently unpredictable or at the very least imprecise and emergent.

A major concept in complex theory is underlined by a conclusion by Kuhn L et al (2003) that organisations have a strong predisposition to create order through predictable and replicable processes. Additional concepts include:

- 1) **Self-organisation** which describes the ability to create a structure without external assistance;
- 2) **Emergent properties** which arise from the interaction of ideas and forces around problem resolution;
- 3) **Edge of chaos** which is used to describe working near the uncomfortable chaotic zone and closely linked to a zone of innovation and out-of-the-box thinking; and,
- 4) **Attractors** which are focal points around which activities concentrate.

From a complexity theory point of view human dynamics are underpinned by narration, which is the foundation for constructing, articulating and sharing our knowledge of our environment. In examining the health system, like any other organisation the dynamics at play held by its constituents (individuals and groups) include history, values, ethics, communication, culture, information, language, symbols, hierarchy, stories, myths and legends. All this requires that basic knowledge about the system and its controlling organisation (department) is developed, acquired and passed on through not only scripts and submissions, but that the narrative becomes a major element of organisational development. The narrative enhances institutional memory and encourages the young management echelon to push the boundaries having been enriched with the knowledge about the organisation's culture and its past.

As described by Snowden (2002: 2) managing knowledge is more akin to managing a complex ecology of interdependent, unpredictable and fluid entities than it is designing a sophisticated machine. Knowledge (Kuhn et al 2003) is defined broadly as a variety of ideas, skills and techniques, facts, propositions, information as well as rituals, procedures and other artifacts of these things. Managing knowledge in any health system is integral to its prosperity and sustainability but in the health sciences it is complex and diverse although connected in a manner that seeks to advance the central objective of a health system – the attainment of positive health outcomes for individuals, families and communities.

Health practices are steeped in tradition but the gaps that exist between the divergent approaches to planning and ultimately provision of health services between the various levels of government

make it difficult to appreciate the interconnectedness. Part of the reason may be that government's various policy and implementing agencies rely variably on borrowed and generated knowledge with practitioners subscribing to different philosophical positions.

From a general planning perspective, the South African health system is complex and knowledge about its major divisions – public, private and the non-governmental sector – is critical to the success of workforce planning activities. It is because of this intricate connectedness and inter-dependency of these subsystems that workforce planning has to be holistic and done on the basis of critical knowledge about the roles that each subdivision plays in health care delivery.

Borrowed knowledge typically found in books, scientific articles etc has to be balanced with generated knowledge, which is typically derived from individuals or work groups and does not exist outside the boundaries of the organisation or professional group. This emphasises the need for the health system to generate internal knowledge of significantly good quality to enable its planners, human resource practitioners and leaders to plan appropriately for effective service delivery. Such knowledge is usually backed up by the ability and experiences that are inherent in internal processes, politics, organisational culture and history developed over many years of operation.

In workforce planning managing knowledge has to be dynamic and evolve as rapidly as the organisation grows and global developments impact on it. It must also enable the organisation to undergo transformative changes without creating severe strains that may affect its core business. The opposite could be argued in relation to whether South Africa's health system has a repository

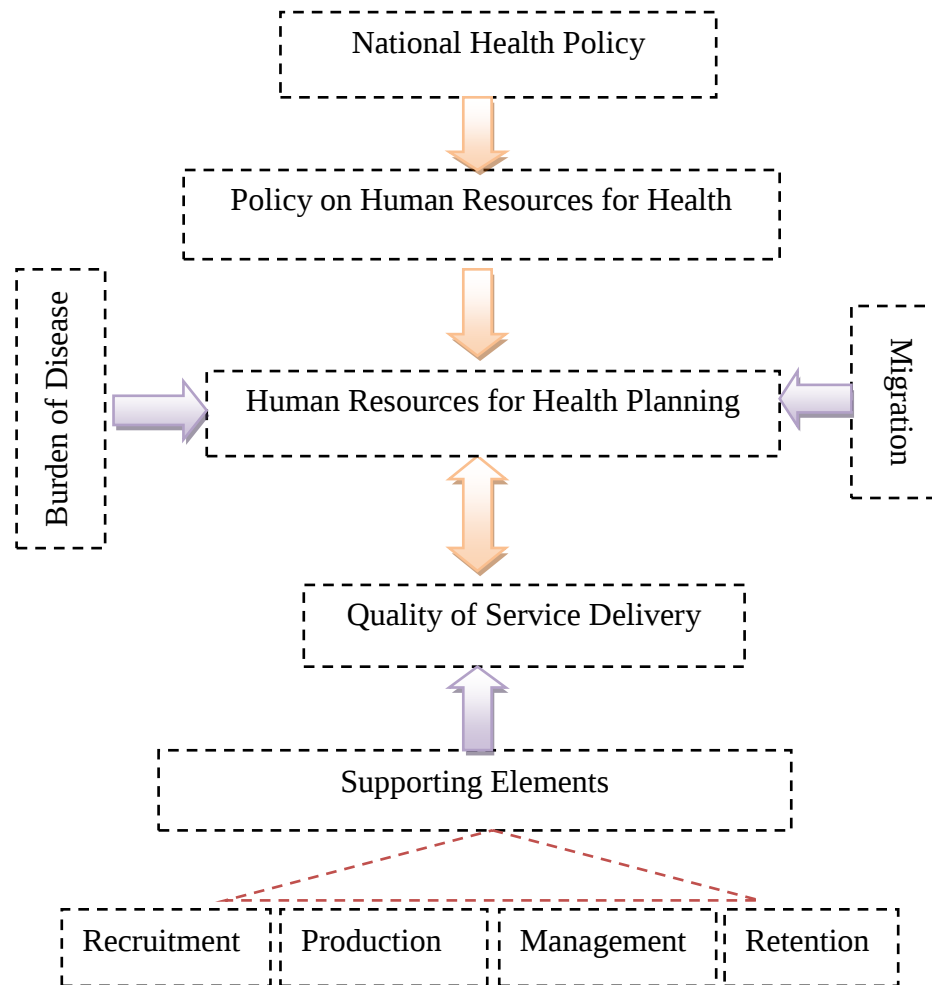
of knowledge about its own situation. It has over the past 15 years or so of democratic rule faced serious changes in its workforce planning attempts and management.

Not only has the burden of disease increased, the backbone of health service delivery – the health professional workforce - has declined significantly over years. Some research reports (NDOH⁴, 2008) allude to the fact that South Africa's health system current professional staff complement level is at the same level as it was in 1996 despite such an increase in its disease burden. The experiences of the workforce movement during this period have not been recorded proactively, properly monitored or even adequately researched.

Effectively managing knowledge on workforce planning provides ways to account for issues like innovation, departures from the norm (if any exists), organisational learning, accelerating experience, and individual and group development that cannot be effectively managed through the mechanistic systems of planning. Workforce planning requires a proactive investment by the Departments of Health nationally and in the provinces. It requires the development of professionals that have a detailed understanding of the health system and all its intricate and diverse subsystems. It needs professionals that have a good understanding of the socio-political and economic environment within which the health system has to operate.

A policy conceptual framework for health workforce planning must link health policy through its human resource policy to the quality of health services provided and the workforce factors that impact negatively or positively on the quality of service provision as indicated diagrammatically below.

⁴ NDOH – National Department of Health



According to WHO⁵, health policies help to develop a vision of the future, to define short-, medium- and long-term references, to determine objectives, to set out priorities, to delegate roles and to define means of action and institutional arrangements (Gilles Dussault, Carl-Ardy Dubois; 2003). Dussault et al further assert that there are three broad arguments for modernizing the ways in which human resources for health are managed:

- The central role of the workforce in the health sector;
- The various challenges thrown up by health system reforms;

⁵ WHO – World Health Organisation

- The need to anticipate the effect on the health workforce (and consequently on service provision) arising from various macroscopic social trends impinging on health systems.

They also claim that the absence of appropriate human resources policies is responsible, in many countries, for a chronic imbalance with multifaceted effects on the health workforce: quantitative mismatch, qualitative disparity, unequal distribution and a lack of coordination between human resource management actions and health policy needs. Health workforce planning is therefore an important aspect of ensuring the delivery of good quality health services to a nation.

1.7 RESEARCH AIM AND OBJECTIVES

A view exists that clinical education has not kept pace with shifting patient demographics and desires, changing health system expectations, evolving practice requirements, new information, and a focus on improving quality or new technologies (Institute of Medicine 2001). Embedded in this viewpoint are education and training issues mixed with what could be termed policy shortcomings, certainly when considered within the South African situation. This therefore justifies the selection of the units of analysis and the posing of specific questions to them as indicated below.

The objectives of this study are therefore geared:

- d) To explore the extent to which joint planning for health sciences education and training takes place between the principal actors, which are the health policy planners and higher education institutions (using the production of health professionals as an example)

- e) To establish the critical role of health workforce planning in health service delivery
- f) To propose a method through which coordination of human resources for health planning can be done within the South African context

Health workforce planning particularly for the professional workforce must be done as appropriately as possible to enable the health system to provide for the health needs of citizens as best it can. Training programmes in the health sciences are expensive to run, which is why a number of countries cannot afford to establish medical schools in the numbers that would ensure massive production of health professionals especially medical doctors. South Africa is renowned for the good quality of its health sciences training programmes.

However, even with all the academic institutions at its disposal, the country still faces a number of shortages in the key health professions. Even though this may be a global trend, the issue of appropriate planning, whether that meets the demand or not, is integral to any attempt by the health system to balance supply with demand. Academic institutions train for the general health sector. Health policy planners plan for health service delivery, which depends on health professionals to provide and deliver such services to the population. There is therefore a symbiotic relationship between education institutions and the health policy planners.

It is this symbiotic relationship that must be managed in a delicately balanced manner so that all required resources are utilised as efficiently as possible in the production of health professionals. A production planning framework is therefore necessary to guide a harmonised approach between the major players. It is hoped that the results of this study will assist in addressing some challenges at a

planning level by lifting certain critical actions that should be in place if a long-term solution is to be found.

1.8 RESEARCH METHODOLOGY

This study uses a qualitative field research approach. It primarily depends on two components: literature survey and in-depth qualitative interviews. The choice of this approach is based on the need to gain a deep understanding of various factors that influence the core business of the units of analysis that were chosen for the study. Education institutions have a responsibility to educate and train health professionals whilst the Departments of Health have a responsibility to provide health services utilizing the graduate health professionals from these education institutions.

1.9 VALIDITY OF THE STUDY

Health sciences education and training is a field that is based on concepts and philosophies which act as a foundation for learning. Thus education institutions subscribe to set criteria and principles that underpin the quality of educational programmes they offer to their students. In the South African context the quality assurance bodies, the Statutory Health Professions Councils provide a platform through which institutions base their processes for programme quality. All of them are subjected to various factors that determine the strength of their programmes like teacher/student ratios, programme effectiveness, programme demand, articulation of programmes with others etc.

The research instrument utilized in this study is premised on all the responding education institutions being accredited training bodies and therefore offering legitimate academic programmes within the health field. They undergo the same or similar accreditation processes through the relevant Statutory Councils and operate within the same policy frameworks of the Department of education and Department of Health. Similarly policy makers in the South African context are bound by the same public service rules and regulations and processes of the national health system. Conditions faced by one province are almost identical to those faced by another province due to the fact that they are all subject to the same legislative provisions. The research instrument has therefore been developed against this background. It should therefore yield good validity if applied on the same setting as exists currently i.e. no change in policy relating to planning and funding of health sciences education and training.

1.10 RELIABILITY OF THE RESEARCH STUDY

Reliability, being a matter of dependability (Babbie 2004, 307) is influenced by the active experiences and subject of those being interviewed and their commitment to ensuring delivery on the core business of their institutions and organisations. The extent or degree of reliability will differ between respondents based on the nature of their activity areas. Education institutions being rules based and devoid of overt political management will most likely yield better reliability than policy makers whose actions and thinking is greatly influenced by political choices of government.

Higher education institutions in South Africa are independent entities that can only be influenced and not controlled by government. Each therefore is at liberty to adopt a particular philosophical

approach to government policy even though its products (graduates) will largely serve the public through government facilities. The Department of Health on the other hand is largely a policy planner and developer and the largest provider of health services to citizens.

1.11 UNITS OF ANALYSIS

The units of analysis in this study are the Deans of Health Science Faculties at selected South African universities and the Chief Directors responsible for Human Resources or Heads of Departments of Health in the Provinces. Policy makers were therefore interviewed in the following provinces: Limpopo, North West, Mpumalanga, Eastern Cape, and Western Cape.

The academic institutions that were selected are the following: University of Cape Town, University of Pretoria, Medical University of Southern Africa, Durban University of Technology, and Walter Sisulu University. All respondents were interviewed by the researcher and recorded using a voice recorder. A list of questions was developed to ensure standardization of the questions probed and to guide the interview process. The use of the voice recorder was chosen in this instance due to the realization that the topic being researched can be laden with many other concepts that may dissuade respondents if they were to put them only in writing. A face-to-face interview was then easier than it would have been if only responses were limited to the written form.

The two samples identified for this research consisted of professionals whose responsibilities include either the planning and/or production of health professionals. Voice data was transcribed.

This made it easier to analyse the data, as it was now in written format. The presentation of the data, its interpretation and conclusions was integrated into the body of the whole dissertation so that the findings get infused in the discussion. Data that may appear to conflict with the hypothesis was also presented so that areas of future research or discourse do not get suppressed.

1.12 DELIMITATION OF THE STUDY

This research project's strength is in the fact that the writer interacts with the various aspects of health workforce planning in the course of his duties. There is therefore a network of professionals that one is exposed to who deal with health workforce matters within the South African context as part of their work. The writer also interacts on a regular basis with the groups that form the units of analysis. The territory is therefore not unfamiliar as the writer also has a fair level of interaction with other health systems internationally specifically in the area of human resources for health. A number of statements are also based on direct observations and experiences over many years whilst working as a private general practitioner, leader of a medical association and senior manager in the National Department of Health.

To balance and remove perceptions of bias as much as possible the research instrument was tested with some colleagues that have extensive research experience in the health field generally. The interviews were structured such that each participant was able to express herself/himself freely. Any possibility of basing the interaction with interviewees on official basis was removed by the fact that these are peers who are senior managers and/or faculty leaders with major responsibilities to address similar or same problems in their spheres of operation.

The perceived weakness is relative and emanates from the fact that a lot of the writer's official work has been limited to the policy arena and not extended to the academic environment. The study is also done on a part-time basis, which has to compete with major work related time demands. The study is self-funded and therefore not feasible to include all health sciences institutions. It is hoped that this research project will unearth a few concepts that will be followed up in future research studies.

1.13 STRUCTURE OF THE THESIS

Chapter 1 gives the overview of the dissertation. It deals with the field of study, aims of the study, the theoretical framework, research objectives and finally the research methodology.

Chapter 2 addresses the concept of health workforce planning, its relevance to health service delivery and all issues that are challenges regarding its development and management both nationally and globally.

Chapter 3 addresses the inter-sectoral nature of health workforce planning analysing the roles and responsibilities of various government departments. It takes a close look at the sister Departments of Finance, Education and the Public Service and Administration as the transversal systems developed and/or owned by these organisations impact significantly on the health sector.

Chapter 4 focuses on the supply and demand relationship in the health sector analyzing the inter-relationship between factors that impact or underlie supply and demand issues in the health workforce field. This chapter is paying particular attention to education and training of the workforce rather than other subfields of the health sector.

Chapter 5 places emphasis on the structure of health sciences education and training in terms of education programmes that are provided, the academic and changing student demographics.

Chapter 6 focuses on the resources that are required for workforce planning in the form of intellectual, financial, human and literature resources.

Chapter 7 discusses in detail the survey's views on planning for the present and the future. A brief comparison is also made with specifically the United Kingdom's National Health Service approach to health workforce planning, that of the Alberta Province in Canada. These have been chosen because of their similarity at conceptual and organisational levels of the health system.

Chapter 8: This chapter provides recommendations that arise out of the discussion with respondents on the roles of the major stakeholders in the health workforce field. These are the Department of Education, the Provincial Departments of Health, the National Department of Health and the Education and Training Institutions.

Chapter 9: This chapter provides the overall conclusion, proposed health workforce tool, and the bibliography.

1.14 Conclusion

The burden of disease in the South African health system has been reported as increasing and complicating over a number of years now (Department of Health 2007). In addition to this is the challenge of human resources at facility level. Many hospitals are faced with shortages in the health professional workforce. However, despite South Africa possessing a number of higher education institutions, there is currently no integrated, coordinated or synchronised planning for the production of health professionals between the health sciences education and training and policy planning of the South African health system thus negatively affecting health service delivery.

Chapter 2

Health Workforce Planning as a Concept

2.1 Introduction

Workforce planning is a concept that is common in organisational terms. It is a concept that is used to develop systems within organisations or companies to ensure that these entities are able to deliver on their core business. Workforce planning can therefore be understood to mean the availability of appropriately trained practitioners with appropriate skills deployed in appropriate work places at appropriate times. This understanding is important because if the organisation or company is to be relevant, survive and remain competitive in its space, it has to ensure that its workforce is able to develop and ensure value in its products. Workforce planning is therefore a mechanism through which workforce policy is informed and guided based on very critical information about the existing workforce. It maps out various scenarios using data and factors like:

- Status of the current workforce;
- Shortages and surpluses;
- Education and training needs;
- Capacity issues;
- Factors influencing the workforce to behave in a particular manner;
- Workplace changes;
- Education and training needs;

In the health sector like in many other sectors, workforce planning is an integral part of health systems planning because the planning and delivery of health services are based on the availability of health workers. Citizens of countries of the world largely depend on the provision of health services by their governments in taking care of their health. Over many decades it has been realised and finally acknowledged that central to the broad health systems planning is the issue of the health workforce. The availability of doctors, nurses, pharmacists etc in a health system is used as a one of the measures of how accessible health services are to a population. This aspect of human resource planning is known as human resources for health planning so as to differentiate it from broad human resources planning that is typically used in general management. Human resources for health (HRH) planning is therefore a concept that is globally recognised and acknowledged as critical to any health systems planning.

The health workforce is fundamental to the overall performance of the health system. Any intervention and programme that is instituted to advance the health system's goals needs a team with complementing skills mix to effectively facilitate the attainment of such goals. It is not only the head-count that counts; the quality of the workforce remains an important factor to consider. The development of a competent workforce is costly and is not achieved within very short timeframes. While detailed attention is given to the health trained professionals, other non-health trained professionals have become major players in the health system particularly at policy level e.g. legal professionals who ensure that certain health policies are appropriately transformed into relevant legislation and prescripts.

2.2 The Global Nature of Health Workforce Planning

The policy and academic debate on human resources for health has expanded significantly during the past ten years or so around the world. For example, the World Health Organization declared 2004 to 2015 a Decade of Human Resources for Health. In addition it organised the first ever global conference on human resources for health in Kampala, Uganda in 2008 through its Global Health Workforce Alliance. However, despite the decade of human resources for health being declared almost four years ago, evidence is surfacing that the fundamental aspect of HRH, human resource planning still lacks prominence in many countries.

One of the core guiding principles of the South African National Human Resources for Health Planning Framework is that ‘South Africans must enjoy a reliable supply of skilled and competent health professionals for self-sufficiency’ (National Department of Health 2006, 10). If South Africa is to succeed in producing health professionals for self-sufficiency, it has to develop a comprehensive approach to national planning for the health professions. However, a view exists that traditionally the planning, production and management components of health manpower development have developed haphazardly as vertical activities (Simmonds 1989).

In addition human resources for health planning has tended to focus almost exclusively on physicians and nurses rather than the full range of health care providers, thus focusing mostly on one branch of health service delivery. Health Canada backs up this point by conceding that the traditional approach to health human resources planning in Canada has relied primarily on a supply-side analysis of past utilization trends to respond to short-term concerns rather than long

term workforce planning (Health Canada, 2005). Ultimately this approach and view taken of workforce planning requires a new way of addressing the human resources for health that are increasingly becoming scarce globally.

The scarcity is multi-factorial and the increasing health care costs are a major contributor. Rationing financial resources between various elements of health care results in the skewed allocations and training gets compromised. An editorial in the Canadian Medical Journal (January 16, 2007) did an analysis of human resources for health challenges and made an observation that “In each country, health care costs are increasing year by year at a rate exceeding the GDP — often by multiples, not just fractions” thus contributing to the non-sustainability of health care provision through reduction of training numbers.

Dal Poz et al (2006) report that the challenges in the health workforce are well known and clearly documented but that what is not so clearly understood is how to address these issues in a comprehensive and integrated manner that will lead to solutions.



The diagram above illustrates the major aspects of what is required to achieve a sustainable health workforce that can deliver health services to achieve better health outcomes.

2.3 The Constitutional Relevance of Workforce Planning in South Africa

In addressing the human resource challenges that the South African health system faces particularly in relation to the health professions, a detailed analysis of the planning approaches that impact on the capability of the country to produce health professionals for self-sufficiency is imperative. The production of graduates from higher education institutions is an end process that commences with the relevant government departments that have a statutory mandate for provision of social services doing the planning at appropriate levels.

In South Africa the mandate for development and management of human resources is derived from the Constitution of the Republic, Act 108 of 1996, Section 195 (1) (b) and (h). This is in support of

Section 27 (2), of the Bill of Rights and states that: ‘the state must take reasonable legislative and other measures within its available resources to achieve the progressive realization of [each of these] rights’.

This section is premised on Section 27 (1) (a), which states that ‘everyone has the right to have access to health care services....’. This places an obligation on the State to plan appropriately so that it can fulfill this mandate. The reference to the words ‘within its available resources’ in Section 27 (2) places a limitation on this right of citizens. Whilst health policy planners and education planners have an obligation to ensure provision of human resources adequate to provide for South Africa’s health needs, Section 36 (1) of the constitution provides a limitation on what can be provided, which is relative whilst striving to achieve equity.

This takes into account the reasonableness and justifiability of any limitations that are placed due to the inadequacy of the financial resource envelope to fulfill any constitutional obligations in providing human resources for health. Despite such limitations, meticulous coordinated planning in the health sciences is critical to assisting the State fulfill its constitutional mandate as laid out in Section 27 of the Constitution of the Republic of South Africa.

Despite these constitutional provisions many health programmes have over the past years consistently experienced shortages of suitable health personnel - one of the major constraints attributed to the National Health Service not fully accomplishing its constitutional mandate (Human Rights Commission 2007). Human Resources for Health are a fundamental and strategic capital for the performance of the health system as they underpin all activities within the health

sector. In addition, the health sector is not only labour intensive but also depends on precise application of the knowledge and skills of its workforce to ensure patient security and health (WHO 2006). This global assertion requires a more purposeful action on the part of health policy and higher education planners to harmonise their approaches to ensure provision of adequate numbers of health professionals to provide better access to health care by all South Africans.

2.4 The Transformation Imperatives of the Public Health Sector

South African health sciences education and training institutions produce well-trained health professionals who are able to render their services in many countries of the world. An OECD⁶ study in 2003 revealed that the country particularly contributes significant numbers of doctors and nurses to better-resourced health systems of the Western world. However the country suffers from what can now be regarded as chronic shortages in the supply of health professionals of various categories despite the increasing burden of diseases. Even though the development of a focused human resource strategy backed up by an appropriate implementation plan is a critical ingredient of positive change in health care (National Department of Health 2006), effective planning for optimal health service delivery requires a concerted effort from participants beyond the health sector.

This is informed by the constitutional responsibilities of various government departments brought to bear on them by various pieces of legislation. The first pivotal policy document guiding transformation in the health sector was introduced in 1997 in the form of the White Paper for the Transformation of the Health System in South Africa. Through this landmark policy paper a

⁶ OECD – Organisation for Economic and Cooperation Development

number of important principles to guide human resource planning, production and management were espoused. Central to these principles was the need to develop new policies and strategies for human resource development to address priority education and training needs for the health sector with a thrust on transforming the nature and content of such training. Guiding this strategic approach was the Public Service Act of 1994, which sought to bring about a new ethos to public service.

This vision required that the State introduce a new ethos to public service officials acting in various capacities to bring services to the population. Health services, having been declared a fundamental right of all citizens had to be staffed by professional cadres with the correct orientation and unwavering commitment to professional values as espoused by their codes of conduct. Curriculum reform and joint planning was therefore put at the center of the relationship between health policy decision makers and university educator leadership.

Underlying the Public Service Act is the Human Resource Development Strategy, which was adopted in order to support a holistic approach to human resource training and development in the public sector. The strategy is underpinned by a set of institutional arrangements, including Sector Education and Training Authorities, aimed at ensuring coordination in the implementation of the strategy. It also seeks to address several HRD⁷ problems [that] are expressions of highly contradictory and disconnected interactions between institutions (HSRC 2003). This refers to the gap between what education institutions (generally responsible for human resource production) generate and what the labour market needs. It is therefore essential that in addressing HRH

⁷ HRD – Human Resource Development

planning issues in respect of the health professions, the aspect relating to relevance be looked at with a critical eye.

The country's constitution further guarantees access to education through Section 29 (1) (b), which states: "Everyone has the right to further education, which the State, through reasonable measures, must make progressively available and accessible". Read with Section 27 (1) (a) and (2), this constitutional provision places an obligation on the State and its agencies like higher education institutions to carefully plan the provision of human resources to advance its constitutional mandate. It requires of the State and its partners to ensure provision of services to the citizenry that are of reasonable quality so as to improve the lives of all citizens. Planning therefore, whilst encompassing the new ethos must avoid problems of the past that have tended to be 'based on traditional service delivery models rather than considering new ways of organizing or delivering services to meet needs' (Health Canada 2005).

2.5 The Challenges in Planning

While strides have been made in the practice of resource planning world-wide, O'Brien-Pallas contends that health human resource planning in most countries has been poorly conceptualized, intermittent, varying in quality, profession specific in nature, and without adequate vision or data upon which to base sound decisions (O'Brien-Pallas et al 2001). Thus it is important that each country develops a robust workforce planning system so that it can generate knowledge that is specific to its peculiar conditions whilst enabling it to contribute to global knowledge systems of

health workforce planning. This is driven by the uniqueness of challenges of each country, which are influenced by a variety of environmental factors and value systems.

The centrality and political significance of health workforce planning is illustrated by an observation and resolve of African Health Ministers that “there is a need to address the issue of Health Systems Strengthening and its ‘Human Resources in Health’ component (AU Ministers of Health, 2005). In this respect, countries should develop costed national human resources development and deployment plans, including revised packages and incentives, especially for working in disadvantaged areas and revitalise Primary Health Care.”

The WHO amplified this concern by declaring that: “The question of human resources for health has different aspects, but they relate essentially to shortages (World Health Assembly 2005). In parts of sub-Saharan Africa shortages are so acute that they limit the potential to scale up programmes aimed at achieving health-related Millennium Goals including the roll-out of treatment for AIDS. Action is needed in relation to salaries and incentives, investment in pre- and in-service training, adjustment of staffing and skill mix, filling of immediate gaps in service delivery, harmonization of donor-led initiatives, provision of care and treatment for health personnel affected by HIV/AIDS, and the migration of health professionals”.

The World Health Organisation further attests that: “We now have abundant evidence, which demonstrates that progress in health in the poorest countries will not be possible without strong national health systems for which the workforce provides the backbone. The workforce determines health outputs and outcomes, drives health systems performance, and commands the largest share

of health budgets. Yet, shortages are widespread, with a gap of more than 1 million health workers estimated for Africa alone. Uneven distribution deprives many groups of access to life-saving services, a problem exacerbated by accelerating migration in open labour markets that draw skilled workers away from the poorest communities and countries. In many public systems, worker productivity is very low, and some private systems suffer from poor work quality because of commercial pressures. Unless we are able to overcome the workforce crisis, neither priority disease initiatives nor health systems strengthening will succeed” (WHO; Strategic Plan 2004 – 2015).

There is therefore a need for a strategic vision of the current and future availability and requirements of HRH (Wyss, 1994). Accordingly, appropriate planning for the health professionals is a major point of debate in academic and policy circles because of its implications on national budgets.

Egger et al (2000) reached a conclusion in their study that, countries that successfully implement HRH policies and, as a result, ameliorate HRH problems are those that:

- Adjust the specific HRH strategies to meet the demands of their country's health sector reforms, the political/macroeconomic context, and government administrative policies; and
- Use policy-making processes that are consultative, "owned by the country", based on sound data, and supported by adequate human and financial resources (Egger et al 2000).

It is important that the notion of health workforce planning is clearly understood particularly in the health sector context. The most common concept utilised in everyday management language is human resource planning and development classically lying within the ‘personnel office’ of an organisation. Even though conceptually there may be similarity with what Swanepoel refers to as the modern American view that “human resource management is a more business orientated and integrated general management function with a qualitatively different role to fulfill” (Swanepoel et al 1998, 9), human resource management in the health sector is an integral part of health workforce planning.

This is due to the complexity and diversity of the sector and the bond the health workforce has, particularly its professional arm to health system outcomes. Special emphasis is therefore placed on the nuancing that makes it distinct from the corporate approach to human resource planning and development. A holistic view encompassing planning, development and management for specific health outcomes is adopted.

2.6 Significance of Workforce Planning

This topic is of global significance as WHO observed that: “In the same way that human resources represent the cement of the health system, essential for holding the various components together, coordinated action addressing the HRH crisis can effectively link and strengthen joint work between existing global initiatives. HRH provides a common unifying theme. Addressing the crisis in HRH requires a modality to accelerate more effective action -- for without greater cohesion

there are real risks of fragmentation, competition, duplication, and insufficiency. There are already signs among the many new starts of independent initiatives, often donor driven, that are neither well aligned with country priorities nor the investment policies of others” (WHO 1996).

The WHO gives reasons for declaring the importance of the workforce by further observing that: “The world community has sufficient financial resources and technologies to tackle most of these health challenges; yet today many national health systems are weak, unresponsive, inequitable – even unsafe. What is needed now is political will to implement national plans, together with international cooperation to align resources, harness knowledge and build robust health systems for treating and preventing disease and promoting population health.

Developing capable, motivated and supported health workers is essential for overcoming bottlenecks to achieve national and global health goals. Health care is a labour-intensive service industry. Health service providers are the personification of a system’s core values – they heal and care for people, ease pain and suffering, prevent disease and mitigate risk – the human link that connects knowledge to health action. At the heart of each and every health system, the workforce is central to advancing health” (World Health Report 2006).

Another major challenge for the health system is that of balancing the supply and demand of the health workforce. An effective and sustainable health care system depends on having the right number and mix of health care workers and increasingly, reports of current and impending workforce shortages are becoming the subject of public concern and debate (Health Canada 2004). The production of health professionals, which ultimately affects the supply-demand equation, is

the mandate of the Department of Education. In the past this has posed serious challenges relating to who takes responsibility and is therefore accountable for resourcing the health system adequately so that South Africa can provide well for her citizens.

This tension was noted by the South African Health Review with a comment that: “One of the main issues in health personnel education policy is where responsibility should reside – in the Department of Health or the Department of Education or the INMDC⁸ (now HPCSA⁹) or a combination of these and other stakeholders” (SAHR 1995). There is now a draft policy in place to address this matter through the Policy on Health Sciences Education and Training. This document seeks to comprehensively address the health system holistically to ensure that the right balance in health workforce provision is achieved and that all interested parties have clear roles and responsibilities.

2.7 Existing Approaches to Workforce Planning Processes

In South Africa some strategies for dealing with the health workforce were identified as far back as the late 1990’s. These were carried through to the work on devising strategies for recruiting and retaining health professionals in the public health sector (National Department of Health 2003). The constructive critique of this approach is that for such strategies to work there has to be firm policy frameworks backed up by a long-term health workforce plan for them to have staying power. The case in point was the discontent amongst certain health professional groups about one of the strategies from which they were excluded. There was general agreement among health

⁸ INMDC – Interim National Medical and Dental Council

⁹ HPCSA – Health Professions Council of South Africa

policy planners and the professions that the Scarce Skills Allowance policy had not necessarily yielded the results to the extent that it was envisaged. This general acknowledgement led to that policy being phased and the new Occupation Specific Dispensation (OSD) policy developed.

The argument advanced here is that health workforce planning is a critical foundation for developing and maintaining a robust health system. In addition, a strategic approach to health workforce planning is as important as the provision of financial resources. South Africa needs as a country to develop and grow an evidence base for the actions it takes in managing its health workforce. Health Canada has noted that: “What is needed is a framework for assembling the evidence and systematically thinking about the issues. We need to explore the broad-brush issues in HHR supply and demand, and then build and operate the forecasting; scenario-building and policy-testing tools that can help us understand the emerging pressures and their potential solutions.

We also need a focused and committed effort to assemble the projections into regularly updated reports that are tested against outcomes on a year-to-year basis. This is especially important in light of the long time horizons with which HHR¹⁰ planners are working. Although not necessarily easy, with the right investments in data and a committed effort, we could do much better than we have to date” (Health Canada 2004). This therefore calls for investment in ancillary systems that can assist not only planning but also the prudent management of the limited resources that are at the disposal of the health system. This forms part of the common agenda between policy planners and education institutions. It requires of everyone to address the strategic focus issues taking into

¹⁰ HHR – Health Human Resources

consideration fiscal constraints, health needs and the collective capacity of institutions to produce for national consumption.

This approach avoids the problem of ‘throwing money into the problem and hope it will go away’. Certainly remunerating health professionals at high levels will go a long way in improving their morale but this can never be the only solution. In 1996 the National Department of Health significantly improved the salaries of medical doctors but the demand for higher salaries was back on the negotiation table within three years thereafter. It is the strategic investments encompassing the health sector as one major unit that will assist in reversing the problems that are currently experienced. A part of planning that is often overlooked is the role that serving health professionals play in influencing planning approaches. Many of these relate to the way they view their work and those that manage them.

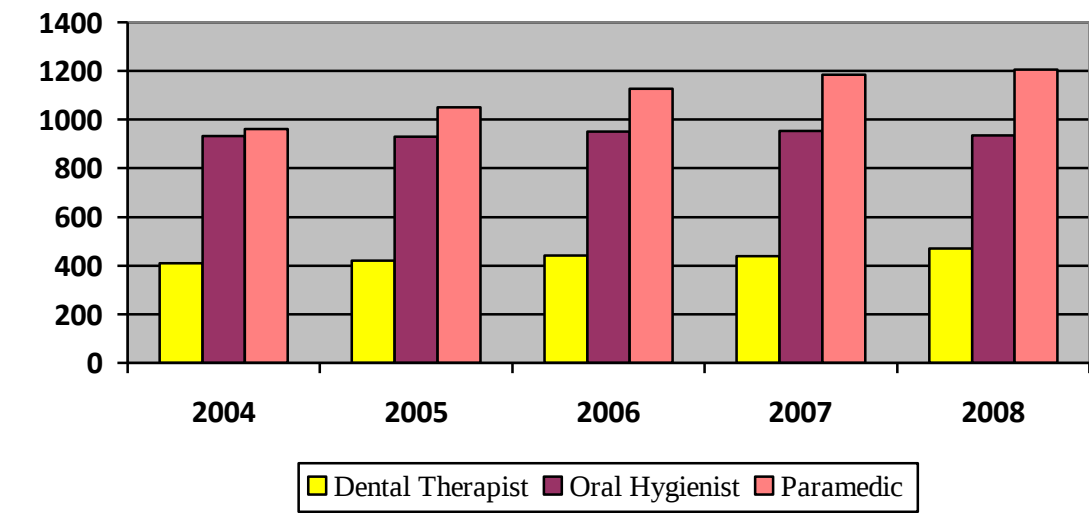
The understanding of what drives the workforce and how the system responds to that is therefore critical. Central to this is the need for health planners and managers to gain deep understanding of its health professional force. Weick & McDaniel remarked that: “Certain difficulties arise when the people to be organized are professionals. In order to understand these difficulties, it is necessary to understand the nature of professionals, how their expertise and values act as driving forces, what informational inputs they work on, how they interpret and make decisions, and what controls they respond to”. Health workforce planning must therefore not be limited to putting in place health policy frameworks. It must go beyond to equipping managers with the requisite skills to manage the health workforce, especially the highly skilled professionals.

2.8 Significance of Health Workforce Planning in South Africa

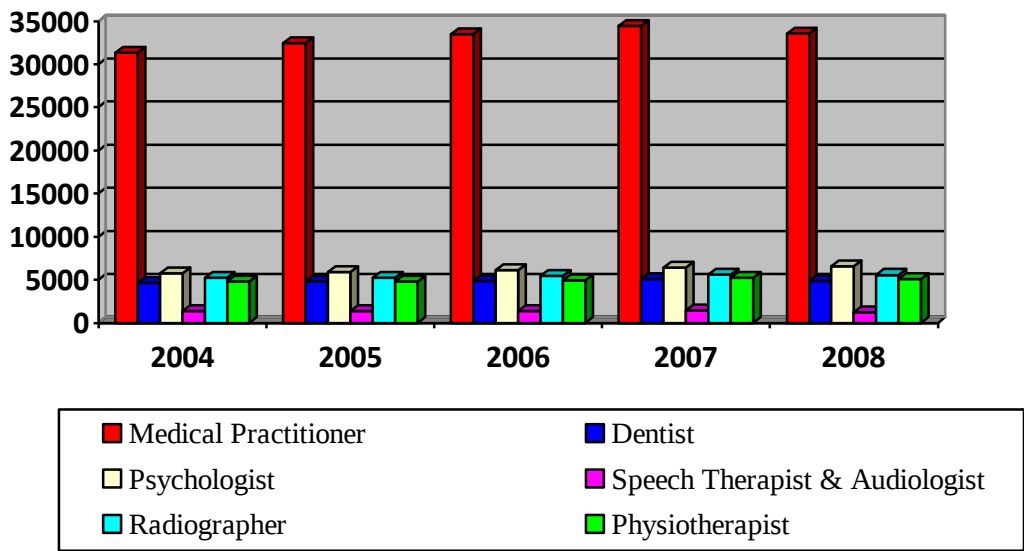
South Africa is a middle-income country sometimes referred to as a developing country due to the disparities that exist. Previous approaches to dealing with the human resource challenges have mostly been to provide financial resources as almost the sole mechanism. Other systemic issues like production of health professionals, skills mixes, strategic focus and thrust, sharing of resources, appropriate workforce planning, development and management, creation of niche areas of excellence by education and training institutions and developing expertise within the health service to manage the health workforce have not featured prominently.

The response to the development, launch and implementation of the HRH Planning Framework has galvanised many stakeholders who have come together in a manner never experienced before to address common workforce issues. Although the theory to approaching health workforce planning is not new, the approach and its significance in resource-constrained settings is unique in the South African health system. The basic assumption adopted in this study is that South Africa has reasonably good resources for it to address its health workforce problems. The study further takes the view that constraints in resources are not intellectual but rather the issue was a limitation in addressing issues strategically due to the severity of the presenting problems over the years.

The following graphs illustrate the growth in the register of selected health professionals over a period of five years.

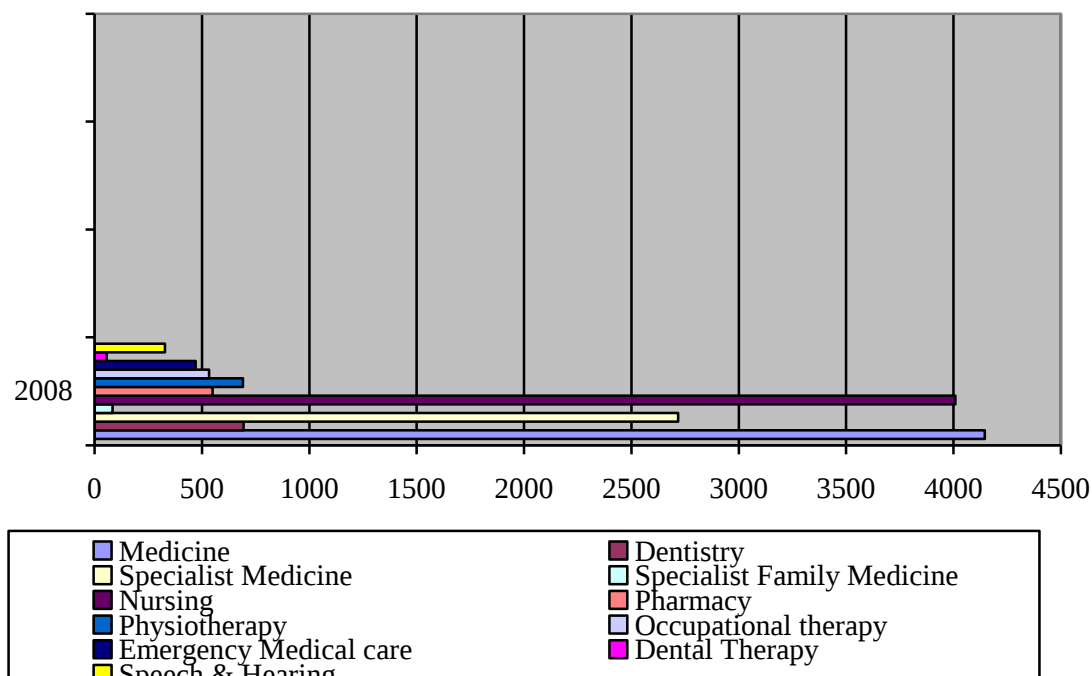


Graph 1: Register of Dental Therapists, Oral Hygienists and Paramedics



Graph 2: Register of medical doctors, dentists, psychologists, speech therapists & audiologists, radiographers and physiotherapists

The outlook of the registers of professionals is mirrored by the enrolments at university level as shown in graph 3 below.



Graph 3: Registers of various selected professions by enrolment at university level 2008

The graphs above show marginal increases in some of the professional categories whilst overall there is clear stagnation in the growth over the five year period under review. An indication of failure to plan appropriately is further indicated by the skewed production when comparing all the health professions e.g. the medical register far outstrips other categories. Categories that are critical at primary health care level appear to be stagnant in terms of their registration i.e. not showing any significant growth over a five year period (2004 to 2008). An example of these is the registers of oral hygienists (for oral health services), speech therapists and audiologists (for speech and audiology services), psychologists (for mental health services) and physiotherapists (for rehabilitation services) in the selected group.

The distribution of health professionals even within the public health sector poses challenges for the provision of health services. The following table gives an indication of this challenge.

	Type & Number of Health Professionals					
Province & ratio per 100 000 population	Medical Specialists	Medical Practitioners	Dentists	Pharmacists	Professional Nurses	Enrolled Nurses
E. Cape	159	1157	71	189	7386	2059
Ratio	2.5	17.9	1.1	2.9	114.2	31.8
F. State	386	609	60	98	2485	425
Ratio	14.7	23.9	2.3	3.7	94.5	16.2
Gauteng	1530	2196	215	291	766.3	3581
Ratio	22.3	32.9	3.1	4.2	111.7	52.2
KZN	545	3044	69	438	11973	9710
Ratio	6.2	34.7	0.8	5.0	136.3	110.5
Limpopo	88	883	76	228	6471	2729
Ratio	1.7	17.4	1.5	4.5	127.5	53.8
Mpumalanga	49	567	83	125	3184	1186
Ratio	1.6	18.3	2.7	4.0	102.9	38.3
N. West	47	275	41	44	2862	773
Ratio	1.3	14.1	3.4	3.1	81.1	21.9
N. Cape	22	498	26	109	1193	208
Ratio	2.9	35.7	1.2	5.7	155.0	27.0
W. Cape	1193	1418	121	324	4615	2035
Ratio	31.9	37.9	3.2	8.7	123.4	54.4

RSA Total	4026	10653	762	1853	47834	22707
Ratio	9.8	26.0	1.9	4.5	116.6	55.4

Distribution of Selected Health Providers in the Public Health Sector across the nine Provinces of
South Africa (SA Health Review 2008)

These figures are only indicative as there is no credible human resource information system in place. Data on the health workforce is currently retrieved from the payroll system PERSAL which does not store the kind of information required for proper planning and management of the health workforce.

2.9 The National Human Resource Information System

The National Human Resource Information System (NHRIS) will enable the National Department of Health to have up-to-date and real-time information on all health professionals in the country including those who are solely in the private health sector and academic institutions. It was conceived and is being developed under the leadership of the Human Resources and Management Development Branch of the National Department of Health.

The system is meant to be part of a wider Health Information System and has components, which will assist in the generation of management information about the health workforce in the entire health system. As the Department has planned that the system is implemented by the main statutory health professional councils as well as throughout Provincial Departments of Health, it will assist in the planning, management and development of the health workforce at all levels

when fully elaborated. This has always been a major shortcoming in the management of human resources for health, equally within the public and private health sectors and led to the chronic human resources for health (HRH) problems that are now impacting negatively more the public health sector.

The NHRIS will provide unit-record based data and information on all health professionals (including personal information, basic and post-basic qualifications, qualifications outside the health sciences base training, experience, performance management plans, conditions of service, application status, career intentions and other HR-related issues) for monitoring, evaluation and reporting of critical changes in the workforce from recruitment to departure from the health service activity. The new system will cover the public and private systems, when fully elaborated.

In addition, the management system will be used to more efficiently administer, track and evaluate the health workforce based on unique identifiers in the responsive system. It is envisaged that any changes or dynamism in the health workforce will then be tracked nationally and possibly linked to professional competencies and information kept by health professional bodies, national registers such as the ones kept by the Department of Home Affairs as well as the Council for Medical Schemes as well as PERSAL.

Whilst there may not be a credible health workforce planning system in place nationally, it is important to note that there are currently lots of expectations on South Africa to play a leadership role in a number of global decisions about health care. One such decision is the attainment of the

Millennium Development Goals as adopted and declared by the Members States of the United Nations.

Attainment of these goals is fully dependant on the responsiveness of the health system and the extent to which it is adequately and appropriately staffed. The number of health professionals in the system is therefore a major determinant supported by other elements of the health system on whether the country has the ability to tackle the challenges identified.

2.10 Millennium Development Goals – Human Resource Implications

In September 2000 the Heads of State and Governments adopted a Millennium Declaration aimed at addressing the world's development challenges. This was done at the United Nations Millennium Summit and led to the adoption of the Millennium Declaration from which the Millennium Development Goals (MDGs) were derived. The summit's resolution was that these eight goals were to be achieved by 2015. The Millennium Development Goals are drawn from the actions and targets contained in this declaration.

1. Eradicate extreme poverty and hunger
2. Achieve universal primary education
3. Promote gender equality and empower women
4. **Reduce child mortality**
5. **Improve maternal health**
6. **Combat HIV/AIDS, malaria, and other diseases**
7. Ensure environmental sustainability
8. Develop a global partnership for development

The objective of MDG Target 4 is to reduce by two-thirds, between 1990 and 2015, the under-five mortality rate. The World Health Organisation reports that nearly 10 million children under five die every year (World Health Report 2008). It further reports that almost 90% of all child deaths are attributable to just six conditions: neonatal causes, pneumonia, diarrhoea, malaria, measles, and HIV/AIDS and that during 1960-1990, child mortality in developing regions was halved to one child in 10 dying before age five. The aim is now to further cut child mortality by two thirds by 2015. The WHO has adopted three strategies to address these problems:

- Integrated management of childhood illness
- Expanded programme on immunization
- Infant and young child feeding

This approach is in line with South Africa's developmental approach to addressing health challenges by focusing on broader issues that are social determinants of health.

MDG target 5 aims at improving maternal health by reducing by three quarters, between 1990 and 2015, the maternal mortality ratio (target 5.A) and by achieving, by 2015, universal access to reproductive health (target 5.B). WHO reports that more than half a million women die each year in pregnancy and childbirth with most of them dying because there is not enough skilled regular and emergency care. It expresses serious concern in sub-Saharan Africa, where one in 16 women has the risk of dying during pregnancy or childbirth over a lifetime, compared with about one in 2800 women in the developed world.

In trying to tackle these challenges the WHO has identified key working areas as follows:

- Global burden: assesses the extent of maternal and newborn ill-health, especially among the poor

- Burden on families: shows the costs of ill-health to individuals, households and communities
- Burden on society: addresses the extent to which socioeconomic development is affected by maternal and newborn morbidity and mortality
- Interventions and health systems: focuses on policies and strategies that work, are pro-poor and cost-effective
- Benefits of investing in maternal-newborn health: reviews the social and economic benefits of investing in maternal and newborn health with an emphasis on rights and equity

MDG target 6 is about combating HIV/AIDS, malaria and other diseases with target 6A setting an objective of halting by 2015 and beginning to reverse the spread of HIV/AIDS whilst 6b aims to achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it. WHO reports that at the end of 2007, 33 million people were living with HIV. That same year, some 2.7 million people became newly infected, and 2.0 million died of AIDS, including 270 000 children. Two thirds of HIV infections are in sub-Saharan Africa where there are an estimated 7 million people needing antiretroviral therapy. In bolstering the efforts of attaining success in this MDG¹¹ target, WHO is working with countries essentially to institute programmes that are designed to prevent people from becoming infected, expand availability of treatment, strengthen health care systems and improve monitoring and evaluation and operational research among others. This focus requires that any country aiming to achieve this goal also attends to its health workforce because the quality of that workforce is a major determinant in achieving success.

MDG 8 (Target 8.E) is aimed at providing access to affordable essential medicines in developing countries. It is based on a study by WHO partnered by some pharmaceutical companies which measured access to essential using data collected by WHO and its partners. The report found that in the public sector, generic medicines are only available in 38.1% of facilities, and on average

¹¹ MDG – Millennium Development Goal

cost 250% more than the international reference price. In the private sector, those same medicines are available in 63.3% of facilities, but cost on average about 610% more than the international reference price. The study demonstrated that high prices often render medicines unaffordable, with common treatment regimens costing a low-paid government worker several days' wages. The cost of treatment for chronic diseases is particularly unaffordable because of the need for lifelong treatment which is less amenable to short-term financial coping strategies.

Generally reporting on progress towards the MDGs has underscored the importance of working with countries to generate more reliable and timely data. The WHO concludes that currently available data show that while some countries have made impressive gains in achieving health-related targets, others are falling behind. Often the countries making the least progress are those affected by high levels of HIV/AIDS, economic hardship or conflict. These countries invariably have severe limitations in producing the numbers of health professionals adequate to provide health services in their health systems.

2.11 Conclusion

International evidence strongly suggests that the survival of patients is highly associated with increased density of health workers in any health system. However, this cannot be attained unless there is adequate and constant supply of health workers to health facilities to take care of diseases and illnesses that afflict patients. Nyoni et al (2006: 1) write about the crucial role of human resources for health in health systems commenting that this has not been fully appreciated until recently. The concept of health workforce planning is now recognised as a major input in health systems planning in developed and developing countries alike.

Achieving success in the MDG targets is a national priority and must be linked to the developmental interventions of the country. The disparities and lack of access to health services are experienced mostly by the poor as alluded to by the World Health Organisation. The graphs shown in this chapter illustrate clearly the disparities within the health professions that are trained. This signifies a lack of balance and perhaps inability to plan appropriately which may lead to the inefficient use of the scarce education and training resources.

The National Department of Health therefore has a huge responsibility to provide health services to the population which it cannot do without proper planning and getting assistance from other government departments.

Chapter 3:

Public Administration and Public Policy

3.1 Introduction

In the Constitution of the Republic of South Africa the foundation for government is laid in various expressions that are all meant to convey amongst others the nation's quest to 'improve the quality of life and free the potential of each person' (Preamble to Act 108 of 1996). This entails the provision of services to citizens and how such provision through a complex set of laws, rules and regulations is managed for the public good. The idea of the public as referred to by Parsons (1995) has undergone considerable change over time but remains essentially being that 'dimension of human activity which is regarded as requiring governmental or social regulation or intervention, or at least a common action'.

In executing its responsibilities government has to be guided by a set of laws that give guidance to its officials on how to give meaning or ensure appropriate expression of policy in the service delivery arena. Thus there is interdependence between public administration and public policy.

3.2 Principles of Public Administration

The Bill of Rights (Chapter 2 of Act 108 of 1996) contains a number of expressions that form the cornerstone of individual rights which citizens are entitled to. However, because of the variation and diversity of services that government has to provide, there is further elucidation on what forms the basis of such rights in relation to the government sectors with specific functions.

Public administration in South Africa is based on a set of basic values and principles (Act 108 of 1996) that require a high standard of professional ethics, economic and effective use of resources to be fulfilled. It further demands that public administration must be development oriented and accountable, people's needs responded to and the public encouraged to participate in policy making. Good human resource management and career development are also listed as critical to maximising the human potential of South Africans. In essence transparency has to be fostered by providing the public with accessible and accurate information so that they can seek the right kind of services to suit their needs.

Whilst these principles form a firm basis for constitutional rights that the public gets accustomed to, ensuring good delivery is not an easy process. The concept of quality is a particularly difficult one for the public services particularly health services. However the public service orientation positions the delivery of services to the public as the key organizational value, providing motivation and purposes both for the local authority and its staff. However most staff adopt the notion of service to the public rather than service for the public. This raises several questions about the organisation of services and organizational structures to enable full expression of the Constitutional mandate of government.

Boyne (2003) identifies five conceptual models of public service improvement that are key to ensuring performance by government on its mandate. These are the goal, systems-resource, internal process, competing values and multiple constituency models. What usually is missed in this equation is the impact of moral intensity dimensions on ethical decision-making (Carlson, Kacmar, Wadsworth; 2009). The founding value of 'human dignity, achievement of equality and

advancement of human rights and freedoms' in the Constitution provides a perspective of the State that bases its governance on the principles of good governance. Its conduct will therefore necessitate adherence to a high standard of effacement and upholding of good ethical principles even by its officials that are charged with managing the government affairs.

Carlson et al (2009) argue the importance of the influence of orientation to the ethical decision-making process, which would benefit managers in their attempt to improve the ethical behaviour of those who are making decisions for their organisation. Good ethical conduct in the context of public administration will entail in part, that whilst exercising autonomy (freedom to make one's own decisions) in one's sphere of expertise, beneficence (doing what is best for society), justice (being fair) and non-maleficence (avoiding harm) should become a preoccupation and be major influences in the behaviour of public servants. South Africa, with its history of a traumatic past, may benefit in adopting such approaches in the development of its public administrators.

3.3 Values and Public Policy Formulation

Value-based governance is critical in South African society as evidenced by the entrenched requirements for consultation even in the legislative system. Whilst society is diverse, the values espoused in the Constitution and many other policy documents (like Batho Pele, White Paper on Transformation of Health Services) should influence the type of public management the country has and its behaviour towards citizenry. Public administration is a mechanism through which government or the State plays the role of manager to the country. Internationally accepted governance principles guide its actions. In addressing governance as a form of social responsibility the Association for Quality and Participation (2009) defined governance in the context of an

organization as a "system by which an organization makes and implements decisions in pursuit of its objectives" incorporating the following practices:

- Principles of accountability
- Transparency
- Ethical conduct
- Consideration of stakeholders' interests
- Legal compliance

It further alludes to accountability as implying that the organization is answerable to those affected by its decisions and activities, as well as to society in general, for the overall impact on society of its decisions and activities." The following are therefore key principles of good public administration:

- *Transparency*: "An organization should be transparent in its decisions and activities that impact on society and the environment."
- *Ethical behaviour*: An organization should behave ethically at all times.
- *Respect for stakeholder interests*: An organization should respect, consider, and respond to the interests of its stakeholders.
- *Respect for the rule of law*: An organization should accept that respect for the rule of law is mandatory.
- *Respect for international norms of behaviour*: An organization should respect international norms of behaviour, while adhering to the principle of respect for the rule of law.

- *Respect for human rights:* An organization should respect human rights and recognize both their importance and their universality."

The above principles relate and affect public administrators and managers as much as it relates to public representatives i.e. political leaders and legislators. The major reason is that the stewardship for public administration and appropriate public policy formulation and implementation lies with government.

3.4 Stewardship for Public Policy

The stewardship for public administration rests with government and must derive from appropriate and relevant public policies. This relates to the value of current public policies for present and future generations. Country leadership therefore has a responsibility and duty to ensure that those that are entrusted with the responsibility of public administration are not only competent but also have the correct attributes of leaders (political and operational) to serve the public. Stewardship for public policy involves addressing issues that concern the public in a manner that shows understanding and empathy for those that seek services.

This is more evident in the health sector where government policy influences decisions about rationing of health care by its practitioners. Public policy in health has to respond to serious challenges that are faced by professionals, health workers and administrators at the most basic level of care where patients make the first contact with the health system. To ensure the required responsiveness, Kim (2009) proposes the application of ‘central principles of performance-based management which are the same for career civil servants and political appointees’. He argues that a substantial number of them come to executive positions from parliamentary offices, think tanks,

academia, private companies, or advocacy groups, and all of these backgrounds help them contribute to policy formulation, but are less useful in helping them cope with their management responsibilities.

He further observes that making policy is only the beginning; making policy work well is a government's most difficult task. It requires effective programme implementation, public management, and successful navigation through the maze of laws, policies, and institutions that affect the success of political appointees. Certainly the South African public service has been constantly criticized by commentators that it is very capable of developing very good and sound policies but often fails to implement the same.

3.5 Conclusion

The challenge to the provision of public services and public administration's responsiveness may be what Vigoda (2000) identified as preoccupation with questions of efficiency and effectiveness instead of basing this on understanding comprehensively how citizens / clients perceive public sector operations and the extent to which the public sector is aware of the public needs. The relationship between the public's demands and the public administration's responsiveness is paramount to ensuring a good service to the public which then becomes an active expression of the founding values and principles of the Constitution of the Republic of South Africa.

CHAPTER 4

INTER-SECTORAL NATURE OF HEALTH WORKFORCE PLANNING

4.1 Introduction

Workforce planning requires inputs from several divisions of a Government Department and often needs harmonization with other government sectors as they all have cross-cutting activities that form the whole in government service delivery. Coordination and cooperation between various Government Departments is therefore critical to ensure success in the public service. Departments carry different mandates and in the health sector socio-economic conditions play a major role. The social determinants of health like water, sanitation, food security, transport for example are constitutional mandates of other government sectors that are critical to the success of the country's health system. The constitutional division of responsibilities therefore requires intersectoral collaboration where appropriate.

4.2 Higher Education and Training

The Department of Higher Education is entrusted with a national mandate to regulate higher education; provide for the establishment, composition and functions of a Council on Higher Education; provide for the establishment, governance and funding of public higher education institutions; provide for the appointment and functions of an independent assessor; to provide for the registration of private higher education institutions; provide for quality assurance and quality

promotion in higher education; provide for transitional arrangements and the repeal of certain laws; and to provide for matters connected therewith.

This entails all aspects of higher education including those relating to the health sciences education and training. It is the department of Education that sets targets for institutions to achieve and link these to the overall funding of the institution. Through its student planning activity the department places a limit on the number of students that each institution can admit based on the capacity it has.

This kind of mandate effectively limits what the health sciences education and training institutions can hope to achieve in terms of planning student intake. One of Deans of Health Science Faculties interviewed for the purpose of this dissertation put it aptly that “it is the Department of Higher Education that ties our hands in terms of how many students we can train as this is linked to a host of other institutional issues” (Mthatha, 27/08/2008). Much as the various provincial departments provide support in the form of bursaries to students – an indirect form of funding education by the State, the major responsibility in terms of planning seems to be lying exclusively with the Department of Higher Education.

There is little evidence that from a planning point of view the two government departments (Health and Education) ever come together for joint planning. This is evidenced by a statement released by Ms Naledi Pandor, Minister of Education in May 2005 where she declared that ‘there would be a review of the costs and funding of clinical higher education in health undertaken by the Department of Education and the Treasury’ without inclusion or any mention of the Department of Health. Mention and inclusion of the Department of Health was critical simply because the training (and therefore part of the cost of training health professionals) takes place in the health service

delivery environment. Health sciences training is an apprenticeship-like based training typically combining education with skills acquisition from the very early years.

Whilst the Higher Education Act 101 of 1997 gives the Department of Education the sole mandate for the regulation and control of higher education in South Africa, it is evident that for the country to plan effectively for its various sectors, a stronger link is required between the departments. Over the years there has been a constant outcry about the less than optimal availability of health professionals, especially medical doctors working in the rural public health facilities. The leadership of education institutions that produce these health professionals feels that its “two bosses do not necessarily talk to each other so that instructions, backed by the necessary funding are very clear and easier to manage” (Interview with Prof K Mfenyana, Walter Sisulu University, 27/08/2008).

In some countries like the Philippines, Cuba and Iran medical education falls under the direction and stewardship of the Ministries of Health (personal discussion with senior government health officials in 2003, 2004 and 2006 of Iran, Cuba and Philippines). This is often cited as a reason that these countries produce medical doctors in excess and are thus in a position to ‘export’ these professionals to other countries. From a production point of view, this does not necessarily seem to be the case in all countries. A country like India produces many medical doctors under its education system and a significant number of these doctors migrate all over the world.

The conclusion that can be made here is that it is more the country’s investment policy in medical education that determines the amount of production rather than the location of health sciences

education and training from a government accountability point of view. However, there is merit in considering placing education and training of health professionals under the ambit of the Ministry of Health to ensure a rapid response to stresses and gaps in service delivery that need interventions by producing more health professionals of a particular category.

Higher education has a finite capacity and growth in enrolments need to be related to existing capacity. Health sciences education and training programmes have been efficient in terms of throughput rates (average of 86% annually) but other strategies need to be considered to increase the stock of current health professionals in the system e.g. retention of existing stock of professionals (working conditions, salaries) and recruitment from the international market without violating existing global instruments that seek to better manage the migration of health workers.

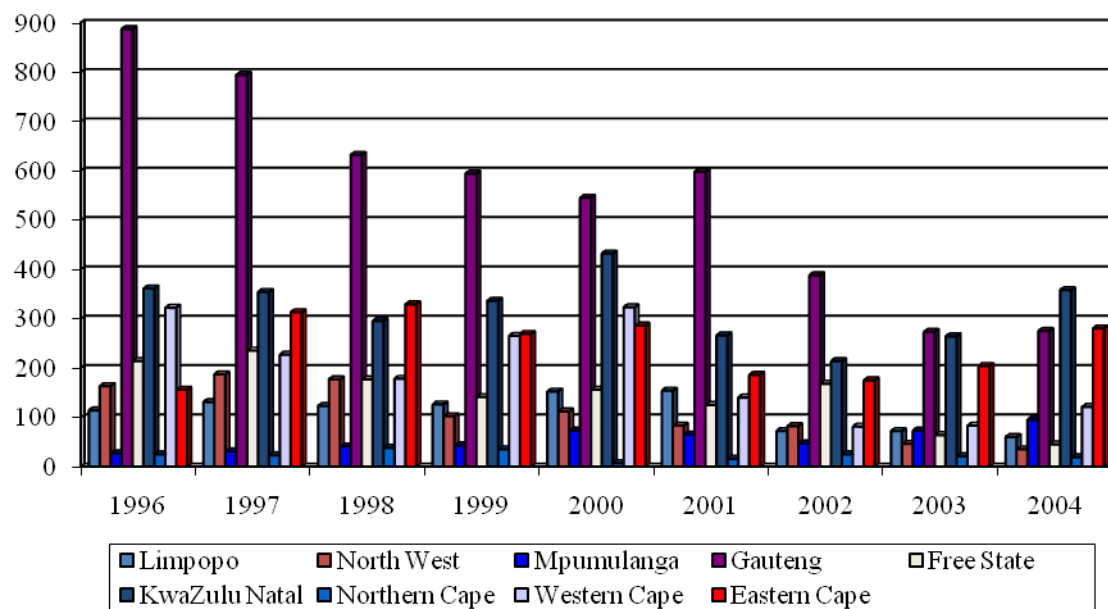
With higher education in the health sciences being under the control of a separate government department, “sustained health human resource planning efforts by policy makers are difficult given changing governments and political agendas. Managerial decisions are often constrained by organisational requirements such as resource availability and policies and procedures. Effective health human resource policy and planning (at the macro level) and management strategies (at the micro level) are inter-related and are enhanced at implementation level by adequate or reasonable resource availability” (O’Brien-Pallas, Hayes 2008). This is a challenging situation in the South African context as priorities of the Departments of Education and Health do not necessarily converge in all aspects of health sciences.

The Department of Education relies on its interaction with the heads of institutions almost to the exclusion of the Health Department. Financial resources that are provided to the Education Department for disbursement to institutions are of a global nature and not geared towards addressing the planning needs for the health service delivery from a production point of view.

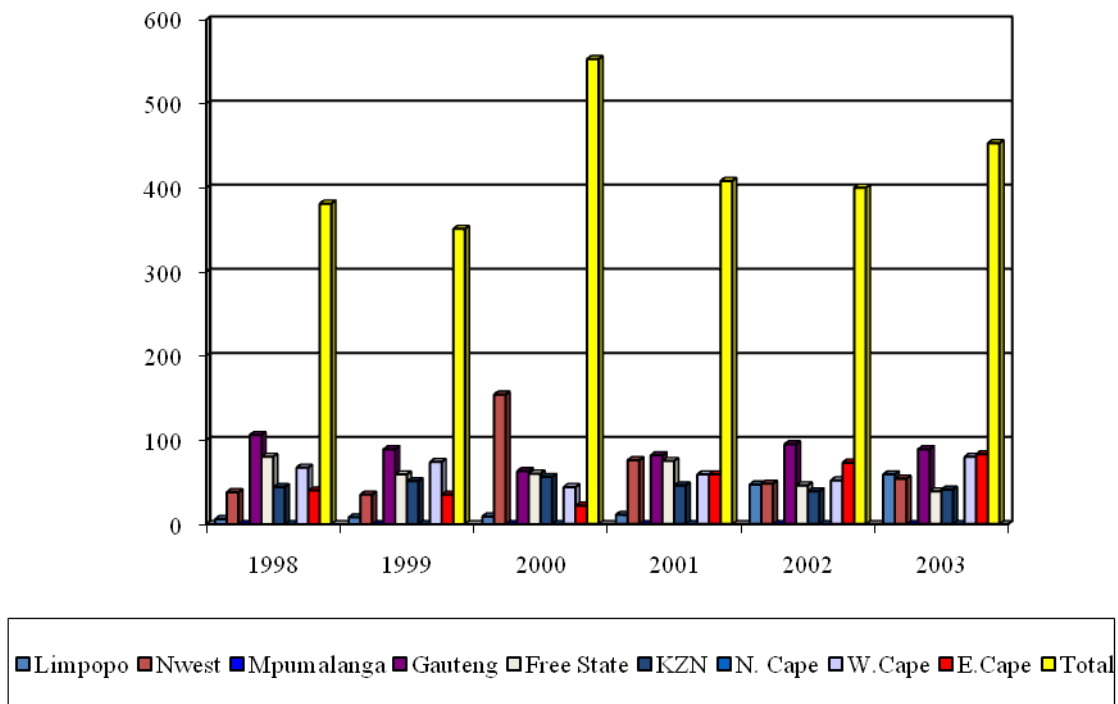
There is dire need for government planning to be reviewed so that sector specific issues can be addressed as far as possible within such sectors. It may be advisable for such a review to take into consideration the strains and pressures faced by departments such as the Health Department from a service delivery point of view. Whilst education standards at higher education level need to be maintained and strengthened, giving responsibility for training of health professionals to the health sector will improve and enhance the context specific workforce planning and enable a rapid response approach to supply and demand issues as they arise in the health sector.

As an example, currently South Africa produces many environmental health officers that are believed to be produced in excess to the health needs. [There may be an element of under-utilisation thus resulting in a perception of over-production]. However, if health sciences education and training were under the jurisdiction of the Ministry of Health, it would be easier from a planning point of view to adjust admissions into environmental health training and cater for such increases in other areas deemed to be in need. There is currently no mechanism for urgent real-time feedback to higher education national student planning so that such adjustments can be made. The Dean of the Faculty of Health Sciences at Walter Sisulu University, Professor Mfenyana emphasized the point that there is absolutely no joint planning between the Department of Education and Department of Health. This sentiment had earlier been echoed by Professor Marian Jacobs, Dean of Health Science Faculty at the University of Cape Town (Pretoria, 18/07/2008).

This is evident in the nursing field as indicated in the figure below. Professional nurses are currently trained at both university and college level at the same programme quality level as accredited by the South African Nursing Council. These two spheres of nursing education compete for the same product rather than planning together so that better efficiencies can be extracted. As a result, production of nurses is not synchronized across education institutions so that they can play a complimentary role.



Graph 5: Output 4-Year Programme (1996 - 2004) Nursing Colleges



Graph 6: Output 4-Year programme (1998 – 2003) Universities

Note: University outputs are indicated here in terms of the province that these graduate nurses came from as not all provinces have universities.

A point of view made strongly by Dr Sibongile Zungu, Head of the Department of Health in Mpumalanga (14/07/2008) that the role of the National Department of Education should rather be confined to determining standards in higher education, overall oversight on the quality of higher education and direct management of those education programmes that are of a generic nature e.g. Bachelor of Arts. She contends that education and training programmes of a specialized nature like the health sciences would benefit being regulated and managed under their specific specialized government departments. This would remove the burden and non-specificity of how specialised professions are managed within the education system.

Her view is that the start should be the discussions with the Department of Education to smoothen the policy direction in health sciences education and training that is geared towards harmonisation. There is need for joint engagement at strategic level to determine what the requirements for the country are and thereafter take it to the institutions to get agreement on all issues relating to meeting those requirements. The National Department of Health and provinces must influence higher education institutions through various forums like the Committee of Medical Deans and Colleges of Medicine of South Africa.

Some provinces are doing this already but in very small bites e.g. Family Physicians wherein universities are engaged to be informed when it is felt that skills and competencies that are produced have shortcomings. The University of Pretoria and University of Witwatersrand have such arrangements for placement of their Family Physicians in the provinces of Mpumalanga and North West respectively. This is usually established through provincial surveys. However most respondents felt that the Departments of Health and of Education need to take the lead and develop a structured engagement. From a workforce planning angle, this means that provinces would have to inform the national department of the service needs, which through a formalised process would then inform education institutions so that they can graduate the required numbers.

There is currently a disjuncture as the Department of Education does training according to its own capacity (staffing and infrastructure issues) while health service tries to respond to emerging diseases and social patterns e.g. as one of the respondents Dr Zungu (14/07/2008) put it: ‘training of professionals in geriatrics so that one could have healthy elderly people to take care of young ones especially in view of the HIV epidemic’. Education has its own plans for the health sciences

that are not closely linked to health service plans that are designed to rapidly respond to society's health needs or demands. The education and health sectors are rather competing than complementing each other currently.

The view therefore is that the education department should rather be like the Department of Public Works which services all other government demands and is the custodian of government's property. This means that the Education Department would not have its own goals that are not derived and married to those of the Health Department. It should be limited to train for all other sectors as an implementing agent to ensure that such sectors realise their goals.

4.3 The National Human Resource Development Strategy

The mandate for the development and management of a National Human Resource Development Strategy rests with the Department of Public Service and Administration and its implementation is however led by the Department of Education from a formal education and training point of view. This is for ensuring that government is able to manage its human capital in such a manner that public service delivery is always at an optimal level. It sets standards for provision of services of a public nature but more at an administrative level.

The Human Resource Development Strategy is premised on a number of policy documents and legislation principally the Constitution of the Republic of South Africa Act 108 of 1996 and the Public Service Act. It seeks to address two overriding priorities the first being the reality of the global economy and the imperative to increase skills within the country to improve productivity

and the competitiveness of its industry, business, commerce and services. The second is to address the challenges of an unequal society, to make it more inclusive and to encourage greater cohesion.

One of the stated objective of the HRD Strategy for the Public Service (HRD Strategy 2002 – 2006) is to address the major human resource capacity constraints that are hampering the effective and equitable delivery of public services, including dealing with the consequences of the HIV and AIDS epidemic and the threat that it poses to the development of the public sector. This was envisaged to be achieved through a vision of establishing and strengthening a dedicated, responsive and productive Public Service whose mission would be to maximize people development, management and empowerment through quality skills development to accelerate transformation and service delivery that will benefit the people of South Africa.

The Human Resource Development Strategy has five strategic objectives:

- i. Improving the foundations for human development
- ii. Improving the supply of high-quality skills (particularly scarce skills), which are more responsive to societal and economic need
- iii. Increasing employer participation in lifelong learning
- iv. Supporting employment growth through industrial policies, innovations, research and development
- v. Ensuring that the four pillars of the Human Resource Development Strategy are linked

The significance of the DPSA's¹² role in the health sector lies in the determination of equitable conditions of service across the country and sectors of public service. It also plays a major role in

¹² DPSA – Department of Public Service and Administration

the development and training of managers for the health system through short term courses that are offered by the Public Administration Leadership and Management Academy.

This DPSA responsibility for human resource development strategy does not necessarily impact directly on health professions' planning from a production point of view. It however affects the attractiveness of the health professions when prospective students examine the remuneration and employment conditions as a mechanism to gauge whether careers in the health sciences are attractive or not.

Some of the strategy's goals are relevant and critical to the sustainability of the health system e.g.

- i. Ensuring effective service delivery
- ii. Keeping effective managers and people with scarce skills
- iii. Establishing effective management information systems
- iv. Managing complex organizational structures
- v. Assisting in effective human relations practices
- vi. Establishing effective interfaces between systems
- vii. Integration of career and life goals
- viii. Ensuring good performance management in the Public Service

For many years public servants have been remunerated using a 'one-size-fits-all' approach to salary determination through a job evaluation process. This evaluation process was seriously flawed for the health sector as it tended to evaluate jobs based on administrative aspects and lacked

tremendously on clinical aspects. This resulted in very anomalous situations like where a pharmacist with four years of intensive specialized technical training and knowledge ended being remunerated at the same level as an administrative officer with only a year's post-matric qualification. Based on the Personnel Expenditure Review conducted by the DPSA in 2006, a new salary dispensation known as the Occupation Specific Dispensation has now been instituted.

Its models combine remuneration with career progression and development so as to keep various professionals within the public health sector for longer periods of their working lives. One of the major features of this new system is the linking together of various measures so that the system, in addition to remuneration, it deals with retention incentives comprehensively. Performance management is intricately linked to human resource development in any organization. However this is complex for the health professions due to the diversity and complexity of the scopes of practice for each of the professional categories.

The establishment of career paths has to be linked to clinical performance if clinicians are to be retained within the public health system. The retention measures are a central aspect of flexible workforce planning especially in resource constrained settings like South Africa's health sector.

Retention of health professionals is a serious measure for the improvement of the quality of health services in the public health facilities. It is broader than the employer paying good salaries as it extends to the creation of a conducive clinical environment which is an aggregation of several elements like the availability of the tools of trade (medical equipment), medicines, social amenities

for staff in rural hospitals, appropriate mechanisms to manage and evaluate the work of health professionals and appropriate policies to deal with the issues of benefits and promotions.

Such additional measures are sector specific and can only be relevant if developed with the participation of the professionals in that sector. This was another theme expressed by all the respondents in the interviews I conducted who felt that Health must manage its health professionals distinctly from the general public service measures because this contributes to the professionals' perceptions of being valued or not.

4.4 The Public Service HRD Strategy and its Impact on the Health Workforce

The White Paper on the Transformation of the Public Service is the foundation upon which the Human Resource Strategy for Public Service is based. Adopted in November 1995 the strategy espoused a vision of government as a commitment “to continually improve the lives of the people of South Africa through a transformed public service which is representative, coherent, transparent, efficient, effective, accountable and responsive to the needs of all”.

To give effect to this vision, the Government envisaged a public service which is:

- i. guided by an ethos of service and committed to the provision of services of an excellent quality to **all** South Africans in an unbiased and impartial manner;
- ii. geared towards development and the reduction of poverty;
- iii. based upon the maintenance of fair labour practices for **all** public service workers irrespective of race, gender, disability or class;

- iv. committed to the effective training and career development of all staff;
- v. goal and performance orientated, efficient, and cost effective;
- vi. integrated, coordinated and decentralised;
- vii. consultative and democratic in its internal procedures and in its relations with the public;
- viii. open to popular participation, transparent, honest and accountable;
- ix. respectful of the Rule of Law, faithful to the Constitution and loyal to the Government of the day.

The central goals of the strategy are:

- i. To create a genuinely representative public service which reflects the major characteristics of South African demography, without eroding efficiency and competence;
- ii. **To facilitate the transformation of the attitudes and behaviour of public servants towards a democratic ethos underlined by the overriding importance of human rights;**
- iii. To promote the commitment of public servants to the Constitution and national interest rather than to partisan allegiance and factional interests;
- iv. To assist in creating an integrated yet adequately decentralised public service capable of undertaking both the conventional and developmental tasks of government, as well as responding flexibly, creatively and responsively to the challenges of the change process;
- v. **To promote human resource development and capacity building as a necessary precondition for effective change and institution building;**
- vi. To encourage the evolution of effective accountability and transparency in public management processes;

- vii. **To upgrade the standards of efficiency and effectiveness and improve the quality of service delivery.**
- viii. To create an enabling environment within the public service, in terms of efficiency and stability, to facilitate economic growth within the country.

Items (ii), (v) and (vii) above are inter-linked in the health sector. Health is a human right and its practitioners have to display a caring ethos in the execution of their duties and responsibilities. Health education and training in South Africa is largely a State responsibility as is the provision of health services. Upgrading the standards of efficiency and effectiveness to improve the quality of health service delivery is integral to ensuring the dignity of citizens. The country's human resource strategy in all its sectoral variations has to provide conditions that are conducive to the production of professionals with an orientation appropriate to advance these goals.

A further policy document, adopted by the whole of public service is Batho Pele (People First) which is geared to ensuring that all public servants provide a service that is welcoming, friendly and caring to all that access public services. Health services, especially at Primary Health Care level are sometimes the first site of interaction between ordinary people and State services e.g. during childbirth. Batho Pele provides guidance and a ready mechanism for each health professional and staff member in interacting with patients. It is another way of operationalising the Strategy of Transforming Public Service.

Batho Pele advances the certain principles which are aligned to the Constitutional ideals of:

- i. Promoting and maintaining high standards of professional ethics;
- ii. Providing service impartially, fairly, equitably and without bias;
- iii. Utilising resources efficiently and effectively;
- iv. Responding to people's needs; the citizens are encouraged to participate in policy-making;
and
- v. Rendering an accountable, transparent, and development-oriented public administration

The eight principles that Batho Pele espouses are:

1. Consultation
2. Setting service standards
3. Increasing access
4. Ensuring courtesy
5. Providing information
6. Openness and transparency
7. Redress
8. Value for money

These relate to the health sector in terms of implementation in the following manner:

1. Consultation

Traditionally, especially with the medical profession a culture of taking decisions about the course of treatment hardly involved patients or their families. It is in recent times that even

in terms of medical training, consultation and information sharing with patient have become an entrenched practice. Many health sciences education and training institutions now require their students to learn and be competent in using a local language and thus avoid using interpreters when attending to patients.

2. Setting service standards

This principle reinforces the need for benchmarks to constantly measure the extent to which citizens are satisfied with the health services they receive from health facilities. This therefore plays a critical role in the development of health service delivery improvement plans to ensure a better life for all South Africans. It certainly takes a good caring management team to listen to patients and integrate their suggestions into management's planning system.

3. Increasing access

One of the prime aims of Batho Pele is to provide a framework for making decisions about delivering public health services to the many South Africans who do not have access to health care. Batho Pele has also helped rectify the inequalities in the distribution of services that existed in pre-1994 period of segregated health services in South Africa. Access to information and services has also empowered citizens in terms of health knowledge and taking responsibility for living healthy lifestyles.

4. Ensuring courtesy

This goes beyond a polite smile, 'please' and 'thank you'. It requires service providers to empathize with the citizens and treat them with as much consideration and respect, as they would like for themselves. Health sciences are a caring sector but sometimes this is not practiced or displayed as should be the norm. When patients are aware of how health professionals should behave when managing their illnesses, they are then able to evaluate the quality of services they receive based on a combination of these factors and principles.

5. Providing information

As a requirement, available information about health services should be at the point of delivery. This is not always because of issues like rate of literacy of the population served. It is therefore necessary that managers and staff should regularly seek to make information about the service delivery related matters available to all in the language and manner they will understand. It is a requirement that information is made available in all the eleven official languages in South Africa. This helps in educating patients, their families and communities about health issues.

6. Openness and transparency

A key aspect of openness and transparency is that the public should know more about the way national, provincial and local government institutions operate, how well they utilise the resources they consume, and who is in charge. For the health sector such demarcations are not necessarily clear-cut. However, attempts are made continuously to educate

communities about concepts of Primary Health Care and under what conditions they can present directly to facilities at higher levels.

7. Redress

This principle emphasises a need to identify quickly and accurately when services are falling below the promised standard and to have procedures in place to remedy the situation. This is an area that requires systems that are very responsive to patient's needs. The quality of training and organization of health teams within institutions are major determinants of success in this area.

8. Value for money

Government believes that many improvements that the public would like to see often require no additional resources and can sometimes even reduce costs. Therefore failure to give a member of the public a simple, satisfactory explanation to an enquiry may for example, result in an incorrectly completed application form, which will cost time to rectify. This is relevant to the health sector especially in the rehabilitation services where recovery and regaining of independence can be enhanced by a patient and his/her family getting access to government assistance e.g. a disability grant avoiding or pulling the family out of destituteness.

The prologue to the revised HRD Strategy issued by the Department of Education (2008) states: "Human Resource Development is critically important in South Africa's development agenda. The importance of HRD demands a response that has a sense of urgency. It demands a comprehensive

and determined response from Government. However, the scope and importance of the HRD project extends beyond Government:

- i. It demands collective will and purposeful action from *all* stakeholders in society.
- ii. It demands the determination, commitment and accountability of individuals to invest time and effort in their own development.
- iii. It demands the commitment of all enterprises and organizations to invest time and resources in HRD toward the public good.

It is only through concerted efforts in HRD in the country as a whole that we can create suitable foundations for institutional and corporate missions. The urgency of the challenges and priorities, and the importance of the outcomes we seek to achieve, obliges us as South Africans to forge a social compact which will promote demand-driven HRD in the country”.

“In any country, human resources development refers to formal and explicit activities which will enhance the ability of all individuals to reach their full potential” (DoE, 2008). This strategy document acknowledges that by enhancing the skills, knowledge and abilities of individuals, there will be improvement in the productivity of people in their areas of work. It also emphasises the point that the central national concern is to accelerate development so that there is a match between supply and demand for human resources. HRD is therefore about taking purposeful actions to increase the aggregate levels of skills in the workforce so that we can maximize opportunities for individuals, and thereby benefit society as a whole.

The revised HRD strategy raises the point that the growing complexity of work – accelerated through the dynamic impact of globalization on national economies, production, trade and the world of work – has put the question of HRD at the heart of contemporary public policy and development strategies. Consequently developments in the global context make it imperative for all countries to respond effectively to the dynamic and competitive forces that impact on how national economies relate to the global economy (DoE 2008).

With regard to HRD, economic competitiveness is measured not only by the aggregate skills of a country's workforce, but – perhaps more importantly – by the flexibility and capacity of the workforce to adjust speedily to the rapid changes in technology, production, trade, and work organisation. As a result the ability to respond to these changes with speed and effectiveness has now become the area where many countries seek competitive advantage. This compelled government to devise mechanisms of responding to the HRD challenges in a comprehensive manner by establishing a concept known as the Accelerated Shared Growth Initiative of South Africa (ASGISA). It has several elements to it that seek to address the sectors of the economy focusing on important underlying factors that can boost the economy. Of interest and relevance in the health sector is the Joint Initiative on Priority Skills Acquisition (JIPSA).

4.5 Joint Initiative on Priority Skills Acquisition (JIPSA)

During the period of President Mbeki's tenure as Head of State, the Cabinet adopted the Joint Initiative on Priority Skills Acquisition for South Africa as an intervention to address the challenge of rapid depletion of highly skilled personnel across all government sectors.

The previous Cabinet made a note in 2008 that fourteen years into the country's democracy, education and skills remained a critical constraint on economic growth and development, and on its ability to improve the quality of life and life-opportunities of South Africans. Jipsa was established by Cabinet in 2006 to support AsgiSA (Accelerated Shared Growth Initiative of South Africa) whose objectives are to reduce the unemployment rate from 30% to 15% by 2014, reduce poverty from one-third to one-sixth of the population by 2014 and to increase the annual GDP growth rate from an average of 3% to 4,5% per annum for the period 2005 to 2009 and to 6% for the period 2010 to 2014. Jipsa's focus is seen as skills acquisition as an economic and labour market issue, as well as a problem of education and training - meaning that the resolution of these issues is dependent on the social partners, as well as on government.

4.5.1 The Rationale for JIPSA

Prior to 1994, the South African economy represented one of the most appalling examples with regard to the interaction between the institutions of human capital and their final users. The education and training environment was passive and lacked dynamism. Many institutions were very weak and employers lacked any interest in developing their employees. Universities operated within a vacuum, often offering programmes that bore little relation to the needs of a developing economy. There was no stratum of efficiently functioning FET¹³ institutions, and there were immense difficulties in the basic education system (SA Government 2008).

In addressing the observed challenges significant efforts were made to restructure institutional support for skills development, introducing the Sector Education and Training Authorities and an

¹³ FET – Further Education and Training

increased focus on technical training. However, the lack of interface between the users and suppliers of human capital still meant that these institutions have not been effective in developing the skills required by the economy (JIPSA Report 2008). The *raison d'être* of Jipsa is the supply of relevant skills in relation to the economy and the labour market and the concomitant role of education and training.

Jipsa thus has the following mandate (JIPSA Report 2008):

- i. Lead the implementation of a joint initiative of government, business and organised labour to accelerate the provision of priority skills to meet the AsgiSA objectives
- ii. Give momentum and support to the implementation of AsgiSA
- iii. Prioritise key skills and develop appropriate human resource development strategies to address these in the short to medium term
- iv. Mobilise senior leadership in business, government, organised labour and institutions concerned with education and training and science and technology to address national priorities in a more coordinated and targeted way
- v. Promote greater relevance and responsiveness in the education and training system and strengthen the employability of graduates
- vi. Lay the foundations for more co-ordinated and effective human resources development strategies
- vii. Report to the AsgiSA Task Team and Cabinet on progress made towards agreed objectives
- viii. Identify blockages and obstacles within the system of education and training that stand in the way of the achievement of Jipsa's objectives

- ix. Lead an effective programme to communicate Jipsa's objectives and consult with stakeholders.

The process had a good measure of success in the engineering field where focus was on producing increased numbers of people qualified as artisans for an example. JIPSA's approach in the health sector had to be different because of the nature of challenges faced by the sector. Health has a major challenge that its professional education and training periods are long with a minimum of four years in the majority of cases.

Rapid increases in the production of health professionals are therefore not possible over a short period of time when focusing on the highly skilled categories like doctors and pharmacists. The concern underlying the JIPSA initiative for the health was the persistent reports about the poor quality of care being provided to patients due to a variety of factors, amongst them the critical shortages of health professionals in public health facilities (JIPSA discussion with Provincial Heads of Departments of Health, May 2007). Unfortunately, even though health services require advanced and non-advanced skills, the lower skilled categories are not trained such that they can provide life-saving interventions even in cases of non-emergencies.

The intervention certainly suffered from the absence of correct contextualization in the health sector. It then shifted to the management field as a mechanism to improve the quality of health services by managing resources prudently. What this attempted intervention highlighted was a need for the country to engage in appropriate long-term workforce planning to avoid situations

where health services to the public are compromised because of a lack of planning or less than optimal management of available resources.

An important lesson also was that high level interventions that do not take into consideration the sector specificity and complexity do succeed in creating awareness about the problems but do not necessarily suit each one. Mobilisation of resources for such an intervention could possibly not be a serious impediment due to the high level political leadership but the effectiveness of the intervention could not be realized because of the lack of understanding or appreciation of the inherent knowledge that is required to make the intervention appropriate.

4.6 Accelerated Shared Growth Initiative for South Africa (AsgiSA)

The South African Government was mandated by the electorate in 2004 to halve poverty and unemployment by 2014 (Presidency 2006). The Presidency believed that these objectives were feasible and hoped to surpass them – because of steady improvement in the economy's performance and job-creating capacity.

Growth had averaged about 3% during the first decade of freedom, from 1994 – 2004, a considerable improvement on the decade before 1994 when growth averaged 1% per year. Since 2004, growth has exceeded 4% per year, reaching about 5% in 2005 (Presidency 2006) and expectations for the strong performance to continue were high because forecasts by banks and ratings agencies generally indicated expectations of growth continuing at around 4.5% in the medium term.

4.6.1 Balanced growth

Taking these and other factors into consideration, government decided to put South Africa growth on a 'more balanced footing' in two important respects.

The Presidency pointed out that the growth had been based on a combination of strong commodity prices, strong capital inflows and strong domestic consumer demand, given impetus by anti-poverty measures, growing employment and rising asset prices. The effect, however, of this combination had been to strengthen the currency which made it difficult for exporters outside the commodity sector or those who compete with imports to remain competitive. That led to a trade deficit of 4,3% of GDP in 2005, well financed by capital inflows, but demonstrating South Africa's challenge to compete effectively outside of the commodity sector.

The second imbalance derived from the fact that although the social grant programme had given significant impetus to poverty reduction and income redistribution, there remained about a third of South African households not yet able to benefit directly from the economic advances. Bringing this sector of the population into the mainstream economy would considerably enhance the country's growth potential.

Sustainable growth at around 6% required that these two imbalances are countered, the Presidency noted. In developing a strategy for accelerated and shared growth, government adopted a growth diagnostic analysis which sought to identify the 'binding constraints' on achieving the objectives. The methodology held that while all successful economies have certain characteristics in common – such as well-managed fiscal and monetary policy and competent government administration – each country faces specific challenges in moving from mediocre to successful.

The following were identified and agreed to, after consultation as Binding Constraints (Presidency 2006):

- i. **Volatility and level of the currency.** In spite of major improvements in the administration of fiscal and monetary policy, currency volatility deters investors in tradable goods and services outside of the commodity sector. The Rand remains somewhat volatile, though the degree of volatility has been reduced. At present, the relative volatility is accompanied by a currency that is overvalued in the sense that economic resources are diverted into narrow areas of investment, laying an unsteady foundation for the future. A further area for macro-economic improvement is in expenditure management, particularly in government capital investment.
- ii. **The cost, efficiency and capacity of the national logistics system.** Backlogs in infrastructure and investment, and in some cases market structures that do not encourage competition, make the price of moving goods and conveying services over distance higher than it should be. Deficiencies in logistics are keenly felt in a country of South Africa's size, with considerable concentration of production inland, and which is some distance from the major industrial markets.
- iii. **Shortage of suitably skilled labour amplified by the impact of apartheid spatial patterns on the cost of labour.** The most difficult aspects of the legacy of apartheid to unwind arise from its deliberately inferior system of education and irrational patterns of population settlement. In a period of growth it is evident that we lack sufficient skilled professionals, managers and artisans, and that the uneven quality of education remains

a contributory factor. In addition, the price of labour of the poor is pushed up by the fact that many live a great distance from their places of work.

iv. **Barriers to entry, limits to competition and limited new investment opportunities.**

The South African economy remains relatively concentrated, especially in upstream production sectors such as iron and steel, paper and chemicals and inputs such as telecommunications and energy. In some cases, market structure negatively influences the possibilities of downstream production or service industry development. Competition law and industrial policies need to be strengthened to counteract these factors.

v. **Regulatory environment and the burden on small and medium businesses.**

The mediocre performance of the small, medium and micro business sector in terms of contribution to GDP¹⁴ and employment partly arises from the sub-optimal regulatory environment. In the administration of tax, the planning system (including Environmental Impact Assessment), municipal regulation, administration of labour law and, in specific sectoral regulatory environments, regulation unnecessarily hampers the development of businesses.

vi. **Deficiencies in state organisation, capacity and leadership.**

Certain weaknesses in the way government is organised, in the capacity of key institutions, including some of those providing economic services, and insufficiently decisive leadership in policy development and implementation all constrain the country's growth potential.

This excerpt became a major motivation of a need to develop a vehicle through which practical interventions were to be instituted. Whilst the excerpt's language is heavily economic and

¹⁴ GDP – Growth Domestic Product

industrial in approach, it cuts across all issues that Government has a mandate on. It is an accepted fact in the health sector that prevention of disease and illness – keeping people healthy – contributes positively to the country's economic growth as people are then able to work and take care of their health. High levels of poverty and unemployment are negative indicators for a health system.

Health services rendered by the health professionals at different levels of health facilities, in both the public and private sectors range from basic to the most sophisticated interventions. South Africa gained international reputation for the work Dr Christiaan Barnard performed through the first heart transplant on a human being. There are several other high-tech interventions that South Africa is now famous for like the separation of conjoined Siamese twins performed by Prof Sam Mokgokong at the Medical University of Southern Africa's Dr George Mukhari Hospital outside Pretoria in the 1990's. All these interventions need major investments in training professionals and purchasing the necessary highly technical equipment. The department's draft policy on health technology identifies the need for the government to invest significantly in medical equipment that is essential for life saving interventions e.g. Medical Resonance Imaging Scans. These would be for utilization in the public health facilities so that even the poor patients can have access to these technologies that save lives.

Besides the JIPSA initiative, the revitalization of the health sector requires refurbishing and/or rebuilding of health facilities like hospitals and clinics. The premise on which AsgiSA stands is that it is not a government programme but rather a partnership programme which involves galvanizing support from the private sector and other partners to accelerate economic growth of

the country. The binding constraints are therefore a challenge to society, government and business community whose success can only benefit citizens through socio-economic interventions that will accrue.

From a health workforce planning point of view, availability of the tools of trade i.e. health technology to enable life saving interventions, it is important that the economy performs well and that there is proactive investment in planning, developing and managing human resources in the most prudent manner. A challenge for the health sector leadership is whether South Africa can overcome its history and unite around the AsgiSA objectives.

4.7 Conclusion

The health system also depends on other government sectors to educate, train and manage its health workforce. This is in the form of policies, mandates carried by other government departments, regulations governing the public service to create harmony in all provinces and government facilities etc. The health system can in some instances be regarded as a consumer of products created by others but can at the same time be regarded as a decision maker in that it determines what kind of professional it requires, with what competencies and possessing what attributes.

Its operations are based on certain core values that are espoused by the country's Constitution and several other pieces of legislation and policies. A concerted effort is required to realize the goal of planning for the nation. The absence of a clear policy on health sciences education and training

linked to a policy on health workforce planning is a serious challenge for the health sector. The enabling environment in the form of the National Human Resource Strategy and the Batho Pele principles is not enough for the health sector to flourish. The shortages of health professionals experienced at hospitals and clinics can only be addressed over a medium term period of time like 5 to 6 years in relation to many categories of health professionals. With training periods averaging 4 to 5 years, an urgent intervention is required to put processes in motion to address health workforce planning by also leveraging on the work already done by other departments, notably the student planning exercises that are performed yearly by the Department of Education.

Chapter 5

The supply and demand relationship in the health sector

5.1 Introduction

Health is a very diverse sector with its service providers taking responsibility to render what should be accessible, sustainable, good quality and affordable health services to the South African population. These providers range from health professionals to private companies that specialize in the provision of certain products and services. Health professionals (the subject of this dissertation) are recruited from the country's schooling system as an entry point to the health sciences. All have to possess a matric qualification as a minimum requirement for admission to university, technikon or further education and training level. The quality of pre-higher education training is therefore critical to the country's ability to possess an adequate pool of matriculants that can be educated and trained to be health professionals.

Health workforce planning has to support the development of a workforce that is responsive to the health needs of South Africans. Education and training institutions have a responsibility to produce professionals that are well equipped to deal with the major clinical challenges as they present in the form of diseases and illnesses.

5.2 Enrolment Planning for Higher Education in South Africa

Despite the challenges of competition from other fields over many years, the careers in the health sciences continue to be in demand and this is indicated by the slight increase in enrolments as

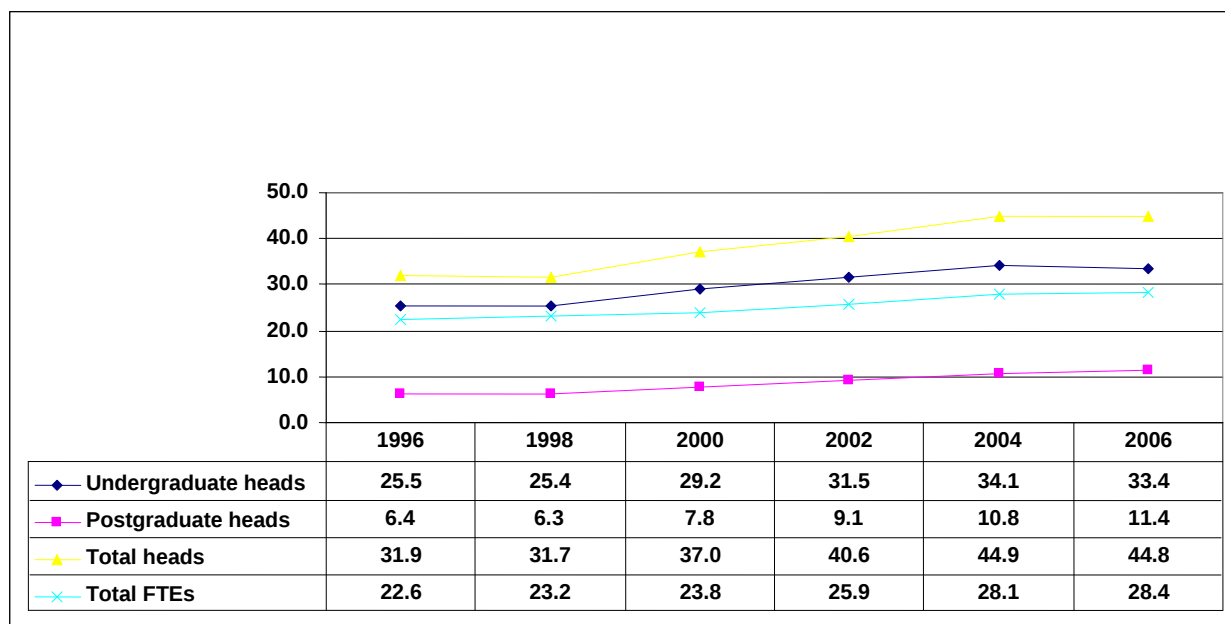
shown below in Graph 1. From a national general student enrollment planning point of view, the Department of Education planned to increase the student headcount from 752 000 in 2006 to 813 000 by 2010 at tertiary education institutions, which represents an annual growth of 1.8 percent of the overall higher education student population (DoE 2006).

Department of Education Enrolment Planning

Field	2005	2010
Set	27%	29%
Business	33%	33%
Education	14%	13%
Humanities	26%	25%

Source: Department of Education 2006

Enrolments in the health sciences showed a marginal increase over a ten year period from 1996 to 2006 as indicated in graph 1 below.

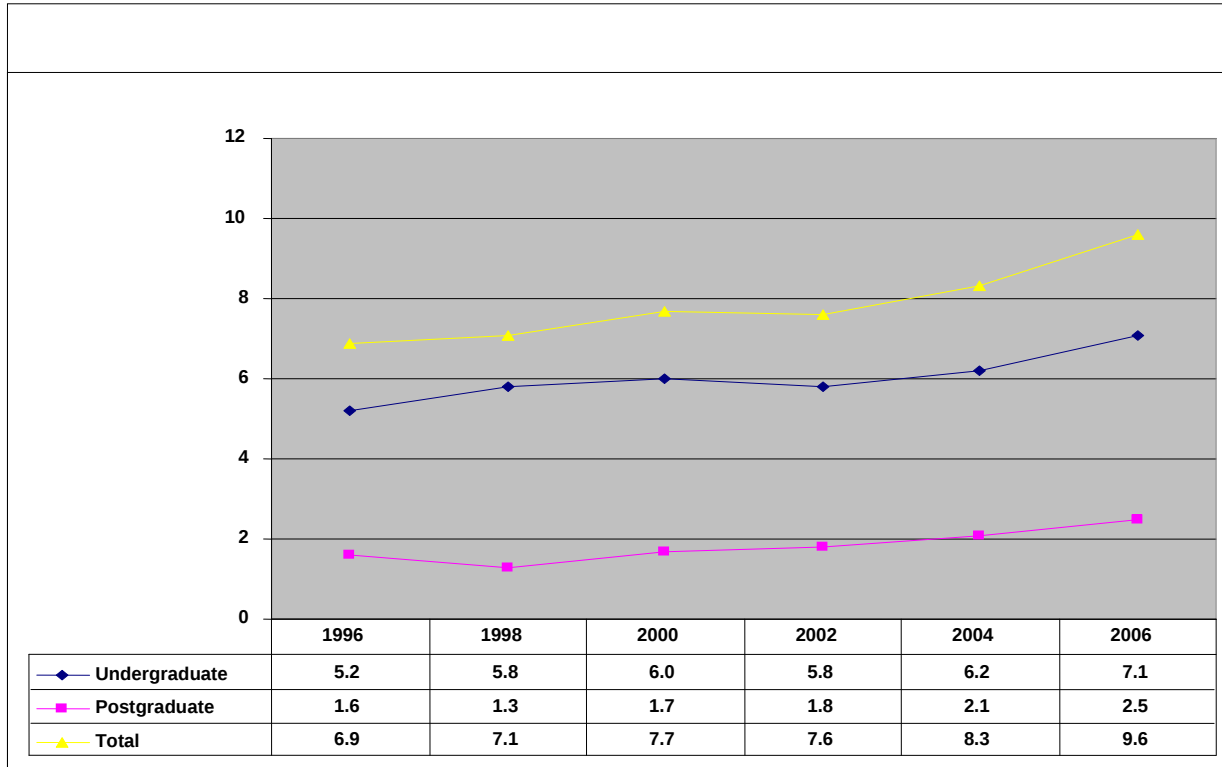


Graph 7: Enrolments in Health Sciences Programmes (thousands)

(Source: Department of Education 2007)

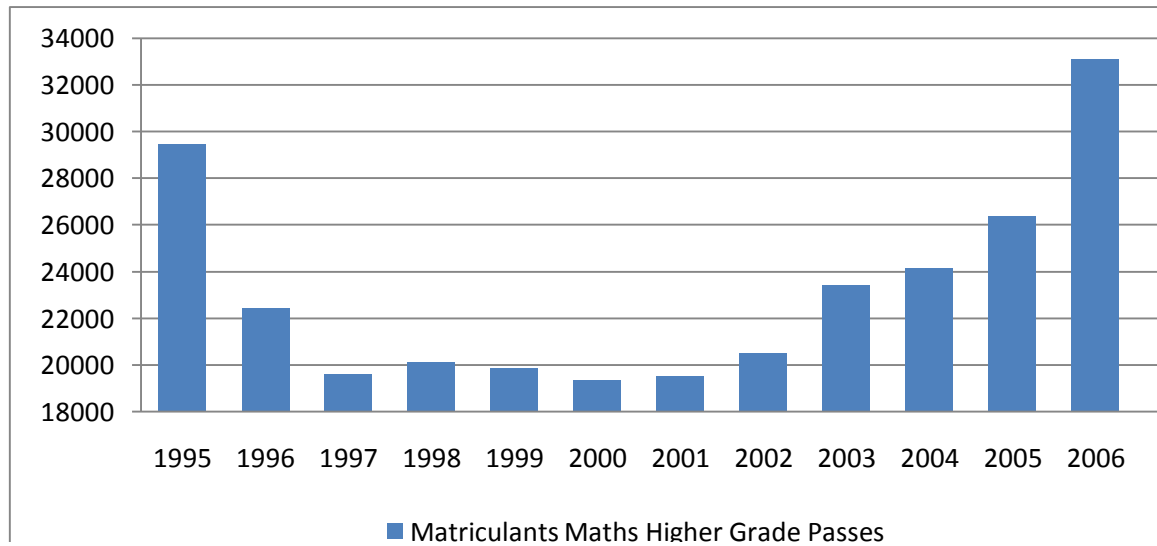
This increase in enrolments should however be analysed in relation to the increase in population, burden of disease and utilization of health services at public health facilities. Even though the enrolments showed a steady increase, there are other attrition factors which lead to less numbers graduating compared to the number of enrolments. Even though this may be the case there is consistency in the graduation rates of students in the health sciences. This is an indication of the stability, which may be a result of a few factors including:

- i. Fairly good student selection criteria that are set and applied by the health science faculties
- ii. The solidarity of health science students communities
- iii. The robustness of training programmes giving students skills early in their studies to ensure success
- iv. The continued popularity of the health sciences within society resulting in the attraction of academically sound students into the health science programmes



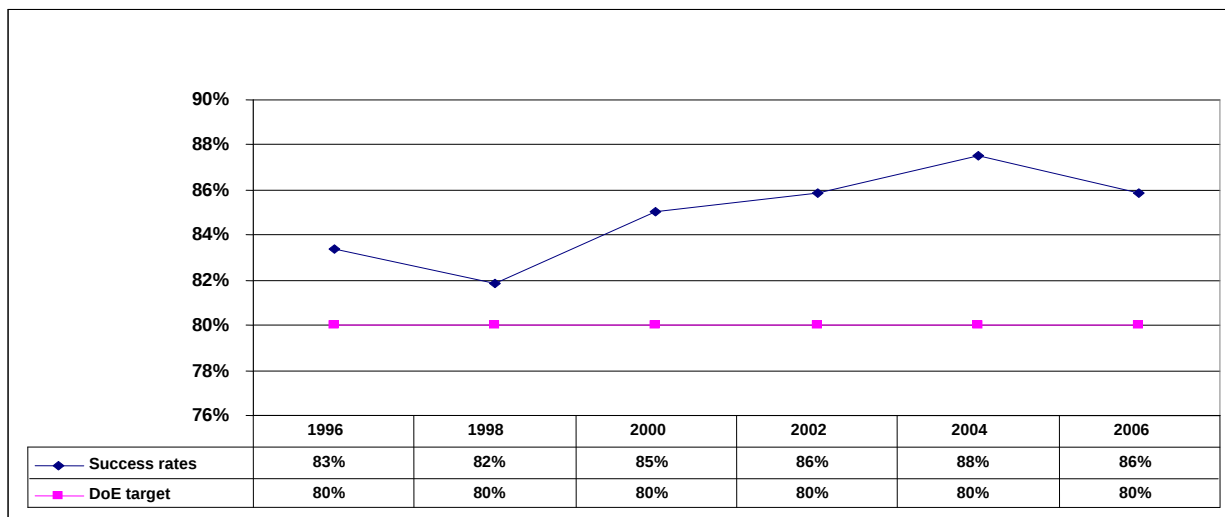
Graph 8: Health sciences graduates (in thousands)
Source: Department of Education 2007

South Africa set itself a goal of increasing higher grade passes in mathematics with a target of reaching 50 000 in 2008 (PCAS 2008). However the trend analysis shows that the performance of schools in producing higher grade passes in Mathematics has been below expectations. Even though this began to improve from 2001, there remain too few learners studying Mathematics and Science at higher grade and not all teachers are fully equipped. These subjects are critical in the preparation of students to enter the field of health sciences thus expanding mathematical and scientific capacity in schools remains an important educational priority.



Graph 9: Matriculants with Mathematics Higher Grade Pass

(Source: Policy Coordinating Advisory Services; Presidency 2008)



Graph 10: Average Success Rates in Health Sciences Courses at Higher Education

Source: Department of Education 2007

As can be noticed above in Graph 10, the success rates in the health sciences is consistently above the target rate set by the Department of Education, meaning a better return on investment from an output point of view. Despite the better success rate in the health sciences the fact that there are

widespread shortages of clinicians in many categories that the country trains means that the country is most likely producing graduates in smaller numbers than may be required by the health system. A major challenge has always been and remains the determination of health needs so that these can influence training numbers. Indeed a response by one of the policy-makers emphasizes that production is low and is not linked to health needs.

5.3 Determining the health needs

Determining the health needs of a population is a challenging field. This is due to a number of factors including **inter alia**, demographic studies, skilled health system researchers, accessible health facilities where members of the community can present with their health problems and the relevant resources like medicines and medical equipment. It is important that health services, no matter how rudimentary they are, should be accessed easily by a community at central points. This makes it easy to collect and collate statistics that will assist in determining the health needs.

Not many developing countries have systems that are appropriate for demographic surveys to be conducted regularly. As a result most depend on the World Health Organisation demographic surveys. The significance of doing regular demographic surveys relates to the opportunity and ability that this provides for the health planners to determine the kind of interventions that would be required based on sound scientific data. It gives the health planners the mechanism through which effective workforce planning can be done based on the real time disease burden experienced by the country. It also enables better future planning to deal with emergent diseases and illnesses that arise.

The challenge remains how to translate the determination of health needs into workable skill mixes that will be required for effective health service delivery. Ultimately such information will influence the number and kind of health professionals and supporting technicians to be trained. For a long time use has been made of the population based staffing norms approach to determine the required supply of health workers at all levels of care. Globally this is now proving difficult to keep due to a number of dynamics being faced by many health systems. In recent years the WHO, recognizing the dilemma that many countries face and has commenced with a project to consider context specific factors when determining staffing norms. Activity based norms are now increasingly being used to determine the human resource needs for a particular health facility or region or country.

Based on the health needs and the required skills and knowledge set, the number of health professionals to be trained gets determined. Curriculum advancements and modifications are done to enable education institutions to gear themselves for educating and training the prospective members of the health workforce. Even though medical interventions can be at any level of health care depending on the nature of illness or disease, South African health sciences education institutions excel in producing well-grounded health professionals that can function at multiple levels of care.

However, the nature of the skill and knowledge has to be complemented by the adequacy in numbers of the health professionals for a health facility to provide health services adequately. This is a challenge of planning and management of human resources. The emergence of new diseases

like the Human Immunodeficiency Virus induced Acquired Immune Deficiency Syndrome (AIDS) has put a serious strain on the health human resources of South Africa. As a new disease entity and the mystery around its science, many health professionals, following the calling of their professions dedicated themselves to do all they could to slow down the spread of the disease.

This meant in many instances major modification of their work routines to venture into the unknown territory of medical management of AIDS. The result was a significant migration of nursing professionals from general nursing duties in hospital facilities to work in clinics specializing in the treatment and/or management of HIV and AIDS.

It took considerable time for education and training institutions to integrate HIV into the education curriculum of undergraduate studies even in medicine from the first reported cases in South Africa in 1987. Similarly, planning for this major epidemic has not featured in workforce planning maybe due to the fact that there is yet no national health workforce planning system in place. However, there is no health system that focuses on only one disease entity. Appropriate workforce planning would therefore have to take into consideration other disease entities thus determine the skill mixes that would be required to manage the disease burden. Based on this and other factors, requisite numbers for training would then be determined and fed into the student planning processes of education and training institutions.

There are also many other instances where more production of professionals with a particular skill needs to be increased rather than a general increase in production of everyone. Analysis of the report on the Confidential Inquiry into Maternal Deaths confirms this. This confidential enquiry

into maternal deaths is a “systematic multidisciplinary anonymous investigation of all or a representative sample of maternal deaths occurring at an area, region (state) or national level, which identifies the numbers, causes and avoidable or remediable factors, associated with them. Through the lessons learnt from each woman’s death, and through aggregating the data, confidential enquiries provide evidence of where the main problems in overcoming maternal mortality lie and an analysis of what can be done in practical terms, and highlight the key areas requiring recommendations for health sector and community action as well as guidelines for improving clinical outcomes” (Moodley et al, 2007).

They report that in the 2005 - 2007 triennium there was a 20.1% increase in the number of deaths reported compared with the previous triennium (2002-2004) and the “big five” causes remained the same, namely non-pregnancy related infections – mainly AIDS (43.7%), complications of hypertension (15.7%), obstetric haemorrhage (antepartum and postpartum haemorrhage; 12.4%), pregnancy-related sepsis (9.0%) and pre-existing maternal disease (6.0%). The most frequent health care provider avoidable factors were failure to follow standard protocols, poor problem recognition and initial assessment.

The assessors concluded that 38.4% of the deaths were clearly avoidable within the health care system (patient orientated factors being excluded). Complications of hypertension, obstetric haemorrhage, pregnancy related sepsis and non-pregnancy related infections were responsible for 4 out of 5 of avoidable deaths. Thus the report’s recommendations highlighted the improvement of health care provider knowledge and skills in providing emergency care and ensuring adequate screening and treatment of the major causes of maternal deaths.

Further evidence of this is the demonstration in the table below that the direct preventable causes have steadily increased over the period from 1999 to 2007. Whilst the underlying causes may be multifactorial, the authors of the report have pointed to the knowledge and skills gap compounded by the deployment of young professionals, largely unsupervised to health facilities that also lack the necessary equipment to assist.

Primary Obstetric Cause		1999-2001		2002-2004		2005-2007	
		N	%	N	%	N	%
Direct		1462	59.8	1767	53.6	1819	45.9
	Hypertension	507	20.7	628	19.1	622	15.7
	Postpartum haemorrhage	240	9.8	313	9.5	383	9.7
	Antepartum haemorrhage	100	4.1	129	3.9	108	2.7
	Ectopic pregnancy	27	1.1	47	1.4	55	1.4
	Abortion	120	4.9	114	3.5	136	3.4
	Pregnancy Related Sepsis	210	8.6	274	8.3	223	5.6
	Anaesthetic related	76	3.1	91	2.8	107	2.7
	Embolism	48	2	64	1.9	57	1.4
	Acute collapse	134	5.5	107	3.2	128	3.2

A comparison of primary obstetric causes of death between 1999-2001, 2002-2004 and 2005-2007

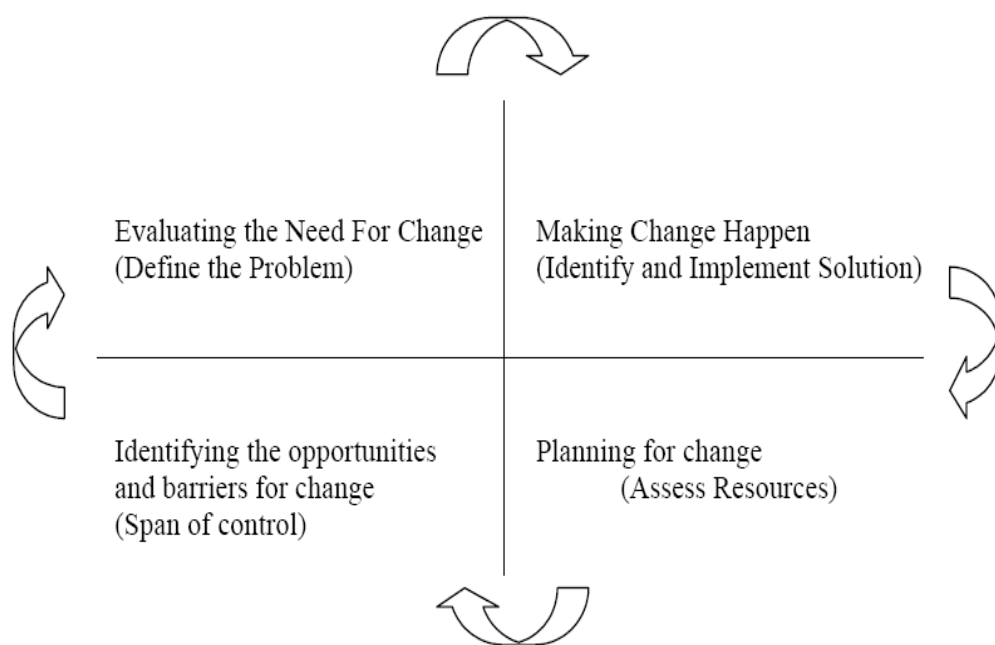
(Moodley et al, 2007)

From this table it is evident that the lack of skilled professionals in anaesthesia is a critical problem that directly contributes to the preventable deaths as shown by the increase from 76 to 107. A similar picture emerges relating to preventable deaths due to excessive bleeding during or immediately after child-birth (postpartum haemorrhage). These problems point largely to a planning gap and to the exit skills (competence) issue. Additional problems relate to the distribution of health professionals, the scarcity of experienced professionals in public health

facilities and inappropriate skills mix at health care levels that are appropriate for such interventions to be made.

5.4 Determining the required skills mix

Determining the requisite skill mixes for a defined area or facility is a tricky challenge for the health sector mainly because of the internal regional variations that must be taken into consideration. For a skill mix to be determined appropriately, it must be directed to solving health delivery problems from conceptual to practical operational ones. This requires careful planning in line with the kind and nature of health services that are envisaged for the recipients of health care. Planning therefore has to take into consideration envisaged skill mixes thus determining which professional categories are to be trained and in what numbers in relation to each other. Buchan (2000) identified four stages that are necessary for a skills mix review [and determination]. These are represented in the figure below:



Source: Buchan J, et al., 2000

Buchan emphasises the need to define the current services, in terms of activities, staffing configuration, and importantly the needs of patients etc. He further points out that there is also a need to evaluate the effects of changing skill mixes using a set of baseline indicators. In essence some of the factors to be considered are:

- i. Needs of patients/client groups
- ii. Current service provision-activity levels; bed occupancy, etc.
- iii. Staff involved; numbers, mix; deployment patterns; staffing indicators (turnover, absence, etc.)
- iv. Activities performed/roles
- v. Quality of care provided
- vi. Outcome indicators

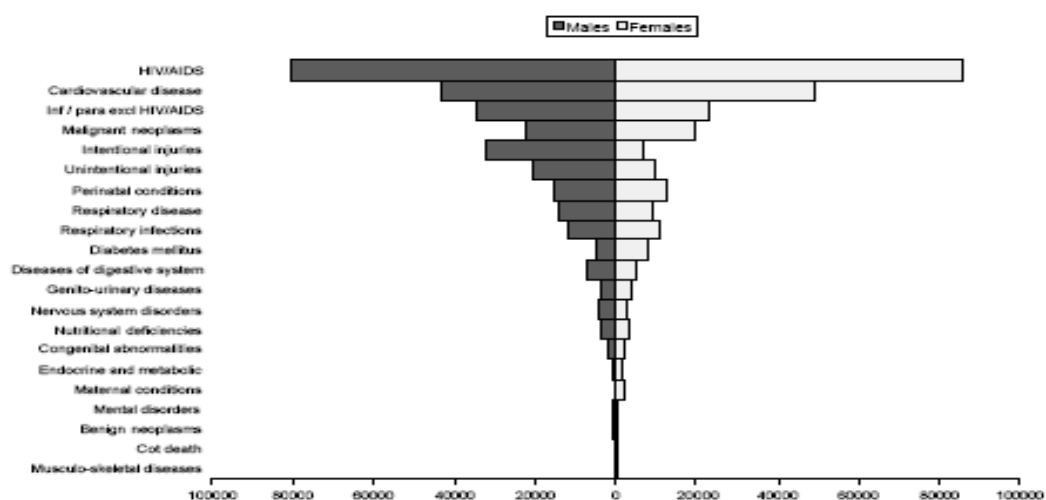
Determining and / or changing the skill mixes in the South African health care environment could be a complicated but necessary exercise as the Constitution demands that all South Africans must have access to health services. This therefore means that government must do all in its power to provide such services. Several studies have been conducted on the burden of disease (MRC¹⁵) including the most common causes (Statistics SA) of death among South Africans.

While it is difficult to correlate exactly the number of health professionals required to deliver health services, the disease burden as recorded through these surveys gives an indication of the enormity of the task. The reason for the difficulty to correlate is that the country lacks certain data

¹⁵ MRC - Medical Research Council

that is critical for such a correlation to be made except by utilizing the World Health Organisation’s staffing norms. As indicated earlier these are not necessarily appropriate for all health systems due to the nature of disease profiles and the requisite skill mixes that are context specific.

Also, the disease burden studies are historical in nature, are done to measure the burden over a period of time, mostly 5 years and do not give an indication of current developments that relate to rapidly developing and spreading diseases like the H5N1 viral infection (bird flu) and the H1N1 viral infection (swine flu). These studies are useful in indicating what the majors causes of death are over a period of time and therefore enable health service delivery planners to adjust the type of health interventions that are necessary. The following graph gives an indication of the disease burden as measured by the Medical Research Council in 2000.



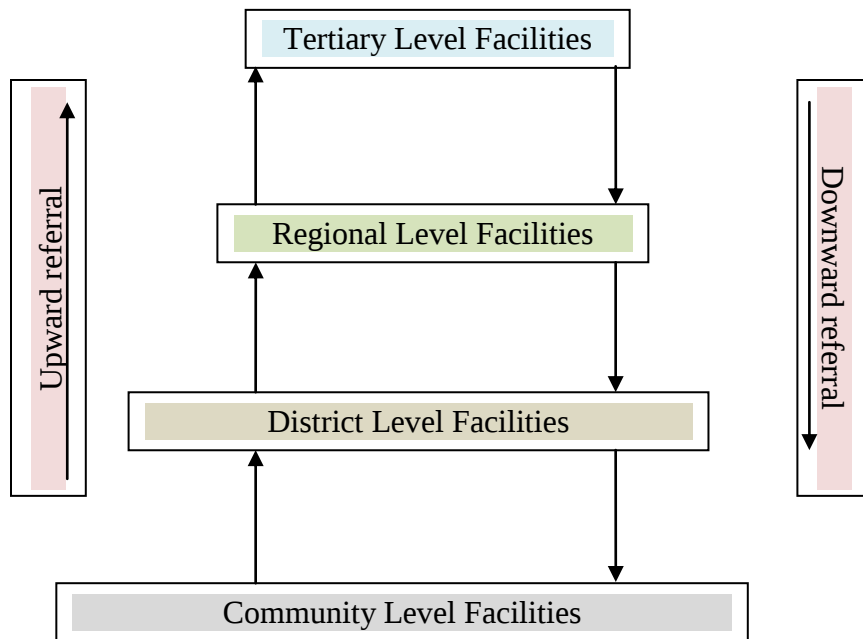
Causes of death by categories, MRC 2000

From the figure above it can be noticed that there is a mixture of conditions that require a variety of interventions. Some like the endocrine and metabolic diseases require sophisticated

interventions, others like nutritional deficiencies require an improvement in the socio-economic status of patients whilst others like cardiovascular disease and HIV and AIDS require good clinical skills, knowledge and highly effective medicines to manage. Health professionals therefore need to be comprehensively trained so that they are in a position to detect, diagnose, treat and/or refer patients with such variety of conditions.

Health workforce planning therefore goes beyond the question of numbers of health professionals in a particular health system. It also concerns and is influenced by the type and range of education and training programmes that institutions offer in preparing prospective professionals. It also relates to the appropriateness of such programmes in relation to the health needs of communities. Burden of disease studies on their own are not sufficient to determine the health needs of communities. Other critical issues relate to health indicators that lie outside the health system e.g. access to clean water and sanitation.

Also critical in this process is the choice that government makes on how to structure the health system and determination of what will be provided at what level of care. If the decision is (rightly so) to engage in preventative health care and provide the bulk of health services at a Primary Health Care level, it is then logical to plan for a bigger contingent of the workforce to be deployed at that particular level. This will in turn influence the content of training of the designated categories so that graduates of relevant programme possess competencies that are suitable for Primary Health Care practice. To function effectively, there must also exist a proper referral mechanism so that all these levels of the health service delivery system are inter-connected for better patient care.



Diagrammatic representation of levels of care

5.5 HIV and AIDS Training in South Africa

South Africa is one of the Sub-Saharan countries hard hit by the HIV epidemic. In the late 1980's when the first cases were diagnosed in the health facilities, not much existed in terms of training programmes. It took some time before training institutions developed curricula for student training. All higher education institutions now run a variety of programmes aimed at equipping students with knowledge and skills to manage patients that present with either HIV infection or AIDS symptoms.

There are currently many education institutions that offer training programmes for the management of HIV and AIDS. These programmes are either stand-alone or integrated within other academic programmes e.g. the University of Fort Hare offers training in the management of HIV / AIDS targeting the nursing professionals through its partnership with the International Centre for AIDS and Treatment Programmes (ICAP) whilst the Medical University of Southern Africa offers a Postgraduate Diploma in **HIV and AIDS** Management in the Workplace as a joint programme between the University of Stellenbosch and the National School of Public Health at **Medunsa**. The students who obtain a minimum pass of 60% in this programme then qualify to enter the Master's programme at the university i.e. Masters in Public Health.

Over the years, there has been concern expressed by Civil Society groups and organisations about the need to expand programmes that are designed to fight against HIV and AIDS. A broad strategic plan the National Strategic Plan on HIV and AIDS was adopted in 2007 and this policy document is being used by some institution like the University of Fort Hare's Department of Nursing as a basis for designing their programme with ICAP.

These programmes are complemented by a number of training programmes that are largely skills based being organised and managed by Non-Governmental Organisations and a number of international donor agencies like United Kingdom's Department for International Development (DfID), European Union, United States' President's Emergency Plan for AIDS Relief (**PEPFAR**). Some of these programmes are run by local organisations like the Foundation for Professional Development managing the PEPFAR training programme.

5.6 Conclusion

The existence of many training programmes addressing the same issue signifies a need that exists. Planning for the provision of health services must commence with appropriate student planning, ensuring that the health sciences are marketed to learners during their secondary schooling period. Data from the Department of Education shows that the success rate of students in the health sciences has been constantly above the Department of Education target over a 10 year period from 1996 to 2006. This provides the Department of Health and Health Sciences Education and Training Institutions with a good platform for ensuring production of increased numbers of graduates once students get admitted to academic training programmes.

However, a challenge remains in the determination of health needs and linking these with training. Utilizing only population based staffing norms has proved a challenge for South Africa due to a number of reasons, chief among them being the rapidly increasing burden of disease. Determining the skills mix is also a challenge whose solution should be based on studying the contexts within which health services are provided and then tailor the solution towards meeting those demands in terms of patient care.

Chapter 6

Health Sciences Education and Training

6.1 Introduction

Health sciences education and training is a wide field comprised of more than 54 professional and sub-professional categories being trained in South Africa. It evolved from the Western approaches of training being a balance between formal training in classroom like format and practical training wherein students are exposed to clinical conditions relevant to their field. This approach allows them to develop with a balanced understanding of the relationship between theoretical and practical aspects of disease and illness.

This approach to training is rigorous for many health professions categories but prepares students well for managing patients under difficult clinical situations. This is more relevant in a country like South Africa where a large rural population exists and depends on public health services to receive their care. Whilst service provision is almost the sole mandate of the Department of Health, educating and training prospective health professionals is a joint responsibility.

6.2 Structure of Health Sciences Higher Education and Training

Health sciences education in South Africa is premised on the Flexner approach like many other medical education systems in the world. One of its main features is that it is almost exclusively offered at higher education institutions (Molly et al 2006). For a long time each professional category has been trained distinctively separate from others even in terms of location of academic

departments within one institution. This partly led to the skewed development of academic programmes. Medicine has always and continues to occupy the top spot as it would consume a large part of the human, financial and infrastructure resources of the institution. This may have been influenced by the historical positioning of medicine in society, strengthened by the fact that it is the oldest of the health professions. In recent years medical schools have been transformed into faculties of health sciences to include all the health programmes that are offered in each institution.

Mathematics and science at pre-university or college level are basic requirements for entering into the health sciences at higher education level. The foundation laid at a primary and more importantly at secondary schooling level is a key to good understanding of concepts in health sciences at higher education level. The level of preparedness of students to embark in any of the health sciences must therefore commence at these formative stages since the majority of health sciences programmes at higher education institutions require good passes in mathematics and science. Lehman et al (2000) in a study commissioned by the Health Systems Trust wrote that the University of Natal had reported that students struggling to complete their degree in six years were those from schools which lacked science facilities such as laboratories. As a result many of these students take seven to eight years and sometimes up to nine years to complete their medical training.

On the issue of whether medical schools should be stand-alone entities or not, there is concern and divided opinion. The argument for integration is more from a policy and financial point of view. From a policy point of view the motivation is that the orientation of education and training towards meeting the health needs would be better managed by the Department of Health as the stewardship

for health care lies with it. In countries like Iran and Cuba health education is the sole responsibility of the Ministry of Health. In other countries like South Africa the primary responsibility for education and training lies with the Department of Education. This is the case for all sectors in this country. This setup has advantages and disadvantages.

There is certainly a limit to how much resources are and can be made available for human resource development of this country. The Department of Education derives its mandate from the constitution and seeks to manage the implementation of the government human resource strategy by striving to create a balance among all sectors. In terms of financing education at tertiary level, it utilizes a system of cross-subsidization so that programmes that are very expensive to offer like medical education get subsidised by those that are less expensive but can accommodate large numbers of students.

There is some uniformity in the structuring of academic programmes. This is made possible by the centralized HPCSA accreditation system that all education and training programmes get subjected to. This does not necessarily mean that the exit competencies of graduates will exactly be the same because individual institutions adopt different permutations within the programmes over the period it has to graduate students. Some may choose to teach a particular module within medicine in the fourth year of study while another institution may elect to do that in the fifth year of study. Most health science programmes are not structured such that they have multiple exit levels. This assists in curbing dropouts in addition to the strict entrance criteria that enable good retention rates that are above average when compared to other education programmes.

6.3 Education programmes in Health Sciences Higher Education

Health sciences education programmes are varied in almost all institutions. There are however some programmes that form the core and are therefore common to many health sciences higher education institutions although not uniformly e.g. medicine, nursing, physiotherapy, dentistry to mention a few. There are many other programmes that institutions develop, register on the National Qualifications Framework with a purpose of strengthening the health system. There has always been a debate about the appropriateness and responsiveness of most of these additional programmes. This is amplified by how academic institutions decide on what academic programmes to offer. All the respondents (academics) to my survey said that their institutions use among others the following criteria:

- a. Relevance of the academic programme to the health needs of the community they serve
- b. Demand for the programme by the market
- c. Employability of the programmes graduates upon completion
- d. Success rate of enrolled students

However, some of them put emphasis on training for local needs (Medunsa and WSU) whilst others (UCT and UP) add the issue of global competitiveness of their graduates. These criteria are overall in line with those of similar academic institutions globally. Medunsa and WSU's emphasis on training for local needs is similar to that of the Charles Drew University in California whilst the UCT's addition is in line with institutions like the Harvard Medical School.

The programme macro-structure of universities differs. The following table illustrates this for selected institutions.

Institution	Academic Programme						
	MBChB	BDS	Dietetics	Pharmacy	Nursing	Speech & Hearing	Physiotherapy
UCT	Yes	No	No	No	No	Yes	Yes
UL	Yes	Yes	Yes	Yes	Yes	Yes	Yes
UP	Yes	Yes	No	No	Yes	Yes	Yes
WSU	Yes	No	No	No	Yes	No	No

UCT – University of Cape Town, UL – University of Limpopo (Medunsa Campus), UP – University of Pretoria, WSU – Walter Sisulu University, MBChB – Bachelor of Medicine & Surgery, BDS – Bachelor of Dentistry

Several factors influence the programme structure in each of these institutions including the following: carrying forward the tradition of offering the type of qualification/s, financial resource to sustain a programme, student demand for that programme, availability of faculty and, as reported by Professor T. Gwele (15/07/2008), Dean of Health Sciences at the Durban Institute of Technology, the industry demand for graduates with a particular qualification and skill.

As reported in the survey analysis part of this dissertation, there is neither firm evidence that there is any nationally harmonised planning nor strong evidence to show that student intake into these programmes is informed by the health needs. Of great interest is the way the medical undergraduate curriculum is structured at the Walter Sisulu University's Faculty of Health

Sciences (then known as UNITRA Medical School). Lehman et al report extensively on this based on a case study they conducted in 2000. Their report, corroborated by the current Dean of Health Sciences Prof. K. Mfenyana (27/08/2008), gives a history of determination, commitment and conviction to the cause of training medical professionals in manner that responds to the needs of communities where the institution is situated.

They report that after shaky beginnings in the mid-1980s, an application to extend the medical school was made to the South African government in 1989. This time the South African government was more sympathetic to support financially because the medical school was now already established and fully functional. But this was only on condition that it showed itself to be different from all the other medical schools. This condition thus provided the first impetus for the development of an innovative new curriculum which began in 1990. They further note that ironically, with change in political climate from 1990 and as it became evident clear that the Republic of Transkei would become part of South Africa under a new dispensation, the Development Bank of Southern Africa, which had funded it from 1989 withdrew its funding, and the medical school remained under-funded.

WSU's mission and development was to put in place a unique training model that sought to advance the institution's community oriented objectives. Lehman et al report that out of that unstable history emerged a philosophical commitment to offer a training programme that would impart both the technical and social skills required to provide health care in rural and disadvantaged communities. The broad goals of the faculty have been clearly spelled out as an endeavour to produce doctors and other health personnel who:

- Are equipped with the knowledge, skills and attitudes to deal with the health care problems of urban and rural communities, families and individuals in South Africa;
- Are able to work in both rural and urban settings and are able to find personal and professional satisfaction in such work;
- Are able and motivated to work in health care teams:
- Are able to educate and motivate individuals, families and communities to take personal responsibility for their health;
- Are able to think critically and creatively to deal with the health care problems of individuals, families and communities, and have the necessary knowledge and skills to do research appropriate to the needs of the community;
- Are equally committed to the promotion of health and the prevention of ill health, as to the treatment of disease, and are able to understand health care problems in their socio-economic and political context;
- Are able to identify, analyse and manage clinical problems in order to provide effective, efficient and humanistic patient care;
- Are self-directed, lifelong learners who will be able to adapt to change, keep up with developments in their profession, and who are motivated to acquire relevant specialised qualifications to meet the needs of the country and to advance their own careers; and
- Display high levels of ethical and administrative insight, skills, and integrity.

Lehman et al commented that it was clear that the traditional medical curriculum could not achieve the above objectives. The teaching staff of (UNITRA) medical school thus proceeded to develop

the new, innovative curriculum and in 1997, after four years of pilot studies, the Faculty of Health Sciences introduced a fully problem-based and community-based curriculum for all its students. Buga, 1998 reported on this milestone development for medical education in South Africa in a paper published by the South African Medical Journal.

Other important strategies developed by the Faculty to achieve its mission and goals that Prof. Mfenyana (27/08/2008) emphasised were the development of sustainable partnerships between the University, Community and Government and the implementation of a system of joint appointments for all teaching staff, which provides full faculty status for the teachers at the community hospitals and primary health care centres. This point reiterated what Lehman et al had reported on in 2000 thus signifying the importance of maintaining the good relationships between these bodies.

In an interview with a group of six students Lehman et al (2000) found that students had a keen sense of the benefits and some of the weaknesses of the new curriculum. Asked what impressed them about the programme, students highlighted the following aspects:

- the increased sense of responsibility and initiative, both for their own learning and for the communities they were working in;
- the vertical and horizontal integration provided by the curriculum;
- the small-group learning context, which allows for close interaction with peers and the opportunity to learn from and with each other;
- the early exposure to practical work which teaches students the importance of communication skills and the relevance of their studies

They also reported that despite the evident pride in their training, students struggled with the feeling of being perceived as having received inferior training, a perception which in all likelihood had as much to do with the non-traditional curriculum as with general perceptions about historically black educational institutions.

This UNITRA innovative approach was compared to the University of Pretoria's approach to medical education. The University of Pretoria Medical Faculty's mission statement declares that it "strives, in an intellectually stimulating environment, to

- Produce graduates for outstanding and comprehensive health care, as well as academic medicine (including research);
- Enrich science, notably through establishment, development and preservation of outstanding research in a proactive research climate;
- Improve the quality of life of the population through health education, comprehensive and outstanding health programmes and sophisticated services of a high standard".

Embodied in this mission statement is a strong focus on traditions of academic medicine and research with a focus on comprehensive health care (Lehman 2000). As with other well established South African medical schools that have been in existence for many decades, the Faculty evidently sees itself as emerging from a strong tradition of academic medicine, which it wants to maintain, but adapt to new national and international requirements and contexts.

It appears as if the decision to begin implementation in 1997 was partly influenced by the actions of the University of Transkei Faculty of Medicine. Pretoria was however well ahead of all other South African medical schools, a situation described by the Dean of the Faculty, Prof. Du Plessis as a “leap of faith” (Lehman 2000). They further comment that while the new parameters of the national and international context were apparent and visible in the early to mid-1990s, their practical implications were much less evident, demanding some foresight and risk-taking by those forging ahead.

What these two examples illustrate is the dilemma that South African Health Sciences Institutions face – training for the needs of the country whilst trying very hard to balance this with global competitiveness. This may be an ongoing challenge for medical education that has been based and benchmarked against medical education systems in Western countries.

Professor Mfenyana indicated during my interview with him that the problem-based curriculum tends to be more expensive than the traditional approaches. In assembling a budget for this programme, one has to factor in a number of expense items e.g. student accommodation, transport to the community clinics, meals, paying for staff time, transport and accommodation. Moving between health facilities in rural provinces like the Eastern Cape involves travelling long distances, unlike in Gauteng province where distances are relatively short.

It is therefore important and necessary that the funding of health sciences education is sourced from many partners. Others, like the Health and Welfare Sector Education Training Authority are suitable partners because of the nature of their mandate.

6.4 The Health and Welfare Sector Education and Training Authority (HWSETA)

The Health and Welfare Sector Education and Training Authority (HWSETA) is one of twenty-three statutory bodies established within the legislative framework of the Skills Development Act, 1998. Its area of operation and mandate is to facilitate skills development in the health and social development sector to ensure that the skills needs are identified and addressed through a number of initiatives by the SETA and the sector. Its major focus is on qualifications not beyond NQF¹⁶ Level 5 which therefore means that it is limited in its contribution to the training of the highly skilled professions in the sector.

It has however contributed immensely in the production of nurses and other ancillary workers e.g. TB DOTS supporters, Home Based Carers in HIV and AIDS. This is guided by the production and adoption of a Skills Development Plans. These plans are collated from inputs that are received from the Departments of Health and Department of Social Development. HWSETA funds students for skills training through bursary allocations and where applicable through stipends.

An area of critical importance for the HWSETA is skills improvement for administrators and managers. This role could be used for establishing a firm base of human resource practitioners who can be trained in health workforce planning as proposed in the recommendations section of this dissertation. This is in line with the mandate of this Sector Education and Training Authority. Beefing up management training will have other value added benefits. It will provide the Departments of Health at national and provincial level with the much needed knowledge and skills to develop interventions and lead health workforce innovation in the public health sector. With the

¹⁶ NQF – National Qualifications Framework

public health employing about 250 000 staff in 2008, there is plenty of workforce planning, development and management to provide the on-the-job trainees with good practical learning.

There is a clear need for the mandate of the HWSETA to be revised and expanded so that it can go beyond funding skills development at a very low level of professional categories. Such funding could be ring-fenced so that it is utilized for areas such as community student practical placing.

6.5 Changing student demographics

Transformation of higher education institutions in the country is both a political and an academic discourse. It has relevance to many sections of society and specifically in health, an even more serious one. Many communities do not access certain health services not because government is not keen to provide them but it is because of a lack of trained people in those particular fields. An example of this is the Speech Pathology and Language Disorder services. This category of health service is needed in both the health and education sectors. However, the country only has 289 registered Speech Therapists, the majority of who work in urban environments.

Black communities, due to the fact that they mostly are in rural and remote areas have little or no access to such services. Some children with learning difficulties end up leaving the schooling system prematurely because their problems were diagnosed or treated early, thus ruining their futures. Many other professional categories like this one are not popularised and therefore do not enjoy huge demand at student and at employment level. It is areas like medicine, dentistry and pharmacy that continue to attract the majority of students seeking careers in the health sciences.

This has implications for the sustainability of the health service and the system's reliance on the primary health care approach.

Over the years there has been a noticeable shift in student demographics at higher education level. This has implications for retention, specialisation and employment practices in the health sector. Whilst women are in majority compared to men, the composition of the health sciences field reflects the opposite. The following table indicates the percentage of women graduates by qualification type and by broad field between the years 2000 to 2005.

Broad Field	Honours		Master's		Doctoral	
	2000	2005	2000	2005	2000	2005
Natural & Agric Science	8%	8%	5%	6%	10%	9%
Engineering & Applied Science	0%	0%	1%	1%	1%	1%
Health Science	2%	2%	7%	7%	8%	8%
Humanities	6%	5%	7%	9%	6%	8%
Social Science	37%	41%	21%	22%	15%	18%

Percentage women graduates by qualification type and by broad field, 2000 to 2005

Source: Higher Education Monitor No.7, March 2009

This is an indication of the challenge that academic institutions still have to address not only as part of transformation imperatives but also their contribution to promoting the health sciences to all genders. The table below also reveals how skewed the production in the health sciences is. This shows the race distribution by qualification for the same period 2000 to 2005.

Broad Field	Race	Honours		Master's		Doctoral	
		2000	2005	2000	2005	2000	2005
Nat & Agri Sc	Black African	33%	30%	29%	34%	17%	34%
	Coloured	5%	4%	4%	5%	5%	6%
	Indian	9%	11%	4%	6%	4%	5%
	White	54%	56%	63%	55%	73%	55%
	Total	100%	100%	100%	100%	100%	100%
Eng & Appl Tech	Black African	18%	42%	15%	26%	8%	24%
	Coloured	1%	3%	3%	5%	0%	0%
	Indian	9%	7%	8%	9%	8%	9%
	White	72%	48%	74%	60%	85%	67%
	Total	100%	100%	100%	100%	100%	100%
Health Science	Black African	26%	20%	20%	30%	19%	25%
	Coloured	4%	6%	3%	5%	5%	6%
	Indian	6%	11%	10%	11%	7%	10%
	White	64%	63%	68%	54%	69%	58%
	Total	100%	100%	100%	100%	100%	100%
Humanities	Black African	47%	32%	29%	30%	24%	29%
	Coloured	5%	7%	6%	6%	7%	5%
	Indian	4%	5%	6%	6%	3%	5%
	White	44%	56%	60%	58%	66%	61%
	Total	100%	100%	100%	100%	100%	100%
Soc Science	Black African	32%	49%	29%	37%	21%	26%
	Coloured	5%	5%	6%	6%	4%	8%
	Indian	8%	7%	8%	9%	8%	7%
	White	55%	38%	57%	48%	67%	60%
	Total	100%	100%	100%	100%	100%	100%

Race distribution of graduates per qualification, by broad field, 2000 and 2005

Source: Higher Education Monitor No.7, March 2009

This analysis has serious implications for the leadership of health sciences now and in the future in terms of academia, service platform and generally the ability of the health science sector in attracting young talent to its ranks. The overwhelming output from universities is still concentrated in the white section of the population. The picture is even more worrying looking at the field distribution of African graduates per qualification for the same period as indicated below.

Broad Field	Honours		Master's		Doctoral	
	2000	2005	2000	2005	2000	2005
Nat & Agri Science	18%	10%	13%	14%	22%	31%
Eng & Appl	1%	3%	4%	6%	3%	6%
Technology						
Health Science	3%	1%	9%	11%	13%	13
Humanities	16%	5%	18%	16%	27%	21%
Soc Science	63%	81%	56%	53%	35%	30%
Total	100%	100%	100%	100%	100%	100%

Broad field distribution of African graduates per qualification, 2000 and 2005

Source: Higher Education Monitor No.7, March 2009

Whilst the output rates in the health sciences may be consistently above the Department of Education target, the low outputs in relation to people that form the overwhelming majority of the population remains a serious shortcoming. Addressing this challenge can therefore not be left to each academic institution. As most of the policy makers indicated, it is imperative for government to set a clear policy perspective on how this issue has to be resolved. This is backed up by the educators who feel that it would be useful for government and institutions to engage in joint workforce planning because it would bring government and universities closer by determining training targets; quantify the required resources (human, financial and infrastructure) and set up monitoring mechanisms to ensure implementation of such joint decisions.

However, this issue cannot be taken in isolation of the teaching stock. In its Higher Education Monitor No. 7 of March 2009 the Council on Higher Education reveals that “Supervisors of Master's and Doctoral students at South African universities face an increasing burden as the average number of students to supervise continues to increase. The "average" supervisor in 2005 would have to supervise 7 Master's and Doctoral students. This is high by international standards and does not take into account the unavailability of young lecturers to supervise immediately or the

ageing of the more senior supervisory cohort who do not take on new students”. The situation is more critical in some fields within the health sciences where a smaller ratio of supervisor or trainer to trainee is required. Currently the Post Graduate Education Subcommittee of the HPCSA is developing norms in this regard for specialist training creating a differentiation between consulting and surgical disciplines.

Ultimately, as the health system grapples with issues of workforce planning to address service delivery issues, it is necessary that the process is comprehensive and encompassing of all aspects of the workforce. In addition there is acknowledgement that ‘a country’s health education system should produce an appropriately skilled workforce to address its health priorities. The education system helps to determine two key elements of that workforce: the number of graduates with a given skill set (e.g. physicians, nurses, pharmacists, laboratory technicians, paraprofessionals) and the quality of those human resources e.g. knowledge and skills’ (WHO 2007).

The responsibility for ensuring the quantity lies with the institutions whilst that of quality lies with the educators or trainers. The WHO further acknowledges that ‘the pool of applicants and application rate, for example, may be fundamentally constrained by the levels and quality of the country’s secondary education’. It has therefore proposed a set of primary indicators for education of human resources for health which are linked from entry level to performance level. A sample of these is shown in the tables below.

	Dimension	Indicator
<i>HRH Level</i>	Pool of potential applicants	% secondary schooling attainment or % secondary schooling enrolment
	Application rate	Number of applicants per HRH education place
	Institutional acceptance rate	Proportion of applicants (aggregate and by distribution dimensions) accepted into a specific type of HRH education institution
	Applicant acceptance rate	Proportion of applicants accepting HRH education place
	HRH education success rate	Graduates (aggregate and by distribution dimensions) as proportion of all original entrants
	Entry rate	Proportion of graduates entering the health sector
<i>HRH distribution</i>	Geographic distribution	Highest to lowest regional (provincial) graduate density
	Gender distribution	Proportion of HRH graduates who are female
<i>HRH performance</i>	Educational programme (clinical sciences and skills)	Student participation in patient care
	Educational programme (clinical sciences and skills)	Proportion of courses devoted to country priority diseases
	Student intake	Size of the student intake defined in relationship to the capacity of the HRH education institution at all stages of the education
	Assessment of students (service quality)	Admission policy
	Academic staff (staff policy and development)	Mechanisms for upgrading of teaching
	Continuous renewal	Mechanisms for regular review of HRH education

The issue of the country's education system was highlighted by all educators. WSU and Medunsa reported of the extra efforts they make to admit students that have poor schooling backgrounds but who show potential, provide them with adequate support systems even to the extent of developing access programmes for them. Research has shown that WSU with its problem based learning and early community exposure has been able to assist student from poorly resourced high schools who show potential to graduate as fully fledged health professionals who are on par with graduates of other health science institutions in the country. It is however currently difficult to do a comparison between South African universities even from a quality point of view. This is due to the lack of a centralized or uniform system of monitoring and evaluation that should contain indicators such as shown in tables above.

6.6 Conclusion

Health sciences education and training is a complex and diverse field. Over the years the health service platform has been transforming in line with political mandates and therefore instructions to policy makers to ensure implementation. There is usually not much congruence between health policy and academia even though these two spheres are so interlinked. Responding to the health needs of South Africans is critical for both government policy and academic leadership to ensure a response to. It may not be desirable for all academic institutions to strive to produce the same kind of graduate from the same programmes. Over time the various approaches of institutions have to be evaluated, only for the purpose of fine-tuning an approach that is appropriate to meeting the health needs of South Africans.

CHAPTER 7

REQUISITE RESOURCES FOR WORKFORCE PLANNING

7.1 Introduction

Health workforce planning demands that policy and practice inform each other. The silo approaches that are prevalent in many health systems where policy makers decide on policy matters without adequate engagement with stakeholders or implementers can only be detrimental to the health systems. The same is true for academic planners who engage in programme and academic planning without interacting or consulting with health policy planners. The result is often that graduates are produced with qualifications and skills that are necessarily in line with what is required in terms of the health needs.

Government in trying to address such gaps, needs to invest in its own systems particularly people so that it can build resources with competencies to provide stewardship to health care generally. It needs policy makers who understand the continuum of health care. It needs to invest millions or rands to build systems that will support workforce planning so that the capacity to produce more is sustained over a long period of time.

7.2 Human Capital for Workforce Planning

Health workforce planning requires a major investment in human capital development. The ability of the country to manage its programmes and workforce depends a lot on the quality of intellectual resources it possesses. Health workforce planning is now developing into a science with many research papers being developed and published across the world. It is a subject that is not

necessarily mastered even in the developed world due to the nature of health and its diversity and complexity.

Many countries struggle in balancing all the elements that are critical to sustainability and affordability of the health systems. There are not many institutions that train health workforce planning professionals despite this matter being a serious challenge for all health systems – well resourced and poorly resourced alike. It is critical for the health departments to devise a training programme for the development of workforce planning professionals. Due to the complexity of the health sector and its diversity, it would be advisable that whoever gets into this kind of programme be either an already trained health professional or a person who has deep knowledge and experience of working in the health sector.

Financing of strategic planning and management of human resources for health are major elements of resourcing health workforce planning. There is a need to invest in financing of national capacity in strategic planning and management of HRH for more efficient, equitable, and effective deployment of HRH in the country. A major challenge for the WHO promoted Country Action Teams approach is building national capacity in HRH strategic planning and management within countries.

Multi-lateral and bilateral donors currently under-invest in this capacity building, and a major component for effective and sustainable country action teams is to increase significantly capacity building investments. This may involve moving beyond traditional modes of Donor Technical Assistance, short-term training, consultancies, and other HRH inefficiencies. The constraints here are not simply financial.

There seems to be few human and institutional resource bases for training and capacity development in HRH. Thus, even if funds were available the capacity building resource infrastructure – training and educational programs – would require building so that national capacity can be enhanced. Urgent efforts are necessary to husband technical capabilities within countries, tap regional assets, and strengthen global communities of practice to ensure the highest performance of country teams (WHO, 2007).

On another front, the country has to invest in developing its own human capital and in the health field it has a proud history of having produced the first heart transplant surgeon in the world. This major achievement was attained through sustained investment in knowledge production and innovation. With growing recognition that knowledge and innovation are critical contributors to national wealth and welfare, postgraduate education has assumed greater significance within the broader national strategy to accelerate human capital development (CHE, 2009).

The production of university graduates – and especially postgraduate students – is an essential component of the national system of innovation of modern industrialized societies (CHE, 2009). Generally the production of health science postgraduates (responsible for innovation in this field) is not satisfactory. The following figure shows that the health sciences together with engineering sciences are the lowest producers of postgraduates. This appears to be the general trend as illustrated by the number of graduates produced in the period 2000 to 2005.

Qualification	Broad Field	2000	2001	2002	2003	2004	2005
Honours	Nat & Agric Science	2832	3009	3328	3811	3952	3904
	Eng & Appl Tech	577	588	616	796	1225	1177
	Health Sciences	656	612	612	675	660	600
	Humanities	2336	2038	2266	2152	1867	1955
	Social science	17361	21127	29069	33283	37375	37559
	Total	23762	27374	35891	40717	45079	45195
Masters	Nat & Agric Science	704	900	877	1059	1118	1119
	Eng & Appl Tech	428	468	516	557	591	635
	Health Sciences	748	750	746	856	845	965
	Humanities	995	1060	1289	1418	1428	1408
	Social science	3020	3410	3577	3715	3794	3869
	Total	5895	6588	7005	7605	7776	7996
Doctoral	Nat & Agric Science	205	265	293	307	289	306
	Eng & Appl Tech	65	78	87	77	81	78
	Health Sciences	111	92	94	124	123	166
	Humanities	177	187	202	167	211	235
	Social science	260	220	315	360	385	391
	Total	818	842	991	1035	1089	1176

Graduates by broad field and qualification per year

Source: CHE – Higher Education Monitor No. 7 March 2009

7.3 Importance of Financial resources

Health workforce planning is central to the overall planning of health services and is based on the design of service delivery models. Integral to the health system financing is the need to ensure appropriate financing of its workforce mainly due to the high cost it carries. The financing of human resources for health is a complex and diverse operation, which encompasses provision of funds to pay for education and training of students, salaries for educators, funding of the required infrastructure like laboratories and equipment, financing the running costs of facilities where training takes place i.e. teaching hospital and the continuing professional development costs once the professional is in the field of work.

South Africa spends a considerable amount of money in the training of its health professionals. Health sciences education at undergraduate level (pre-service training) is largely funded through the subsidy provided by the Department of Education to various education institutions as a global amount derived by means of a funding formula. Financing pre-service training must be a core component of any HRH plan (WHO 2007). No matter how urgent the immediate crisis, investment in human resources must be significantly enhanced for human capital building. Pre-service training, however, should be matched to health priorities of the country (and not for exporting personnel) and suitable employment opportunities, public and private, must be created to deploy and channel these skilled workers to addressing national health priorities. In addition mechanisms for training should consider economies of scale at regional levels and also the use of new technologies, like distance learning. This will cater for South Africa's commitment to assisting the SADC¹⁷ region with strengthening its health systems.

¹⁷ SADC – Southern African Development Community

The World Health Organisation (2007) acknowledges that one of the most important factors influencing the cross-cutting problems and state of the health workforce is the financing available to pay salaries of health professionals. This has certainly been South Africa's experience during the past two decades or so. Many health professionals, even though not quantified due to lack of accurate data information system, have left the public health sector to work mainly in the private sector whilst others have migrated to overseas countries. Salaries play a major role in stabilizing the health workforce and are usually the most important determinant of recurrent health care expenditure (WHO 2007). The public health sector's salary bill is currently about 65% of South Africa's recurrent health care expenditure.

Whilst concern is raised on the cost of salaries and general funding of health sciences education and training, there are other aspects that are non-salary based items that are critical to the stability and sustainability of the health system. Health professionals require certain tools of trade to enable them to deliver good quality services. In this group of items are things like medicines, medical equipment and theatre equipment. For this purpose the WHO has developed a checklist of non-salary health care expenditures that are likely to influence the level, distribution or performance of a country's health workforce:

Category	Examples
Recurrent Health Care Inputs	
Supplies	Pharmaceuticals Surgical instruments
Workplace Safety Measures	Surgical technologies Post-exposure HIV prophylaxis High quality gloves High quality needles and scalpels
Education	Sub-specialization Continuing education opportunities
Benefits	Pension benefits Child care Health insurance Accident insurance
Psychosocial support structures	Psychological counseling for health workers Peer support groups
Health Care Capital Inputs	
	Facilities Laboratory equipment Imaging technologies Surgical technologies

Checklist of non-salary health care expenditure relevant to human resources for health

(source: WHO 2007)

Other very important levers in the financing of human resources for health are dependent on the attainment of allocative and operational efficiency. Allocative efficiency refers to an assessment of whether the funding of salaries is the right thing to do for achieving the declared health objectives in the health care system. Do high salary levels produce the quality of health outcomes that is desirable? This is a major challenging question that is difficult to answer in the South African

context given the vast disparities that have existed over many decades of apartheid health services. At an individual level a clinician may have good outcomes because patients afflicted by a certain disease or illness gets cured but that does not lead to good health outcomes. Health outcomes are generally regarded as those that are aggregated across the system and are usually influenced by a number of socio-economic factors like sanitation, roads, water supply etc.

Operational efficiency relates to whether the salaries paid to health workers are producing the highest levels of services for the funding. A balance needs to be achieved where both allocative and operational efficiency contribute to the attainment of the health objectives and therefore rendering of good quality health services. If the salary level of the health workforce is operationally efficient, a high salary level could result from spending which is allocatively inefficient, for instance if too much is spent on the health workforce relative to other health care inputs or if too much is spent on one category of health worker relative to other categories (WHO 2007).

The South African health system has experienced this phenomenon in that for many years the undeclared remuneration policy favoured medical doctors whilst other categories received far less salaries. With the recent implementation of a new remuneration system – the Occupation Specific Dispensation, a similar challenge may emerge if not properly managed. Salaries of nurses have been significantly improved with the initial cost running up to about R1.8 billion. This has put severe strain on the State's financial resources and threatens to squeeze remuneration levels of other health professionals in the public health sector. It is therefore necessary that a set of indicators gets utilized to assess financing of human resources for health to be complemented by

the non-salary indicators as mentioned earlier. WHO has identified and proposed a set of core diagnostic indicators as follows:

Dimension	Indicator	Benchmark	Source
Salary level	Average salary level of HRH by HRH category	None	Can be assessed through in-country databases
Attractiveness of HRH professions in terms of salary levels	Ratio of HRH salary levels to comparable professionals e.g. lawyers, teachers	None	Can be assessed through in-country databases
Geographic distribution by salary level	Average salary ratio in rural : urban areas by HRH category	None	Can be assessed through in-country databases
Allocative efficiency & HRH financing capacity	Salary level as proportion of total recurrent health sector expenditure	65% - 80% in African continent	Can be assessed through National Health Accounts
	Total health expenditure as a proportion of GDP	4% - 7.8% (African continent) 6.6% - 13.9% (OECD)	
Operational efficiency	Health outcomes relative to HRH density e.g. maternal mortality rate	None	Can be assessed through Health Department reports and research reports

Adapted from WHO 2007: Assessing Financing, Education, Management and Policy Context for Strategic Planning

of Human Resources for Health

From a macro-economic context certain needs like the need for increased production of health professionals must be planned carefully. The fiscal envelope for this country is tight taking into consideration the high demands from ordinary citizens who still have little or no access to other social services. Even within the education field training of health science students is expensive. Government takes the major responsibility through subsidies that are provided to education institutions for the funding of health sciences. The relative ease or difficulty of matriculants to gain

access to university education is a major factor when addressing the health workforce of the country.

The factors are not only relevant at the level of inputs. The attractiveness of each professional category also relates to the perceived stability and quality of work-life that professionals enjoy upon qualification to practice independently. Whilst the urge and pressure to pay health professionals higher salaries is always acutely experienced by policy makers, it is also important that the overall cost over time in the macro-economic context is borne in mind. The major cost driver in this instance is the recurrent costs related to salaries of health professionals.

The expansion of the health workforce, whilst legitimate in terms of the supply of professionals must be evaluated against the ability of the country's financial system to absorb future salary expenditures at a high level. In addition to the direct funding through undergraduate financing, some professional categories get funded indirectly through a special mechanism called the Health Professions Training and Development Grant. This grant is disbursed by the National Department of Health with a strict condition that it will be used to compensate provincial departments of health for the additional service costs that are incurred by designated health facilities where training of health professionals takes place.

This is on the understanding and acknowledgement that service staff also participate in the hands-on training of students e.g. experienced nurses in a ward. In addition to staff time is the issue of items like excess laboratory tests that students (under- and post-graduate) may order (due to inexperience) which in turn increases the service cost of hosting such trainees. The grant has a training component and a development component.

Training Component of the Health Professions Training and Development Grant (‘000)

Provinces	2003/04	2004/05	2005/06	2006/07	2007/2008	2008/2009	2009/2010
Eastern Cape	22,928	97,464	127,566	127,566	127,566	140,641	151,362
Free State	0	93,643	92,517	92,517	92,517	102,000	110,755
Gauteng	0	560,778	554,039	554,039	554,039	610,828	614,812
KwaZulu Natal	10,201	180,629	192,373	192,373	192,373	212,092	222,425
Limpopo	15,563	51,805	72,411	72,411	72,411	79,834	88,759
Mpumalanga	9,573	41,808	54,363	54,363	54,363	59,935	71,839
Northern Cape	5,160	34,444	41,069	41,069	41,069	45,278	58,304
North West	12,295	46,351	62,562	62,562	62,562	68,977	78,608
Western Cape	0	327,210	323,278	323,278	323,278	356,414	362,935
Total	75,720	1,434,132	1,520,178	1,520,178	1,520,178	1,675,999	1,759,799

Source: National Department of Health, 2008

Even though there is agreement between National Treasury and the Department of Health that this grant is not being utilized as it is supposed to be and therefore its review, the amount spent is very significant. From a planning point of view the type of funding mechanism could play a vital role in expanding training of health professionals in terms of quality and therefore must be backed by a proper professional workforce planning system. Linked to this expenditure is the financing of the basic human resources for health costs in the public and private health sectors. While most analysts and the public in general concentrate on the public health sector, the private health sector human resources are equally critical because the private sector gets its supply of human capital from the public sector. Indirectly the cost of financing these resources' costs in the private sector affects the capability of the public health sector to retain its health workforce. Financing of these costs

involves mobilisation of resources for recurrent expenditure to support the health workforce at a level that will overcome the critical workforce related barriers to service delivery and improve distribution and retention.

7.4 Intellectual resources

The Department of Health bears the major responsibility for the development of planning approaches to many facets of its health system. This is a serious challenge taking into consideration the diversity and complexity of the services it takes responsibility for. Whilst there seems to be a clear division in areas of responsibility between the national and provincial departments, in reality such divisions are not mutually exclusive. Constitutionally the national level deals with policy development, harmonization, monitoring and evaluation. The provinces take responsibility for implementation of policies ensuring that policy is turned to action. All these are done with a great level of joint planning and cooperation between these spheres of government.

Whilst there are serious challenges and increasing demands on the health service delivery system, a silent problem is creeping up in the management echelons. The ability of the public service to develop and retain intellectual resources is seriously undermined by many factors including job hopping between sectors and within sectors of government, political management instability and poaching of talent by the private sector. The stewardship for health care lies with government and it is the duty of government to ensure that it has capacity to lead even at technical level. Health workforce planning is a field that is taking greater importance globally. The World Health Organisation has in recent years invested more resources into a number of aspects of the health workforce field. There are however not many countries or institutions that have programmes dedicated to training health workforce planners. This is indeed a contradiction when taking into

consideration that the common public statements that are made regarding human resources being the foundation of organisations. Without training workforce planners and thus increase the intellectual resource base, it will not be possible for any country to develop appropriate health workforce plans to deal with its health service delivery issues.

7.5 Literature resources

A major limitation of this study and work has been the lack of literature resources that are dedicated to the workforce planning in the South African health system. Many books that are available are focused on the general planning and more specifically for the private sector. A number of articles have been published about the health sector that mention the need for appropriate human resources for health planning but do not address the topic. Organisations like the Health Systems Trust, EQUINET, Health Policy Units of various universities and professional bodies and individual researchers have conducted research on various aspects of the health system including how it performs. The issue of human resources is highlighted. However, there is little if any dedication to addressing how in practical terms the health workforce planning can be addressed.

The HRH Policy, Research and Planning unit at the National Department of Health has recently commenced with an initiative to establish a portal that serves as a repository for articles and research papers on human resources for health. With time this will be an invaluable resource for data and information on the health workforce. There is also several research works that is being commissioned by this unit whose results will add to the knowledge base on South African health workforce planning in future.

7.6 Conclusion

One of the principles of the National Human Resources Planning Framework is the stewardship of health care being provided by the National Department of Health. This notion includes political and management stewardship. Whilst political stewardship is unquestionable in terms of its responsibility, it is the management or operational aspects that often pose a serious challenge.

A systematic approach is required to align the various pieces of work being done and experience gathered in the same field by many government agencies, academic institutions, researchers and health facilities. A coherent policy framework is required to guide all stakeholders and also serve to channel scarce resources towards achieving a common goal for the health system.

The outputs have to be matched with the amount of human and financial resources that are committed to health workforce planning and production. There must be agreement on the indicators for monitoring the workforce field so that the requirements of the country are catered for in a sustainable manner.

CHAPTER 8

IMPROVING THE LANDSCAPE – VIEWS ON PLANNING FOR THE PRESENT AND THE FUTURE

8.1 Introduction

Echert 2002 described the perspective of a global pipeline of medical doctors concluding that "the physician pipeline is at its narrowest in the regions with the highest expected rates of population growth. She further asserts that conversely, capacity appears to exceed demand in regions of declining or minimal population growth, thus the adequacy of the global supply of doctors remains a question to be answered by further research.

Most health systems employ foreign educated health professionals and even developing countries rely heavily on foreign physicians (Starfield and Fryer, 2007). Whilst South Africa does not fall into this category of countries relying too much on foreign trained medical doctors, the demand for work by these professionals is high. These are mostly from other developing countries within the African continent and to a lesser extent from Asia and least Eastern Europe (Department of Health, 2009).

South Africa places emphasis on training for self-sufficiency even though this requires detailed careful and proper financing of education and training (National Department of Health, 2006). Health sciences education and training institutions are central to the attainment of this vision. The survey for this dissertation was conducted with this critical role of academic institutions interfacing with policy makers in mind.

8.2 Discussion of the survey

A total of eight (8) respondents were interviewed representing four (4) provincial departments of health (policy makers) and four (4) health sciences education and training institutions (academics). The provincial departments (policy makers) that were interviewed are Western Cape, Eastern Cape, Limpopo, North West and Mpumalanga. Of the four academic institutions one (25%) was the Durban University of Technology (DUT) while the rest (75%) were faculties of health sciences that have a medical school as part of their establishment. These were University of Cape Town, Medical University of Southern Africa (Medunsa), Walter Sisulu University (WSU) and University of Pretoria (UP). Only one of these institutions (WSU in Mthatha) is based in a rural setting. DUT was included in this sample because it trains a significant number of other health professions that are not traditionally trained at university level e.g. podiatrists. The views of its dean whilst overlapping well with others also had areas where it concurred more with policy makers than other academics.

Although the sample is almost fifty percent (50%) of the intended target group for the survey, it represents a good spread of policy makers and academics. The majority of respondents on the policy making group (75%) are provinces with large rural populations and therefore bear the brunt of health worker shortages. Only the Western Cape has a smaller rural population of 435 626 (9,6%) versus Limpopo 4573183 (86,7%), Mpumalanga 1834556 (58,7%), Eastern Cape 3936529 (61,2%) and North West 2135581 (58,2%) of their total populations (Statistics SA, 2003). The Western Cape is also considered to be better resourced than others and therefore is in a position to attract more health professionals, especially medical doctors than other provinces can. Whilst this may be the case, its own views are that it suffers from the same problems that other provinces are.

It shares its health resources in the form of service provision with mostly the Eastern Cape due to the migration of patients from that province seeking better health care. The Eastern Cape people have traditionally over the years been the highest number of ‘migrants’ to the Western Cape. The Western Cape therefore also shares a number of families with the Eastern Cape.

8.3 Analysis, Interpretation and Discussion of survey results

On the issue of a national planning framework there was overwhelming agreement (100%) that whilst there is a basis for national planning, no actual process in the form of a planning tool exists. There was also agreement that universities are not training in terms of the national need. Many of them decide on their own what they consider to be the needs and partly base their training on such decisions. All academics agreed that whilst some forums exist, they are not synchronised – traditional universities discuss common issues on their own whilst universities of technology do the same on their own. All the academic respondents concurred that the existence of a national health workforce plan would assist in planning for the broad health sector, guide production at academic institutions and serve as a mechanism to guide and coordinate provincial departments of health in the decision making on prioritisation and funding of health science students.

All policy makers also concurred with academics that there is no proper practical operational health workforce plan, only a planning framework in place – the National Human Resources for Health Planning Framework of 2006. They alluded to health worker shortages being across all fields but that no accurate quantification is possible with existing tools and therefore no proper planning possible for now. Many issues need to be taken into consideration e.g. determining training targets, assessing and quantifying services gaps, determining the supply gaps across professions and a situational analysis of existing annual intakes, production targets, attrition factors

etc. They reported that individual provinces are doing their own limited planning through the provision of study assistance to prospective students.

The skills development processes are not coordinated nationally resulting in a huge variance in the provinces especially affecting those without tertiary institutions. These respondents felt that the macro approach and trends needed to guide the country production. They emphasised that academic institutions need to maintain a level of autonomy so that they can compete locally, regionally and internationally but that they need to balance between such autonomy with societal needs. Societal needs must inform the numbers for training, categories of staff required and the course curriculum – e.g. management of HIV, use of partogram in nurse training that the curriculum must contain so that there is no need for re-training once students have qualified from training institutions.

One respondent stated clearly that appropriate HRH planning needs a certain understanding of sequencing of production of health professionals, supply, retention, development and their management. Her view was that the national process must deal with a dichotomy where the Department of Public Service and Administration governs a lot of provincial processes in terms of determining norms whilst these may not suit every sector of public service. Her view was that in order to improve provincial planning DPSA must be limited to pure administration.

Relating to student planning by education institutions, the view of policy makers was that the process must start with discussions with the Department of Education to smoothen policy direction, which should be geared towards harmonization of education and health. There is therefore need to jointly engage at strategic level on what the requirements are and then engage academic institutions on that basis. The dominant view was that the national department and the

provinces must influence universities through various forums like Health Sciences Deans Committee but that the Education and Health departments need to take lead. Some provinces are doing this already but in very small bites e.g. in the training of Family Physicians. The universities that wish to utilize provincial facilities for training get engaged to be informed what skills and competencies are judged to be having shortcomings.

These are established through a provincial survey. However, nationally the country needs to focus on developing a structured engagement with health sciences education and training institutions. Workforce planning would mean that the provinces have to inform the national department of service needs, which will in turn inform education institutions so that they can produce required numbers.

Because academic institutions and policy makers are not moving in sync, the requirements of the country are not aggregated and admissions are not taking into consideration the requirements of the country. The policy makers' view is that academics need to familiarise themselves with policy, cooperate and train according to the policy dictates. An additional point of agreement is the view that training must encourage graduates to stay in the country rather than making emigration their priority. However two policy respondents pointed to the disjuncture that the education department plans training according to its own capacity (staffing and infrastructure issues) while health service tries to respond to emerging disease and social patterns (e.g. training of professionals in geriatrics so that one could have healthy elderly people to take care of young ones especially in view of the HIV epidemic).

Education has its own plans for the health sciences that are not closely linked to health service plans that are designed to respond to society's health needs or demands. Education and Health are seen as competing rather than complementing each other. One particular view was that the education department should be like the Public Works department and not have its own goals that are not derived and married to Health. It should be limited to train for all other sectors as an implementing agent to ensure that DoH realises its goals. National policy needs to correct this; remove power issues and put the country needs first like countries like the Philippines. At present very few universities train students utilizing the Primary Health Care settings despite the PHC approach being a major policy position of delivering health care to communities.

This raises the question of the role of policy planners in the production planning of health professionals. It is acknowledged that universities are training for the country needs but they also need to take into consideration the needs of the communities where these institutions exist. They must also produce for the province as much as doing so for the country. Provinces are in a better position to identify and quantify the need and service gaps. The national department would then consolidate this information and pronounce on national service gaps that need to be addressed. This will then inform training targets for institutions so that the rate addresses the gaps.

To address this in full, there would need to be a major investment on the department's technical skill for development and management of human resources. There is a major interdependence of human resource management and development at administration level in the health departments but capacity is scattered all over and not necessarily interacting appropriately. The national department is viewed as being very critical in harmonizing processes as it has a helicopter view of the country, has the ability to compare with other countries, provide framework and develop

minimum norms per professional category like in the Integrated Health Planning Framework approach for service delivery.

Taking into consideration in the country's health needs into the student planning for health sciences and how such needs should be factored in, policy makers were unanimous that the burden of disease in each province should influence type of professionals required. They felt that the health needs while province specific must be aggregated at national level to take up issues that affect national population and hence proportionally look at funding allocation and other resources. Unfortunately not all provinces routinely do burden of disease studies.

This lack of capacity to engage in own studies is compounded by the tendency by some researchers and academics to do limited research and publicise it as authoritative findings on provincial disease burdens. This point relates to the challenge that the public health sector has in building and retaining adequate intellectual capital to lead technical work appropriately. Institutions should forge a partnership with provincial health so that they engage in burden of disease studies using their research capacity. This will assist in identifying the gaps and trends and make it easier for them to fine-tune their training plans.

Currently the district health barometer gives an indication of distribution and burden of disease in the country. For now the policy planners are of the view that planning should focus on trends so that training is made relevant largely to dealing with such trends but not exclusively. Their view is that the silo approach to student planning still exists but needs to be diluted. They are in agreement with academics that a mechanism has to be found to ensure that basic core competencies are agreed to at national level to avoid situations where some professionals do not have competencies to deal with basic public health challenges like managing tuberculosis on qualification. Academics

felt that workforce planning into the future must take into consideration the long lead times of training since most health professional training takes on average between four and five years. Many illnesses are emerging therefore training institutions need to be aware of these during curriculum design and student planning phases.

The above approach from policy makers is informed by the impact that the shortage of health professionals and support staff have on service delivery. Shortage affects how sick people are treated, impact on attitudes of professionals, stress levels are affected by shortages and manifests to patients on waiting lists and queues. They report that currently the utilisation of operating theatres is down due to such shortages. There is overburdening of the few staff remaining in service leading to frustration and further resignations. The quantification is however not necessarily formalised. The view put forward was that if the mortality rate could be linked to the availability or not of health professionals it would be a good indicator of the impact of shortages in the public health facilities but such system does not exist currently.

Quantification is therefore only done indirectly using vacancy rates that are not an accurate measure. The impact on service delivery can be seen through delayed referral of patients to better equipped facilities (in terms of professionals with advanced skills) thus increasing morbidity, fatigue, decreasing the quality of work due to being overworked and cyclical burnout of existing staff.

One head of a provincial Department of Health responded to this question on the impact of shortages by asking the following question in return: what category can we run a service without? And her answer was that obviously nursing is fundamental to running a health service but the

nurse, doctor and pharmacist combination is a critical trio. The impact of shortages is in terms of quantity (number of clinics a province has and the attached service availability e.g. opening times) and quality of services (numbers and staffing norms related to economic situation of the country). The impact is also felt through the migration of health professionals (internal and external), declining training standards and fading mentorship (supervisory level depleted by migration).

The response of policy makers generally concurred with those of academics on the subject of planning who agreed that no proper national planning occurs even collectively between institutions. The Dean at Durban University of Technology gave the information that technikons used to be involved in national curriculum planning but not in terms of target numbers for enrolment. At technikons level enrolment planning is done within the institutions and private industry plays a role about numbers e.g. training in biomedical technology where discussions are held with industry and the Department of Education. The academic view was that the national department needs to look at how it develops human capital, how it makes sure that the HRH plan becomes reality. In their view the current teacher-student ratio is below world norms and the teaching facilities are not properly equipped to drastically increase the numbers thus making it impossible to respond to the pressing health needs.

Another challenge raised by one respondent in the academic field is what he referred to as higher education institutions' struggle with two bosses – the Department of Education and that of Health. His view was that the Department of Education's only concern is quality and not numbers as the Health Department requires. In addition the HPCSA also stresses quality issues related to student-staff ratios. His view is that health workforce planning must be done according to the resource

availability and size taking into consideration but not constrained by the education department's restrictions. It emerged from the responses of academics that the only joint planning between at least the medical faculties is in the form of assisting SADC by accepting their undergraduate medical students in South African medical schools. However all concurred that it would be useful to be engaged in national health workforce planning because it would bring government and universities closer by determining training targets based on health needs of communities.

Currently health sciences academic institutions are not innovative enough because their silo approach makes their training to still be based on historical trends than planned production. As a result the country has stagnated in many professional categories resulting in a lag between professionals and health needs, no increase even in the number of health sciences education and training institutions with the last medical school opened in the 80's (more than 20 years ago). The merger of higher education institutions had an impact on student enrolments, which unfortunately did not increase the capacity of institutions to enroll more students.

On possible mechanisms to address the problem, three of the four academic respondents mentioned the need to increase the pool of health sciences teachers at higher education level. Several strategies were shared including making institutions to be part of the solution, making use of academics that are retiring (meaning their retention within the institution on the teaching side to mentor young professional into the academic sphere, assist with teaching and nurture young professionals in research to boost research capacity of disadvantaged universities). This, they felt, will address the problem of career paths particularly in black universities.

There is great need to attract more people within the academic sphere by making their working conditions and environments more conducive to self development through research either within university or establishing a research funding pool through collaborations and exchanges between universities. Another proposal mentioned is to recruit retired academics from institutions in overseas countries on say 10 year contracts with clear deliverables e.g. academic leadership development. This they felt was a major part of workforce planning for the production of the health workforce. Development of academic leadership must be planned e.g. identifying potential leaders and specialists when they are still students in their last two years or so of study and get them groomed to play a leadership role within their fields and profession. Some also felt that the country needs to put its efforts on reviving institutions like Medunsa to produce more black doctors but ensure that they are not lured away to private practice.

Respondents were unanimous on the need to possess tools to measure the impact of shortages of professionals so that workforce planning can be well informed. Currently most views about shortages are based on individual perceptions e.g. comparing service impact in urban versus rural areas. There is a need to establish or develop these tools for measuring impact on health service and declare a survival package that no health facility would be allowed to go below namely, service thresholds that link service provision to availability of health professionals to render such services.

On the question of national planning assisting in addressing the shortages, the example of the OSD¹⁸ for nurses was utilized. It was noted that the improvement of policies to address the working environment systematically is critical e.g. OSD for nurses has brought wonderful news to

¹⁸ OSD – Occupation Specific Dispensation

many sections of the nursing profession whilst there may be some unhappiness to other sections. The unhappiness is related to those areas that are not fundamentally nursing work but nurses are utilized due to the extensive training they receive e.g. quality care and infection control are not areas that are planned for from a training point of view but nurses come in handy due to the nature of their training. This has led to a charge that some professionals are not valued whilst it is essentially a planning failure. Mobilising the private health sector so that uniform guidelines on staffing are implemented across the country and harmonising as much as possible the benefits for those that provide such services was seen as a possible avenue for the private sector to contribute.

In addressing the shortages a systematic approach was proposed as part of long term planning by some of the policy maker and academic respondents. There must be evaluation of the current status of staff competencies, identify gaps in terms of workforce management policies, quantify the numbers (by forcing all managers to do HR planning annually and allocate resources appropriately) and plan systematically to inform Medium Term Expenditure budgets. Workforce planning is not only about numbers – it is about professional competencies leading to the type of training required and the resultant quality, determination of policy gaps and abandoning those that negate what the health system goals are trying to achieve. Relevant question for the managers to respond would include the following: What is the service required? What are the staffing requirements? What does the country want e.g. does it want doctors everywhere? Ultimately it is better to declare staffing levels per level of facility linked to profile of disease thus the appropriate skill mix at service delivery level.

Another mechanism to address short-term workforce problems related to the shortages is the use of foreign health professionals. However the country needs to plan ahead of time and use foreign recruitment as temporary measure whilst bumping up production of its own health professionals. The starting point was proposed as to be a purposeful investment in the children towards proper career choices – thus investment in science subjects at primary school level and the manner that these subjects are taught especially in black schools. In addition it is now imperative to streamline training and development to avoid professionals getting to certain careers by default e.g. health science educators who do not have what it takes to be a lecturer. There was also agreement that there needs to be open learning opportunities by encouraging matric students to get exposure in places like pharmacies or hospitals to stimulate enthusiasm for the health sciences.

The majority view of academics while supporting the sentiment expressed above, was that setting up of a health sciences academy to promote excellence in the health sciences to recruit students into the science fields would be a good idea. Some however felt that this would be a long-term objective that may not necessarily solve the student recruitment challenges for the health sciences only. However the view was that institutions should not be searching only for very brilliant student to study health sciences. All the academics contend that these disciplines need committed hard-working students because anecdotal evidence shows that students with aggregate passes of ‘C’ or ‘B’ seem to do very well and even better than the ‘A’ entrants. Therefore there is compelling need to look at other ways but it would very good to get students into such an academy so that it feeds any science field they may wish to enter into. A need was also expressed that the State maybe needs to invest heavily in one local university and make it a national flagship for the health sciences education and training. This would entail attracting the best teachers from the world and

give clear instructions to develop health professionals of various categories suited to working in local communities.

The funding of education and training at the level of health professionals appears to be a critical challenge as it was highlighted several times by the respondents. A point was made that use of the Health Professions Training and Development grant for selected categories whilst encouraging the purposeful investment into an identified category e.g. focus on pharmacists for a period of time, needs to be considered. The use of retired professionals in training and mentoring of young professionals would also be a good strategy. Streamlined training and development is also necessary to avoid professionals getting to certain careers by default e.g. health science educators who do not have what it takes to be a facilitator of learning.

The overwhelming view of all respondents was that dealing with the impact of shortages of health professionals is a difficult task. There is therefore a need to congregate skills at certain areas (pooling) so that a certain level of care can be guaranteed. The Health Department needs to avail hospitals as training platforms in the provinces so that a bigger spread of patients can benefit from the senior medical staff that trains students and/or registrars (specialists in training). The budgetary constraints faced by health facilities that invariably experience serious shortages are a serious problem. Provinces have developed several innovative ways of dealing with the shortages in the highly skilled health personnel. Private practice doctors are engaged at various levels to perform some services on a group basis e.g. by performing operations that would otherwise not be performed due to shortage of skilled professionals.

The increase in the bursary budget allocation should be used for prioritised professions for training linked to the health needs and guided by the required skill mixes. An observation was made by a policy maker that the country's desperation is shown by importing doctors. This, he said, seems to hurt the morale of local doctors who then lose confidence as they feel that they are being pushed out. This is in addition to daily stresses of having to train foreigners who are not used to the disease profile that South Africa has. In such a case, patriotism gets lost. A capitalist health worker has now been created due to the shortages that make a doctor demand more money for the workload he/she carries for those that have left. An additional impact of the shortages is that it has created severe lack of confidence in the public health sector and confidence has been indirectly shifted to the private health sector. All these issues can be traced back to the lack of appropriate futuristic workforce planning.

Does adequate capacity for workforce planning exist within the Departments of Health across the country? The clear answer from all policy makers is no. Their view is that this shortage of intensive critical mass of workforce planners must be addressed at national level. Such an army of planners with the requisite technical skills must be able to interrogate all aspects of planning so that the goal of providing quality health services can be realized. Some believe that South Africa has adequate numbers of health professionals but that distribution is very skewed with too much leaning to the private health sector. To make a start some feel that the department may need to thumb suck numbers, bite the bullet and just increase training targets with adequate funding provided. But these must be linked to firm contracts so that on completion of training the professionals have to serve the public health sector for a prescribed number of years without an option of buying out the contract.

To address retention some feel that the health departments as employers must reward the additional skills that are obtained in management by health professionals and thus encourage study into health management e.g. Masters in Public Health. Whilst policy makers enumerate several challenges they face and how they are dealing with them, a comparison of the responses by the educators reveals a similar scale of disharmony even in the education and training field. Whilst provincial departments do not engage in any joint workforce planning, similarly universities, colleges and technikons do not engage in any meaningful joint planning.

Similarly educators are of the opinion that joint planning would be useful because it would bring government and education institutions closer by determining training targets. Currently this process even within institutions is not innovative as training is still based on historical trends than planned production. Their view is that the country has stagnated in many professional categories resulting in a lag between the number of professionals being trained and graduated and the health needs. They pointed out that there has been no increase even in the number of health sciences education and training institutions, the last medical school having been opened in the 1980's, more than 20 years ago.

One of the areas of emphasis is the desired increase in the pool of health sciences teachers. They strongly feel that this must be part of the solution. South Africa should make use of academics that are retiring (retention within institution on teaching side to mentor young ones into academic sphere, assist on teaching and nurture young professionals in research to boost research capacity of disadvantaged universities). This will address career pathing in black universities as it will serve to

attract people within academic sphere by making their working more conducive – self development through research either within university or establishing a research funding pool through collaborations and exchanges between universities.

Education institutions admit and train students from across the country, offer a variety of programmes and graduate each year a number of young professionals. An issue of interest to workforce planning is processes that inform an institution's decision on what categories of health professions to offer education and training for. When posed to educators, this question drew divergent responses. All universities except for the Walter Sisulu University and the Durban University of Technology responded that such decisions are informed by history within the institution.

This is further strengthened at faculty level by the relative strength of that faculty's leadership within the university community and the business community that is linked to the institution. WSU and DUT responded that the enrolment planning covers this aspect. These institutions report that they consider the relevance of the programmes to health needs, take into consideration the programme's strategic and financial viability so that the programme must more or less be able to pay for itself (in terms fees & subsidies) and strategically it must be in demand nationally, internationally and acceptable to government. They also responded that in recent years the HRH Planning Framework has strengthened the strategic viability of programmes.

UCT reported that history plays a major part in deciding what programmes to offer. In addition to that professional interests and in some ways the institution's policies also play a critical role e.g.

the terminology change from the Medical Faculty to Health Sciences Faculty to give the notion of a broader health approach leading to restructuring of faculty to spread power to others. However this is not yet aligned to provincial planning or service planning (meaning fulfilling a national requirement through institutional planning). Medunsa and WSU are informed by what is relevant for the country by talking to province and national departments for guidance. The context of where the university is located greatly influences their choices. All institutions added that the programmes that are not financially viable and that are not well subscribed to, get discontinued.

But how are the student enrolment numbers and targets determined by the institution? All educators responded that so far tradition dictates. All institutions negotiate with the Department of Education on student targets so as to influence financial subsidies thus artificially fixing the numbers to provide for the resourcing of certain categories e.g. medical student facilities. Doubling the intake of students would need a new resourcing plan for the health sciences. There are others categories that are kept at low levels of training numbers due to health system challenges e.g. speech therapists being trained but no posts available for employment.

The staff compliment and physical infrastructure are also major determinants as is the issue of the accreditation of facilities where the actual training of students will take place (referred to as the training platform). They all reported no undue influence from the private sector in determining the number, the kind, the content and the design of the programme and its relevance. Those institutions that have nursing departments reported an increase in interest on nursing training by the private health sector. This may be viewed to be in line with the increasing burden of disease, the relatively inexpensive training from a cost point of view and the versatility of South African

trained nurses. The point is that such interest must not occur by chance and it must be properly directed so that the investment by the private health sector serves to benefit even the public health sector.

The strategic viability is a major consideration for all institutions e.g. training in Emergency Medical Services is extremely expensive but it is very strategic even though it has many elements that are difficult to fulfill like staffing and equipment. This strategic viability must relate the institution's contribution to the national production of health professionals. As educators expressed, the country needs to develop health sciences complexes that produce for the country. This needs purposeful investment by government on land, building health sciences complexes to enable better broad training by doubling as learning and public health service environments. Health sciences therefore have potential to serve the public directly through exposure to highly specialised services.

The common problem that these respondents pointed out is the artificial separation of Education and Health thus limiting the extent to which institutions could be utilised by the public e.g. DUT expressed an opinion that its facility could be used as one of the health centres where the public could access certain services whilst affording trainees an opportunity to apply the theory gained in the classroom.

However the strategic approaches and viability of programmes differ depending on the institution in question. At subspecialist level UCT feels it is making a huge strategic contribution to strengthening the health system and its services whilst at graduate level it is seriously impacted by

emigration even though situation is improving over the years. Attitudinal change has assisted UCT as they now notice that several graduates are now fanning out into rural facilities to provide the much-needed services whilst gaining experience. Another point raised strongly by WSU was the view that it would be better if the Faculties of Health Sciences fell under the Department of Health rather than the Department of Education so that Health can provide the resources and the HPCSA address the quality assurance issues.

Medunsa and WSU were particularly proud of their contribution to the regions they are located in and the country generally. WSU in particular felt that they have been assisted by the admissions policy imperative of government which is a duty to admit as many black students as possible. Most students are from disadvantaged backgrounds (home and school). They get admitted to university, nurtured and most of them succeed. Early placement of trainees in communities motivates other rural community students to perform well at school to get to university. This is another aspect of the strategic importance of programmes that are offered by the institutions.

Finally the role of statutory health councils in workforce planning issues was mentioned as an important part of strengthening health service delivery. On accreditation and quality issues some educators felt that the approach needs to be reviewed. They contended that some inspecting teams that do this work are at times used for point scoring or settling scores between institutions because such experts are derived from within competing institutions. There is therefore a need to explore the establishment of an independent body of experts that will also play a mentorship role whilst doing their work within agreed norms and standards of accreditation of institutions. These would most likely be the retired academics and practitioners. Such teams would also have a role in

assisting struggling academic departments to improve research capacity and publishing of papers, a feature of academic relevance. On the examination front, the examining or assessing bodies need to move rapidly to getting agreement on the one exit examination.

8.4 Comparison with some approaches in international literature

Many countries are now seriously conducting workforce planning studies. Whilst using the World Health Organisation's pioneering work of its Human Resources for Health division as guidance they are engaging in such studies and planning exercises taking into consideration the uniqueness of their contexts. Workforce planning takes into consideration how the health system is set up and approaches will therefore differ from country to country. Whilst South Africa's health system evolved similarly to that of the United Kingdom, it is very different in a number of respects. Two prominent features that set these apart are the following:

- Major aspects of these systems are publicly funded but in contrast to the South African one, the UK system is funded through a National Health System
- The South African system has a very well developed private health sector while in the UK system the private sector is small
- The NHS has a system of providing health care through well managed Primary Health Care Trusts which are based in the communities with relatively good budget allocations that are managed at that particular level
- South Africa's Primary Health Care system is far less organized and not adequately resourced either financially or in terms of other resources i.e. equipment, clinical staff

The United Kingdom's National Health Service engages in workforce planning and the following Strategic Long-Term Drivers in Health Workforce Planning form the basis:

- Rate of growth of the workforce overall
- Attrition rate within some professional categories
- Demand for growth in staff numbers
- Effect of time limits imposed by labour relations legislation
- Demand for competency based workforce thus diminishing role of traditional demarcations
- Political expectations of provision of health care to mitigate public expectations
- Trends over time in the funding of health care

The NHS¹⁹ view is that the workforce of the future needs to be more flexible and organisations need to develop a competency based workforce planning approach. “The bridge between credible workforce plans based on today's knowledge and a more flexible workforce in the future based on tomorrow's knowledge is the ‘currency’ of competence. Thus, it will still be completely appropriate for plans to contain an element based on professional groupings; but it will also be necessary to cross-reference to the competencies needed for particular service delivery models. Such competences will need to transcend professional ‘boundaries’. For long term workforce plans to be of value, the determinants of this poor performance have to be addressed.

¹⁹ NHS – National Health Service (United Kingdom)

Improvements in data and information are essential pre-requisites and a number of key cultural and competency attributes need to be addressed” (NHS 2005). The elements of this statement hold true for the South African health system too as it suffers from a challenge of poor data and information system that are necessary to engage and inform workforce planning. The challenge of professional boundaries is evident through issues like medical doctors being allowed to dispense, an issue not entirely approved by the pharmacy profession. A recent challenge is the move by the pharmacy profession to perform some ‘simple’ diagnostic work and manage it without referring to the medical profession e.g. taking blood pressure readings, diagnose hypertension and prescribe treatment for it. These are issues that as part of health workforce planning need to be taken into consideration.

The Alberta government, in a province of Canada places these matters at the heart of its health workforce planning. The Ministry of Health regards workforce planning as an imperative by declaring that its workforce strategy, launched in 2006 is its guiding beacon to a brighter future where both public and private sector workforces are supported by strong provincial, national and international programs and initiatives (Alberta Health Workforce Plan 2007 – 2016). In approaching its workforce planning Alberta takes into consideration that “in order to meet the health service demands of Albertans, the system needs to change how health services are delivered and develop new approaches to utilizing, retaining and recruiting the health workforce”. It continues to acknowledge that the health system, and most importantly the people that work in it, must change how they work together and how services are delivered.

This resonates well with the South African situation. The chronic shortages of certain health professional categories have forced the country to focus on training of what is referred to as mid-level health workers. These are health professionals who are trained in the traditional domains but for lesser periods and with lesser skills than their highly skilled professionals e.g. clinical associates in medicine and dental therapists in dentistry. Their introduction in the clinical field require that new methods of delivering health care be developed and relations within and between various professional categories revisited e.g. clinical associates will perform duties that some very experienced nurses had been accustomed to performing due to the shortage of medical doctors.

8.5 Conclusion

South Africa is facing challenges that are not unique to herself. Its academic institutions do not necessarily share the same philosophy and are not driven by the same ideals. The history of the country and its social policies over many decades still influence the views of the institutions' leadership to development issues. This is most evident in the outputs of various academic programmes which show that the majority of graduates particularly at higher levels of Masters and PhD's is still largely from the white minority section of the population.

The level of institutional disadvantage was highlighted by almost all the academics interviewed. This is mostly the experience of historically black institutions who struggled for finance and other resources under the Apartheid government. Policy coordination is required at a higher level to ensure the alignment of academic institutional approaches with the national health system goals and objectives. In this instance there is no contradiction between what institutions term global

competitiveness and producing for the needs of the country. In order to realise these goals, a strategic partnership is required between institutions and the health sector's leadership.

CHAPTER 9

ANALYSIS OF SURVEY RECOMMENDATIONS ON HEALTH WORKFORCE

PLANNING

9.1 Introduction

All the people interviewed expressed serious commitment to improving the health outcomes in line with the system's goals. They all expressed a need for better harmonized planning so that health workforce and other general health policies can talk to and address existing problems. This is the same for academic institutional leadership that yearns for improved policy – academic coordination so that the country's national assets (in the form of universities) can respond to the future needs of the country.

Flowing from these interviews were proposals and suggestions on the roles of each of the government entities that have a role or an interest in health workforce planning and/or health service delivery.

9.2 Envisaged Role of the Department of Education

The Department of Education has a major role to play in health service delivery even though it may seem very remote and indirect. This government department partners with the Department of Public Service and Administration in the development of the country human resource development strategy. It therefore plays a leading role in mapping out the forces for change in the general and plotting the way forward in terms of developing an action plan to meet the needs. Currently the

Department of Education controls funding, determines student planning and enrolment for higher education level, rations funding to institutions and determines the outputs of these institutions.

The health science education and training institutions are not stand-alone with the exception of the Medical University of Southern Africa, which has been unique for many years before its merger with the University of the North. This lack of stand-alone status of many health sciences institutions has both positive and negative implications. The negative implications are that:

- a. There is no direct funding to health sciences because their allocation is based on a sharing formula between the university's faculties
- b. Since its programmes are expensive to run and the enrolment numbers relatively low, it is difficult to attract funding directly
- c. It is difficult for these faculties to react quickly and directly to health policy issues as they have to abide by university policies and therefore cannot act independently e.g. the need to increase enrolment numbers is determined by the university as a whole and not by the faculty of health sciences

There are however some positive aspects in remaining part of the broader university community. These are:

- a. The costs of running these costly programmes gets subsidised by the university through the fee structure

- b. Students become part of the larger university community and can therefore cross over to other programmes should they feel the need
- c. There are better chances of collaborative research across the institution going beyond health science departments thus better sharing of general research funds

In terms of the proposed workforce planning guide, the Department of Education would be intimately involved in the development of an action plan for the training of health science students to respond to the identified health needs. This means decision making on enrolment patterns over a period of time, sourcing the funding that will be required, ensuring that education institutions have the capacity to produce as per need and monitoring the institutional outputs on an annual basis.

9.3 Envisaged Role of Provincial Departments of Health

The assessment of demand is a critical step of the planning guide. This relates to the numbers and types of health workers and professionals needed to achieve the planned health service activities and the nature of skills they need to possess. In order for health service to respond appropriately to health needs of the communities, the workforce demand must be driven by the planned delivery of services. But the workforce is also a limited resource, like finance, which may constrain the services that can be delivered. It is therefore important that when assessing need and therefore demand, such assessment must be based on the comprehensive nature of services that have to be provided.

The work patterns of the current workforce will have to be audited and if need be new work arrangements developed for the future workforce. South Africa is characterized by a very mobile patient base that can access both public and private health care depending on availability of the means to pay for private health care. This is however not a widespread phenomenon. Health practitioners, especially medical doctors and dentists also exhibit habits of high mobility between the public and private health sectors in terms of being primarily based in the private health sector but deriving a significant portion of their monthly income by doing session work in public health facilities.

Marketisation or commercialization of health care is a serious challenge that manifests in various forms. It influences the behavior of health professionals, particularly those that can engage in private practice arrangements and thus have the ability to generate income independent of a government or public sector employer. It is thus important to study the behavior patterns and the likely preferences of the future health workforce as that will most likely influence practice arrangements within the health system.

Defining the micro-vision for the future is an important step. Current and envisaged future skills and competencies of the staff will need to be included in any assumptions on demand so that a clear vision for the future good quality service provision is established. This must be followed by a more detailed establishment of occupational standards which set out the required levels of competence in the skill and how these will be measured and tested. An aspect of this work is addressing the shifting professional boundaries as many health planners seek to deal with the chronic shortages of certain categories of health professionals by creating midlevel worker cadres.

A framework of requisite skills and associated knowledge must be produced to ensure that an appropriate skill mix can be determined and attached to each level of care.

Certainly this cannot be confined to a small geographic area even in the presence of a demographic disease pattern e.g. high prevalence of TB in a particular area. The aggregation of these micro-visions and resultant skills and knowledge frameworks will enable the health system to have professionals and workers that maintain the multi-skill track record that the South African health professionals are renowned for.

In addition to assessing demand and defining the micro-vision, the provincial workforce planning teams in conjunction with service delivery teams will have to establish new ways of working and measuring productivity as a proxy for a return on investment of long term workforce planning. This is also necessitated by the new global developments that are attempting to mitigate against the chronic shortages of health workers namely task shifting.

9.4 Envisaged Role of the National Department of Health

Defining the health workforce plan is the foundation of planning. It must seek to answer questions like: What is the problem? How do we wish to solve it and by when? What are we trying to achieve and what is the scope? Who are the critical stakeholders that must be consulted? Who takes responsibility for what and accountable to who? This requires that forces for change get mapped out to determine the drivers for change and respond to this critical question: Can change

be achieved using current available tools or do we need to develop new tools? This links to the process of defining the macro-vision for the future as discussed above.

Developing an action plan is a collaborative effort at national level with the Department of Health, Department of Education, Department of Finance and Department of Public Administration playing major roles. Measuring the impact on health service through the utilisation of national surveys and long term through the periodic studies on the burden of disease is one of the mechanisms that are currently used globally. Certainly there are studies currently that are designed to measure the short term impact of interventions that are developed to improve service delivery e.g. the Confidential Inquiry into Maternal Deaths whose elements can be improved with short term skills improvements of for example midwives. However, the availability of credible data and information systems is critical to the accuracy and reliability of such surveys. Planning based on wrong data and information can greatly harm the health system. The National Department of Health takes the ultimate responsibility for reviewing the action plan.

9.5 Envisaged Role of Education and Training Institutions

Education and training institutions have a bigger role than just training the future health workforce. There needs to be better coordination and planning between them as training hubs. Assessing supply in terms of quantity and quality must be their fundamental responsibility over and above educational responsibilities. They need to maintain active interaction with the policy making level and service delivery level to ensure that they respond appropriately and in a timely manner to the

health challenges faced by the health system that needs intervention from an education and training front.

The responsibility goes further to preparing a good product that is able to render its service at every level of care of the system. This probably goes beyond the concept of workforce planning but is an important aspect of preparing a workforce to serve the community in a South African context. Issues of mentorship, coaching and moral leadership are far becoming critical in ensuring the development of a health workforce with correct orientation in terms of the value system required of health professionals.

9.6 Conclusion

The crucial element of any long term plan is the accuracy of the vision and scenarios and how they are coupled with a robust action plan that is implemented today. The South African health system faces many challenges that make it difficult to develop a definitive national health workforce plan which can be implemented uniformly. It however possesses the potential, knowledge and skills that can lead to the development of a robust national workforce plan. The challenge of historical imbalances, uneven development and resourcing of the provinces is a major threat to attaining equity in provision of health services. Health service delivery is closely related and dependent on the quality and quantity of the system's health workforce.

Data and information systems form the basis of planning. This affects many facets of the health system ranging from education and training to the reliability and credibility of data used for planning and resourcing health facilities like hospitals and clinics.

The quality of stewardship of the health system rests on the quality of leadership at all levels of the system. Health is a global commodity and has no boundaries. Health professionals are amongst the highly mobile personnel in the world. Stabilisation of global migration needs good leadership and investment by the country in its foundation systems so that it can keep its professionals at home while allowing for healthy international exchanges to stimulate knowledge crosspollination.

All these must be factored in when doing workforce planning. South Africa needs to start pulling together elements of workforce planning so that there is a firm basis laid. In Chapter 9 an elementary framework is proposed, based on views expressed by all the respondents to the survey, experienced gained in developing the National Human Resources for Health Planning Framework and various approaches in international literature.

Chapter 10

Proposed Health Workforce Planning Tool and Recommendations

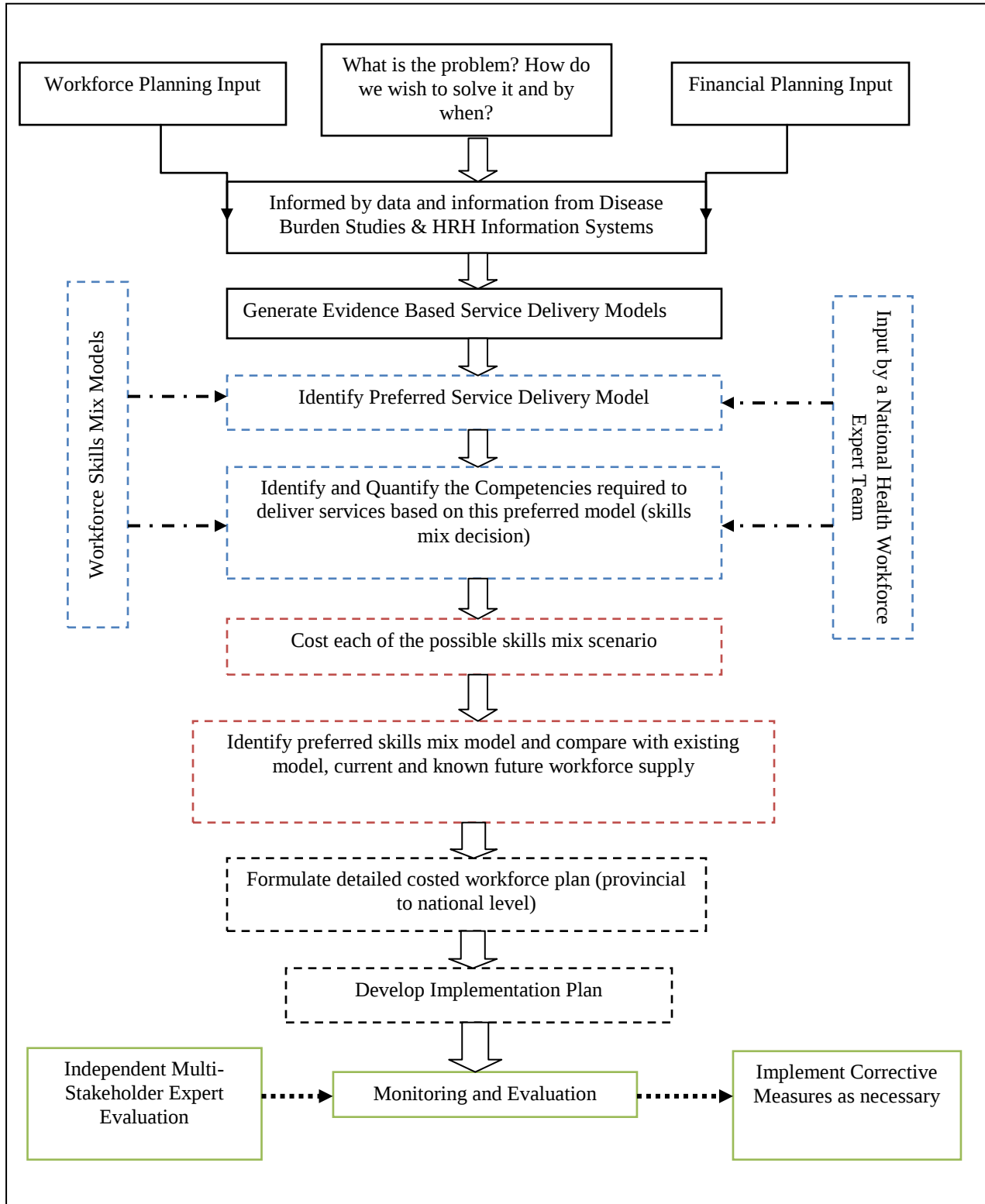
10.1 Introduction

The World Health Organisation plays a major influential role on what country do and how they approach health workforce planning. Several approaches have been published in the form of advocacy tools to assist policy planners in addressing workforce issues.

Such tools as published by WHO serve as guidance. Each country has to take into consideration its own challenges and conditions but freely adapt approaches that other countries have put into operation where necessary. There are many health systems that are similar in the way they have been designed. Whilst similar, they are not identical. The South African health system was designed along the lines of the United Kingdom's National Health Service but they are not the same. The NHS has relatively small private health sector whilst in South Africa the private health sector is large, plays a major role in health service delivery and takes a major slice of health care funding. It serves a small population approximately 7 million medical insurance beneficiaries. The private health sector does however provides health services to those that are paying out of pocket i.e. those not covered by any medical insurance scheme.

Education and training of health professionals is done almost exclusively in the public health sector. However the distribution of qualified independent practitioners for some of the health professions is heavily skewed towards the private health sector. This is a function of both poor planning and management of resources.

10.2 Proposed Workforce Planning Tool for the South African Health System



Adapted from the NHS Workforce Projects

10.3 RECOMMENDATIONS:

The specific recommendations to address certain fundamental elements are:

Recommendation 1:

Creation of a national coordinating committee for academic health sciences planning to include the Departments of Health, Department of Higher Education, National Treasury and Department of Public Service and Administration at the very least to establish coherence at top government policy level.

Recommendation 2:

Pronouncement by the National Department of Health of a set of principles to govern joint agreements between education and service to harmonise across provinces and institutions in terms of the use of facilities, connection between health service delivery and academic programmes, governance of staffing and levels of staffing.

Recommendation 3:

Set up of a national health sciences education and training committee made up of government, academic institutions, private health sector and funding bodies for planning purposes to respond rapidly to the health needs of the country. This body will consider the issue of cadres required and

appropriate for service delivery at particular periods, maintenance of ratios between categories based on attrition and other factors to ensure national planning that goes beyond narrow health science needs but focuses more at national needs and assess postgraduate training needs that will be based at national level. Ultimately the committee would advise government on proper financial funding required to achieve its goals. The committee would need to be very representative of all aspects of service delivery and manage the potential conflicts inherent with this approach e.g. Primary Health Care approach versus research interests of academics and the shift from a public versus private sector mindset to a national mindset by all stakeholders. It would therefore need to develop a tight mechanism for filtering ideas in a balanced fashion to underlie the centrality of health service to the country.

Recommendation 4:

Invest heavily in one local black university and make it a national flagship by attracting the best teachers from all over the world and give clear instructions to develop health professionals of various categories suited to working in local rural communities. This will also serve to address the challenge of African scholarship in the health sciences and to address faculty transformation fundamentally.

Recommendation 5:

Develop academic leadership to enrich training and service quality. It is feasible to identify academic champions for each discipline. This will entail identifying young talent e.g. at fourth year

of medical study and provide them with champions/mentors who will follow them up through internship and community service. These young talented professionals would then be brought back to specialise and the champion/mentor would ensure that they get spaces to specialize or even get them placements in leading universities across the world. This exercise can be done in any discipline e.g. nursing, pharmacy, speech pathology, medicine or dentistry as has been done by countries like Malaysia. This would be linked to the health sciences national planning committee to ensure that all support is provided and each candidate is tracked during training until completion. The country can easily afford funding this approach to high skills development as candidates will finish their training in a staggered fashion. Each would then be placed at specific institutions across the country to strengthen existing units or establishing new ones if none exist but linked to service delivery in the public health sector. Numbers can be started at low levels and trained in the country but they must get international exposure through bilateral exchange programmes with other countries under the auspices of international cooperation in the health field e.g. placing postgraduate students at Oxford University funded by government with the assistance of the UK government.

10.4 Conclusion of the Study

Based on the responses by the respondents of the survey conducted, these recommendations are workable. It is possible to get much better efficiencies from the current funding of health sciences education and training even though the health sciences currently lack harmonised planning at provincial and national levels. What is required is to adopt a national health workforce planning system supported by purposeful investment and action on the recommendations made above.

Bibliography

Acts of Parliament – South Africa

1. The Constitution of the Republic of South Africa Act 108 of 1996
2. The Higher Education Act No. 101 of 1997
3. The National Qualifications Framework Act No. 67 of 2008
4. The National Health Act, Act No. 61 of 2003
5. The South African Qualifications Act No. 58 of 1995
6. The Skills Development Act No. 97 of 1998
7. The Skills Development Amendment Act No. 37 of 2008
8. The Skills Development Levies Act No. 9 of 1999
9. The South African Nursing Act No. 33 of 2005

Books

1. Babbie E, 2004. The Practice of Social Research, Wadsworth Thompson, Belmont, USA
2. Blouin C, Drager N, Smith R. (editors) 2006. International Trade in Health Services and The GATS – Current Issues and Debates, The World Bank, Washington D.C.
3. Drager N and Vieira C, (Eds), 2002, Trade in Health Services: Global, Regional and Country Perspectives, Pan American Health Organisation, Washington

4. Dunn WN, 1994. Public Policy Analysis: An Introduction, Prentice Hall, New Jersey, USA
5. Foucault M. 1989. The Archaeology of Knowledge, Routledge Publishers, London
6. Furedi F. 2004. Where Have All The Intellectuals Gone? Continuum Publishers, London
7. Greiner Ann C, Knebel E (eds), 2001, Health Professions Education: A Bridge to Quality; National Academy of Sciences, National Academies Press Washington DC
8. Human Sciences Research Council, 2003, Human Resources Development Review 2003: Education, Employment and Skills in South Africa, HRSC Press
9. Hostee E. 2006. Constructing a Good Dissertation: A Practical Guide to Finishing a Masters, MBA or PhD on Schedule, EPE, Johannesburg, South Africa
10. Joint Learning Initiatives, 2004, Human Resources for Health: Overcoming the Crisis, Harvard University Press, Cambridge Massachusetts
11. MacGillivray A. 2006. A Brief History of Globalization, Robinson Publishers, London
12. Parsons W, 1995. Public Policy: An Introduction to the Theory and Practice of Policy Analysis, Edward Elgar Publishing Limited, Aldershot, United Kingdom
13. Swanepoel BJ (ed.), Erasmus BJ, Van Wyk MW and Schenk HW, 1998. South African Human Resource Management: Theory and Practice; JUTA Cape Town
14. Walt G. 1994. Health Policy: An Introduction to Process and Power, Witwatersrand University Press, Johannesburg
15. Weick, K.E., & McDaniel, R.R. 1989, *How professional organizations work: Implications for school organization and management*. In T. Sergiovanni and T. Moore (Eds.) *Schooling for Tomorrow*. Boston: Allyn & Bacon.

Organisational Reports and/or Discussion Papers

1. Alexander S. Preker, Jan Rutkowski, Doug Smith, and Marko Vujicic. 2004. *Impact of Globalization and Macro Economic Policies on Health Care Labor Markets* – The World Bank October 2004
2. Alberta Ministry of Health, Health Workforce Action Plan 2007 – 2016, *Addressing Alberta's Health Workforce Shortages*, www.health.alberta.ca/initiatives/health-workforce.html (accessed 17 August 2009)
3. Buchan J and O'May F; Determining Skill Mix: Practical Guidelines for Managers and Health Professionals. Issues in health services delivery paper no. 3. Department of Organisation of Health Services Delivery. Geneva: World Health Organisation, 2000
4. Buchan J and Calman L, Skill-Mix and Policy Change in the Health Workforce: Nurses in Advanced Roles, OECD Health Working Papers, Paris, 24 February 2005
5. Canadian Medical Association, Professional Unity and Public Support – Building a Stronger Foundation, National Health Policy and Negotiations Conference 1996 Proceedings, Ottawa, Canada
6. Egger D, Lipson D and Adams O, 2000, Achieving the right balance: The role of policy-making processes in managing human resources for health problems; WHO, Geneva
7. Health Canada, 2003, A Report on the Nursing Strategy for Canada – Advisory Committee on Health delivery and Human Resources, Ottawa, Canada

8. Health Canada, Pan-Canadian Health Human Resource Strategy, 2005-2006 Annual Report, Ottawa, Canada
9. Health Systems Trust, South African Health Review 1997, Durban
10. Health Systems Trust, South African Health Review 2005, Durban
11. Health Systems Trust, South African Health Review 2006, Durban
12. Health Systems Trust, South African Health Review 2008, Durban
13. Moodley J, Pattinson R.C 2008, Saving Mothers: Fourth Report on Confidential Enquiries into Maternal Deaths in South Africa 2005-2007, National Committee on Confidential Enquiry into Maternal Deaths, National Department of Health, Pretoria, South Africa
14. National Treasury, *Budget Review 2005*, Pretoria, South Africa
15. NHS National Workforce Projects; Planning for a 21st Century Workforce, United Kingdom National Health Service, November 2005
16. NHS Institute for Innovation and Improvement 2005, Improvement Leaders' Guide: Redesigning Roles, University of Warwick, Coventry
17. NHS Institute for Innovation and Improvement 2005, Improvement Leaders' Guide: Managing the Human Dimensions of Change, University of Warwick, Coventry
18. Organisation for Economic Co-operation and Development, The Challenge of Capacity Development – Working Towards Good Practice, A DAC Reference Document 2006
19. Pick W, Cornwall J, Nevhuthalu K, Masuku M. 2001. Human Resource Strategy, National Department of Health, Pretoria

20. Public Service Commission 2007. Report on the proceedings of the International Human Resource Management Conference 20 to 21 April 2007, Cape Town, South Africa
21. Kolehmainen-Aitken, R 1993, Human Resources Planning: Issues and Methods – Management Sciences for Health, July 1993
22. Public Service Commission, 2005; Evaluation of Service Standards in the Public Service, South Africa
23. Policy Coordinating Advisory Service, 2008, Development Indicators Mid-Term Review; The Presidency – Republic of South Africa
24. Public Service Commission 2004; Report on the State of Performance Management in the South African Public Service
25. South Africa 2003, Joint Health/Treasury/DPSA Technical Team: Strategies for Recruiting and Retaining Health Professionals in the Public Health Sector
26. South African Management Development Institute, Strategic Plan 2008/09 – 2010/11, Department of Public Service and Administration
27. The National Skills Development Strategy 2005 – 2010, Department of Labour, South Africa
28. World Health Organisation, 2006, ‘The World Health Report 2006: Working Together for Health’ Geneva
29. World Health Organisation, 2004, World Health Report 2004 – Changing History; Geneva
30. World Health Organisation, 2004, Global Alliance on the Health Workforce – Strategic Plan 2004 – 2015, Geneva

31. Zurn P, Dal Poz M, Stiwell B and Adams O, Imbalances in the Health Workforce – A Briefing Paper, World Health Organisation, Geneva, 2002

Journals

1. Buga, G.A.B. 1998. Problem-based Learning in Clinical Clerkship – The experience at the University of Transkei Medical School, *South African Medical Journal* 88(11): 1414-1418
2. Carlson DS, Kacmar KM, Wadsworth LL; The Impact of Moral Intensity Dimensions on Ethical Decision-making: Assessing the Relevance of Orientation *Journal of Managerial Issues* Vol. XXI Number 4 Winter 2009
3. Cooke M, Irby DM, Sullivan W, Ludmerer KM, *American Medical Education 100 Years after the Flexner Report*, *The New England Journal of Medicine*, Volume 355:1339-1344, Number 13, September 28, 2006 (www.nejm.org accessed 16 October 2009)
4. Echert NL. The global pipeline: too narrow, too wide or just right? *Med Educ.* 2002 July; 36(7):606-13. PubMed.gov
5. Hallock JA, Seeling SS and Norcini JJ. The International Medical Graduate Pipeline. *Health Affairs*, 2003; 22 (4): 94-96
6. Kim, P. S. A Case for Performance Management for Political Appointees: Public Personnel Management; Winter 2009, Vol. 38 Issue 4, p1-18
7. Kochan TA, Guillen MF, Hunter LW, O'Mahony S. Introduction to the Special Research Forum - Public Policy and Management Research: Finding the Common Ground, *Academy of Management Journal* 2009, Vol. 52, No. 6, 1088–1100

8. O'Brien-Pallas L, Baumann BS, and Tomblin-Murphy G. 2001. Integrating Workforce Planning, Human Resources, and Service Planning, Human Resources for Health Development Journal (HRDJ) Volume 5 Number 1 - 3, January / December 2001
9. O'Brien-Pallas, L. Hayes, L. 2008. Journal of Clinical Nursing, Volume 17, Number 24, December 2008 , pp. 3338-3346 (9); Challenges in getting workforce research in nursing used for decision-making in policy and practice: A Canadian perspective
10. Starfield B, Fryer G. 2007. The Primary Care Physician Workforce: Ethical and Policy Implications. Annals of Family Medicine Volume 5 Number. 6, November/December 2007
11. Wyss, K. 2004. An approach to classifying human resources constraints to attaining health-related Millennium Development Goals; Human Resources for Health 2004, 2:11 BioMed Central July 2004

Research articles / reports

1. Buchan J and Dal Poz M, Skill Mix in the Healthcare Workforce: Reviewing the Evidence, World Health Organisation, Geneva, 2002
2. Health Canada, 2004. Health Policy Research Bulletin - Health Human Resources: Balancing Supply and Demand; *Issue 8, May 2004*
3. Lehmann U, Andrew G and Sanders D; 2000. Change and Innovation at South African Medical Schools - An Investigation of Student Demographics, Student Support and Curriculum Innovation, HST February 2000

4. National Department of Health, 2008. Review of Public and Private Health Sector Training and Production Costs for Health Science Graduates, November 2008

Electronic sources

1. Morrish K. 2000. Strategic People Planning: An overview of workforce planning; Public Sector Management Division, Ministry of the Premier & Cabinet, Perth Australia - World Wide Web: <http://www.mpc.wa.gov.au/psmd>
2. NHS Education for Scotland, Themes and Issues 2002 – 2004, Quality Assurance & Professional Regulation: Programme Approval & Monitoring www.nes.scot.nhs.uk/nursing/quality (accessed 20 October 2007)
3. NHS Institute for Innovation and Improvement, NHS Leadership Qualities Framework www.NHSLeadershipQualities.nhs.uk (accessed 20 October 2007)
4. United Kingdom Department of Health 2001, 'Working Together – Learning Together' A Framework for Lifelong Learning for the NHS www.doh.gov.uk/lifelonglearning (accessed 20 October 2007)

Appendix A

List of Policy Makers Interviewed

1. Chief Director Human Resources, Department of Health, Western Cape Province
2. Head of Department, Department of Health, Limpopo Province
3. Head of Department, Department of Health, Mpumalanga Province
4. Deputy Head of Department responsible for Clinical Health Services, Department of Health, North West Province
5. Deputy Head of Department responsible for Clinical Health Services, Department of Health, Eastern Cape Province

List of Academics Interviewed

1. Dean of Faculty of Health Sciences, University of Cape Town Medical School, Cape Town
2. Dean of Faculty of Health Sciences, University of Pretoria, Pretoria
3. Dean of Faculty of Health Sciences, Walter Sisulu University, Mthatha
4. Dean of Faculty of Health Sciences, Durban University of Technology, Durban
5. Deputy Dean of Faculty of Health Sciences, Medical University of Southern Africa Campus, University of Limpopo, Garankuwa

APPENDIX B

Questions to guide Interviews with Policy Makers:

	Area of Focus	Specific questions
(a)	National planning framework for the health professions in South Africa	i. Is there any planning process that the country or province engages in to guide the production of health professionals? ii. If none, what relevance do you think this would have if it existed?
(b)	Relation of national planning to student planning by the health sciences education and training institutions	i. How does or would the national planning process relate to student planning by education institutions? ii. What role do you think policy planners should have in production planning of health professionals? ii. What type and level of planning should be done at national and provincial levels in relation to the production of health professionals?
(c)	Factoring of the country's health needs into the national planning for the production of health professionals	i. Is there a process of taking into consideration in the country's health needs into the student planning for health sciences? ii. How are or should such health needs be factored in?
(d)	Impact of the shortage of health professionals on the delivery of health services	i. What impact does the shortage of health professionals have on service delivery? ii. How is the shortage quantified? ii. Would national planning assist in addressing the shortages? If so, how? If not, why? v. What factors do you think are critical in addressing the shortages?
(e)	Measurement and mitigation of the impact of health professional shortages	i. How is the impact of the shortage measured at provincial level? ii. How is it mitigated?

Appendix C

Research Questions to guide Interviews with the Deans of Health Science Faculties:

	Area of Focus	Specific questions
(a)	Role played by health sciences education and training institutions in national planning for the production of health professionals	i. Are you aware of any planning process that higher education institutions (at national level) follow in the production of health professionals? If so, kindly provide details. ii. What informs your institution's decision on what categories of health professions to offer education and training for? ii. How are the enrolment numbers and targets determined by the institution?
(b)	Relevance of health needs in the academic planning of education and training of the health professions	i. On what basis does your institution decide what health sciences academic programmes to offer within the health sciences field? ii. How do these education programmes relate to the health needs of the country or community served? iii. If the health needs are used as a basis for structuring programmes how are these determined?
(c)	Overall institutional planning impact on health sciences education and training student planning	i. On what basis does the institution divide the numbers for enrolment into different programmes or courses? ii. What proportion of the total institution's student enrolment do health sciences get allocated? ii. In your view, how does this allocation relate to the institution's contribution to the national production of health professionals? v. What is the nature and extent of collaboration with other institutions? v. How does this influence enrolments and production patterns?

(d)	Factors influencing the allocation of student numbers per category of health science courses	i. How does the faculty of health sciences decide on how many enrolments should be allowed to each of the programmes? ii. Is this an institutional approach or is it restricted to the health sciences? iii. How does this relate to the human resource demands of the health system?
(e)	Education and training system format utilised by the institution for training of the health professions	i. What training model is utilised by your institution to drastically increase production? ii. Are students trained separately or are there instances where some categories are trained together for a considerable length of time e.g. medical students and nurses doing a particular module or clinical block together? iii. What do you think would be the benefits / limitations of such an approach?

APPENDIX D

**P. O. Box 74884
LYNNWOOD RIDGE
0040**

Dear

Request for an interview

This is a request for me to conduct an interview with you at a time and place convenient to you. This will be more of an analytic discussion than just a simple interview.

I am registered with the University of Fort Hare for a Doctor of Philosophy degree in Developmental Studies. My dissertation is in the health workforce field under the title: ‘An Approach to National Health Workforce Planning for Health Service Delivery in the South African Health System’.

The purpose of this envisaged interview is to solicit your views on the role of national health workforce planning in the delivery of health services for the South African health system. As one of the leaders in the health field, it is important for me to get your views, comments, observations, analysis of the current status and proposals on what you think can be done to address challenges where such exist.

A questionnaire has been drafted and is enclosed. I am sending this questionnaire to you in anticipation of you responding positively to my request prior to the one-on-one interview. It is meant to facilitate the smooth running of the interview. As a respondent you are humbly requested to acquaint yourself with these questions and obtain any information you deem necessary beforehand.

Your permission to grant me the interview can be any format – verbal or written. Participation in the interview is therefore affirmation of your consent. All your personal information will be kept confidential and not divulged unless there is a request from you to specifically reveal it. However,

in the write-up of the thesis there will be reference to your title and area of work to convey authenticity of the views expressed and/or responses given.

The overall objective is to develop a tool for national workforce planning that can be utilized by the national and provincial Departments of Health in planning the health workforce.

I thank you

Dr Percy Mahlathi

Appendix E

Dr MP Mahlathi
Deputy Director General:
HR & Management Development
National Department of Health

Mr. T.D. Mseleku
Director General
National Department of Health

Dear DG

Request to use information owned by the Department of Health for personal academic purposes

I am registered with the University of Fort Hare studying towards a PhD degree in Developmental Studies. The theme of my dissertation is ‘An Approach to National Health Workforce Planning for Health Service Delivery in the South African Health System’.

This necessitates that I refer to a number of reports and documents that are owned by the Department of Health. I therefore request permission to use any relevant information that I may find useful for the purposes of my study. Information gleaned from confidential reports will be treated in a sensitive manner and not quoted directly.

Yours truly
Percy Mahlathi