The Organisational Determinants and Challenges of Integrated, Coordinated and Decentralised Primary Health Care Programmes in the South African Public Sector

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Abstract

This thesis covers the organisational factors affecting the integration and implementation of primary health care programmes of a provincial public sector health department in South Africa. It responds to the problems of district-level management structures and front-line health care providers being inundated and undermined by the implementation of uncoordinated and fragmented PHC programme activities and strategies.

The organisational factors assessed included structural factors such as the interaction between line authority and staff authority, the relationship between divisions located at the centre and periphery of the department and the complementarity between positions and their ranks; management style and leadership; the variables inherent within different PHC programme areas that should influence organisational design; and relevant contextual factors.

The thesis is a single case study. Data is mostly qualitative in nature, based mainly on participant observation, interview and document review. The thesis discusses the methodological and epistemological challenges to conducting in-depth research into the functioning of health departments, and illustrates the potential of such research for the strengthening of public health systems in developing countries.

One of the main conclusions of the research was that the structural design of a health department can be very significant to its functioning. Some of the structural design faults identified by this research were the inadequate definition of the roles, functions and inter-relationships of several positions with the department; and the lack of congruence between the distribution of rank and the structural configuration of the department. The thesis suggests certain generalisable lessons that could be applied to the design of a developing country public health sector organogram.

The study also confirmed that the contribution of management leadership to effective organisational cohesion and inter-divisional coordination is very important in the context of PHC programme coordination. Of particular note was the importance of providing a clear and appropriate strategic framework for planning, which would include the use of planning as a strategy to enhance organisational cohesion and coordination. Finally, the thesis describes the fundamental importance of adequately skilled human personnel within health departments to the effective integration and implementation of PHC programmes.

Contents

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Abbreviations

AD	Assistant director
AFP	Acute flaccid paralysis
CBO	Community based organisation
CEO	Chief executive officer
DD	Deputy director
DHMT	District health management team
DHS	District Health System
DoH	Department of Health
DNHPD	Department of National Health and Population Development
EDL	Essential drug list
EMS	Emergency medical services
EPI	Expanded programme on immunisations
HBC	Home-based care
HIV	Human immunodeficiency virus
HoD	Head of department
HRD	Human resource development
HRM	Human resource management
ICU	Intensive care unit
IEC	Information, education and communication
IT	Information technology
LG	Local government
MDR	Multi-drug resistant
MEC	Minister of the Executive Council
MCH	Maternal and child health
NGO	Non-government organisation
PHC	Primary health care
RSA	Republic of South Africa
STD	Sexually transmitted disease
STI	Sexually transmitted infection
SPHC	Selective primary health care
TB	Tuberculosis
VCT	Voluntary counselling and testing
WHO	World Health Organisation

Chapter 1
Introduction

This chapter begins with a short introduction of the broad topic of this thesis, followed by a more detailed description of the public sector and health care system in South Africa, the organisation of provincial Departments of Health (DoH) and their implementation of primary health care (PHC) programmes. It then defines the aim and objectives of the research and sketches out the broad lay-out of the thesis.

1.1 Topic of the thesis

Despite an estimated per capita health expenditure of about US$400, South African health status is poor.[1] The Infant Mortality Rate (IMR) is 45 per 1,000 live births, the under-5 Mortality Rate is 59 per 1,000 live births and the maternal mortality ratio is 150 per 100,000 live births.[2] Annual ante-natal HIV surveys have shown a continued and alarming rise in the prevalence of HIV, with the national prevalence standing at 22% in 1999. This is accompanied by TB incidence rates that are amongst the highest in the world.

In addition, several indicators of health care delivery indicate poor performance. For example, the full immunisation coverage rate for children was only 63% in 1998 and the national TB cure rate is much less than 85%.

The high level of health care expenditure coupled with poor health status and health care indicators indicates a poorly functioning health care system, which has been recognised by the low position of South Africa in the World Health Organisation's (WHO) ranking of national health care systems.[1]

Many of the underlying reasons for these health and health care problems are rooted in the political, administrative and economic constructs of apartheid[3,4] that created a health system characterised by inequity; fragmentation and inefficiency; an authoritarian and undemocratic management culture; and a delivery system that did not match its resources to the health needs of the majority of the population.[5,6]

However, while the government has been able to point to many successes (such as improvements in access to health care), improving the effectiveness and efficiency of the public sector health care system remains a challenge. In particular, the challenge to the public sector health care system is to translate its health policies and plans into improved health care delivery.[7]

1.2 Background to the public health sector in South Africa

Pre-1994

The purpose of public administration prior to 1994 was to help attain the political, economic and social goals of 'apartheid', and ensure white privilege through the political disenfranchisement and economic exploitation of the majority black population. A central plank of the administrative policies designed to achieve these goals was the setting up of ten 'bantustans' (or homelands) for the black African population with their own systems of self-government (within the boundaries of ultimately being under the political, financial and military control of the apartheid government). The rest of the country formed the Republic of South Africa (RSA), which was governed by a central government through a federal structure of four provincial administrations.

The ten 'bantustan' administrations were primarily established to prop up the economic, social and political purpose of apartheid. However, they each had a department of health and a health care system based on a deconcentrated model of health management centred upon a district hospital and a surrounding cluster of PHC clinics.[7]

For the black population living within the bantustans, employment and salaried income mostly came in the form of earnings through migrant labour in the RSA, or through employment within the bantustan civil service. The civil service inevitably became bloated and inefficient as civil service expansion was used as a tool for job creation and political patronage.[10]

In the RSA, while the government provided many public sector services to the white population, on the whole, the delivery of health care was left to a heavily subsidised and protected private sector. Within the apartheid health care system, health care inequity between the RSA and the bantustan areas was most apparent in the disparity between the mainly white insured population using the private sector and the larger mainly black population dependent on the public sector.[11]

Health care administration within the public sector of the RSA also reflected the political structure of apartheid. In addition to a Department of National Health and Population Development (DNHPD) which was deconcentrated through four provincial administrations, there were three "own affairs" Departments of Health Services and Welfare, each for a particular race group (whites, coloureds and Indians respectively). Finally, there was a multiplicity of health services rendered by local government municipalities within the RSA (local government did not exist in the 'bantustans').

Added to this administrative fragmentation of health care delivery was a functional fragmentation whereby different *types* of health services were delivered by different administrations. For example,

the provincial administrations were responsible for managing hospital services and curative clinic-based care; the local municipalities were responsible for preventative primary level care; regional service councils in some areas were responsible for mobile clinic services; and the DNHPD was responsible for family planning and mental health services. In some areas, different administrations provided different services to the *same* population group. For example, primary obstetric care, preventive child health care, family planning services and basic curative care were provided by different health workers, managed by different authorities.

Public sector resources within the apartheid health care system were also inappropriately used, with a bias towards tertiary hospitals (see Box 1), urban areas and curative care. In contrast, the country's burden of disease required health strategies that emphasised public health measures much more. The inappropriateness of health policy development is illustrated by the picture of Cape Town boasting some of the most sophisticated and advanced surgical services in the world in the midst of uncontrolled tuberculosis, child malnutrition and high rates of parasitic infestation amongst children.

In addition to the fragmentation, inequity and inappropriateness of health care, the system was characterised by minimal or absent public involvement or participation in health policy formulation. While many of the former homeland areas established community clinic committees and hospital boards, they had little delegated authority. Progressive community-oriented health programmes were largely spearheaded by non-government organisations (NGOs) aimed at popularising people's participation in health, both to strengthen the mass democratic movement as well as to improve their health directly.[10]

Box 1: Public sector health expenditure in South Africa by level of care 1992/93

Academic and Tertiary Hospitals	44%
Secondary and Community Hospitals	33%
Chronic Hospitals	5%
Non-hospital primary care	11%
Other	8%

Source: Health expenditure and finance in South Africa, 1995.[9]

Post-1994

Following the first democratic elections in South Africa in April 1994, one of the most significant reforms was the re-integration of the ten bantustan administrations into South Africa. This was followed by the creation of nine new quasi-federated provinces. As a consequence this required the unification of the 14 health departments of the apartheid era into a single national health system based upon one national and nine provincial administrations. Each province was now to have its

own Department of Health (DoH) responsible, mainly through national funding, for the management and delivery of health services to their respective populations.

The local municipalities that provided health care (mostly primary level clinical services and environmental health services) in the former RSA continued to exist unchanged until 1995 when a new set of municipalities was demarcated. On the whole, local government continued to provide health services as they were before 1994. The new municipalities that were established in the areas of the former bantustans did not provide health services, and in these areas, provincial DoHs provided nearly all public sector health care.

As the new health system took shape, so did the roles and functions of the national and provincial DoHs. To accompany the structural changes of the public health sector, the new government developed policies and enacted legislation designed to transform health care delivery in line with the principles of the PHC Approach and the District Health System (DHS) model.[11,12] Over the next five years, a variety of laws, policies and programmes were established to aid the restructuring and transformation of the health care system. These included laws designed to regulate the private health sector, a policy of free health care for children and pregnant women and a clinic-building programme to improve access and the establishment of a large primary school-feeding programme.

1.3 The organisation of provincial DoHs, the implementation of PHC programmes and the District Health System

Following the 1994 elections, the responsibility for the bulk of health care delivery fell on the shoulders of nine newly established provincial DoHs. These new departments absorbed responsibility for all the health facilities and most of the health personnel from the former DNHPD and bantustan health departments within their boundaries.

Reorganisation of the new public health system therefore began with the establishment of new national and provincial management structures. The centralised and top-heavy DNHPD with a staff complement of 6,500, who operated through a large central office in Pretoria and regional offices, was trimmed down to a national office of about 1,400 staff, with many of its regional office staff absorbed into the new provincial administrations.[13]

The primary functions of the new national DoH were described as:[14]

- Providing leadership in the formulation of policy and legislation, national norms and standards;
- Building the capacity of provinces;
- Ensuring equity in the allocation of resources;
- Strategically managing national resources for health;

- Providing health services that cannot be cost-effectively delivered at sub-national levels;
- Developing coordinated information systems;
- Providing appropriate regulation of the public and private sectors; and
- Liasing with other countries and international agencies.

Each province was given a free hand to design its own departmental organogram, within national public sector regulations, which led to considerable differences.[15] For example, in some provinces, the management responsibility for clinics and hospitals were placed under separate directorates, whilst in others, district hospitals were kept together with clinics within the same directorate. Another feature observed at the end of 1995 was the fact that hardly a single provincial DoH organogram had remained the same as its initial conception.

All provinces also demarcated a number of health regions and established regional health management teams as deconcentrated offices of the province. The primary function of these regional offices was to facilitate the process of health district development, after which they would be dissolved. The demarcation of health districts and the establishment of district health management structures subsequently followed and most provinces had established district health management teams (DHMTs) or interim DHMTs by the end of 1996.

The development of the organisational architecture of the new health system therefore was one that extended outwards from the centre to the periphery.[16] In addition, the relationship between the centre and the periphery was hierarchical in that the most senior management posts were located at head office whilst regional offices were headed by a Director or Deputy Director (DD), and district offices were headed by a Deputy Director or an Assistant Director (AD).

Another feature of the organisational architecture of the new national and provincial health departments was the creation of divisions (Chief Directorates or Directorates) responsible for PHC programmes. These divisions were in turn divided into Directorates or sub-Directorates responsible for individual 'PHC programmes'. Regional and district health management organograms tended to mirror this structure by also having management posts and units responsible for different 'PHC programmes'.

As a consequence, a feature of the new South African health care system was the establishment of parallel and vertically-organised organisational units based on discrete PHC programmes. The individual 'PHC programmes' that were reflected on these management organograms differed from province to province, but a typical set of programmes is listed below.

- Maternal and child health (sometimes combined with other services such as family planning and cervical cancer screening, under the title of 'reproductive health')
- Tuberculosis (sometimes combined with other infectious diseases under the title of 'communicable diseases')
- HIV / AIDS / STDs
- Nutrition
- Environmental health
- Health promotion
- Mental health
- Oral health
- Chronic diseases
- Care of the elderly

In some provinces, different areas of PHC were combined into a single division. For example, combining 'chronic diseases' and 'care for the elderly' into a single division of the DoH.

In spite of the creation of separate units for different areas of health, there was a policy to manage the PHC programmes in a functionally integrated manner, as well as to promote comprehensiveness whereby preventive, promotive, curative and rehabilitative services would each form integral parts of a PHC programme.

However, there were a number of problems experienced with the implementation of this vision of integrated and comprehensive PHC delivery.

To start with, a lack of coordination between the different PHC programmes led to an unclear prioritisation of health care policies and activities, and to fragmented and un-coordinated demands being placed on district staff and front-line service providers. PHC programmes tended to operate as vertical hierarchies with little horizontal integration between them, an issue identified in the mid-1990s as preventing the rational delivery of PHC services. Schierhout and Fonn noted that a general trend of PHC programme managers at the regional and provincial level to initiate activities in their area of interest without seeing PHC as a whole had led to an over-stretching of general PHC providers and turf struggles between programmes.[17]

It was also noted that the functions and responsibilities of managers at different levels of the health system were unclear or inappropriate.[18] For example, there were early signs that the relative roles and responsibilities of provincial PHC programme managers vis-à-vis the 'general' district or regional managers were unclear. In the Northern Cape, this resulted in the poor coordination of

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* The hierarchy (from senior to junior) of public sector positions was as follows: Director General – Deputy Director General – Chief Director – Director – Deputy Director – Assistant Director.

environmental health activities because local environmental health officers were being managed by a provincial environmental health manager and by their 'district manager'.[19]

Some of the problems associated with the coordination and integration of PHC programmes need to be understood in the context of broader organisational issues such as the establishment of the DHS. While most provinces had demarcated health districts, few had a full compliment of permanently appointed DHMTs.† Part of the reason for this was the on-going uncertainty about the role of local government in the management and delivery of health care at the district level.

On the other hand, the regional offices which were supposed to be temporary structures began to operate as though they were a permanent fixture of the health system. For example, in many places regional office managers were permanent appointments, while district management staff were seconded; and in some cases, regional offices strengthened themselves at the expense of districts by seconding personnel from district offices. Inevitably, some of the regional offices began to act as "an obstacle to decentralisation and district development".[20] The fact that regional managers were higher ranked than their district counterparts and had been established in the system for longer also made it difficult for district level managers to refuse inappropriate demands from higher levels, or to set the agenda for the development of their own districts.

The DoH's strategy of implementing the DHS by gradually extending outwards from the centre to the periphery required higher level managers to see themselves primarily as facilitators or enablers of district development, rather than executors of policy directives. However, this distinction had become "increasingly blurred".[21] It was noted that "some newly appointed regional directors lacked the vision and determination to provide effective support to DHS development, and tended towards a hierarchical management style".[22] Other observations pointed to the tendency of regional and provincial offices to manage the PHC programme coordinators at the district level as though they were passive conduits for the implementation of plans and policies set centrally. "It is almost as if districts are seen as administrative sections of provincial and national managers, rather than as decentralised management units".[23]

These developments were partially attributed to historical "decision-making patterns" and a "hierarchical management style".[24] One health manager from Kwazulu-Natal commented in 1996 that some managers "won't implement the concepts [of decentralisation] because of fear of loss of control with which they have been used to working and managing".[25]

District activities were therefore often determined from outside rather than by a local planning process, and they often served the convenience of provincial and national managers, rather than of

the district. There was also confusion over whether and when planning should be 'bottom-up' or 'top-down', and the perception amongst districts was that they were forced to implement services that they did not see as a priority.[17]

The problems associated with the top-down management style of the centre were compounded by a lack of coordination between different divisions at the centre. For example, it was noted that it was not uncommon for district development directorates to function as a parallel initiative, in isolation from other directorates such as those responsible for PHC programmes, hospitals and support services (e.g. pharmacy, human resources, finance, and information systems), "all of which are crucial to the functioning of districts".[26]

It was also not always clear who at the provincial level was responsible for giving strategic direction and leadership to the process of DHS development. In the Impendle-Pholela-Underberg district, for example, although the regional director was nominally responsible for over-seeing district development in the area, management responsibility for clinics, hospitals and human resources also fell directly under the management of three different chief directorates at the provincial level.[23]

1.4 Defining the issues

The difficulties in getting adequate coordination and integration between vertically organised programmes within the health sector are not unique to South Africa. Fragmented planning, ineffective organisational linkages and over-frequent changes in policies and priorities have been identified as reasons for the poor implementation of PHC programmes in other developing countries.[27-29] In the Gambia, uncoordinated programme-centred training resulted in demands to attend many centrally organised workshops which meant that regional health personnel only had a few days each month for routine activities and core functions in their actual work setting.[28]

A variety of organisational factors in terms of structure and management procedures and processes have been described as constraints.[30-32] In Tanzania, for example, the organisational structure of the health sector at the central level was so multi-layered and diffuse in terms of responsibility, authority and accountability that those expected to implement integrated PHC services were confused.[33]

Many of the explanations for poor, inefficient and fragmented PHC programme implementation have been attributed to organisational weaknesses and poor management practices in public sector hierarchies and government bureaucracies, especially in developing countries. The notions of

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† Because of the uncertainty as to whether the provincial or local level of government would be responsible for delivering and financing district health services, many district health management structures consisted of staff

public administration and public management have become synonymous with failure and inferiority in comparison to the private sector. The recent World Health Report 2000, with its focus on improving the performance of health systems, barely makes any mention of the organisation of the public sector bureaucracy as a key component of health systems. This is despite some commentators explaining how the implementation of health sector reforms have been more difficult than anticipated because of, among other things, the failure to consider or adequately understand bureaucratic realities.[34]

Underlying this thesis therefore is the view that public sector PHC programmes can and need to be improved through a better understanding of public sector bureaucracies in South Africa and that health care delivery would be improved through a better understanding of the organisational determinants and requirements of integrated PHC delivery.

1.5 Aim of the research

To contribute to an improvement in public health sector management and the implementation of integrated PHC programmes through an analysis of the organisational features of a provincial health department in South Africa by:

- describing the implementation of PHC programmes within the Free State public sector health department.
- describing the organisational factors that influence and impact upon the implementation of PHC programmes in an integrated and effective manner within the Free State public sector health department.
- proposing recommendations to the Free State DoH to improve the integration and implementation of PHC programmes.

Specifically, the case study aimed to answer the following research questions:

What are the technological features of PHC programmes that inform the structural design of the Free State Department of Health?

Does a systematic assessment of the organisational variables influencing the coordination of intra-organisational divisions assist in the identification of solutions and remedies to the effect of fragmented and uncoordinated PHC programme demands on district-level health service providers?

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who were seconded to act in district management positions.

1.6 Lay-out of thesis

Chapter 2 sets out, in a more structured way, a literature review of the issues related to "PHC programmes". The meaning of "integration" from the perspective of PHC is discussed, followed by a historical overview of the evolution of PHC programmes and the policy debates surrounding their implementation. The organisational dimensions of PHC programmes and the experience of efforts to integrate PHC programmes are also described.

Because an explicit purpose of this research was to investigate the implementation of PHC programmes through the use of organisational and management theory, Chapter 3 consists of a summary of relevant organisational and management literature. The literature in Chapter 2, together with the knowledge of the experience of PHC programme implementation are both used to help filter the vast amount of literature on organisations and management.

Chapter 4 discusses the epistemological issues associated with the research. It includes a discussion about the choice of an ethnographic approach to the study of a public sector health department, the validity of such an approach and the choice of a case study design. Chapter 5 describes the actual methods used in the study, including the data collection methods and data sources.

Chapter 6 presents some of the findings from the study, and describes the implementation of PHC programmes in the Free State and the DoH's inter-divisional relationships. Chapter 7 then takes the findings from Chapter 6 and begins an interpretation of them, using both the insights derived from the literature review as well as from primary data collected in the field. The key conclusions and recommendations of the thesis are then drawn out in Chapter 8. Finally, Chapter 9 discusses the dissemination of the findings from this research, its practical application to public health and the implications of such research for research commissioning and funding agencies.

Chapter 2
PHC Programmes and Integration

This chapter describes and discusses the issues related to "PHC programmes" and their integration. The issue of PHC integration has been written about in terms of the integration of:

- different kinds of personal health services within a single health facility;
- promotive, preventive, curative and rehabilitative services;
- services provided at the different levels and tiers of the health system;
- different PHC programme areas;
- different government departments;
- public, private and non-government health systems and services;
- the policies, norms and standards of different geographic areas; and
- policy making, planning, implementation and monitoring.

However, the subject matter of this thesis is the integration of 'PHC programmes' *within* the administrative hierarchy of a single government department. It does not cover, for example, the integration of donor and government health programmes, or the integration of public and private sector programmes. From this perspective, integration is defined as the means by which the different units of an organisation work together towards common organisational goals through co-operation and coordination.[1]

Integration is therefore a generic process of management that reflects cohesive, coherent and coordinated management. However, while it reflects a desired state of organisational efficiency and effectiveness, it does not, in itself, describe or represent any specific organisational structure, nor any specific arrangement for the delivery of services and interventions. The optimal form of integration depends on what is being integrated, and the purpose of integration.

The rest of this chapter provides a brief discussion of the historical evolution of PHC programmes in the health sector, with a focus on developing countries. It then discusses various variables and factors that have a bearing on the organisation and implementation of PHC programmes.

2.1 The historical evolution of PHC programmes

The idea of 'health programmes' became established during the pre-WWII colonial period with the need to protect settlers and colonial investment in the tropics and sub-tropics from various diseases. This resulted in a number of disease-based public health initiatives that were referred to as 'programmes', for example malaria and yellow fever control programmes. The post-colonial

1960s saw the continuation and expansion in the number of disease-oriented programmes as well as the introduction of non-disease programmes, especially family planning and immunisation programmes.

An organisational feature of these health programmes was that they were managed in a 'vertical' and centralised manner. In other words, they were generally managed through separate administrative systems with authority and control largely centralised at the top of a hierarchy. There were a number of reasons for this.

One was the fact that many of the diseases were vector-borne, and as such required a non-clinical public health approach which was best managed centrally, partly for the economies of scale that this would generate. In addition, the emphasis on scientific technology to bring nature under the control of man, spurred on by smallpox eradication and the initial success of malaria control with insecticides, encouraged locating the control of health care in the hands of centrally-located technocrats and professionals.[2,3]

Another reason was a donor driven agenda of favouring selective and narrow vertical programmes which were better able to record results and show visible outputs.[4,5] A further reason was a belief that vertical and centralised programmes were the only viable method in countries or areas with no basic health infra-structure on the ground.

However, despite some successes, it became apparent that vertical programmes entailed certain inefficiencies and weaknesses. For example, many vertical disease campaigns were found to only have temporary results if they were not "followed by the establishment of permanent health services in those areas, to deal with the day to day work in the control and prevention of disease and promotion of health".[6] There was a lot of criticism about the wastage of resources, with each vertical programme establishing its own administrative, transport and supplies systems, which could have otherwise been shared,[2,7] and with the institutional weakening caused by donor-driven projects.[8,9,10]

Efforts towards the establishment of basic health care infra-structure capable of providing multiple services in an integrated way began to appear in the 1950s; and in 1965, a WHO study group articulated the idea of integrated care as "the establishment of basic health services to meet the everyday needs of the population at large".[11] Some vertical systems also gradually assimilated themselves into more integrated health services, for example, the Iranian malaria programme.[3]

In the 1970s, the idea of integrated health care was given a further boost when the PHC Approach was adopted in international health policy.[12] This introduced new dimensions to the concept of integration such as the incorporation of health into broader socio-economic development, the encouragement of more bottom-up and decentralised health care delivery and active community

involvement. The PHC Approach also identified a list of priority 'areas of health' such as 'maternal and child health', 'basic nutrition' and 'water and sanitation'. In this sense, a comprehensive and holistic approach to health did not rule out identifying discrete areas of health and health care to assist with prioritisation, and with the organisation and management of health care activities.

In 1986, the notion of integrated health care and the PHC Approach became linked to the District Health System (DHS).[3] Although the DHS was formally promoted by the World Health Assembly in 1986, its idea had been previously articulated in 1954, when the WHO described the integration of health care as the provision of services necessary for the health protection "of a given area, provided under a single administrative unit, or under several agencies, with proper provision for their co-ordination".[13]

The promotion of the DHS reflected a growing awareness that "a major obstacle to achieving 'health for all' is weak organisation and management, particularly at the local and intermediate levels of the health system",[13] and that the district was the most suitable level for "coordinating top-down and bottom-up planning, organising community involvement in planning and implementation, and improving the coordination of government and private health care".[14] Unger and Criel noted that the district concept was derived from two rationales: "the implementation of the primary health care strategy, requiring decentralised management, (and) the organisation of integrated systems which implies that one single team manages simultaneously the district hospital and the network of dispensaries".[15]

Other potential benefits include the involvement of local communities; easier implementation of multi-sectoral interventions; and a reduction in problems associated with long distances, inadequate communication and poor roads between the centre and periphery of the health system. WHO proposed criteria relating to geographical size; population size and density; mix and location of health facilities; and travel times to inform the demarcation of health districts.

However, despite the principles of Alma Ata and the DHS being adopted in many countries, the 1980s continued to be characterised by health systems struggling to provide integrated primary health care whilst simultaneously expanding the coverage of basic health services.[20] Other problems included an imbalance between curative and preventive services, resource constraints and poor quality public sector management. Many donor agencies, as a result, continued to promote vertical and narrow programmes designed to make measurable gains in a few priority health areas, many of which were managed and run in parallel to the country's public health service.

The promotion of vertical and narrow programmes was also supported by a conceptual and intellectual challenge to the PHC Approach and comprehensive health care - a viewpoint that came

to be known as "Selective Primary Health Care" (SPHC). In contrast to what was being advocated by the PHC Approach and the DHS model, SPHC adopted a more technicist, disease-based and biomedical approach that was more likely to result in centralised, vertical programmes and a one-size-fits-all approach that would restrict local adaptability and flexibility.[12,17,18] The rationale for this was that PHC was plagued by logistical barriers and resource constraints, and that there was a need to prioritise those few diseases responsible for the greatest mortality and for which interventions of proven high efficacy exist until health systems were able to take on the more challenging organisational requirements of comprehensive PHC.[17]

In response to this, it was argued that SPHC promoted a piecemeal vertical solution (using 'technological magic bullets') to complex health systems problems that required a more process-oriented approach to development.

The SPHC and comprehensive PHC debate was also couched in terms of different philosophical views on health and health care, with the SPHC verticalists being painted as technocrats preserving biomedical and technological dominance, as opposed to the more decentralised, participatory and bottom-up socio-developmental approach of comprehensive PHC.[19,20] Although these differences were never fully resolved, the debate did raise important issues about the organisation of health care, and the relative merits of hierarchical vertical programmes and integrated and decentralised management.

To some extent, these debates have been overtaken by the advent of new thinking on health sector organisation. For example, the school of 'new public management' has developed the premise that the management and organisation of health care through public sector hierarchies needs to be replaced with an organisational framework that uses market forces, separates purchasers from suppliers and out-sources to the private sector. This approach reduces the implementing role of the state by contrasting hierarchical public sector management unfavourably with markets or quasi-markets.[21,22]

Nonetheless, many countries, such as South Africa, continue to have large health administrations responsible for the delivery of a variety of 'health programmes'. And the problems associated with vertical, fragmented and narrow-focused health services have also remained. In the Philippines, for example, there were recently 36 separate vertical programmes that were centrally managed, and in Tanzania, it was reported that 24 vertical programmes might have to be implemented by two or three health workers at dispensaries adhering to "different rules for reporting, accounting, obtaining supplies and supervision".[23] The lack of health care integration was also raised at the 1994 Cairo Conference on Population and Development at which calls were made for countries to integrate family planning, sexual health and obstetric services into a more comprehensive reproductive health service.[24]

2.2 'PHC programme' variables and factors

This section discusses the factors and variables that have a bearing on the organisation and implementation of PHC programmes.

The grouping of inter-related health care activities

Health programmes can represent organisation of inter-related activities and objectives. However, these inter-related activities and objectives can be grouped in different ways. For example, they can be built around a single set of health services (such as immunisations or family planning services); they can cover a broad range of health services for a particular population group (e.g. the health care of mothers and children, or of the elderly); they can be built around a specific disease (e.g. HIV, malaria and TB), non-disease health problems (e.g. trauma and nutrition), type of health intervention (e.g. health promotion) or part of the human body (e.g. oral health); or they can be built around an aspect of human behaviour (e.g. sexually transmitted diseases). They can therefore be broad or narrow in scope, and they can overlap with each other.

Verticality and horizontalism

Another dimension of PHC programmes and their management is the balance between 'verticality ' and 'horizontal integration'. Although there are many definitions of what constitutes a 'vertical programme, [25-27] the term is generally used to describe the management of activities and objectives through a separate and dedicated administration. Although there is no consistent definition of what is meant by 'separate', at one extreme, it could mean a totally independent administration with no formal relationship to other health activities or health structures. Alternatively, the term 'vertical programme' has been used to describe the way that health activities are managed within a single organisation, as in the South African situation described in Chapter 1. In this case, although the programmes are 'separate' entities, they are all part of a single organisation.

Centralisation and decentralisation

Vertical programmes can vary in the extent to which they are either centralised or decentralised. For example, a programme that operates through a vertical structure could be highly centralised with a decision-making authority concentrated at the top of a hierarchy. Alternatively, it could be decentralised, with sub-national and local units having a high degree of discretionary authority.[28] The idea of the DHS providing a basis for the appropriate coordination and integration of different health services for a given area was also predicated on the establishment of a management structure with enough decentralised authority and control to make this happen.

Hierarchical depth, specialisation and generalists

Some programmes need not have a vertical structure that extends all the way from the top of the organisation, down to its very bottom. Although a health programme may exist as a structural entity at the top or middle management levels of an organisation, it may not do so at the actual delivery level where for example, personnel are generalists responsible for a wide range of health activities.

According to Cairncross et al, a national health ministry is bound to be structured according to the different functions and activities of the health service, and someone has to be in overall charge of immunisation or family planning, for example. However, at lower levels there has to be less specialisation as the local clinic nurse is responsible for immunisations, malaria and diarrhoeal disease at the same time.[29]

The vertical and horizontal dichotomy is therefore related to the merits, availability and purposes of 'specialist' or 'mono-valent' health workers versus 'generalist' or 'poly-valent' health workers. Vertical programmes tend to consist of health workers who are focussed on a narrower set of services and who can be considered as 'specialists', while integrated programmes tend to use generalist, multi-purpose health workers.

Because multi-function services, staff and facilities tend to exist at the periphery of the health system and specialised services, staff and facilities exist at the centre*, the generalist-specialist tension not only reflects a tension between a vertical and integrated approach, but also between the centre and the periphery in an organisation.

However, advocates of the integrated approach have made it clear that this does *not* mean the abolition of specialised disciplines, programmes, personnel and services, nor that all services will be provided by multi-purpose health workers.[3] For example, integrated district health services should expect and receive support and supervision from specialised technical units higher up the system.[30]

The challenge is to ensure an optimal and appropriate balance between vertical and horizontal management approaches; between specialised and generalised staff and facilities; and between centralised and decentralised management.[27,28,31] Even single-issue disease-based programmes may consist of a mix of approaches. For example, the Chagas disease programme in South America was a combination of a centralised vertical 'attack' on the vectors and a post-attack

* There are exceptions to this general tendency. For example, narrow and specialised care can be community-based (e.g., community-based rehabilitation workers or dedicated community-based DOTS supporters) or exist at the primary level (e.g., a specialised midwife operating from within a multi-purpose PHC clinic).

'vigilance' phase of services provided through poly-valent health workers and clinics that were decentralised to local bodies.[32]

Vertical or horizontal structures are therefore neither inherently 'good' nor inherently 'bad'. The Narangwal studies assessed the effect of alternate models of service delivery and found that no one model was best on all indicators – they each came with a mix of advantages and disadvantages.[33,34] For example, the literature comparing the pros and cons of vertical immunisation programmes versus immunisation services being integrated into primary care clinics describes how the dismantling of a vertical immunisation programme and its integration into general services, can result in the benefits of lower costs and more holistic child care as well as the costs of reduced coverage and technical quality.

The potential advantages of a more vertical approach include having stronger central control to ensure that things get done and respond quickly to changing circumstances; defining more focussed and achievable objectives, and avoiding the temptation of doing too many things poorly, rather than a few things well; being more easily able to demonstrate measurable outputs and changes in outcomes; sustaining better health worker morale and enthusiasm by having clear and discrete tasks; and potentially benefiting from economies of scale.[3,26,35]

On the other hand, the potential disadvantages include detracting from the development of comprehensive health services; distorting the design, organisation, management and planning of local health care systems; high costs and a lack of long-term sustainability; overloading grassroots health services with multiple uncoordinated tasks, training programmes and reporting systems; failing to mobilise community support because programmes are imposed from above; and duplicating effort and the use of resources.[3]

The factors determining the right balance between the various tensions mentioned above seem to fall under two broad headings: Firstly, factors that are inherent to the PHC programme itself (i.e. the diseases and / or health problems that form the basis of the programme, together with the technology required to address them). Secondly, factors related to the health and health systems context.

To begin with, the nature of a particular disease or health problem can influence the optimal organisation of health care because of the *type* of health care response required. The *type* of health care response can vary from the provision of personal and clinical medical care, to the alteration of behaviour through social marketing initiatives, to making the environment safer and healthier through non-personal services, to improving nutrition and household food security.[36] These different *types* of health care response require different organisational approaches.[26,28]

Many of the vector-borne diseases of the tropics for example demand a variety of non-personal public health interventions that may be best organised through a centrally organised vertical campaign. On the other hand, health problems that require continuing contact with the community, as well as their involvement and participation, may be best organised through a more decentralised and horizontal structure.

The degree of technical complexity also influences programmatic design.[28] For example, activities that require high levels of skill and expertise, or complex and expensive technologies, cannot be easily integrated into the basic health care infra-structure, and justify a more centralised, vertical approach. Alternatively, when a rapid and / or rare response is required from the health care system, such as in the case of cholera outbreaks, a swift and specialised centrally-controlled vertical response may be most effective.

Another factor is the prevalence, incidence and / or importance of the disease(s) or health problem(s). A disease with a high incidence *and* high mortality / morbidity may justify a dedicated and vertical programme. However, the same high mortality / morbidity disease with a low incidence may not justify a "special" vertical programme because it may not be cost-effective. For example, with malaria, the integration of clinical activities into basic PHC services has been found to be relatively efficient at low levels of incidence. However, at higher levels of malaria, vertical malaria-control programmes have been shown to more cost-effective.[37] On the other hand, a disease of low prevalence or incidence may actually justify a vertical programme because the disease is seen so infrequently that multi-function health workers are unable to develop the experience and skill to manage it.[38]

Finally, certain diseases or health problems have socio-cultural meanings attached to them that may influence the appropriate organisational response. For example, stigmatising diseases or conditions may require services that are separated from the integrated provision of other services. And in societies where women are discouraged from using birth control, dedicated family planning clinics can act as a barrier to access.[39]

The important contextual factors include the level of health systems capacity which may make vertical programmes more reliable and feasible than horizontally integrated services which require a greater diffusion and spread of technical and management capacity. If the standard and quality of basic health care infra-structure and general PHC services is poor, a vertical PHC programme may be justified because integrating an important health service into the basic machinery of the health system might result in poor quality delivery.[40] It has also been argued that vertical programmes and the specialised resources that go into them can increase the general standard of multi-function services.[38,40]

Others, however, argue that a weak basic PHC system is a reason for avoiding vertical programmes because of their potential to disrupt and undermine local capacity development, appropriate priority-setting and local sustainability.[41] This negative effect may be compounded if vertical programme staff are also paid more than generalist staff who then feel demotivated as a consequence.

A second set of contextual factors is the broader picture of health needs and the effect that vertical PHC programmes may have on this. In a review of single-purpose interventions, the World Bank noted that the success of measles vaccination programmes in Zaire and Tanzania in reducing measles deaths was offset by mortality due to other diseases. They also reported a community-based nutrition programme in Tanzania whose gains in reduced under-five mortality were reversed because of malaria.[42]

Finally, another contextual factor is the spatial and demographic characteristics of the target population. For example, a study of MCH services in Kenya concluded that in areas of medium population density it was cheaper to immunise children through static health units rather than through mobile teams in mass campaigns.[43] On the other hand, scattered populations in inaccessible rural areas may only achieve the required immunisation coverage through dedicated and periodic mass immunisation programmes.[28]

There are therefore a variety of factors that need to be considered when designing the appropriate degree of PHC integration. There have however been few attempts to systematically apply these factors in a way that would inform the organisational development of health care organisations or public sector hierarchies.

Loretti developed an approach for identifying how services for leprosy can best be organised and integrated using the following framework:[38]

- The different biological stages of the leprosy mycobacterium
- The population groups affected by the disease
- The range and type of health services required
- The different operational levels of the health care system

A description of the activities required to deal with the different stages of the mycobacterium and the population groups affected was a first step to indicating how best to achieve integration at the different levels of the health system. This involved matching the tasks, activities and techniques to: a) the competencies and resources available in the local context; b) the local conditions of demography and morbidity; c) the determinants of access and use of health care services; and d) factors related to management and logistics. He then listed those activities which overlapped with

other diseases or health problems, allowing a clearer identification of activities that could be integrated.[38]

This approach echoes arguments made by Criel about the need to integrate HIV services within multi-function health services rather than through specialised vertical structures because the kind of health care services required of HIV positive patients would result in a virtual duplication of the structure and systems required by the multi-function service.[40]

Bradley took a systematic look at the functional requirements of malaria control as the basis for determining appropriate organisational structures and systems. As a consequence of the need to both control the vector as well as provide personal services, he concluded that malaria needs a mix of vertical and horizontal interventions.[44]

Kegels advocated a method called 'vertical analysis' for determining the appropriate content and type of a vertical programme, comprising the following steps:[45]

- Assessing the importance of the health problem
- Describing the disease system / epidemiology
- Listing the range of different interventions required
- Choosing the appropriate (feasible, affordable etc.) interventions
- Identifying the services and staff required
- Designing the operational strategies

As a practical illustration, Kegels described three tasks of a TB programme: Task 1 = the detection of TB suspects; Task 2 = the diagnosis of TB; and Task 3 = ensuring treatment compliance. He explained that while tasks 1 and 3 could be integrated into multi-function health services provided by polyvalent health workers, it may not be possible to do this for Task 2 because of the lack of microscopy services in the clinics. Task 2 would then have to be provided by a 'specialised' service.

The examples of analysing the organisational variables and factors of PHC programmes described above were based on single diseases and focussed primarily on the integration of actual service delivery activities. They did not include any broad or non-disease PHC programmes (such as health promotion, or maternal and child health), nor did they assess the integration of the management activities and structures of PHC programmes. For example, neither Kegel, Loretti, Bradley nor Criel, for example, described the type, design and kind of management structure required for each of the health programmes they looked at.

This focus of this thesis on the organisational variables and factors of PHC programmes within a single public sector health department will however focus on these broader considerations of PHC programme integration.

2.3 Implementing 'integration'

While it may be possible to identify the factors that should inform the organisation of PHC programmes, the actual process of integration can be more difficult. Smith and Bryant note that even when decision makers accept the idea of comprehensive integrated PHC, there may be difficulties in making "the transition from semi-autonomous vertical programmes alongside a general health infra-structure, to an integrated health infra-structure capable of providing both general and specialised health care".[2]

These difficulties seem to fall under four broad categories. Firstly, there may be active and conscious resistance to PHC integration. Secondly, there may be administrative and management blocks to integration. Thirdly, the structure and design of the health system may be inappropriate for integration. And finally, there may be inadequate management capacity to support integration.

Resistance may be the consequence of negative attitudes of service providers towards a pooling of resources; continuing allegiance to the objectives and processes of vertical programmes; and a reluctance to give up some territorial control.[2,3,46] Resistance may also arise not from a specific opposition to integration but to organisational change itself, and will be heightened in organisations where there is a climate and culture of competition and conflict. If this is the case, integration may need to be accompanied by processes that will change the climate to one of co-operation and not competition.[3]

Opposition to integration may also be the consequence of specialists seeing integration as entailing the abolition or scaling-down of specialists. Alternatively, if decentralisation is seen as an organisational pre-requisite for effective integration, resistance may come about as a result of centrally-located managers fearing a loss of control and authority. In other instances, integration may be opposed because personnel may fear that they do not have the skills and capacity to take on new and potentially more complicated roles.

The second set of factors includes management and administrative constraints to integration. In order to integrate PHC programmes or services, certain functions and systems such as human resource management, planning, resource allocation methods, finances and the health information system need to be integrated as well.[3]

The third set of factors relates to the structural design of the health system. As mentioned above, the WHO promoted the DHS as a vehicle for the delivery of integrated PHC largely because of the importance of deconcentrating management authority as a means of countering hierarchical and top-down management processes. What seems to be critical is a process of comprehensive district-

level planning whereby staff from all programmatic areas feel a joint responsibility for the overall health of the same community.[3] However, more commonly, the central management structure is driven by specialist programmes right down to the district level, leaving the district health officer with no direct control over operational delivery.

Finally, integration requires various managerial capacities to be present.[28] For example, it has been described that the resistance of some central PHC programme managers to integrate and decentralise their line activities is a consequence of them feeling a lack of confidence in their technical capacities to be support managers rather than line managers.

Chapter 3
Organisational theory, factors and variables and themes

This chapter discusses aspects of organisational theory considered to be relevant to the coordinated and integrated implementation of PHC programmes within a public sector organisation. The chapter begins with a discussion on how the subject of the study determines which organisational theories and perspectives are relevant or otherwise, and includes some discussion on the evolution of different perspectives of organisational theory. This is followed by a discussion of relevant theories and factors under the sub-headings of five commonly used dimensions: organisational structure; technology; environment; physical structure and culture. The next section then summarises some of the key management issues related to the coordination of divisions within an organisation.

3.1 Perspectives on organisational theory

The study of organisations is extremely broad in scope as well as diverse, incorporating many academic disciplines (for example, economics, politics, anthropology) as well as multiple ideological orientations (for example, Marxist and neo-liberal), which compete and conflict with each other. In addition, organisations themselves are extremely heterogeneous. Small businesses, government bureaucracies, factories, political parties, committees, social clubs and trans-national companies are all organisations, even though they are of different sizes and have fundamentally different characteristics and purposes. It is important therefore to be able to identify elements of organisaitonal and management theory that are suited to your subject of study.

Much organisational theory has been concerned with the organisation of economic and industrial activity, and with the performance of organisations operating within competitive environments (either in relation to the capture of scarce resources, or in relation to the capture of finite markets). This has led to theories such as 'resource dependence theory' which help managers to understand the power / dependence relationships that exist between actors operating within the same environment and dependent on similar resources.[1] In 'population ecology theory', the environment of an organisation is assumed to have the power to select from a group of competitors.[2,3]

Such theories emphasise the study of organisations in competition with each other, and are not relevant to public sector bureaucracies whose existence is dependent not on environmental survival and successful competition, but through social and political constructs. There is no competitor to a government department, which has a unique mandate to construct a publicly funded bureaucracy to deliver health care.

Marxist and neo-Marxist theories, set in industrial settings and which focus on the struggles between the owners of capital and labour, are similarly of little relevance to public sector bureaucracies. While literature that explores the creation of a professional class of managers to organise the use of unskilled workers might have some bearing on the relationship between senior managers and front-line workers in a public sector bureaucracy, the tension between ownership and labour is not present.

There are also important distinctions to be made between organisations concerned with manufacture and those that are concerned with the delivery of services;[4] as well as between an organisation whose primary purpose is to provide a service to its members, and an organisation whose purpose is to provide a service to external customers or clients.

There are other typologies used to illustrate the heterogeneity of organisations. Etzioni created one based on the different uses of power that are characteristic of different organisations in society: coercive (prisons), calculative or remunerative (economic organisations such as factories and businesses), normative (churches, gangs and volunteer groups). [5]

General systems theory on the other hand has drawn attention to the observation that all organisations are themselves embedded within a hierarchy of systems.[6] All organisations are part of a larger system, and contain within them, smaller sub-systems that include individual humans, for example. This aspect of systems theory, known as 'embeddedness', highlights the complexity of studying organisations and the importance of carefully defining one's level of analysis in a study of organisations.

Organisational theory has also evolved over time to incorporate and reflect different intellectual and philosophical orientations. The first formal contribution to the school of organisation theory is often attributed to Weber, who is regarded as one of the founding fathers of modernist organisational theory because of his emphasis on the rational virtues of bureaucracy.[7] This included the logical division of labour into clearly defined areas of authority and responsibility within a hierarchy of authority and chain of command; the remuneration of officials on fixed salaries; and administration that is based on rules, discipline and controls. For Weber, bureaucracy was put forward as a rationalised and moral alternative to the common practice of nepotism and the abuses of power that existed in the pre-industrial era.

Later contributions, building on the work of Weber, came from the school of classical management. Theorists such as Fayol, Taylor and Urwick added a scientific orientation to the rational understanding of organisational performance by studying the effects of, for example, size; the division of labour; the span of control; the definition and division of tasks and responsibilities; rules

and procedures; and the ergonomics of work.[8,9,10] However, a shortcoming of this school was that it tended to underplay the importance of the social and human dimensions of organisations.

The famous Hawthorne studies were among the first rebuttals of the ideas of scientific management in showing up the importance of social variables on organisational performance.[11] Subsequent theorists became interested in the human and psychological factor, viewing organisations as social communities consisting of individuals with a historical, social, political and cultural background that impinges on their behaviour and performance in an organisation. [12,13]

The greater awareness of the sociological and cultural dimensions of organisations in turn acted as a springboard for the consideration of organisations from a "symbolic-interpretive perspective". This perspective emphasises the subjective and social foundations of organisational realities, and is embodied by theories such as 'enactment theory'[15] and 'social construction of reality theory'.[16] An example is the exploration of the idea that organisational hierarchy does not represent an apolitical or asocial dimension of an organisation but is an effort to legitimise the unfair distribution of power, or of the higher worth of managers.

Organisations have also become the subject of post-modern theories that seek to subvert, deconstruct and question universal explanations and traditional and orthodox assumptions, infusing aesthetic, linguistic and political values into theorising.[17] Some of the work in this broad school of thought include considerations of how certain features of post-industrial society, such as the breaking down of national and local community identities, the development of nano-technology and the IT revolution, affect organisations.[18]

While the symbolic-interpretive and post-modern perspectives can be relevant, or applied, to public sector bureaucracies, their application tends to be philosophical and related to understanding social values and assumptions. A focus on the applied and technocratic dimensions of organisational management is much more the focus of 'modernism'.

While there may be limitations to rationality and objective reality, it is believed that there are aspects of management and organisational performance that can be understood and explained from a rational perspective. Furthermore, public sector organisations are themselves premised on the rational under-pinnings of 'bureaucracy', and therefore need to be judged to some extent against these standards. Indeed, in South Africa, the post-apartheid desire to reform the public sector from an instrument of oppression into an impartial and accountable instrument designed to serve all, gave the conception of a bureaucratic government added relevance, just as it did for Weber.

The study of the *internal* coordination and integration of divisions (PHC programmes) within a single organisation also emphasises issues of management and internal control, as opposed to other

potentially fruitful lines of inquiry such as the social conception of public sector bureaucracies, or the effect of 'post-modern' concerns (for example globalisation and the atomisation of society) on the performance of public sector bureaucracies. This case study, and the study of PHC programme integration, is therefore built on a modernist perspective.

The case study also largely excludes the phenomenon of 'networks', a feature that is increasingly relevant to the health system of many countries because of health sector reform measures designed to transform monolithic, public health bureaucracies into networks of delegated authority and contractual purchaser-provider relationships.

3.2 Organisational factors and variables

Organisations have been usefully conceptualised in terms of five dimensions: organisational structure; technology; physical structure; environment; organisational culture. The following section explores these dimensions one by one, drawing out issues of relevance to this case study.

3.2.1 Organisational structure

The review of the literature on organisational structure is organised into three sections. The first section is about the differentiation of organisations into separate sub-divisions. The second is about the relationship between different divisions of an organisation. The third section relates to the relationship between individuals, posts and functions.

The basis upon which organisations are structured into organisational divisions

Organisations exist because they seek to harness the activities and efforts of more than one person towards a common purpose. Large organisations have also tended to evolve in a way that has maximised the benefits of 'differentiation', by which different functions or activities are organised into more efficient sub-sections of an organisation. Most large organisations are therefore inevitably concerned with ensuring the appropriate balance between differentiation and integration.

Organisational structure refers to the way in which the social structure of an organisation is differentiated, and how responsibilities, activities and functions are distributed. One aspect of organisation structure is its complexity in terms of vertical differentiation and horizontal differentiation. The former tends to relate to the number of hierarchical levels within an organisation; whilst the latter relates to the number of different departments or divisions within an organisation.

According to Hatch, 'understanding organisational logic in terms of structural design helps you to understand the potential for confusion, conflict and miscommunication lodged in most complex forms of organisation', and thereby forms a significant element of this case study.[19] However, few authors have looked specifically at the way organisational structure impacts on the performance of public sector health departments. One exception is a paper by Child, which concluded that improvements in performance at the district level could be achieved through a better design of organisational structure and job descriptions.[20]

One way in which differentiation is organised within an organisation is on the basis of function. For example, Katz and Kahn described the structural characteristics of manufacturing companies in terms of five functional 'sub-systems'.[21] Mintzberg also conceptualised five 'functional parts' to an organisation.[22] First, he described a *strategic apex* responsible for overall strategic management. He then described *operational line management*, consisting of middle level managers whose function was to manage the day-to-day running of production activities. Alongside this was a *techno-structure* consisting of staff who make discrete and specialised technical inputs such as product-design scientists or engineers. The fourth part was the *support section,* which provides indirect support to an organisation by, for example, maintaining the pay-roll or ensuring a healthy physical work environment. Finally, he identified an *operating core* of front-line personnel such as direct sales staff and assembly workers.

Another way of classifying organisational divisions by function is in terms of 'line function' divisions which are directly responsible for the delivery of products and services, and 'support function' divisions which contribute indirectly by providing various support services.

Organisational divisions can also be based according to discrete products or services. For example, a multi-media company may have its primary divisions based on different types of media products such as a film, music and software. The division responsible for films may then be further sub-divided according to individual films under production, and only then would the organisation be structured according to functional divisions (e.g. a sound and lighting unit and a marketing unit).

A third basis for the configuration of organisational divisions is geographic. For example, multi-national companies or international agencies such as the WHO have regional or country-based divisions, and in most countries, government is administered through geographically-based divisions. Countries with a federal structure, such as Canada and South Africa, have significantly sized administrations at a sub-national level.

Large public sector health departments consist of divisions or units that are based on function, service / product and geography simultaneously. For example, public sector health departments can be structured functionally along the lines of Mintzberg's functional components. The senior

management of a DoH mirrors Mintzberg's *strategic apex.* DoHs have divisions to manage internally directed activities such as human resource and laboratory service departments that correlate with Mintzberg's *support section.* They have front-line clinical staff who can be equated with Mintzberg's *operating core* and they have middle-level managers such as district health managers who manage the day-to-day delivery of health care activities that can be equated with Mintzberg's *operational line management.* Finally DoHs have a *techno-structure* consisting of specialist staff who make discrete and specialised technical inputs such as programme specialists.

Public sector health departments also have divisions based on *types* of health service such as units or divisions responsible for particular programmes. In addition, they are often divided geographically. It is common, for example, to have constituent health regions or health districts, with an accompanying management structure.

The way in which organizations are broken down into different units or divisions also has a bearing on the way the different divisions are organized structurally.[23] For example, *functional structures* group activities according to similar work functions, often along the lines of traditional management portfolios such as finance, personnel and marketing. These divisions are organized vertically, with coordination and integration occurring at the top of the organisation. This configuration, described by Handy as the 'greek temple', works well for small organisations, or for organisations with products or services that are relatively simple to produce.[24] Large organisations, or those with multiple and complex functions, on the other hand, would not be adequately managed by a small apex at the top of an organisation.

The *multi-divisional structure* on the other hand is essentially a set of functional structures. Each structure tends to be a relatively independent and decentralised division that is managed by a 'general manager'. The divisions are often based on a particular *product* or *service, client group* or a *geographic area.* This structure is typical of large, dispersed or complex organisations that cannot be managed and coordinated centrally; and/or when the organisation needs to respond to local conditions and contingencies more effectively.

Finally, a *matrix structure* is a hybrid of a 'functional' and 'product-based' multi-divisional structure. The configuration is designed to allow 'functional specialists' to be managed as a common group within a vertical hierarchy (headed by a 'specialist' manager), while working with other types of 'functional specialists' on a particular product or task. It often operates through the use of temporary 'task teams' or 'project teams'.[25] An employee assigned to a project reports to two managers – the functional manager and the project manager. Employees assigned to multiple projects may therefore have several bosses, and this feature of dual or multiple lines of authority can be a cause of tension within organisations.

From the brief summary above, it can be seen that structural complexity can be a response to environmental complexity (for example, having to have different divisions to accommodate different client groups or geographical areas), or as a result of the way in which the activities of the organisation's core technology is best organized (a factor that is discussed in greater detail later).

The relationship between divisions

Once differentiated, organisations must then get separate but inter-linked divisions to work together. This requires amongst other things, a clarity about the roles and functions of different divisions (so as to avoid misunderstandings),[26] as well as an appropriate distribution of authority between them. The more complex the organisation, the greater the importance and need for effective communication. Poor communication can result from a lack of clarity about roles, functions and lines of authority between divisions and individuals, and distorted or blocked communication can be a result of having too many hierarchical levels in relation to the size of an organisation or an excessive number of middle managers who block information flow.[27]

Although *'multi-divisional organisations'* are supposed to deconcentrate authority to geographic and product or service-based divisions, in practice, this isn't always the case.[28,29] While an organogram may indicate a divisional configuration, if this is not accompanied by a transfer of authority, the divisional configuration will be undermined, and lead to divisional managers being over-responsive to the centre.

One reason why multi-divisional configurations may not be accompanied by a meaningful transfer of authority is because it was never intended to do so. Conyers, for example, described how deconcentration was actually a way of centralising power and control over peripheral units in a number of countries through regulations and the central retention of financial authority.[30] The colonial states in the late 19th and early 20th centuries also 'decentralised' administrative offices, but primarily as a means to strengthen colonial control.[31] In contrast, multi-divisional structures can be used cynically by central governments to decentralise authority when it wants to abdicate responsibility during times of political or economic crisis.[32]

Organisational theorists have also referred to the existence of a hidden organisation that consists of an informal set of roles, responsibilities, expectations and objectives, which may be different from those that are formally and explicitly expressed. For example, a study of district public health offices in Nepal described how one of the constraints to programme implementation was the result of a tension between the formal organisation existing to provide health care, and an informal organisation that existed to provide staff with an income.[33] It is therefore important to interpret the structural configuration of an organisation in the light of the underlying aims of the key decision-makers, which may or may not be explicit.

Divisional configurations and the deconcentration of authority may also be undermined by a reluctance of officials at the centre to shift authority or relinquish responsibilities to peripheral officials.[33,34,36] In Greiner's work on organisational life-cycles, he describes how at some point in the growth of organisations, even the most effective centralised managers become incapable of keeping pace with the decisions required of an ever more elaborated and differentiated organisation.[37] Sooner or later, decision-making becomes a bottle neck for action, and decisions must be pushed down the hierarchy for the organisation to develop. However, this often produces a crisis of autonomy because most managers find it difficult to relinquish control over formerly centralised decisions. In the health sector, a reluctance in decentralising authority has been noted in countries with a history of strong centralised vertical programmes.[38,39] In Zambia, decentralisation was resisted because it was perceived as a loss of status and influence for managers at the centre.[40]

Other reasons why central managers may resist changing from being centralised line managers to being strategic managers with no direct authority over decentralised divisional structures, is a lack of necessary skills.[41] In Papua New Guinea, for example, resistance to deconcentrate authority to the periphery was ascribed not just to a concern about the weakening of the centre's power and authority but also to insufficient managerial capacity at the centre to move from a 'line authority' role to a 'staff authority' role.[42]

Some authors have also described misconceptions about the relationship between divisions and the centre and the periphery. Walsh explains that decentralisation and centralisation are often mistakenly treated as "opposites in a zero-sum relation",[43] rather than a change in the roles, relationships and functions of different divisions operating symbiotically. This is echoed by observations that initiatives to improve health care delivery at the district level will be insufficient if no action is taken to appropriately reform structures and systems further up the system.[44] Decentralisation is therefore not necessarily about weakening the centre but about reshaping its role in view of new responsibilities at the periphery. Unless the centre and the periphery operate in support of each other, decentralisation can result in a weakening of the organisation.[29,40,45]

Another common observation about inter-divisional relationships within health departments, as described in chapter 2, has been the super-imposition of product or service-based divisions upon an area-based *divisional structure*. Product or service-based divisions (e.g. a child health or HIV programme) may be super-imposed onto the geographic division of a health district as a vertical programme, undermining the rationale of a decentralised, geography-based *multi-division* structure.

The capacity of vertically-organised product or service-based divisions to do this can be related to differentials in power and authority. For example, in countries with a large donor presence, the

greater influence and authority of donor-driven vertical programmes may be super-imposed upon local management structures that are ostensibly responsible for coordinating all health care delivery in a given area. The integration of multiple vertical functional plans into coherent area-based plans is one of the noted challenges of management and planning in the health sector.[46,47]

Another important inter-divisional relationship is that between divisions with 'line authority' and those with 'staff authority. *Line authority* exists between any superior and subordinate in a chain of command. *Staff authority* can be in the form of '*service authority*', where the authority is limited and advisory only. Functional authority is exercised by managers of specialist functions, and consists of authority over other managers, but only in relation to prescribed aspects of their particular specialty.[48]

Individuals and posts

A third aspect of the structural dimension of organisations relates to: 1) the fit between the function of a post and its rank; 2) the fit between a post and its work-load; and 3) the fit between a post and the function of a division.

The rank of a post needs to be commensurate with the importance of its function and expected outputs. Because rank is a marker of the importance and status of certain jobs, it defines the nature of the relationship between individuals and divisions in an organisation. Problems arise when the importance of a post (or division) is not reflected in its accorded rank and status. A study from Nepal explained that certain problems with health programme implementation were a consequence of personnel operating from the perspective of their position and status, rather than from the importance or responsibility attached to that post.[33]

A factor that may influence the relationship between line and staff divisions is the relative rank and status of individual posts within the divisions. Specialists with 'staff authority', but who are designated a higher rank than general managers with 'line authority' may see their rank rather than their type of authority and role as the factor defining their relationship with the line manager. The lack of congruity between the authority and the roles of different divisions (or posts) may also reflect tensions between different professional groups within an organisation, for example, between 'general managers or administrators' and 'technical specialists'. In Papua New Guinea, this tension was said to have been heightened because provincial health managers were ranked higher than medical professionals who felt their professional expertise undermined.[41]

Poor fits between a post and its function or work-load can lead to role overload (when there are too many roles for a division or person to handle), or work overload (when there is too much work for a division or person). A poor fit can also result in a manager with an excessive span of control and

subordinates. While classical organisational theorists suggested that there were universal rules about the optimum number of subordinates for every manager, the optimum span of control depends on various factors such as the range and complexity of functions and responsibilities, the physical proximity of subordinates and the ability, knowledge and experience of both manager and subordinates.[49]

Alternatively, too many posts for a given set of functions and responsibilities can lead to 'overcrowded territory' and intra-divisional tension. Finally, poor fits between posts and the function of a division can lead to 'role ambiguity', where the job description of a given post is incongruent with the function and purpose of the division.[33,50]

However, it needs to be stressed that individuals with their particular skills, competencies and aptitudes are central to the extent to which any job is carried out effectively or appropriately, regardless of the structural variables related to individual posts. Managerial shortcomings and a lack of capacity at the periphery have been identified as weaknesses in many decentralised public health administrations.[46,51,52,53] In Mexico, the health status in the state of Guerrero was even reported to have declined, apparently as a consequence of a lack of capacity at the periphery to cope with new responsibilities.[38] In Ghana, programme coordination was improved through the strategic posting of highly motivated medical officers with public health training in health districts.[39]

A poor fit between an individual and his/her post may even provide a partial explanation of the reluctance of central managers to relinquish authority to peripheral divisions. As decentralised units take on more operational responsibilities, central staff must develop the aptitude and skills to provide more supportive methods of supervision, monitoring and evaluation.

3.2.2 Technology

In modernist organisational theory, technology involves the means of achieving a desired outcome, goal or output, usually conceptualised as a product or service. From this perspective, technology is typically defined to include the tools and equipment used in the production of physical objects; the activities or processes that comprise the methods of production; and even the knowledge and skills needed to apply equipment, tools or methods to produce a particular output.[54]

This broad definition therefore encompasses technology that directly produces products and services to the environment (e.g. providing a clinical examination, diagnosis and treatment to an ill patient), technologies that indirectly maintain the production process (e.g. providing an efficient medicines supply system), and technologies designed to adapt to the broader environment (e.g. health planning).

Because of this broad definition of technology and the complexity created by different levels of analysis in organisation theory, it is necessary to specify what one's focus is when discussing technology. In the case of this study, the focus is on the indirect technology of the organisation and inter-action between different sets of services that are clustered together under a variety of PHC programmes, and the manner in which health care delivery (to patients, the public or to make the environment safer) at the periphery can be best managed and coordinated centrally.

Bearing this in mind, the following section discusses certain ways by which product(s) and service(s) affect the design and functionality of an organisation through their inherent technological processes, and how this might inform the organisation of PHC programmes within a public sector health department.

One set of characteristics relates to the breadth and diversity of products and services. Organisations with a narrow field of activity are more likely to benefit from a functional structural configuration, whereas those with a wide and diverse range of products and many different types of services may be better off with a product or service-based multi-divisional structure.[55] A broad range of services and/or products inevitably places greater demands on organisations to ensure effective coordination and efficient information flow. The expected volume of deliverables is also important to consider if resources are limited, and places a greater importance on planning and priority-setting processes.

In the case of PHC programmes, both individually and collectively, there is a wide range of expected outputs as described in Chapter 2. Furthermore, there are always resource limitations in the capacity of a health organisation to deliver these services and outputs, often in the form of limited numbers of health personnel, as well as the limited availability of equipment and medicines.

Belief in the idea that technology determines what sort of organisational structure emerged from work conducted by Woodward, and came to be known as the technological imperative. In her study, she illustrated how technical complexity and different production systems (e.g. small batch and unit production; continuous production; and large batch and mass production) had a bearing on organisational structure.[56]

Research conducted by researchers from Aston university however qualified the notion of the technological imperative by showing how the significance of technology on structure and performance is greater with organisations that are small than when they are large. They argued that in small organisations most employees are directly related with the core technology, but in large organisations, many employees are involved in technologies that are not directly related to the core.

Thus the overall characteristics of organisational structures reflects the greater differentiation and integration of a wider array of technologies.[56]

Others have noted the relationships between technology and forms of management. For example, Cole contrasted 'simple activities' that can be managed through centralised and leader-dominated channels of communication, with 'complex activities' that require more open and decentralised communication channels and a greater sharing of authority and responsibility across the organisation.[58] Handy explains how 'steady-state' activities that allow for precise and formal role definitions makes it possible for the concentration of technical and management knowledge at the top of the hierarchy, and for management to function through mechanistic and bureaucratic forms of control, and detailed plans.[59]

Perrow highlighted the difference between 'routine' and 'non-routine' work, describing how straightforward and routine work requires less managerial oversight, [60] and Hage and Aitken found significant relationships between the 'routineness' of work, and the degree of centralisation, specialisation and formalisation amongst sixteen health and welfare agencies in the USA.[61]

Products and services that involve high levels of technical or specialist skills may also require an organisational environment that values a professional workforce. For example, organisations that employ large numbers of professionals may not perform well if they become overly bureaucratic, because highly trained professionals are socialised to accept high standards of performance, and find overly bureaucratised rules and procedures restrictive.

Others have noted how production processes that require specialist expertise and creativity, may be best served by loose, project-based structures, especially in the context of a fast-changing environment.[62] The production of one-off products or services (such as in the case of an engineering form constructing a bridge) may also benefit from the use of impermanent 'project teams' and a greater delegation of responsibility.[63]

The extent to which outputs are easily measurable in ways that are valid and reliable will also determine the extent to which management and supervisory functions can be centralised and bureaucratised. This involves to some extent, the communicability of information about the production and delivery of different products and services. The requirements of an effective quality-control process for the production of tubes of toothpaste are for example, quite different to those of a comprehensive PHC service.

Other information may only be gained by operating in a particular setting or with an understanding of the local context. If information and knowledge vary because of contextual differences, organisations may need to respond by increasing the influence of mid-level management because

top management cannot expect to be in possession of all the relevant information.[64] Therefore, the location and communicability of information relevant to organisational activities may influence both organisational structure and the relationship between the centre and periphery.

The capacity to hold information can also differ according to organisational output. Some production processes involve highly technical and complex information that is concentrated amongst a few specialists, while less complex production processes involve a level of information and expertise that can be found in individuals spread across the organisation. This has implications for the location of decision-making powers and how management operates.

Products and services also require different degrees of internal coordination. Production processes that require a mix of inputs from different parts of an organisation need more effective integrative and coordinating devices.[65] Thompson suggested three forms of inter-dependence.[66] *Pooled inter-dependence* is when operating units render a discrete contribution to the whole organisation but do not require much contact with one another. Although the failure of one unit may jeopardise the whole, action in each unit can proceed without regard to action in other units. This implies that coordination is not so important, and that rules and standardised procedures may be all that is required to ensure some degree of coordinated output production.

Sequential inter-dependence is when the output of one unit is the input for another. If any unit fails to perform, subsequent units in the chain will be affected. This kind of inter-dependence is often coordinated through careful planning and scheduling. Thirdly, *reciprocal inter-dependence* is where the outputs of each unit are the inputs of other units, and vice versa. In this situation each unit presents contingencies for every other unit with coordination requiring multi-directional feedback as well as mutual adjustment between the units and the product.

Lorsch and Allen suggest that intense inter-dependencies should, where possible, be contained within the same organisational division.[67] This would promote integration and reduce any loss or distortion of information due to long channels of communication. For these reasons, *project-based structures* are sometimes recommended for complex areas of production that also require a disaggregation of discrete activities.[68,69] However, Lorsch and Allen also warn that in certain situations, complex devices to integrate central and peripheral divisions might not improve performance. "Very often there seems to be an unquestioned logic in management circles which assumes that larger corporate headquarters units and more complex integrative devices will result in better control and coordination".[70]

The nature of the inter-action between the organisational product and service with the external environment also varies between different products and services. For example, while public sector health departments are expected to provide health care to all people, the difference in needs

between an informal shanty-town and a middle-class suburb requires a different and tailored package of health services. If services and products need to respond to geographic variability or to changes over time, organisations may be better served by looser, more decentralised and flexible planning processes and a greater delegation of managerial authority to divisions responsible for different environmental contexts.

Furthermore, if the divisions of an organisation are diverse, use different technologies and operate in different markets, the divisions themselves may need to be differentiated. In such circumstances, Lorsch and Allen describe how centralized managers can undermine the effectiveness of divisions by creating unwarranted pressure for conformity.[71] Successful organisations with independent divisions therefore tend to have smaller central offices whose role is mostly limited to policy and finance, and to responding rapidly to the requests and needs of the peripheral divisions.

Finally, it may be important to consider how certain services and products may embody socially constructed values. For example, community policing is an *approach* to policing that emphasises community participation and public accountability, which requires a decentralised organisational structure and less hierarchical organisational culture, in contrast to a 'command and control' organisation of more traditional and coercive forms of policing.

Certainly, there are different social constructions of health care that range from health services being considered as commodities that can be bought and sold through a commercial transaction; to a view that health care is a human right that is the responsibility of government and which also embodies the extent to which there is a respect for the health of all. While the former may point to market-based forms of organisation, the latter may suggest the need for bureaucratic forms of organisation that are embodied with certain social values.

3.2.3 Environment

A great deal of organisational theory has focussed attention on the relationship between organisations and their environment. Aspects of the environment exist at three levels: the inter-organisational network; the general environment; and the international / global environment.[72] The extent and manner in which the environment affects organisations clearly depends on the nature and type of organisation, as well as the particular context of that organisation. While much of the organisational literature concerned with the environment relates to the performance of organisations economic vis-a-vis their competitors, suppliers and markets, there are several aspects of the environment that may have a bearing on the organisation and implementation of public sector PHC programmes which are discussed in this thesis.

The inter-organisational network consists of other actors and organisations with which there is a direct interaction. In the case of a public sector health department, this would include patients, other government departments involved in the delivery of health care, non-government organisations and the producers and suppliers of medicines. In several countries, the role and size of government within the health sector is so small, as to make them fairly insignificant in the implementation of PHC programmes. In such countries, the existence of parallel donor programmes providing a significant bulk of PHC services would have implications for government health departments that are different from countries where government health departments are the main provider of comprehensive health programmes, such as in South Africa.

The 'general environment' encapsulates a host of other more general influences from a variety of 'sectors'. The socio-cultural sector consists of variables such as class structure, social customs, demographics, race relations, educational systems and religious practices which may, for example, influence the pattern of health care seeking behaviour between different geographic areas. Customs and cultural interpretations of concepts such as leadership and rationality can also influence organisations through the effect of an organisation's employees and members. Hofstede, for example, demonstrated how differences in various organisational criteria amongst a number of national subsidiaries of the same multi-national corporation were related to cultural differences at the societal level.[73]

The legal sector incorporates laws within which an organisation conducts its activities, particularly in relation to governing the inter-organisational network. For example, laws determining the powers and responsibilities of local government can have an influence on the manner in which central public sector bureaucracies implement their services through a decentralised structure.

Closely related to the legal sector is the political sector which relates to variables such as the nature of government (e.g. democratic versus autocratic). A change from a democratic civilian government to a military dictatorship, for example, would have consequences for many organisations. In South Africa, the end of apartheid had a major effect on the public sector health department, instigating a process of major structural transformation as described in chapter 1. In some countries, a deliberate blurring of the division between the political and administrative systems can significantly undermine the notion of an impartial bureaucracy.[53,74] In Nigeria, for example, senior civil servants formed powerful coalitions with the military rulers of the country, blurring the line of division between the rulers and the administrators.[75]

The economic sector influences organisations by virtue of, for example, affecting the consumer buying power of potential clients (in the case of commercial companies), or the extent to which health providers have to mitigate the health effects of poverty. For a public sector health

bureaucracy, macro-economic stability may also help provide a degree of budgetary stability to allow for confident medium-term planning.

Finally, the forces of 'globalisation' are increasingly making the environment at the level of the international and global relevant to many organisations. These influences may operate through the 'general environment' at the national level (for example, the effects of global macro-economic structures on national economies), or more directly on organisations through changes in international law or through the effect of dominant global-level ideologies.

3.2.4 Physical structure

The physical elements of an organisation include buildings and their locations, furniture and equipment and décor. Interest in these variables is generally traced back to the Hawthorne studies that showed how changes in the physical setting of work affected worker productivity.[76] In the health care setting, the physical lay-out of clinics and hospitals have been shown to affect the efficiency and quality of care provided to patients.

However, in the context of the management of PHC programmes, physical variables that may be of relevance include the physical proximity of the offices of different programme managers, or different divisions of the organisational structure. For example, many studies have shown a negative relationship between the measure of distance and the likelihood that two employees will engage in interaction, especially face-to-face encounters. [77,78] On the other hand, groups of employees may come to view themselves as linked together because of their common locations.

In addition, the spatial distribution of the location where an organisation operates can have a bearing on the coordination and management of activities. Such factors can have a bearing on the capacity of central offices to provide logistical support and supervision to distant peripheral offices.

The fact that public sector health care is spatially distributed across large geographical areas in many different facilities suggests the need for a considerable degree of deconcentrated management as well as information systems capable of effectively supporting central managers to monitor and improve the quality and standard of care.

3.2.5 Organisational culture

Organisational culture refers to meanings, assumptions, understandings, norms, traditions and values that are shared among group members, and which thereby determine the way things are done in an organisation. According to Siehl and Martin, organisational culture can be thought of as

"the glue that holds an organisation together through the sharing of patterns of meaning".[79] According to Jacques, it is the "customary and traditional way of thinking and doing of things, which is shared to a greater or lesser degree" by the members of an organisation.[80]

The effect of different national cultures on organisational design and performance has already been mentioned in the section on environment. Organisations are also able to shape their own cultures, for example, by explicitly defining organisational values and shaping particular styles of leadership and management. Organisations may even shape culture at a broader societal level. For some organisations, this may be an explicit aim (for example, religious institutions or entertainment corporations). Other organisations may have more of an indirect affect on society by virtue of influencing perceptions about the nature of society.

Technology can also have an influence on organisational culture. The delivery of health care will result in a different organisational culture from an organisation that is, for example, concerned with the commercial sale of military hardware. This is because of differences inherent in the nature of the products and services as well as differences in the types pf people attracted to different fields of activity. The differences about how power is exercised in organisations that Etzioni noted (mentioned earlier in this chapter) is intimately linked to technological differences.

An important contribution to the study of organisational culture was made by Schein who described three levels of culture: on the surface are visible artefacts and manifestations of culture; lower down are values and behavioural norms; and at the deepest level lie a core of beliefs and assumptions about concepts such as the nature of human nature and time, for example.[81]

Schein argues that the core assumptions find their way into many aspects of organising such as the definition of organisational norms and values, as well as organisational artefacts, defined as 'the visible, tangible and audible remains of behaviour grounded in cultural norms, values and assumptions'.[82]

Another subject of study of organisational culture has been the existence of different sub-cultures within organisations and the inter-play between them. Sub-cultures may be formed around various points of affinity (e.g. common race, ethnicity, gender or occupation work group), or based on organisational structure (e.g. common hierarchical level, or based on reporting relationships) and technology (e.g. by establishing regular patterns of interaction between individuals as a result of proximity and shared equipment or facilities).

The way in which these sub-cultures inter-relate with each other and with the organisation as a whole may vary. At one end of the spectrum, sub-cultures within an organisation may be diverse but generally integrated within the broader cultural boundaries of the organisation as whole; at the other

end of the spectrum, sub-cultures may be highly fragmented, disorganised and in conflict with each other. Such patterns of interaction may affect organisational performance positively or negatively. For example, the extent to which personnel enjoy working together and have positive inter-personal relationships have been shown not just to benefit the individual, but also help ensure productive working relationships,[32] better communication and information flow, and higher levels of morale, motivation and commitment.

3.3 The management of intra-organisational divisions

Having discussed the various dimensions of an organisation, this section explores some of the management literature relevant to the coordination of divisions within an organisation., given the topic of this thesis. As explained earlier, this literature review adopts an implicit modernist perspective that organisational variables can be rationally managed to some extent in order to improve organisational performance, particularly in the case of organisations that are nominally bureaucratic in nature.

3.3.1 Strategy and planning frameworks

Planning is a management activity that helps determine both what an organisation intends to do *and* how it will achieve this. Much organisation and management literature is also devoted to how organisations use the planning process and the outputs of planning to ensure organisational cohesion and efficiency.[83,84,85] For example, participatory and inclusive processes of planning can, for example, be used to promote a wider commitment and loyalty towards a set of common aims and objectives, and to reinforce values and principles and help create a unity of purpose. This may be particularly important in large and dispersed organisations where central control is difficult to achieve.

For organisations that produce a variety of services and products in different contexts, a *planning framework* that reflects the complexity of the organisation is important.[86] Such organisations have to coordinate a formidable set of aims, objectives, activities and resources into a coherent whole. Because it will not be possible to represent all of this in a single document or through a single, linear planning activity, multiple levels, cycles and streams of planning is necessary. An appropriate 'planning framework' is one that holds together all these different planning processes and products into a coherent whole.

Plans are often built on a small core of fundamental organisational goals and aims, which are then developed into more focused and specific functional or divisional strategic plans. These in turn will be developed into more detailed operational or activity-based plans. There is therefore a step-wise

progression from having a clear vision and mission, to broad and general statements of aims and goals, to strategic plans, to increasingly detailed operational workplans. A good planning framework also accommodates the need for simultaneously having long-term aims and short-term objectives[87], and arranges for the plans of different levels and divisions of an organisation to inform and modify each other. For example, a district health plan and a regional health plan would inform each other over time. In this way, operational plans help inform the broader strategic plans, and vice versa.

An organisation's planning framework should also be congruent with its structural configuration. For example, many of the core activities of an organisation need to be reflected in the operational plans of the line authority divisions, as these are the main organs through which implementation occurs. Organisations with a geographically-based divisional structure should have a set of geographically-based plans, and organisations with a functional structure may have a set of vertical functional plans with a cross-cutting plan at the top of the organisational hierarchy. The plans of staff authority divisions on the other hand would mainly consist of activities to support other divisions in the organisation.

Finally, plans need to be congruent with the capacity of organisations to implement them. They therefore need to reflect the financial, human and other resources that are available. Aims, objectives and strategies that are unfeasible can cause work and role overload, demoralisation and poor performance. This danger is especially important for organisations that have a large number of competing demands and needs to meet. Clear criteria for the prioritisation of activities and objectives become particularly important in such situations.

3.3.2 Decision-making

Intimately linked to the process of planning is the process of decision-making. Interest in decision-making within organisational theory mainly flows from the classical and modernist perspectives that management is rational, and that organisations are manageable. However, there is now a general acceptance that decision-making will always be constrained by inherent limitations to rationality.[88] This is known as the theory of 'bounded rationality'. These limitations are often the result of incomplete information and time pressures, but also because there can be no assumption that there is a common agreement on the rules of rationality when decisions are made. Put another way, the rational model ignores the internal politics of the organisation, as well as the potential for clashes of ideology, values and culture.[89]

Drawing on from these insights, other research has sought to elucidate the different (non-rational) mechanisms by which decisions are made.[90] For example, in some instances decisions are made on the basis of consensus, or as an outcome of power, manipulation or competition. In others, the approach may be to simply 'muddle along' or to adopt a 'trial and error' approach.

The way in which organisations choose or adapt to different decision-making processes is heavily influenced by structural and cultural variables such as the distribution of authority, manifestations of power within organisations, and management and leadership styles.

3.3.3 Management style and leadership

Leadership and management style can have an important bearing on the successful coordination and integration of organisational divisions. In recent years, there has been a swing back within organisation theory towards recognising the importance of leaders as integrators, lynch-pins or catalysts within groups.[91,92]

Research has highlighted the importance of leadership to the coordinated implementation of programmes and for good working relations between the centre and periphery.[41,35,93] Leadership also plays an important role in ensuring optimal communication and reducing and resolving intra-organisational confusion, tension or conflict.

In explaining the dynamics of a group working on tasks that need to be coordinated and integrated, Handy and Cole explained how leadership and management styles combined with three sets of factors. The first set related to the subordinates, and includes factors such as their preferred style of leadership; their skill and expertise; their values and needs; and their interest in the organisational outputs. The second set relates to the nature of the key tasks and activities (for example, in terms of: "doing versus deciding tasks"; "unambiguous tasks versus tasks that are contingent"; "activities that are routine versus those that are creative and require initiative"; time-scales that are urgent or not; and the extent to which mistakes matter). The third set relates to the broader organisation, and its norms, values and culture.

The style of management and leadership within an organisation can also affect (and reflect) an organisation's social and cultural dimension. Generally speaking, leadership styles are said to lie in a continuum along two separate axes. The first axis runs between an authoritarian / structured end to a more supportive / participative end.[94] The second axis runs between being task- or production-centred to being people-centred / socio-emotionally-focussed.

Handy describes four different types of management culture and how they help mediate other organisational variables.[95] The 'power culture' describes highly centralised organisations that need to react quickly to changes in the external environment, and is centred on the authority and power of a few key individuals. The 'task culture' exists when influence and authority is dependent on technical expertise and when inter-dependencies require staff to co-operate with each other. The 'person culture' is typical when group goals are subservient to individual goals or where work is not

inter-dependent. Finally, the 'role culture' emphasises clearly defined procedures and rules, and is usually found in steady-state organisations operating in a stable environment.

3.3.4 Communication, cooperation and coordination

Good communication, cooperation and coordination is necessary for the effective integration of differentiated. Good communication and two-way information impacts on organisational integration and performance by helping different parts of an organisation to work together, reducing the duplication of activities, increasing trust and optimising inter-personal working relationships.[71]

In contrast, poor communication and management can result in conflict, fragmentation and misunderstanding. Conflict-based theories are generally traced back to the field of industrial relations. However, scarce resources or limited opportunities, and perceptions of interference can generate competition and conflict within and between groups in any organisation.

Typical manifestations of conflict open hostility, distrust, disrespect, information distortion, avoidance of interaction, lack of cooperation and 'we-they' rhetoric. Recent work, employing ethnographic methods of observation bring further attention to the private, informal and irrational aspects of organisational conflict.[96] Hidden forms of conflict are furthermore difficult to manage because they are embedded in the routine interactions of organisational members as they go about their everyday activities.

Another theory about conflict suggests that conflict is a natural phenomenon of organisations that is not necessarily a reflection of failed management, and that it can even help catalyse organisational adaptation, innovation and better decision-making as a result of the input of divergent opinions.[97]

Within organisation theory, research is divided between studies of horizontal and vertical forms of conflict. The former occurs in relationships that run perpendicular to hierarchical lines of authority (for example, conflict between different PHC programmes), whilst the latter follows hierarchical lines. Because of the power dynamics built into vertical authority relationships, vertical and horizontal conflict are generally given different theoretical treatments; even though with both, the roots of conflict can be discovered in the structural, cultural and technological aspects of an organisation, and its relationship to the environment.[98]

Work by Walton and Dutton has listed nine local 'conditions' that contribute to inter-unit conflict.[99] The first condition is 'organisational differentiation' resulting in different units tasked with different functions. The second is 'operative-level goal incompatibility' between different units. The third condition is 'task interdependence'. The less the interaction between units (e.g. with pooled interdependence), the fewer the opportunities for direct conflict.

The fourth condition relates to 'reward and performance criteria'. When they emphasise the distinct performance of separate units or individuals, they can downplay the combined or aggregated performance of the entire organisation and result in cooperation being devalued. For organisations with a high degree of internal inter-dependencies between divisions, highly individualised performance evaluation systems can cause fragmentation and even conflict.[100] Alternatively, if an individual or unit's performance is partly influenced by the performance of others, this can lead to individuals and units over-stepping the boundaries of their roles and functions if they need to ensure that the functions and actions of others are adequately fulfilled. This can then lead to tension, conflict and disorganisation; or it could lead to frustration when performance is dragged down by others. Individualised performance evaluation systems are useful when the performance of individuals are de-linked from one another. For example, with sales agents, an individualised performance evaluation system can improve individual performance without negatively affecting the overall performance of the organisation.

The fifth condition is a dependence on a common pool of scarce resources. The sixth condition is status incongruity, which arises when two groups of different status within an organisation are asked to coordinate their activities. The seventh condition is jurisdictional ambiguities which occurs when there is an unclear delineation of responsibility. Finally, communication difficulties and individual differences provide the other two conditions for inter-unit conflict.

Ouchi suggests that there are three distinguishable approaches to solving the problem of achieving cooperation among individuals or units with divergent objectives.[101] One is through competition and market control. Increasingly, organisations are employing such control mechanisms through the use of internal markets, or the out-sourcing of work through principal-agent contractual relationships. A market control, strategy is only effective when the organisation or unit produces products or outputs that can be defined and priced, and when there is a meaningful link between competition and prices. These are however not discussed here because it is not relevant to this case study.

By contrast, and what is the focus of this case study, bureaucracies rely on a combination of rules, procedures, documentation and surveillance. According to Ouchi, the focus of bureaucratic systems is on the standardisation of behaviour. Rather than rewarding units for responding to market forces, bureaucracies reward individuals for compliance with established rules and regulations, through a legitimised hierarchy of authority to administer the bureaucratic mechanisms.

When environments are complex and rapidly changing, and uncertainty and ambiguity are high, bureaucracy will not meet the control needs of organisations. If results are hard to measure or even identify, or if they occur infrequently, then output control may not be effective either. In these circumstances, rational means of control by market or bureaucratic mechanisms will not succeed.

Ouchi argues that another form of control, which he terms clan control, can be used. In clan control, it is cultural values, norms and expectations that provide the primary mechanisms of control. The socialisation towards a set of norms and values defines the limit of behaviour and justifies the sanctioning of any unsuitable behaviour. In this way Ouchi introduces the idea of using organisational culture as a control system

3.3.5 Monitoring

Performance evaluation is another function of management. In order to make sure that actions and task delegation takes place in line with the goals of an organisation, managers set up control systems to monitor and make adjustments along the way to realising their strategy. This often involves the setting of targets or standards of acceptable behaviour to encourage the activities that lead to goal realisation.

Two common ways to accomplish this are through output and behavioural control. The former is used when outputs are easily measured and can be identified with, or attributed to, either the individual or group to be controlled. When outputs are not easily measured, behavioural control is often be used to yield desired performance levels. This uses strategies to influence behaviour in the belief that certain behaviours will eventually result inn desired outputs and outcomes.

However, in many instances it may be difficult to apply both output and behavioural control measures. When this happens, the implementation of performance evaluation systems can result in ambiguity and the use of control systems that are inappropriate. By emphasising the wrong aspects of work behaviour, control systems can even discourage the very performance that is desired.

Another problem with performance evaluation systems is that subjects can find ways to satisfy the requirements of the system, without satisfying its intent. This can be achieved by focussing on what is measured and ignoring the goals underlying the measurement system. Because no set of measures can capture all aspects of strategies and goals equally well, and if measures become the focus of activity, then other aspects of performance will suffer as a consequence of goal displacement. There are also strategies for avoiding control in organisations, such as impression management (which involves looking good rather than being good), and cheating.

3.3.6 Human resource management

Lying behind organisational structures, management functions and the operation of technology are individual human beings. This section emphasises the importance of certain aspects of human resource management that may be critical to the effective functioning of most organisations.

It has already been noted that a poor fit between an individual and the rank, function, workload and responsibility of his / her post, may lead to problems such as role overload, work overload and role ambiguity. How organisations recruit, assess and locate personnel into posts and positions is therefore important. In addition, on-the-job training or skills development to facilitate better fits between individuals and their jobs is important.[41,102]

The need to strengthen health management training has been emphasised as a requirement for improving health care in developing countries. Capacity development for managers in the health sector needs to be provided simultaneously in both the technical aspects of health as well as in management. Cassels and Janovsky state that there is a tendency to over-emphasise managerial skills to the exclusion of technical skills and argue that senior managers need to have adequate levels of technical knowledge and operational experience in order to develop appropriate plans and strategies.[39]

Chapter 4
Developing an appropriate research epistemology

Chapters 2 and 3 describe the complex and multi-dimensional nature of health programmes and their integration within a health system, drawing on literature from the fields of public health, public administration, management science and organisation theory. The broad scope of this literature review reflects the complexity of large organisations with a broad range of responsibilities, as well as an intention to study the organisation of a health department holistically.

While a holistic approach to organisational research should be complemented with more focussed research on specific aspects of an organisation, there have been observations that not enough of the former is done in the field of health systems research. Janovsky and Cassels, for example, argue for the need "to take a holistic approach to [health systems and policy] analysis in contrast to the reductionist research tradition of the bio-medical sciences" and to legitimise analytic research approaches that are broad-based.[1] It has also been said that too often, the methods used to evaluate health systems or the reform of health systems are only appropriate for the analysis of parts of a health system, rather than the entirety of a multi-faceted set of factors.[2] Ellencweig argues that a familiarity with only parts of the health system can create a false and distorted picture of the whole.[3]

Determining an appropriate research methodology to study, describe and understand the multi-factoral challenges to effective and efficient management within a public sector bureaucracy is therefore important and is discussed in this chapter. It begins by briefly discussing the nature of social science research and then discusses the case study design as a form of that research.

4.1 An appropriate theoretical foundation for investigating social systems

Although in the past there has been a tendency to view organisations as rational 'machines', there has been a growing appreciation of the fact that 'management' and 'organisations' are in fact social systems made up of social, cultural and psychological phenomena. However, the multi-variate nature of causation in the social world (which makes it difficult to account for all the factors that influence what is being investigated), and the difficulty of measuring social phenomena raises epistemological challenges. For example, because human action and behaviour is purposive, meaningful and driven by an internal logic which is *non-observable*,[1] the measurement and description of phenomena in the social sciences is inherently different from that of the natural and physical sciences.

Because socially constructed systems are unique in time and place[5], they are less bound to general or universal laws that are consistent over time and independent of the context in which they are embedded.[6] The impossibility of replicating, artificially creating, or controlling social systems puts them beyond the reach of experimental research designs such as case-control studies. As a result, the constant flux of social systems "militates against conclusions that are always and forever true; they can only be said to be true under such and such conditions and circumstances".[7] This means discarding the idea of deterministic relationships (where x will always lead to y) and adopting more probabilistic determinations (where x tends to lead to y).[8] In other words, some phenomena are so complex that research cannot develop sufficiently precise tools to determine their absolute truth.[9]

Ethnography is a branch of social science research that aims to understand the organisation of social action in particular settings by collecting data that is mostly based on what people say and do, and the context in which this takes place. It belongs to the inductive tradition of research which emphasises theory development that is grounded in empirical observations, that takes the subjects' meaning and interpretational systems into consideration and that commits to "comprehending the behaviour of subjects in their natural and everyday settings through ... an empathetic understanding of those actors' rationality".[10] Explanations of observed behaviour often remain at the level of a posteriori 'thick description' of actors' interpretive procedures, with theorising limited to providing a conceptual framework for understanding actors' phenomenological worlds.[11]

The validity of ethnographic research is characterised by a confidence in our knowledge but not certainty of its truth; that reality is assumed to be independent of the claims that researchers make about it; and that reality is always viewed through particular perspectives, resulting in representations of reality not reproductions of reality.[12]

In contrast, positivism is an epistemological position which claims that it is possible to determine "social facts", and that there is a reality out there which can be determined and described, provided that appropriate methods are used. It limits the conception of warranted knowledge (i.e. science) to directly observable phenomena, with intangible or subjective phenomena excluded as meaningless; and to the testing of theories in a hypothetic-deductive fashion by their confrontation with the facts of a readily observable external world.[13] This assumes that it is possible to observe the facts of the external world neutrally and objectively and that the rules governing the phenomena of the "natural", non-social world apply equally to the social world. Methodological problems are therefore considered to be technical, rather than theoretical or interpretive.

There are certainly aspects of an organisation that are amenable to a 'positivist' approach to study and evaluation. For example, the official organogram of an organisation can be described objectively in fairly unambiguous terms. Similarly, it is possible to quantify the relative distribution of rank and position authority' across the different divisions of an organisation. As discussed in

Chapter 3, certain organisational outputs can be quantified, measured and correlated with other organisational variables. A great deal of the literature described in Chapter 3 has been produced on the back of a positivist approach to the study of organisations.

However, a large focus of this study is on the nature of social interactions related to the way individuals and divisions within an organisation inter-relate with each other to promote coordination and the effective integration of decentralised PHC programmes. The concern of this study with the effectiveness and determinants of effective cooperation, management, leadership, decentralisation and communication emphasise the social and human dimensions of an organisation. This in turn lends to the growing body of ethnographic and non-positivist approaches to the study of organisations.[14-16]

While the lack of control and experimental groups, embedded in the qualitative approach, hinders the ability to manipulate independent variables and establish cause-and-effect relationships, the large amounts of qualitative data produced in an inductive fashion are more likely to identify and include all variables in any subsequent theoretical analysis, and therefore more likely to be aware of factors that did not form part of the preconceived notions of a deductive researcher. Social science research can be described as managing the "messy interaction between the conceptual and empirical world, deduction and induction occurring at the same time".[17]

Case studies of social phenomena are usually conducted in a non-imposed manner. Unstructured and real-world data are collected 'as they come', usually through a process of observation, complimented as necessary with interviews, focus group discussions, review of documents and questionnaire surveys.

However, qualitative research that seeks to be inductive need not be totally unguided. Silverman warns that the attempt to describe things is doomed to failure without some perspectives, or at least, a set of animating questions[18] and that simply going out into the field and inducing observations can be an excuse for sloppy, unfocussed research. Miles and Huberman point out that "the looser the initial design, the less selective the collection of data" and the more everything looks important, and that waiting for the "key constructs or regularities to emerge from the site" can be a very long wait.[19] Therefore some researchers advocate that it may be necessary and appropriate to enter the field with certain already-formed concepts drawn from a particular model which can help limit and direct the collection of data.[18]

In addition, there is also often an iterative process between the pre-developed hypotheses and concepts with the research itself, with one informing the other during both fieldwork and the final phase of analysis and interpretation. Data collection, hypothesis construction and theory building are therefore not three separate things but are interwoven with one another.[20]

As well as the trend towards a non-positivist and ethnographic methodology, there has also been a trend in organisational research towards adopting research methods that are simple, practical and applied. Mintzberg has argued that the field of organisation theory has "paid dearly for the obsession with rigour in the choice of methodology", and that simpler methods have produced more useful results than those that had been significant in the statistical sense.[21]

Susman and Evered argue that as research has become increasingly sophisticated it has also become less useful for solving the practical problems faced by members of organisations,[22] while Argyris, Putman and Smith similarly believe that many researchers use methods which are so rigorous as to be unhelpful for utilisation.[23] For research to be practical and of use in the real and dynamic world of management, it often needs to be done quickly and to be centred on a problem identified by the practitioner in the field. This contrasts with research that is researcher-initiated and which may be more focussed on theory-building than problem-solving.

The concern with the applicability and relevance of research has led to the notion of 'action research' sitting somewhere in between the collection and use of data to support management and improved organisational performance, with the collection and use of data as an academic endeavour. However, whether action research is deemed to be sufficiently rigorous to qualify as 'science' has been questioned.

Management and organisational scientists with a concern for applicability have mounted a strong defence of the legitimacy of action and applied research as a science. For example, Susman and Evered have legitimated action research (and the problem-solving approach to research) as science by locating its foundation in philosophical viewpoints that differ from those of positivist science such as praxis, hermeneutics, existentialism, pragmatism and phenomenology.[24] Gill and Johnson argue that action research is a *kind* of science with an epistemology which produces a particular kind of knowledge that is of use to a particular organisation.[25]

Neither should Mintzberg's plea for more simple methods necessarily mean simple research. While methods to collect data may be simple, the inductive process of analysing and interpreting a wide range of unstructured data requires patience, hard work, a suspension of anxiety about progress and an ability to cope with ambiguity.[26] In addition, adherence to the basic principles of methodological rigour should apply to any form of research, regardless of epistemological view-point. These may include trying to ensure construct validity, internal validity, reliability and the minimisation of biases and errors.

Fielding and Fielding identify two common problems of qualitative researchers: a) a tendency to select data to fit anecdotal conception (preconception) of the phenomenon ('anecdotalism'); and b)

a tendency to select field data which are conspicuous because they are exotic at the expense of less dramatic (but possibly more indicative) data.[27]

Therefore, ethnographic research, without claiming to be positivist or deterministic, has developed certain tools to maximise methodological rigour. For example, construct validity can be maximised by using multiple sources of evidence and information (triangulation); establishing a chain of evidence; and having key informants review a draft of the case study report (respondent validation).

Much however is also left to the researcher's self-discipline and vigilance against bias, and the temptation of changing the purpose of the study to suit the data. Mays and Pope explain that the validity of observational accounts relies on the truthful and systematic representation of the research and that in many ways, it is honesty which separates the observational account from the novel.[28]

Although some social scientists argue that a concern for reliability belongs to the quantitative and positivist research tradition, others suggest that reliability can be enhanced through the documentation of all research activities, recording observations as concretely as possible (e.g., including verbatim accounts of what people say rather than reconstructions of what was said) and developing and documenting clear and systematised data collecting protocols and procedures. Yin advises making as many steps of the research process as operational as possible and conducting the research as though someone were always looking over your shoulder.[29] Spradley suggests that observers keep four separate sets of notes: a) short notes made at the time; b) expanded notes made as soon as possible after each field session; c) a fieldwork journal to record problems and ideas as they arise; and d) a provisional running record of analysis and interpretation.[30]

Because any observer of a social system is unable to resist being influenced by his/her own values, experience and knowledge, prior beliefs are implicitly or explicitly projected upon what is observed. Grounded ethnography has in fact been criticised for its failure to acknowledge the implicit theories which guide work at an early stage.[31] In order to deal with the imposition of assumptions and background expectancies, researchers need to be reflexive. This entails the researcher actively and consciously attempting to understand his or her own effect upon the research setting and on the collection and interpretation of data that are collected.[32] This may include thinking about any Hawthorne effect (i.e. when the presence of a researcher affects the object under study); what is known about the research and by whom; what sorts of activities are and are not engaged in by the researcher in the field, and how this locates her or him in relation to the various conceptions of category and group membership used by participants; and what the orientation of the researcher is, and how completely s/he consciously adopts the orientation of insider or outsider.[33]

Interestingly, one school of thought with a particular focus on the application of research believes that far from trying to minimise or even understand the observer effect on the subject of study, the researcher should actually invite a subjective experience to what is being studied. Schein for example assumes that one cannot understand a human system without trying to change it and that the notion of diagnosis preceding action in discrete stages is misleading.[34]

For others, because knowledge is ultimately best evaluated by how successfully it guides action towards the realisation of a particular objective, this may involve researchers accepting their role as a partisan participant and divesting themselves of any illusion of being a detached observer occupying a neutral position. There would then be an "explicit recognition that social theory is interconnected with social practice such that what is to count as truth is partially determined by the specific ways in which scientific theory is supposed to relate to practical action .... thus the theories of such a science will necessarily be composed of, among other things, an account of how such theories are translatable into action".[35]

4.2 The case study

A common research design used in ethnography is the case study[36,37] as this "allows an investigation to retain the holistic and meaningful characteristics of real-life events - such as individual life-cycles, organisational and managerial processes, neighbourhood change, international relations and the maturation of industries".[38] By focussing on a case in an in-depth and holistic manner, case study research can create a coherent and illuminating description and understanding of a situation, as only an "intensive study and empathetic feel for cases [can] provide authoritative insights into them".[39] The case study is also commonly used when the investigator has little control over events, when the focus is on a contemporary phenomenon within some real-life context, and when the boundaries between phenomenon and context are not clearly evident.[29]

A case study design is therefore appropriate for research aimed at describing and understanding the functioning of a complex and multi-dimensional organisation.[29]

The purposes of case study research can vary. Eckstein described the case study method as a generic concept consisting of several 'species' within its 'genus'.[39] In some instances, case studies do no more than describe a phenomenon, correctly explain the real nature of a problem or identify the true determinants of a successful outcome. Such case studies are purely exploratory or descriptive, concerned only with understanding the case being studied. They overlap with the practice of writing an historical or contemporary analysis of unique events, people or systems, and are akin to grounded ethnographic research. Eckstein uses the term *configurative-idiographic* to describe such cases.

Another application of the case study is in the form of 'evaluations' of, for example, specific programmes, policies or organisations. Yin also describes four possible outputs of evaluation research. One is to help *explain* the causal links of real-life interventions that are too complex for survey or experimental strategies. A second is to simply *describe* an intervention and the real-life context within which it occurred. A third is to *illustrate* certain things within a broader piece of work. And the fourth is to *explore* situations in which an intervention being evaluated has no clear, single set of outcomes.

The main criticism of case study research is that case studies are not generalisable, and are therefore unable to provide recommendations and inform policy beyond the case itself. These criticisms have however been rebutted. The first rebuttal refers back to the epistemological nature of social systems and the inherent deficiencies of scientific determinism and an undue concern with identifying law-like regularities in the complex and context-laden world of social phenomena.[40-42]

However, it is also argued that case study research *can* contribute to generalisable knowledge and theory. One argument is that case studies of social systems create a 'tacit knowledge' and experiential learning that comes from direct experience and intuition (as opposed to 'propositional knowledge)'.[43,44] This knowledge produces a 'naturalistic generalisation' that can be applied beyond the particularities of the case.[44] In other words, 'real stories' can develop knowledge, understanding and intuition that can "illuminate the working of a social system in a way that a series of morphological statements cannot achieve".[45] By studying the particular (or even the unique), one develops 'hunches' about the general. According to Donmoyer, the narrative of a case study can even allow a "thinking and communicating about certain aspects of experience better than propositional knowledge".[46]

Another way of looking at case study research is in terms of it being 'expansionist' rather than 'reductionist'. Instead of looking for a synthesis of data into a set of laws or scientific propositions, case studies seek to expand the range of interpretations, explanations and insights. In this sense, the uniqueness of a single case study is seen as an asset rather than a weakness, and allows one to know more about complexity, rather than to erroneously simplify complexity.[46]

It is also argued that case study research can lead to some formal theory development about the regularities in social structure and process.[47] Eckstein uses the term *heuristic case studies* to describe cases that provide information or insights for the purpose of theory-building or hypothesis generation.[39] Key to this viewpoint is the idea of 'theoretical inference' whereby propositions or conclusions are made about what happens with a given degree of predictability "in a certain type of theoretically-defined situation".[48] However, Gomm argues that "in order to draw sound empirical generalisations on the basis of case studies, it is essential to use what information is available

about the cases studied and the target population; to recognise and signal possible risks to sound generalisation of the findings; and to organise the selection of cases for investigation in such a manner as to allow for relevant heterogeneity".[49]

Finally, case studies can be used to test already developed theories through a process called 'analytic generalisation'.[29] Theoretical propositions are tested on cases and are either confirmed or rejected. Multiple case studies can be seen in the manner of multiple experiments so that the more cases that support a given theory, the more sound the theory becomes. Cases which result in similar findings produce a 'literal replication', while those that produce contrasting findings, in a way *predicted explicitly at the outset* of the investigation, produce a 'theoretical replication'.* In some studies, multiple cases are selected from the outset to represent a range of situations and contexts, or similar situations, so as to demonstrate replication. The disadvantage is that such studies require more resources and time, although it has been suggested that not all cases have to be studied to the same depth.[40]

It is also suggested that the findings from one case study can be applied or 'transferred' to other settings as a 'working hypothesis', provided that there is a similarity or 'fit' between the two cases. In order for a judgement of 'fit' to be made, case studies need to be accompanied by a 'thick description' about the context of the case so that a judgement can be made of whether the fit is adequate.[50] Goetz and le Compte emphasise the importance of clear and detailed descriptions of the 'comparability' of the units of analysis, theoretical stance and research techniques, to allow decisions to be made about the extent to which findings from one case study can be applied to other situations.[51]

These forms of theory building and generalisation are distinct from statistical generalisations through the enumeration of frequencies, and 'empirical generalisation' which draws "inferences about features of a larger but finite population of cases from a study of a sample drawn from that population".[40] A common mistake in case study research is therefore to apply statistical generalisation as a means of generalising because cases are not units that have been sampled to be representative of a bigger universe.[29]

4.3 Case selection and data collection methods

The first step in designing a case study is to define the phenomena being studied (i.e. the 'case'). There are no precise or generic rules of what may or may not constitute a 'case'. Cases have been described in terms of organisation(s), event(s), period(s) of time' individual(s) or any 'bounded

* The amount of replication required for a theory to be 'generalisable' or 'robust' is considered partly a matter of judgement, the mix between literal and theoretical replication and the quality of the case studies.

system'. What is important is that there is a clear definition of the case, including a timeframe for the research.[41]

At the same time, one needs to be clear about the purpose of the investigation and the 'type' of case study. As mentioned above, case studies can be purely descriptive or used to answer specific questions related to the case, or to develop theoretical propositions, or to test theories that have already been proposed. Some propositions or hypotheses are usually required to help direct attention to what should be examined within the scope of the study. Initial research questions or study propositions can also help inform the identification of the unit of analysis or 'case'.

Proponents of case study research also emphasise the importance of thinking clearly through the purpose and criteria for case selection, and warn against a selection of cases purely on the basis of convenience or easy access. For case studies that are undertaken with the intention of developing theory or generalisable propositions, they also emphasise that time needs to be spent on "theory" development as an essential initial step and as a grounding for data collection and analysis.

Schofield describes cases that are selected for their 'typicality' so as to describe and understand what is common or ordinary - if combined with a thick description, this maximises the potential for generalisability. Other cases may represent the 'cutting edge' or vanguard of a particular phenomenon and can therefore help predict or anticipate future developments. Others are selected because they represent an ideal, which may be used to set standards for the broader population of cases.[41]

Cases can also be configured in a variety of ways. An 'embedded single case study design' involves a focus on one or more sub-units of analysis within a case. For example, in an organisational study, embedded units might include "process units" (such as meetings), roles or locations within an organisation. These embedded units can be selected through sampling or cluster techniques. Case studies with no identifiable embedded units can sometimes lead to an avoidance of examining a specific issue in sufficient detail or result in an abstract study lacking in clear measures or data. Another reason for selectivity within a case is that even a case study approach can be insufficient to study everything comprehensively. The investigation may then have to be selective and rely on some internal generalisation.[40]

As far as methods of data collection are concerned, case studies of organisations typically use an eclectic set of research tools, combining both qualitative and quantitative data. This capacity to combine different types of data and research methods into a single study is one of the advantages of case study research.[29] However, typically the research is qualitative in nature, aiming to provide a narrative description of complex social phenomena.

Eckstein describes the most common form of data collection for an inquiry into social units as being 'participant observation and 'empathy' (understanding the meaning of actions and interactions from the members' own points of view).[39] This is consistent with Goffman's assertion that in order to learn about a social group, one should "submit oneself to the company of the members, to the daily round of petty contingencies to which they are subject".[52]

Mintzberg, who compared and evaluated different research methods in the field of management and organisational sciences, believes that managers are poor estimators of their own activities (and are therefore not always reliable informants), and cannot always translate complex reality into meaningful abstractions.[53] For this reason, he favours participant observation as it offers the advantages of inductive, unstructured observation with systematic recording and reflection. However, he did note its limitations of being unsystematic, difficult to replicate, less likely to be comprehensive and open to researcher selectivity.

Chapter 5
Study design and methods

5.1 The case

The organisation studied was the provincial DoH of the Free State.* The case excluded the national DoH and LG health services, although their interaction with the provincial DoH was covered by the study

The Free State province was selected mainly for reasons of opportunity. The researcher was involved in providing technical assistance to the decentralisation strategy of the Free State DoH which involved providing sustained facilitation and support to two health districts to improve the quality of PHC over a period of more than three years, as well as supporting provincial and district management teams with planning and policy development.

As a result, regular access to case study material as a participant observer was possible, thus overcoming one of the most frequently mentioned barriers to conducting case studies of organisations. This included being present at numerous departmental meetings and workshops, being involved in internal discussions about provincial health strategy and gaining access to internal documents and memoranda at both the provincial level as well as from the two districts in which the researcher was providing technical support.

The Free State also had a reputation for having one of the more stable governments and having, in particular, a well-managed DoH. Thus, when it came to understanding the organisational determinants of integrated, coordinated and decentralised PHC programmes, the Free State offered the best opportunity in South Africa for studying the organisational dimensions described in Chapter 3 within the context of administrative stability.

5.2 Methods

Directing the research

Although organisational case studies are often designed to collect a wide range of unstructured data and to construct 'thick descriptions' in an inductive process, certain loosely defined hypotheses

* The Free State province is a relatively small province demographically and geographically, with a population of approximately 2.7 million spread over 129,480 square kilometres. It incorporates the pre-1994 Orange Free State province of the former RSA and the former homeland of Qwa-Qwa.

can be developed to assist the researcher to reflect effectively during the period of participant observation, and to assist with the development of structured or semi-structured questionnaires.

In this instance, the experience of facilitating quality of care improvements in two sub-districts had already resulted in the researcher gaining first-hand experiences and observations of the way in which PHC programme fragmentation was affecting providers and managers at the district and sub-district level. This led to the development of certain 'hunches' about the cause of the problems and potential solutions. A provincial initiative to improve the coordination of PHC programme planning was part of a set of interventions that the researcher was involved with, and was built on the belief that improved strategic planning was needed to improve the integration of the PHC programmes, as well as the inter-action between the centre and the periphery.

However, in order to systematise study of the DoH and to help ensure that the research was not unduly biased by the researcher's involvement in a process to actually remedy the problem under study, a checklist of factors and 'prompts' based on the four organisational dimensions that emerged out of the literature review were generated.

Therefore, certain 'hunches', complemented with the organisational variables and factors identified from literature, pointed the research in certain directions, there were no formal hypotheses generated in the traditional and positivist frame of conducting research. Instead, 'questions' and 'prompts' were used to act as a checklist or 'aide memoire' for the researcher to ensure that all relevant variables and factors would be looked at and considered. In addition, they were used as a catalyst for thought and reflection during the period of analysis to help ensure that different explanations for the phenomena observed would be considered. This list of 'questions' and 'prompts' were regularly referred to throughout the period of the study, and are listed in Appendix 5.1 at the end of this chapter.

Data collection

Participant Observation

As described earlier, participant observation occurred as part of the researcher's job as a technical advisor to the DoH. A variety of workshops, meetings and discussions were observed in this manner. Most of the workshops and meetings were usually written up in the form of reports and minutes. In addition, during a period of twelve months, a notebook was kept to make notes of observations that would not normally be reflected in any formal documentation. These notes were always written up in detail on the same day of the observation for later analysis. Because the researcher's job as a technical advisor included the study of the organisation for the purpose of

improving the function of the DoH, study subjects were aware that research was being conducted on an on-going basis so that taking notes was not considered unusual or intrusive.

Document Review

A large number of documents related to the organisation and implementation of PHC programmes were reviewed and analysed (listed in Appendix 5.2 at the at the end of this chapter).

Semi-Structured Interviews

Semi-structured interviews of provincial managers responsible for the coordination of PHC programmes, provincial-level managers at director level, the Head of Department and the deputy Head of Department were conducted (Appendix 5.3 at the at the end of this chapter). The main focus of these interviews was to understand the role, function, competence and activities of the provincial PHC programme managers. They were generally interviewed more than once.

During these interviews it was explained to the informant that the research was being conducted for the purpose of assisting with the researcher's job as a technical advisor, but also for an academic thesis. Informants were told that any opinions or views put forth by the informant would be treated confidentially, but that in some cases it would not be possible to hide the source of some information. They were therefore asked to indicate specifically when they made a comment that they did not want to be attributable to them.

The interviews were "partially non-directive". Interviews would start with a description of the issue of PHC programme integration and the relationship between managers at the centre and the periphery, but then left open to allow respondents to speak generally. However, some questions were also asked in relation to specific events that had been observed by the researcher. These interviews were not taped, but notes were taken during the interviews and then written up in full that same evening.

Structured Interviews

After the initial period of participant observation and semi-structured interviews, and some preliminary analysis of the data, a structured interview schedule was applied to a selected number of provincial and district managers. A full list of the post and designation of the managers formally interviewed is shown in Appendix 5.3 at the at the end of this chapter.

The selection of provincial informants was designed to complement the data obtained from the semi-structured interviews, especially of the provincial PHC programme managers. PHC

programme managers were therefore not interviewed. Instead, all the senior provincial line managers were interviewed as well as the Director of PHC programmes and the Deputy Director responsible for Planning. Because of the larger number of support service managers, a sample of four Directors were randomly selected.

Eight district level managers were formally interviewed as well. It was decided that in each of the five Districts, one 'general' manager would be interviewed, preferably the district manager, and one randomly selected PHC programme coordinator. In the event, it was only possible to interview three of the former and five of the latter.

These interviews were conducted by an independent researcher (not the author of this thesis) who was a very experienced social scientist from the University of the Free State familiar with the DoH and who was well known and trusted by DoH officials. These interviews were taped and fully transcribed, and each interview lasted approximately 75 minutes. Analysis of these interviews indicated a very good rapport between the researcher and the interviewee, as well as an understanding of the underlying purpose of the study.

5.3 Ethics

The research and data collected for the purpose of this thesis was nested within a broader technical assistance initiative that was designed to improve the quality of health care delivery in the Free State through sustained an on-going technical support. Part of that on-going technical support involved the explicit implementation of health systems and policy research. Much of the data collected through the various methods listed above would have been collected in any case as a means of assisting the technical assistance initiative. The main difference is that the data would not have been collected and treated in such a structured and scientific manner were it not to be used simultaneously for the purpose of an academic thesis.

In all the interviews that were conducted, informants were made aware of the fact that data were being collected to facilitate both the technical assistance initiative as well as for an academic thesis. Notes were only taken with the permission of informants. All informants were aware that in some cases, their anonymity could not be protected by virtue of the fact that there would only be one person who could be linked to a certain position. For example, there is only one Head of Department, and any reference to the head of the organisation cannot be anonymous.

All informants were made aware of the fact that data would be anonymised as far as possible, and that any public dissemination of the information would be discussed with the DoH first.

Permission for the collection and use of any data for the purpose of the thesis was formally requested in writing from the Head of Department, and duly granted.

5.4 Discussion about methods

Applying the research while collecting data

A central purpose of management or organisational research is to improve management and organisational performance. However, when the subject of the research involves managers themselves, professionals may dispute or resist the findings or recommendations because of the view that academics are disconnected from the real world of management; or lack any relevant practical experience. The relationship between client / subject and researcher / consultant is therefore important.

In this case, the researcher had a second identity as a 'practitioner' in the form of a technical consultant to the DoH. This identity entailed a prolonged and sustained period of time of working with and through the government health structures to improve the quality of care on the ground.

While this dual identity lends itself to the possibility of the 'researcher identity' being unduly influenced by the 'practitioner identity', it does have the benefit (at least in theory) of the research findings and recommendations being more readily accepted and applied. One of the strengths of this research was the ability to use the research in an on-going manner to improve management and organisational performance by shuttling between the two identities. Indeed, throughout the research period a variety of outputs were generated and interventions put in place to support the improved integration and coordination of PHC programmes, which directly benefited from the organisational theory covered in the literature review, as well as from the scientific approach to data collection and analysis.

This approach is in line with the arguments made by Schein and Fay in Chapter 4 that useful and incisive knowledge is generated through the process of intervening in the problem under study, and stands in contrast to the strict 'fly on the wall' approach of ethnographic participant observation that aims to minimise behaviour modification by the presence of a researcher.

Validation

The approach described above does carry the risk of being inadequately 'objective' and becoming too involved in the organisation's dynamics which are under study. A balance is therefore required between being actively involved and participating in the organisation as a means of gaining insight,

access and subjective experience of the phenomena under study, with standing back and assessing the data and observations dispassionately and scientifically.

In this case the latter was achieved by virtue of the fact that the researcher was not a constant presence in the DoH. The researcher was present in the DoH approximately once every three weeks for two days over a period of three years before and during the study period.

In addition, moments of reflection took place regularly during which time the researcher made a conscious effort to distance himself from the subject matter and view and consider the various phenomena and experiences as though through the eyes of a curious but detached onlooker.

As mentioned in Chapter 4, this requires a considerable degree of discipline, honesty and resistance to the lazy temptation to interpret data in ways that are convenient and biased. Although there is no pretence of the possibility of determining *the absolute truth* about a complex social system such as a DoH, an attempt was made to describe *a particular truth* about the DoH through the eyes of a participant observer who took a balanced approach to understanding the multiple factors and variables of an organisation.

In addition, attempts were made to ensure validity through two mechanisms. Firstly, because the study took place over a long period of time, the researcher was able to check the validity of any summaries or explanations of phenomena by testing them out on various informants. In other words, an iterative process was developed with various members of the DoH, which helped to maximise the degree to which the researcher's interpretation of the organisation 'rang true'. Secondly, some of the case study material was shared with other researchers and public health professionals who were familiar with the Free State DoH, and who were also able to help corroborate various aspects of the case study.

Analysis and presentation of findings

As described earlier, the research began with some 'hunches' as to what was contributing to the poor integration, coordination and decentralisation of PHC programmes in the Free State. Data were collected from a variety of sources to test these hunches. Much analysis of data was also conducted implicitly as part of the problem-solving role implied by the researcher's 'practitioner identity'.

At the end of the period of study, all the data collected was reviewed and analysed. The researcher's own conclusions and analysis that had formed over the same period of time was added to the mix. A semi-structured checklist of variables and factors was used to help organise the data, and to ensure that certain variables had not been overlooked by the researcher's own

formulation of analyses and conclusions during the course of his work as a technical advisor to the department.

In addition, an analysis of the different PHC programme areas was conducted. This piece of analysis was not based on any empirical data, but consisted of an informed dissection of different PHC programme areas in order to identify how the characteristics and features of specific programme areas might affect their needs for particular forms of management and coordination.

In presenting the data, careful thought was given to the presentation of findings and analysis in a way that allowed the issues related to the coordination and integration of PHC programmes to be understood as a narrative. In order to do this, the first section of the findings chapter consists of several sub-sections that describe the organisational structural dimension of the Free State DoH, as well as the nature of the main inter-divisional relationships. This permits not only a description of one of the key organisational dimensions under study, but also a narrative to what was being experienced in terms of the coordination and decentralisation of integrated PHC programmes. This is then followed by data related to the other four organisational dimensions described in chapter 3 being added to the narrative. Finally, at the end of the Findings section, the findings related to the document review of plans and policies is presented.

In order to facilitate a smoother read, the observations of the researcher were not presented separately from the data generated from interviews. Instead the combined findings of the researcher's own observations together with the view, opinions and beliefs of the subjects of the study are weaved together to provide a single narrative text. Where appropriate, direct quotes from informants were inserted into the narrative in order to provide some colour and interest to the narrative. On the other hand, some quotes and views were excluded form the narrative because they did not agree with the considered outcome of the research.

Drafts of this narrative were shared with a number of key informants, as described earlier, in order to allow for checks on validity and plausibility. Once the narrative was complete, a number of thematic issues were then drawn out for further discussion, as well as some conclusions and recommendations.

Appendix 5.1: Checklist of organisational factors

The features of PHC programmes that affect organisational design:

- complexity of tasks;
- volume of tasks;
- creative or routine / one-off versus sustained;
- degree to which information for planning and management is context specific;
- degree to which information is easy to communicate ;
- degree to which management is dependent on 'specialist' knowledge;
- type and degree of inter-dependency within and between programmes;
- activities of particular importance requiring closer control and supervision;
- changing environment;
- diverse markets;
- need for direct inter-action with consumer;
- range and diversity of tasks / activities;
- approach and values linked to outputs;
- measurability of outputs;
- extent to which mistakes matter;
- urgency of time scales;
- degree to which tasks are unambiguous and non-contingent;

The structural configuration of the DoH

- how and where PHC programmes are located on the organisational chart;
- how the DHS model fits into the structural configuration of the DoH;
- how structural factors affect the management dynamics between the centre and periphery
- how structural factors affect the management dynamics between PHC programmes
    - Factors to consider:
        - distribution of authority / rank;
        - clarity and appropriateness of roles and functions;
        - poor fits between individuals (skills, experience and aptitude) and their posts leading to role overload; work overload; role ambiguity; or overcrowded territory, and the role of HRM and HRD;
        - need for central control versus peripheral autonomy;
        - misconceptions about decentralisation being a zero-sum game;
        - complementarity between structure and PHC programmes;
        - clarity and understanding about the nature and inter-dependency of PHC programmes;
        - are other divisions super-imposed upon the DHS model, and to what effect;
        - management dynamics between staff and line authority;

- stability of organogram;

The planning process:

- how the planning process affects the dynamics between centre and periphery;
- how the planning process affects the dynamics between staff and line divisions;
- how the planning process affects the dynamics between PHC programmes;
  - Factors to consider:
    - planning framework
    - complementarity between plans and structure (line vs staff authority plans; divisional plans informing each other);
    - direction of planning (top-down vs bottom-up);
    - extent to which planning used to foster common values and principles etc;
    - degree of participation;
    - complementarity between plans and organisational outputs (e.g. specificity and measurability of outputs);
    - maintenance of internal organisation.

Management style and leadership:

- how management style and leadership satisfies the preferences of subordinates, ensures integration and optimises communication;
- how management style and leadership affects the implementation of PHC programmes
  - Factors to consider:
    - top-down style and hierarchical vs organic, bottom-up;
    - authoritarian / structured vs supportive / participative end;
    - task- or production-centred vs people-centred / socio-emotionally-focussed;
    - willingness to delegate or to practice *management by exception;*
    - complementarity between leadership and management style with a) subordinates (preferred style of leadership; skill and expertise; values; needs; and interest in the organisational outputs); b) organisational outputs c) organisation's norms, values and culture;
    - how the performance evaluation system works.
- How the pattern of communication reflects and affects the functioning of the organisation and how organisational factors affect communication
  - Factors to consider:
    - structure;
    - leadership and style of management;
    - culture of organisation;
    - skills;

- external socio-cultural factors;

Social and cultural factors:

- interpretations of authority and hierarchy / preferred styles of leadership;
- culture of communication;
- racial and language differences;
- togetherness;
- morale, motivation and commitment;
- informal values, expectations and objectives;
- tension between different professional groups;
- reluctance of officials to share authority and power;

Contextual factors:

- lack of clarity about functions and responsibilities between executive, legislative, judicial and administrative;
- politics of decentralization;
- organisation of the health care system;
- role of government within the health care system;
- size and role of other organisations involved in health care.

Appendix 5.2: Documents reviewed and assessed

Free State Service Plan

Free State Department of Health Annual Report 2000/2001

Free State Business Plan

Guidelines on the Preparation of the Departmental Business Plan

Directorate PHC Programmes: Operational Plans for:
- HIV/AIDS/STDs
- Health Promotion
- Communicable Disease Programme
- Environmental Health
- MCH and Nutrition

Directorate PHC Programme's guidelines on:
- Management of poverty alleviation projects
- Management of the antenatal care
- The immunisation programme
- Neonatal tetanus (NNT)
- Tuberculosis control program
- Implementation of health promoting schools programme
- Establishment of provincial health promotion forum
- Planning and dissemination of integrated health promotion messages
- Planning and implementation of training programme for health promoters
- Establishment of health and safety committees
- Establishment of provincial occupational health unit
- Rendering occupational health service at facility level
- Implementation of an improved sheltering and indoor air quality program
- Implementation of a vector control and biotic interaction program
- Implementation of a pesticide and chemical safety program
- Implementation of an air pollution and radiation control program
- Implementation of a food safety program
- Implementation of an domestic water and sanitation improvement program
- Management of adults with HIV/AIDS in primary health clinics
- Management of measles
- Provision of information on genetic services
- Provision of top services
- Youth-friendly health services
- Provision of contraception services
- Screening of the cervical cancer
- Management of the well baby
- Routine care of normal new born infant
- Management of pueperium (normal)
- Management of a woman in labour (normal)
- Adverse events following immunisation (AEFI)

Primary Health Care Programmes: Focus Areas (1/2000)

Report on Integrated Planning Work Session (25 – 27 January 1999)

Environmental and Occupational Health Services Business Plan and Timetable of Events 1999/2000

Free State Business Plan for the Integrated Nutrition Programme

Report by Free State Provincial Quality Services Improvement Strategy Formulation Task Team (QSISFTT)

TB programme strategic document on design and organogram of TB programme

TB sub-directorate draft job descriptions

Document: Pledges for the Proposed Partners in the Struggle Against AIDS

Terms of Reference for the Provincial AIDS Council

Guidelines for the Establishment of District AIDS Councils

Minutes of Provincial AIDS Council Meetings (5/00, 6/00

Minutes of the Provincial Inter-Departmental Committee on HIV / AIDS (12/99, 3/00, 5/00

Proceedings from the Provincial HIV/AIDS Conference (Bua Feela 2000)

Minutes of the HIV/AIDS/STD and TB Workshop (14^{th}-15^{th} October 1999, Kopano).

Report of the Strategic Planning Workshop to Devise an Integrated Plan to Address the Problem of Malnutrition. The Keg Country Inn, Harrismith 21 – 22 October, 1999

Improving Environmental Health in the Free State: Mapping The Way Ahead By The Environmental Health Section, Free State DoH, Nov 1999.

HIV / AIDS Sub-Directorate Strategic Response For HIV / AIDS (2000-3)

Operational Plans: Sub-Directorate: HIV / AIDS / STDS

Business Plan: HIV / AIDS ATICC - Northern Complex (DC18 And 19), 2000-01

Report on Integrated Planning Work Session, 25 – 27 January 1999, Willem Pretorius Game Reserve.

Appendix 5.3: List of informants

Semi-structured interviewees

1) Head of Department
2) Chief Director: Clinical Services / Head of Department
3) Chief Director: Support Services
4) Regional Complex CEO
5) Regional Complex CEO
6) Deputy Director Planning
7) Deputy Director for Mental Health, Chronic Diseases, Eye Care and Geriatrics
8) Deputy Director for HIV / AIDS programme
9) Chief Community Liaison Officer in Provincial HIV sub-directorate
10) Director: PHC Programmes
11) Deputy Director Nutrition and MCH programme
12) Assistant Director Health Promotion
13) District Manager
14) District Manager
15) Deputy Director for TB and EPI
16) Assistant Director for Environmental Health

Structured Interviews

1. Head of Department
2. Chief Director: Clinical Services
3. Chief Director: Support Services
4. Regional Complex CEO
5. Regional Complex CEO
6. Director PHC Programme
7. Director Health Support
8. Deputy Director Planning
9. Director Human Resources
10. District HIV coordinator
11. District MCH coordinator
12. District TB coordinator
13. District HIV coordinator
14. Sub-district health manager
15. District TB coordinator
16. District manager
17. District Manager

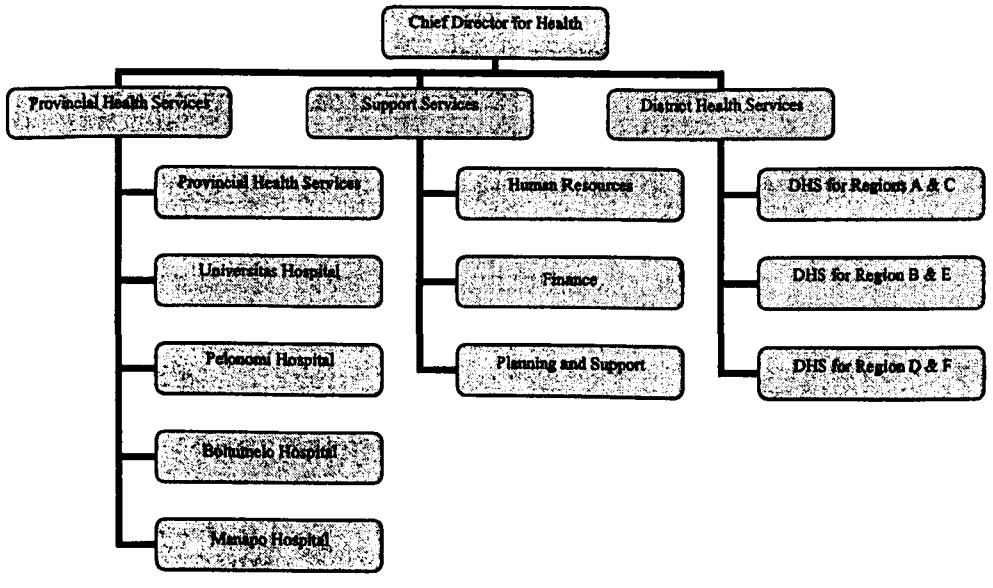
Chapter 6
Findings

This chapter presents some of the findings from the study, and describes the experience of the implementation of PHC programmes in the Free State DoH, mainly during the period 1999-2000. The findings are presented roughly according to the organisational dimensions listed in Chapter 3. To start with the organisational structure of the Free State DoH is presented in Section 6.1. This is followed by a description of the inter-divisional relationships of the department in 6.2. These two sections provide a narrative account of the problems experienced by health managers with the coordination and implementation of PHC programmes. This is then followed by a further presentation of findings related to the organisational dimensions of environment, culture and physical structure in Sections 6.3, 6.4 and 6.5. Section 6.6 then describes the 'technological' factors and variables related to the different PHC programmes. Finally, a detailed presentation of analysis of the planning process and outputs of the Free State DoH is presented in Section 6.5

6.1 Structural Design and Organogram of the Free State DoH

Immediately after 1994, the Free State DoH formed part of a single department, under a deputy director general (DDG), which combined health and welfare services. Under the DDG, the health section was headed by a chief director (CD) for Health, and was organised into 11 directorates grouped into three main sections: Support Services; Provincial Health Services and District Health Services (see Figure 6.1).

Figure 6.1: Provincial Organogram 1995



The District Health Services section consisted of three directors who were each responsible for the development of district health services in two of the six health regions of the province. These directors had line management authority over all district health services administered by the provincial government (mainly clinics, community health centres and district hospitals), and were also responsible for facilitating cooperation and functional integration with local government (LG) health services. The three DHS directors were also responsible for managing the development of the province's PHC programmes. This consisted of developing policies, guidelines, standards and human capacity to deliver PHC through a number of deputy directors (DDs) and assistant directors (ADs) responsible for different PHC programme areas. These DDs and ADs were based at head office and each of them was allocated to work under the management of one of the three DHS directors.

At the periphery, the six health regions each had a regional health office headed up by a DD. In 1996, the regions were further sub-divided into 14 health districts and an AD was appointed to each of them as an interim district health manager.

The Provincial Health Services section consisted of five directorates responsible for the line management of regional and tertiary health services. Four of the five directors were based at tertiary / academic hospital complexes and not at head office. The fifth was responsible for other regional hospitals in the province.

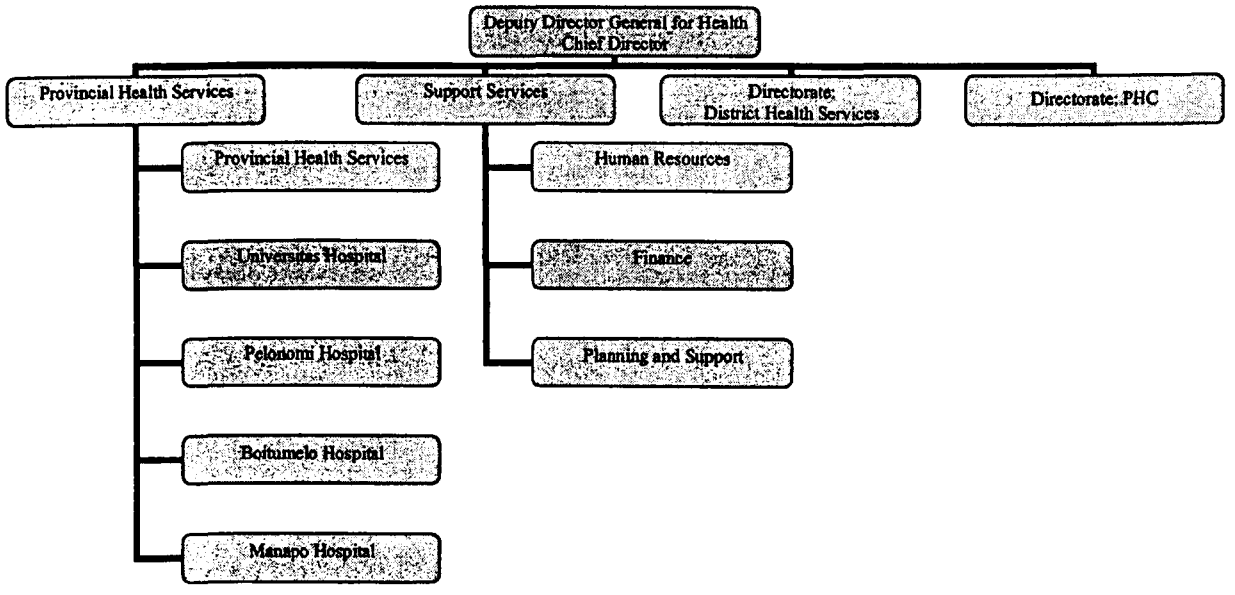
The Support Services section consisted of three directorates (Figure 6.1). The Directorate for Human Resources was responsible for all training institutions in the province as well as human resource management functions such as hiring and payroll management. The Directorate for Finance was responsible for budgeting, accounts management and expenditure monitoring. The Directorate for Planning and Support was responsible for a mixed bag of functions including the development of the province's information technology (IT) capacity, the health information system, ambulances and head office administration.

In 1998, the provincial DoH was restructured (see Figure 6.2). The management of PHC programmes was separated from the management of district health services. One directorate now became responsible for the line management of all district health services in the province, whilst another directorate took responsibility for the management of all the PHC programmes ADs and DDs. At roughly the same time, a change in national policy also allowed the provincial government to separate health and welfare into two distinct departments, each under the leadership of a DDG.

These two changes that occurred in 1998 changed the organogram from having three main sections (Figure 6.1) to having four main sections (Figure 6.2), separated line authority and staff

authority functions into different directorates, and increased the senior management complement from half a DDG and 1 CD, to a full DDG and 1 CD.

Figure 6.2: Provincial Organogram 1998

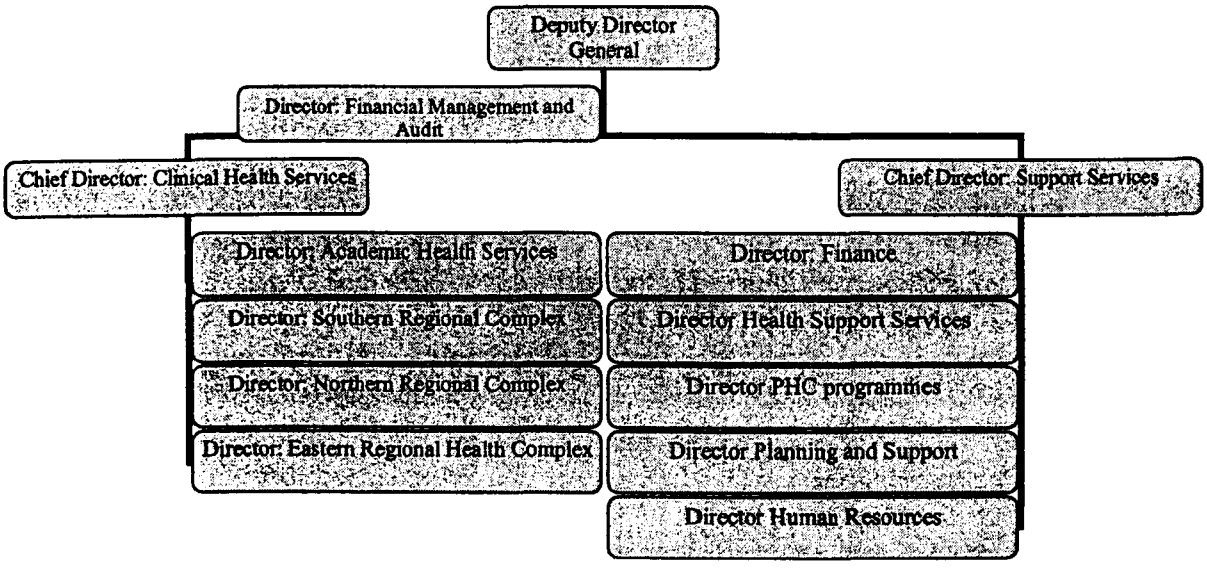


However, certain problems with the provincial office structure began to emerge. The Provincial Health Service directorates (mainly responsible for regional hospitals) and the Directorate for District Health Services were not working well together. According to one informant, "there was no coordination between the two". Others described the relationship as "two people sitting on two mountain tops shouting at each other about what needs to happen", and as though they looked at each other "as a dog and a cat".

After attempts to solve the problems through improved communication had failed, it was felt that the problem would be best addressed structurally by bringing the regional and district services "under one umbrella" and having all health services in a geographical area managed together.

The province did this by creating three "regional complexes" at the end of 1999, each to be headed by a director who would be responsible for all health services in that region, except for academic / tertiary services and "specialist" services which would be managed by a fourth directorate. The three regional complexes and this fourth directorate were then placed under a CD for Clinical Services at the provincial office. A second CD post was then created under which all the provincial support functions were grouped. Finally, a new Directorate of Financial Management and Audit was placed under the DDG for Health, to support his responsibility as the most senior accounting officer. These changes are shown in Figure 6.3.

Figure 6.3: Provincial Organogram 1999/2000



This re-structuring divided the DOH's line divisions into four directorates – one for the academic and tertiary health services of the province, and three regional health complexes. In addition, the regional directors were each given offices and support staff that were physically located outside the provincial head office. Nearly half of all the head office directors were therefore physically deconcentrated to the regions, and signalled an intention to deconcentrate authority and responsibility from the centre to the periphery.

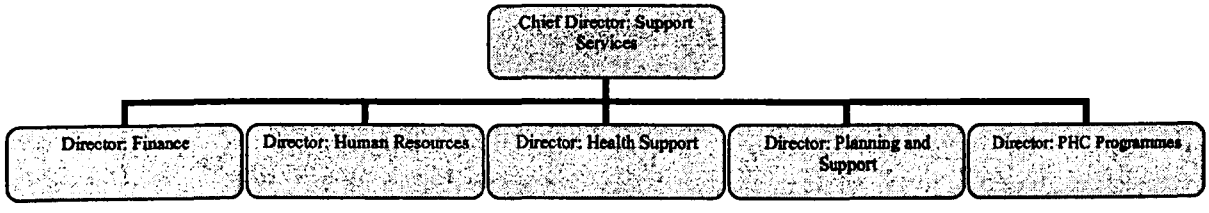
The geographic demarcation of the regional complexes was largely based on the previous six health regions as well as the geographic location of regional hospitals. Towards the end of 2000, however, the boundaries for LG district municipalities were finalised, and left the Free State with five new district municipalities. As a result, the regional complexes were amended so as to be co-terminous with the district municipalities. Two of the regional complexes incorporated two district municipalities, and the boundaries of the third regional complex was essentially the same as one of the district municipalities.

Because of the demarcation of the five district municipalities, the province dissolved the 14 'old' health districts and established five 'new' district health offices, headed by a DD. Three regional complexes and five new districts therefore replaced the previous arrangement of six health regions

and fourteen health districts. In some of the 'new' districts, 'sub-districts' were also defined because of the large size of the new districts. The personnel of the 'old' district health management structures were gradually relocated to new positions.

On the other side of the provincial organogram, the new Chief Directorate for Support Services was responsible for a variety of "support functions" which were grouped into five Directorates (shown below in Figure 6.4). These were expected to work through the line function directorates of the regional and academic health complexes.

Figure 6.4: Organogram of the CD for Support Services 1999/2000



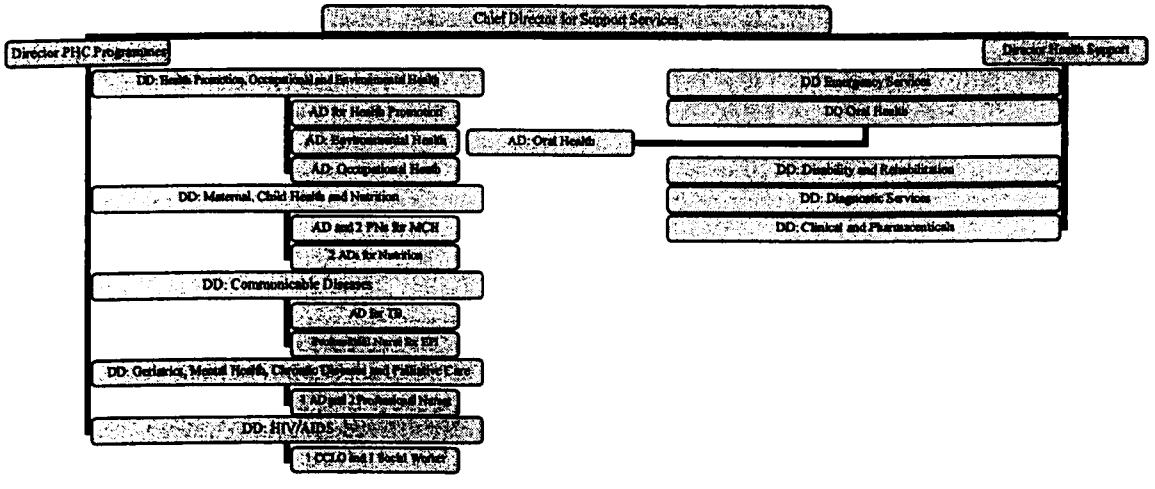
The functions and portfolios of the five directorates were as follows:

Directorate	Functions / Management Portfolios
Finance	Monitoring departmental expenditure; procuring medicines and supplies; paying salaries; and managing tenders.
Planning and Support	IT network maintenance; head office administration; departmental strategic planning; research and statistics; corporate communication; and equipment policy and standards.
Health Support	Oral health; disability and rehabilitation services; pharmaceutical services; diagnostic services (radiography and laboratory); Emergency Medical Services (EMS); capital planning and maintenance of buildings; and medico-legal matters.
PHC Programmes	Health promotion; environmental health; occupational health; maternal and child health; nutrition; TB; immunisation; geriatrics; mental health; chronic diseases; palliative care; and HIV/AIDS.
Human Resource	Human resource management (recruitment, promotions, resignations and retirement; developing a performance evaluation system; labour relations) and human resource development (nurse and ambulance training colleges).

The reasons for the way in which these support functions had been grouped was not completely evident. Several provincial informants admitted that the rationale for the organogram had not been clear, although it was partly based on the divisions of the previous organogram and on an intention to spread the workload and scope of responsibility evenly between the five directorates. However, one director described the process as being "unscientific". Others described the Directorate for Planning and Support as looking "weird" and as though "they've lumped together a few things to make some director's workload to balance with that of his colleagues because they've put unlike things together – they've got sub-directorates which don't logically link to one another".

In addition, the PHC programme sub-directorates were now located under two separate directorates. Although most were grouped together within the Directorate of PHC Programmes, the Oral Health and Rehabilitation programmes were placed in the Directorate for Health Support Services. The organisation and staffing of these PHC programme sub-directorates is shown in Figure 6.5 below.

Figure 6.5: Organogram of PHC sub-directorates 1999/2000



Note: CCLO = Chief Community Liaison Officer; PN = Professional Nurse

The 1999-2000 restructuring was the third major reorganisation of PHC programme sub-directorates since 1994. Initially, they had been shared across the three DHS Directors, who were also responsible for the development of district health services (PHC programme managers were therefore not grouped under a single manager). Then in 1998, they were all grouped under the

management of a single Director for PHC programmes. In 1999-2000, they were partially split across two directorates.

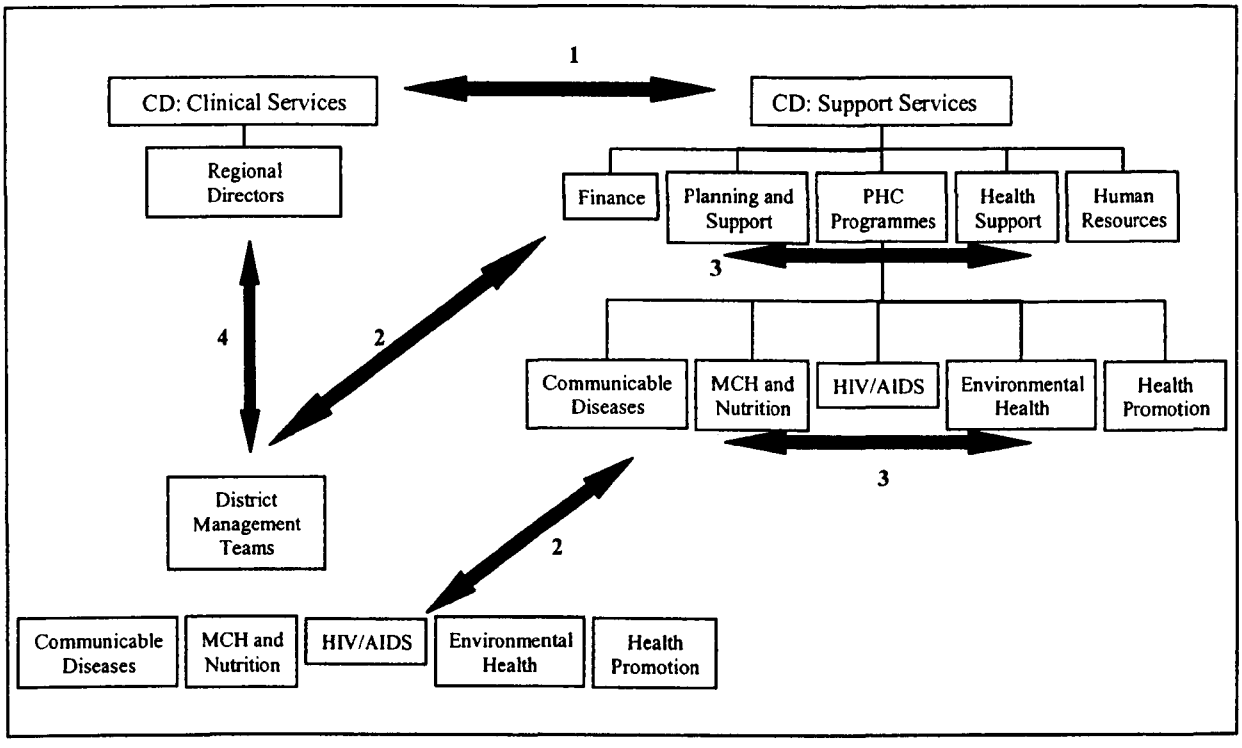
At both the national and sub-provincial levels, PHC programme divisions also existed but did not mirror the organogram at the provincial level. For example, at the national level, Maternal and Child Health (MCH) formed one national directorate and Nutrition formed a second directorate. As a consequence, the provincial DD for MCH and Nutrition had to respond to two national Directorates. At the district level, programme coordinators also existed, but in smaller numbers than at the provincial level. District PHC programme coordinators therefore had to respond to more than one provincial PHC programme DD or AD.

In addition to the restructuring of the organogram the DOH underwent a very large redeployment of regional and provincial managers at the end of 1999. This had been planned to give the DOH a shake-up, promote a better fit between people and their functions, and give people within the organisation the perspective of working from a new position (for example, some PHC programme coordinators became district managers, and some district managers became regional hospital managers). Approximately a third of all managers from DD level and upwards were moved to a new position. All the districts except one got new district managers.

However, in terms of the senior management echelon, the Free State DoH was recognised for having one of the most stable managements. Many of the senior management personnel remained with the department for long periods of time, even if their responsibilities changed. As one informant explained, "unlike many other departments, we probably lost only two senior managers in the last 7.5 years and the stability made us a better team at that level".

6.2 Relationship between the Chief Directorate of Clinical Services, Chief Directorate of Support Services and Peripheral Health Management Structures at the District Level

This section describes a number of important 'horizontal', 'vertical' and 'diagonal' inter-divisional relationships relevant to the coordination and integration of decentralised PHC programmes in the Free State DoH in 1999/2000 (shown below). The first 'horizontal relationship' (1) is between the two chief directorates (CDs), one with line authority and the other with staff authority. Two other 'horizontal relationships' (3) are those between the directorates of the Support Services section and the PHC programme sub-directorates at the provincial level. There are two diagonal relationships (2) between staff authority divisions at the centre with line authority and staff authority divisions at the periphery (DHMTs). Finally, there is a vertical relationship (4) between the regional directors and the DHMTs



6.2.1 The relationship between the two Chief Directorates (1)

The relationship between the two CDs was generally understood in terms of one having line authority and responsibility for the rendering of services, and the other being there "to enable the people in the line authority" to render their services. During structured interviews, the function of the CD: Support Services was often described as providing the resources for the line managers, providing guidelines and policies for implementation, and defining norms and standards.

In spite of this general understanding, many problems were experienced. It was said, for example, that there was "no understanding" between the two chief directorates which "were working in their own silos", and that there were tensions "because 'support is not supporting' and 'line is not listening'". Others described a "vacuum of communication", and an interaction that was "chaotic and uncoordinated" or "haphazard and confusing".

At one point, a provincial HIV plan which had been drafted for several weeks by the provincial sub-directorate for HIV/AIDS, had not been seen by a single regional director. At the same time, the Director for PHC programmes didn't know if the regional complexes had their own HIV plans, possibly with different sets of objectives and targets. Another informant explained how "so-and-so goes to a meeting on the DHS, I go to meetings on TB ... but there is no forum for feedback on a face-to-face basis. People who go up to Pretoria come back with information, but it's kept in boxes".

These comments about inadequate communication were made in spite of a number of routine meetings between the two chief directorates, including weekly meetings of the HoD and the two CDs; and a monthly 'top management meeting' for all directors.

There were also various tensions that arose from a power struggle between the regional complexes and some of the staff authority divisions of head office. For example, one regional director described how the Finance Directorate was "really demanding" and acted as though the regional directors were subservient to them. Some of the financial authority that had been deconcentrated to the regional complexes had to be literally wrestled away from the Finance Directorate. "We had to say to Finance - we are responsible, you now back off. It was like that. And backing off didn't mean you are subservient. We are saying, we'll be responsible with our heads on the block".

It was also felt that provincial support directorates gave unrealistic and inappropriate deadlines to the regional directors. "We would have to say, whatever deadlines you give, you must try to negotiate, rather than instruct us. Don't say I want this thing by tomorrow 12 o'clock".

Some of the conflict was linked to unclear and disputed boundaries of authority especially as it related to how the support directorates at head office interacted with managers at the district level. According to the HoD, one of the problems was that people from the support service divisions interacted directly with district staff rather than inter-acting with them through their district line managers. "People were trampling on one another's toes". It was explained that some support service directorates would try and implement their programmes in a way that interfered with district plans and priorities. One regional director described how head office staff would go to the districts or regional hospitals "with preconceived ideas that come down as instructions, and not as things that need to be discussed".

There were even complaints that 'support people' from the province would visit districts and make statements that "caused disarray in the whole management of the district". One regional director complained that managers from the CD: Support Services had made "wild allegating statements that people are disorganised without really understanding the situation".

Another regional director said: "It's surprising for me that somebody will go to a place and evaluate or do an audit of the hospital. The next thing, I'm sitting in a top management meeting and hearing for the first time that my registers are not up to scratch, my things are not like this or not like that. But you are in my region, you came back, I don't even know. So I think we had to agree how it must be done. So if you have a report, share it. If you need to go to one of my towns, you don't need my permission but when you come back, let me know you were there and what were your findings so that when you table it, I will agree and say, 'yes, we are in agreement with that'".

In some instances the boundary between support and line functions was not clear. For example it was felt by a number of people that EMS, which was part of the Directorate: Health Support Services, should be managed as a line function within the CD: Clinical Services. As explained by one regional director, "EMS is a health rendering service. It's nearer to the ground and it is operated from here. But to our frustration as the regional director, we are seeing when we go out there and things are not working, people are hammering us. Now we have to tell them we'll go to the Province and find out what is happening. So that EMS is a functional area, it is not a support".

The blurred boundary between the line and support directorates was also said to have been compounded by the MEC for Health[1] asking managers from the support directorates to write speeches for her on issues that were of line management responsibility, and which even included pledges that the line managers would have to deliver on. One of the regional directors said, "We would say, how can you write a speech on clinical services when you are not in charge of that?" Because the managers of the provincial support Directorates were physically located at head office, it was understandable that they would be called upon to help write the MEC's speeches. However, it was felt that the division of roles and responsibilities had not been properly explained to the MEC. One informant gave the example of needing to explain to the MEC that the people who order and stock medicines are line functionaries and that if there are no medicines at the clinic, you cannot say pharmaceutical services at province must go and sort it out. The line manager must sort it out".

On the other hand, the managers from the support directorates at head office felt that regional and district managers were over-territorial and didn't provide enough cooperation. One complained how "it's very difficult to run a provincial health programme without access to regional managers. But it's impossible to get hold of them. I've left e-mails, phoned out of hours, left SMS messages – it's impossible". A manager from the Directorate: Planning and Support explained how he struggled to produce aggregate reports for the province because information was not be sent in time by the district managers.

By the end of 2000, the relationship between provincial programme managers and districts, and between the line and support divisions had become quite adversarial. A senior manager explained how "in Clinical Services, people would say support is coming on us and imposing and blah, blah, blah. In support, people would be saying districts are refusing us access. They don't want us to come with policies and what. So there were complaints from various quarters".

6.2.2. The relationship between staff authority divisions at the centre and line and staff authority divisions at the periphery (2)

[1] MEC stands for Minister of the Executive Council, and in this instance refers to the MEC for Health who was essentially the provincial Minister for Health.

As described earlier, the interaction between the support divisions at head office and the district was partly one of a tension between 'staff authority' and 'line authority'. This problem seemed particularly acute with the provincial PHC programme managers because of their ability to influence activities at the district level through strong lines of communication between themselves and district programme coordinators. Several informants described how the provincial PHC programme managers would communicate through the PHC programme coordinators at district level and overlook the DHMTs.

"In the districts we've got people that are running primary health care programmes. Those people are not accounting to the primary health care programme managers at provincial office, they account to the district manager. But we would find a programme manager from province coming direct to a programme coordinator in the district without informing the district manager and without proper communication. And that would interfere with the plans of the district".

District programme coordinators were therefore often caught between dual lines of accountability. As one said, "It is not always clear what instructions and guidance should come from the district manager and regional director and what instructions and guidance should come from the provincial directorates. So at some stage I experience confusion". Another district PHC programme coordinator described that provincial programme managers didn't know when to communicate with us directly, or when to go through the district manager.

As a consequence a tussle developed between the PHC programme managers at head office and the regional and district managers over the control and influence of the district and sub-district programme coordinators. "Somebody at head office is responsible for HIV/AIDS. At district level there are AIDS coordinators who actually report to their district managers. Now somebody at head office calls a meeting of all the AIDS coordinators. The manager says, 'you can't go there without me knowing about it'. So that created a conflict".

Using the example of the radiography and pharmacy support service divisions at head office, a regional director explained how those who "are supposed to *give* support, had the tendency to think that the radiographer and pharmacist in the districts are *their* support", to the extent that "they would want the radiographer and pharmacist to ignore the management of the district or the institution and report to them directly".

The tension between the regional complex managers and support managers at the provincial level surfaced particularly around the introduction of PHC programme policies, guidelines and plans. One of the regional directors felt that the support directorates operated as though they could write

policies without consulting the clinical services. District staff perceived provincial PHC programme managers as people who were coming with "suitcases full of policies to dump on them".

The communication from head office was also said to have shown inadequate consideration of the people on the ground. "It will be like a circular or a policy that comes from head office that would say you stop doing this and you do this. If they needed information, they disregard whether in the district, people are working. They just want information. They can phone you in the morning that they want the information in the afternoon the same day or the following day. Meanwhile you have to run around maybe between the distance of about 100km to get the information. This brought problems because you will even have to cancel your programme and attend to the needs of the instructions that come from head office".

However, the CD for the Support Directorates acknowledged that at times, some of her managers over-stepped the boundaries of their authority. They "want to go in there and do things which are the responsibility of the line management. Such as saying, 'no, you should appoint people here', or 'you should move these funds from here and put it there'. But their responsibility is to say, 'I am an expert in this particular area, my advice to you is that if you want to work well, these are the resources you should have, this is how you should use the resources'".

At other times tensions centred on provincial people who were specialists in a specific area demanding things in their area of expertise. An example was over the ordering, maintenance and distribution of radiography equipment. According to an informant from the central radiographic section, their responsibility for developing policy on the distribution of radiographic equipment would sometimes lead to conflict when line managers accused them of interfering. "Because the management of the hospital 'carries the purse', they will decide on the type of equipment needed. We on the other hand, say yes, but we want to have control over the total equipment distribution in the province - to say that piece of equipment, according to our norm, is not needed there, it is needed in another hospital. Because we have a global picture of the whole province, we have a better understanding of the distribution of equipment such as scanners, but the line managers would say 'no, we carry the purse and we want it there'".

The tension between 'specialists' and 'generalists' was also sometimes felt at the district level. Some district PHC programme coordinators expressed frustration at the lack of understanding or knowledge of their 'generalist' line managers. "When you are a programme manager you develop yourself to such an extent. But most of the time you are harnessed under somebody, and you find that the very person who is directing doesn't have the knowledge of what she is directing. So most of the time you do not get support. Most of the management are not knowledgeable of what you are doing".

Another common view was that the Support Service Directorates were not orientating their plans and activities with reference to the different constraints and challenges of each region and district. Provincial and district informants felt that the Support Service Directorates 'organised their work through standardised province-wide plans, rather than on the specific needs and plans of each individual region / district. As one informant described, they do not "consider the uniqueness of each district. They standardised everything for the needy districts and for the elite districts. It was not clearly spelt out or planned for small regions that are struggling and have no resources ..... they were regarded the same way as the big districts that have been developed over the years. What was planned for urban areas, was planned for rural areas ... it was planned the same way for well-to-do areas and underdeveloped areas".

Often this resulted in policies and objectives that were unrealistic, "because on the ground sometimes you don't have the resources for implementation". One informant explained further. "For the past many years, we have been talking about cervical screening. But at ground level we don't have the resources to achieve the good intentions of the programme. So with some of the good intentions, when you get to the bottom and you look at the budget that will be needed for all those cervical examinations then, at the end of the day, the district will be without funds. That is what I am talking about - some of the things are not implementable. Like now, there is this feeling that pregnant mothers should be tested for HIV if they consent. But how do we have the resources on the ground to have every pregnant mother tested for HIV?"

The relationship between district-level managers and the Chief Directorate for Support Services was also coloured by a lack of knowledge and certainty by district managers of the provincial organogram. As one district informant said, "I don't have an idea". Three district-level informants who had structured interviews were so confused as to be unable to even make a guess about how the Chief Directorate for Support Services was split into five directorates, drawing attention to the gap in mutual understanding between the centre and periphery of the DoH about who was responsible for what within the DoH.

On the other side of the coin, the provincial PHC programme sub-directorates were under pressure from the MEC to improve health care in the districts. As one support service manager described, "sometimes when things went wrong, let's say the TB cure rate does not get better, and the MEC hears about that, she will then talk to the Director of PHC programmes and say the cure rates are not right. But actually the people who do the work are in the clinical services. So people here (the support directorates) felt they are being judged against things they have no control over. Now for them to have control, they have to move lower down the health system, and they wanted to go faster in there, even when these people are not actually ready for them."

A district informant also described the pressure that resulted from community expectations and promises made by the MEC. "What I saw and experienced was that there were instructions from the provincial office that some of the activities must be done irrespective of whether we encounter problems that could hamper the implementation of whatever the instruction. But one had to implement it. Because in one way or another that was a promise made to the communities. And then we had to implement it irrespective of whether it is feasible".

A number of managers at the provincial and district levels also cited pressure from the national DoH to implement inappropriate plans and policies. One informant explained that provincial programme managers responded to national agendas because "there is no other way around it because we need to make sure that something is happening so that we can report to national". According to the Director for PHC programmes, the national – provincial relationship needed to reflect more of a provincial perspective, so that provincial plans and problems could be better addressed. "The problem is also national coming up with new things all the time – they are not sensitive enough to how provinces are implementing their programmes – they want to implement things there and then without being aware of the dynamics of how things work in the provinces – the poor programme manager is given tasks without (national) considering our budgets, and availability of personnel or equipment".

While there were generally negative comments made about the interaction between the districts and the provincial support directorates, there were also descriptions of good working relations. One district PHC programme coordinator described her provincial counterpart as "our pillar". Another also commented that the support she received from her provincial counterpart was greater than any support or guidance she received from her district manager or regional director.

6.2.3 Horizontal relationships between the different directorates of the Chief Directorate for Support Services and provincial PHC programmes (3)

As described earlier, provincial informants generally felt that the five Support Service Directorates at head office had not been effectively structured in terms of their functional groupings. The feeling that the management of EMS had been erroneously classified as a support function was one example mentioned earlier, and other examples suggest that the organisation of the chief directorate may have hindered effective functional integration between the directorates. Many provincial informants felt that the separation of the recruitment and personnel management functions of the Directorate for Human Resources from the payroll functions of the Directorate for Finance led to some inefficiencies; similarly, the separation of the procurement of medicines in the Directorate of Finance from the pharmaceutical sub-directorate in the Directorate of Health Support Services. Several provincial managers also felt that the Directorate for Human Resources should be

split into two directorates - one for human resource management (HRM), and another for human resource development (HRD).

At the sub-directorate level, the lack of coordination between the PHC programmes sub-directorates contributed to district-level managers and programme coordinators being inundated by uncoordinated demands, policies and training initiatives. Provincial programme managers "came haphazardly without coordinating their visits. TB comes on a specific day; if HIV/AIDS comes, it comes on a specific day; and the same with nutrition". The lack of coordination also resulted in duplication. For example, different provincial programme managers would ask for the same information from districts.

PHC programme sub-directorates were said to be operating in their own "silos", with little integration of their plans and activities. As one informant explained: "We have been developing our programme plans with our internal teams – we never present our plans to the rest of PHC. The only people involved in my programme's planning were my internal team".

Problems also arose from a lack of coordination within particular sub-directorates, most notably the HIV/AIDS sub-directorate which consisted of several sub-programmes such as a Home Based Care (HBC) programme; a voluntary counselling and testing (VCT) programme and a lifeskills education programme. The district HIV/AIDS coordinator therefore had several people to report to just within the HIV/AIDS sub-directorate. As one of them explained: "They (the provincial HIV/AIDS sub-directorate) ended up employing so many people. Whereas before you report to maybe one, now there is this one doing mother-to-child transmission, this one doing counselling, this one doing provincial AIDS action plan, the other one doing NGO and CBOs and the other one responsible for funding, .. all of them will give you instructions. And then you are the only programme coordinator, you are by yourself and you must heed their instructions and their deadlines. And then it was not good. I felt bad because everybody wanted something out of me".

There were also some structural reasons that contributed to the problem. In some districts there were fewer PHC programme coordinators than there were PHC programme managers at the provincial level. Some coordinators at the district level were therefore aligned to more than one provincial PHC programme manager and therefore had multiple lines of communication to deal with. "District programme managers sometimes work under two or three bosses, being called to province at different times", and having to do "hundreds of trips to Bloemfontein" to attend meetings called by different programme coordinators at head office. District programme coordinators who were responsible for HIV, TB and immunisation were "constantly called out of the district to meetings in Bloemfontein" called by different provincial managers.

In 1999 a process facilitated by an NGO was initiated to improve the functional integration of the different programmes.[2] Three workshops were held with the various provincial PHC programme managers to explore the concept of PHC programme integration. It was agreed through this process that the province needed to have PHC programme plans that would be shared across all the organisational divisions of the DoH. Each sub-directorate would then develop their own workplans in relation to a set of common aims and objectives. It was decided that in the first instance the sub-directorates would work as a team to develop an integrated plan for HIV/AIDS and for nutrition. HIV/AIDS was selected because it was relevant to all the PHC programme sub-directorates, whilst nutrition was selected because it would require the Sub-Directorates of Environmental Health, MCH and Nutrition to work with each other, and with other government departments.

However, by the end of 1999, little progress had been made. Efforts to develop an integrated HIV/AIDS and Nutrition plan had been thwarted by various pressures placed on the individual sub-directorates to work independently of each other. The culture of working in silos was difficult to break down and districts continued to find themselves on the receiving end of uncoordinated instructions, policies and plans from the provincial PHC programmes. At the end of 1999, after the redeployment of staff, many of the PHC programme managers changed and the new Director for PHC Programmes decided to suspend the externally facilitated initiative to support PHC programme integration. The plans "were relegated to the shelves" and the "people who had learnt those lessons were no longer able to make it happen".

Thus by the middle of 2000, interaction between the provincial PHC programmes and the districts was still a problem. For example, when the provincial HIV/AIDS programme manager was asked to what extent his HIV guidelines for maternal care were consistent with the maternal health guidelines that had been developed by the sub-Directorate for MCH, the answer was that he didn't know because he hadn't spoken to MCH Deputy Director yet. A similar episode of confusion occurred between the sub-Directorates for Mental Health and MCH over the development of guidelines for youth.

Each PHC programme sub-directorate was encouraged to develop their own plans and policies in isolation of each other. "There were not structured regular meetings (between the different programmes). We used to meet with TB and with Health Promotion for special health days, for them to assist us in material and radio interviews but the relationship was not structured and only on request or need". Another informant commented that "the integration between HIV /AIDS, MCH and TB is still not structured" due to poor time management, a lack of vision and no directive from above.

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[2] This researcher worked on this initiative which was one of the methods by which the researcher was a participant observer.

The lack of communication between the different PHC programme sub-directorates was partially rectified in 2000 when the Director for PHC Programmes instituted a weekly monday morning meeting for all his programme DDs. While these were run in a good atmosphere and said to have improved communication, one provincial programme manager explained that it's still "like I'm pushing my plan and you're pushing your plan". In addition, because no minutes of these meetings were kept, PHC coordination was not always followed-through or sustained after these meetings.

While many provincial PHC programme managers recognised a need to be better organised, there was a feeling of helplessness. "There's a will for integration. The problem is not knowing how? We don't know how to remain focussed but be integrated. We feel overwhelmed individually. As much as we want to work as a team; we are expected to do our own things. I'll get irritated if I'm asked to work with say so-and-so on EPI. I'll be evaluated on my own priorities, not the team's objectives. Right now I need the time to settle down into my own job".

The uncoordinated pressures and demands from the national DoH continued to accentuate the poor coordination and integration at the provincial level. "The problem is national coming up with new things all the time. They want to implement things there and then without being aware of the dynamics of how things work in the provinces".

6.2.4 Vertical relationship between regional complex Directors, district managers and district PHC coordinators (4)

The establishment of the three regional complexes at the end of 1999 was said to have resulted in a successful deconcentration of provincial management and authority. According to provincial informants, it reduced the gap between the districts / sub-districts and the provincial head office. Regional directors saw themselves as sitting "with a foot in top management" where they could "query things" as deconcentrated managers and as advocates for the districts. As one explained, "I see myself more as a district man than a head office man, but I use the platform in top management to advocate for my District". Because the regional directors were now nearer to the district , decision-making on certain issues was said to have become faster. "Certain functions can now be done within the region without having to go to Bloemfontein". One district informant felt that the regional director now "had closer contact to what's going on the ground and to people in the districts and clinics, so you don't have to struggle to get contact, unlike in the past".

Although the regional directors identified themselves with their districts, they were also able to feel a part of head office. This was partly because they had previously been head office managers themselves and because there was only a small and thin layer of management above them (a CD

and the HoD). Therefore although they were located in deconcentrated regional offices, they were part of the senior echelon of health managers in the province. (In other provinces, the managers in charge of health regions tended to be much lower ranked and would not have been considered a part of senior management).

However, many district informants felt that the policy had not made enough of an impact because of the continued experience of being at the receiving end of uncoordinated and inappropriate instructions or policies from head office. For example, according to one informant, "Let's say I'm now in the hospital. I must go to the hospital manager, from the hospital manager to district manager, from the district manager to the regional director, from the regional director then I'll go to the directorate at provincial level, then the chief director".

6.3 Organisational culture

Notwithstanding the problems described earlier, the Free State DoH was generally considered one of the more functional health departments in the country. The head office had benefited from a great deal of stability with a very low turnover rate of senior managers, and there was a general feeling that individuals worked together as a team. In comparison with other provinces the degree of open communication and team spirit was high.

In the course of the interviews, nearly all provincial-level informants expressed a satisfaction at being part of the DoH and with the department's culture of participation and respect for individuals. There was also a general feeling of pride in the DoH and many made favourable comparisons with other departments in the Free State or to other provincial DoHs. This view was shared by the researcher's own observations of other provincial DoHs.

One informant explained that "although one gets tempted when you see other departments advertising director's posts, when you look at the general function of the department, you feel you will be frustrated if you leave. Because if you are used to be part of achievers, you are used to be part of people who are working, people who are on the move. If you go to another department, you will be frustrated. And I know some friends who moved to other departments or people moving to other provinces and the feedback they are giving is that it is not the same".

Another informant explained how at national meetings "you look at what has been achieved up to now and what other departments have achieved, and I am not undermining other departments, but in 80% of the cases you find that Free State Department of Health is leading in the achievements. This is because we've got dedicated people, who are willing to make sacrifices and commit themselves to doing certain things. So that in itself for me is rewarding. We work long hours but you

never find people complaining about working long hours. And the managers that we have are managers who are able to say thank you. Not necessarily by giving money but by acknowledging what you have done".

Another frequent comment made about the working environment of the DoH was the desire of top management to engage with all members of staff including "the sweepers and the general workers" and to "help people with their morale". For example, one informant explained how "it is not uncommon to find a person in the uppermost management level coming down to be in a staff indaba with everybody from a cleaner where they can voice their dissatisfactions and whatever. Because sometimes it is gratifying to know that you have registered your complaints even if, at the end of day, nothing happens. But you feel satisfied that I was able to communicate my dissatisfaction with the top management".

This engagement with workers on the ground extended to the MEC. "Last year the new MEC was literally moving out and sort of having contact with people on the ground and even moving to facilities and the communities. That helped her gather information on what the needs on the ground were. It is not common to find that an MEC moves out to the people and comes to talk to implementers on the ground. And that was her strength as far as I am concerned".

Several informants pointed to the first HoD as being critical for setting the management culture of the department. "Maybe the credit that I can give to the HoD is that he managed to lead as part of a team. So whatever we did, we all felt, especially the management echelon, that we were part of the decision making. So a decision that would be taken, we would all be supportive to it because we have been part of that, and that culture is within each one of us".

One informant said, "I think maybe the most important aspect in terms of management and change management was the encouragement of the HoD for all types of managers to take decisions and to go with those decisions". "There is a lot of support and we are allowed to make mistakes without being crucified. When you make a mistake, you are not crucified. There are steps that are taken but not in a manner that destroys you. So I value the support that one is getting within the department".

Another said that the HoD had created a culture of inclusivity. "He forced us to interact, he forced us to depend on each other. And it was also his ability to deal with conflict very effectively. If there was conflict in the top structures, he could resolve it peacefully and that kind of tone sort of went down the rest of the structures. So whether we like it or not, we all adopted a lot of his kind of mannerisms, and also behaviour, as well as his style of management which is definitely a culture of openness, a culture of dealing constructively with conflict. And also a culture where we interact and we depend on each other and a culture where we need each other".

Part of the supportive environment included a pro-active strategy to develop the management skills of managers, and many provincial level informants spoke gratefully about the opportunities they had to undergo formal management training. "I think that one strong point they had was in terms of capacitating the managers to be able to manage by having them trained". "The constant training which we got and the dedication of our head of department, the MEC to have a ring-fenced budget for training, I think is a very important issue". "I really applaud them for it because they sent us to so many courses to improve our skills, to improve our managerial skills".

Although this positive organisational culture did not prevent the problems described earlier, it did allow the tensions and the difficulties to be contained and managed in a way that prevented open conflict. There was therefore a prevailing sense of belief that the DoH would resolve its organisational weaknesses and problems. The importance of team-building and fostering a culture of cooperation was frequently emphasised and recognised as being of value.

However, this was to some extent negatively affected by the introduction of individual performance management. Although it had been emphasised that individual work plans must support the broader business and strategic plan of the DoH, seven of the nine provincial informants who had structured interviews felt that the performance evaluation system was too individualised and led provincial managers to over-emphasising their own performance at the expense of the overall performance of their unit or the DoH as a whole. It led people to "just look for themselves". "It was a problem because at the end people were looking inwardly. To say, 'it is me here, not the patient'". Just over half the provincial informants agreed that "a culture of individuality resulted in managers being reluctant to share power and status.

Although there appeared to be a relatively positive culture of management and teamwork in the provincial head office, informants also mentioned certain negative aspects of the management culture, especially as experienced at the periphery of the department. One provincial support manager, for example, referred to 'traditional' and authoritarian attitudes towards the district, a culture of "we say, you do", and head office tending to control districts instead of enabling them.

The researcher's own observations were that senior managers and decision makers in the provincial DoH made a conscious and large effort to consult with lower ranked members of the hierarchy in order to gain insights as well as to instil a positive culture of team spirit. However, decision-making was generally centralised and once decisions were taken, the communication tended to be top-down.

The presence of organisational sub-cultures negatively affecting the coordination and decentralisation of integrated PHC programmes did not appear to be prominent. In spite of the country's historical legacy, few informants felt that racial divisions played any part in weakening

organisational coordination and cohesion, although there was an acknowledgement that this had been more of a factor in the 1994-1996 period. As one informant said, "although there were no explicit things about race, I think there were some mutterings about new and old managers, meaning those who were there before and those who came after (the 1994 elections). So I think this is actually something we have to deal with as a country. I think there will always be these things and we need to accept them that they are happening".

At the level of head office, managers were encouraged by the HoD to talk about their feelings on race, and this was said to have had a positive effect on working relationships. One white manager talked of having gained an appreciation of each other's strengths and weaknesses and of getting to know people for who they are. "To me race is not an issue any more. If we have conflict, nobody will throw race up as a cause of the problem". People will rather look at the problem and "invariably it has been interpersonal relationships, differences, miscommunication and inter-personal relationship problems have nothing to do with race".

However, one informant who started off by indicating that racial tensions were not an issue, ended up implying that they were. "With me it is okay because I don't have a subordinate who is not my racial group so I don't experience such problems but there are people who experience problems with their subordinates or their senior. "Fortunately there are no whites in my sub-directorate. Yes there are racial conflicts but not that much – it is there – it wont take six years to change attitudes".

Finally, gender dynamics appeared to also have played little part in intra-organisational dynamics. None of the informants mentioned this as an issue in their interviews, and there was no observation that women and men were in any way considered to be different in terms of capacity or their legitimacy as health managers.

6.4 Physical structure

In terms of the physical structure dimension of organizations, a significant factor affecting the provincial DoH is its wide spatial distribution across the entire geographical area of the province. In total there were five district offices, with some of them a considerable distance away from the location of the provincial head office. The large distances between head office and the district offices added to the stress felt by district managers of having to attend meetings at head office, often at short notice, and often with an agenda dominated by the needs of the center. A number of district level managers also spoke of deficiencies with telephones, faxes and e-mails that compounded the problem

Another aspect of the dimension of physical structure noted in Chapter 3 is the influence that the arrangement of offices can have on patterns of interaction between different individuals or divisions within an organization. One observation of the Free State DoH was that the provincial PHC programme coordinators were not all physically located in the same building. They were in fact spread across three separate buildings in the provincial capital of Bloemfontein. As a consequence, physical interaction was limited to formal weekly meetings, and there was little opportunity for managers to develop more effective working relationships through informal interactions. A similar problem occurred at the district level in some health districts, where due to a shortage of space, district level PHC programme managers did not all occupy the same physical working environment.

6.5 Environment

Much of the environmental context of the Free State DoH has already been discussed in Chapter 1. Key issues to bear in mind include the strong political legitimacy and mandate for the government to deliver health care 'to the people'. In the light of the country's past, the large private health sector was associated with the policies of the apartheid era and felt to be in need of government control and regulation, although there was recognition of the role of the non-profit, non-government sector, the ANC government saw the machinery and bureaucracy of government as the primary vehicle for delivering health care.

This implied a general confidence in rational planning and implementation processes, exemplified by the large number of plans, policies and guidelines developed to transform the health system and improve health care. The notion of bureaucracy in the Weberian sense was therefore well ensconced.

Within this bureaucratic paradigm, significant environmental factors that affected the functioning of the PHC programme support divisions included the national government. As described earlier, the national government placed considerable pressure on the Free State DoH's head office divisions and district offices to demonstrate measurable improvements in delivery, and led provincial managers to adopting a more vertical approach to management, reminiscent of the pressure placed upon health systems by donor-funded vertical programmes described in Chapter 2.

A second factor belonging to the environmental dimensions of the provincial DoH was the broader government policy to devolve powers to local government for the delivery of basic services. Such a policy would have a profound effect on district-level health structures. However, the process of devolution took much longer than anticipated. As a result, the district level of health management and governance stayed in a state of flux throughout the period of this study. Because of the uncertainty around devolution, with the likelihood that responsibilities would be handed over to local

government, the provincial head office did not invest too much into establishing strong and permanent DHMTs. This was also explained as the reason why head office deconcentration was limited to the level of the regional complexes.

6.6 The technological dimension of PHC programmes

This section reviews the relevant technological features of the PHC programmes of the Free State DoH. In order to help present these features, a summary of them for each of the relevant PHC programme areas was drawn up into a table (Table 6.1 below).

One variable was the range, diversity and volume of services and products of the Free State PHC programmes. As shown in Table 6.1, they cover a very broad range of health issues (e.g., nutrition, maternal and child health, oral health, mental health, environmental health and communicable disease control), objectives and activities that are applied to different levels of the health system (e.g. from clinics to tertiary academic hospitals); to activities in and outside of health facilities (e.g. school nutrition programmes and safe sex campaigns). They include both clinical and non-clinical activities. A large amount of activities involve direct contact with patients, but many are not directed at patients (for example, promoting a healthy environment or controlling disease vectors), and may involve working through other sectors or departments.

This wide range of activities points to the need for an elaborate and multi-divisional organisational structure capable of promoting an effective and appropriate division of labour for the delivery of comprehensive PHC, whilst ensuring organisational cohesion. The wide geographic area of coverage together with the significant differences between the districts of the Free State is also an important variable, and one that suggests the need for a geography-based divisional structure. Finally, the large volume of activities and broad range of objectives also makes careful priority-setting and planning important given the finite and limited resources of DoH.

PHC programmes also have 'technical and technological' characteristics that have structural and management implications. Compared to other types of products and / or services, health care is 'complex' and requires the presence of relatively highly trained personnel such as nurses and doctors across the health system. Health care cannot be produced and delivered through, for example, an assembly line process where simple and routine steady-state activities can be managed and controlled by a few 'centralised' experts on the basis of a pre-defined process and detailed plan. Health care has to respond to demands and needs that change over time, and which vary from place to place. It does not allow for management through mechanistic and centralised forms of control, but requires front line health providers to exercise discretion and have the responsibility, authority and competencies to exercise that discretion.

Health care is also by definition an industry that is highly decentralised. Neither specialist expertise nor management authority can be wholly concentrated at the top of an organisation. It needs to be spread across the organisation.

In addition, because health care activities, outputs and deliverables are not always easy to measure accurately or appropriately, ensuring information that is reliable and valid can be difficult. Information that is difficult to measure and communicate reliably also tends to favour decision-making authority being decentralised to the periphery rather just being located at the centre.

Two other 'service and product' variables are the nature of the interaction with the external environment, and the approach or values inherent in the services or products. In terms of the former, the business of providing health care requires an intimate interaction with the 'external environment', either in the form of patients receiving health care, or other external objects such as the environment, other government departments and communities. In terms of the latter, the Free State DoH's approach to health care included an emphasis on community involvement, multi-sectoral collaboration and health care acting as an engine for broader social development. Both variables point to the need for an organisational arrangement that would enable and foster creative and flexible linkages between the DoH and external actors, which in turn is best served by an organisation with decentralised authority and capacity.

This analysis of the service and product variables of the Free State PHC programmes confirms the arguments and rationale underpinning the DHS model for the delivery of comprehensive PHC, which is essentially a geographic-based divisional configuration. However, not much has been written about how the 'service and product' variables of the different PHC programme areas affect their organisation *within* a geographically-based division.

Another variable is the type and degree of inter-action between the different PHC programme areas, and with other divisions or organisations.[1,2] According to the organisational literature, synergies and areas of overlap that are important and intense should be brought together structurally so as to optimise functional integration and positive synergy.

Table 7.1 shows that the amount of overlap and degree of interaction amongst the different PHC programmes and with other government departments is considerable, although it varies from one programme area to the other. Some PHC programmes might be considered to be relatively 'stand-alone'. For example, a mental health programme could operate fairly independently (within a clearly defined set of health care responsibilities) of other PHC programmes or government departments. The HIV/AIDS, health promotion and MCH programmes on the other hand have many points of contact with other PHC programmes and other government departments.

Nonetheless, because of the considerable degree of overlap and potential synergy amongst the PHC programme areas, and most importantly, because of their shared contact with the clinics and districts hospitals at the periphery, having most of the PHC programmes grouped into a single Directorate, which had not been the case with the first DoH organogram (Figure 6.1), was an important structural design feature for optimising PHC programme synergy and minimising fragmentation. The location of the oral health and rehabilitation programmes in a separate directorate was a clear anomaly which was said to have been due to a desire to spread the workload evenly amongst the five Directors of the CD: Support Services.

This, together with the other examples of the mismatch of sub-directorates amongst the five support directorates described in Chapter 6 suggest that functions, roles and responsibilities were grouped to fit into a pre-determined structure of five directorates of equal size. This is in contrast to the more commonly advised approach of determining structure to suit the most appropriate organisation and grouping of different tasks, activities and roles from a functional perspective.

Within the Directorate: PHC Programmes, the different PHC programme areas were also clustered into five units. Once again, part of the rationale behind the clustering was to accommodate a pre-determined structure of five sub-directorates and to spread workload relatively evenly. PHC programme areas were not always clustered according to functional inter-dependencies, workload or the potential for synergy and overlap.

For example, the clustering of health promotion, occupational health and environmental health into a single sub-directorate may not make functional sense. Health promotion is an activity that cuts across all the other PHC programmes, with a strong emphasis on engaging the 'external environment'. In contrast, occupational health is mainly concerned with the provision of in-house services to DoH staff, and is therefore internally focussed (unlike health promotion and environmental health). Environmental health on the other hand has more important synergies with the MCH and Nutrition programmes and other government departments, rather than with occupational health or health promotion.

The clustering of TB and child immunisation into a single directorate also doesn't make much functional sense, especially given that immunisations are a key and integral component of MCH. Also, the location of palliative care in a separate sub-directorate from HIV/AIDS seems odd given the impetus and resources driving the development of palliative care was located in the HIV/AIDS programme.

On the other hand the MCH and Nutrition programmes have a strong degree of overlap and need for interaction, so the clustering of these two programmes into a single sub-directorate does make

functional sense. Similarly, the clustering of geriatrics, chronic diseases and mental health could be conceived of as being appropriate because there are considerable areas of overlap between them.

Another factor mentioned in Chapter 2 that may influence the organisation of PHC programmes is their epidemiological and public health importance. In the case of South Africa, the high HIV prevalence and the lack of an effective response to the epidemic made the HIV/AIDS PHC programme urgent and important. However, the rank and size of the HIV/AIDS sub-directorate (as shown in Table 7.1) is not substantially different to several sub-directorates that were responsible for PHC programmes of less significance.

Workload, and in particular the time-consuming work of engaging with other programmes, government departments and stakeholders, is another factor that should inform the organisation and grouping of PHC programmes. As shown in Table 7.1, some PHC programme areas require a high degree of interaction with external agents (e.g. the nutrition, environmental health and HIV/AIDS programmes), whilst others have significant overlaps with other PHC programmes (e.g. the MCH and Nutrition programme).

From this perspective, it is arguable that the spread of workload does not correlate well with the size of the sub-directorates, and with the clustering of PHC programme areas. For example, although the clustering of MCH and Nutrition into a single sub-directorate may make functional sense in terms of the degree of interaction between them, it may not make structural sense because the wide range of interactions with other programmes and departments could result in the sub-directorate suffering from role and work overload. In contrast the communicable diseases sub-directorate is mainly involved with activities that relate to health care providers and does not have to cope with managing as wide a range of external contacts as the sub-directorates for MCH and Nutrition.

Table 6.1: Characteristics and variables of PHC programmes

	HIV / AIDS	Health Promotion	Occupational Health	Environmental Health	Maternal-Child Health	Nutrition	TB	EPI	Geriatrics	Mental Health	Chronic Diseases	Palliative Care
Breadth of main / priority products and services	Very broad – covers acute medical care; PMTCT; STI control; condom promotion; safe blood transfusion; post-exposure prophylaxis; the promotion of healthy sexual behaviour; etc.	Very broad - covers scope of other PHC programme areas	Narrow – focussed on public sector occupational health services.	Narrow – focussed on access to clean water and to sanitation services (broader if the promotion of food safety and control of air pollution is included)	Broad – covers range of clinical services as well as family planning; child nutrition; child care and safety; PMTCT.	Broad – covers primary school feeding and nutrition; clinic-based food schemes; micronutrient supplementation; food fortification; community-based nutrition projects; growth monitoring of children; etc.	Narrow – covers a single disease.	Narrow – covers a routine health service as well as periodic mass immunisation campaigns	Narrow - involves mainly low volume clinical activities that are not generally considered a high priority	Narrow - involves mainly low volume clinical activities	Narrow – mainly involves hypertension, diabetes, asthma and epilepsy	Narrow - mainly involves the promotion of home based care
Proportion of all personal health care services covered by programme	High	Very low	Low	Very, very low	Very high	Low	High	High	Moderate	Moderate	Moderate	Moderate
Extent of non-personal, public health interventions	Very high	Very high	Low	Very high	High	High	Low	Low	Moderate-Low	Low	Low	Low
Political urgency	Very high	High	High - due to HIV/AIDS	Moderate	High	High	High	Low	Low	Low	Low	High – due to HIV/AIDS
Degree to which programme overlaps / interacts with other PHC programmes	High with health promotion; MCH; TB; palliative care; occupational health; and palliative care. Low with nutrition.	High with all other programmes	High with HIV/AIDS. Moderate with health promotion.	High with MCH and health promotion; moderate with nutrition.	High with nutrition; health promotion HIV/AIDS; EPI; and environmental health	High with MCH; health promotion; HIV/AIDS Moderate with environmental health.	High with HIV/AIDS and health promotion.	Moderate with MCH	High with health promotion and chronic diseases	High with health promotion; chronic diseases. Low with MCH and geriatrics.	High with geriatrics and health promotion. Low with MCH.	High with HIV/AIDS.
Degree of overlap and interaction with other	High with all government departments	Very low	Very low	High with Department of Water Affairs and Forestry;	High with Department of Social Welfare	High with Department of Agriculture, Department of	Very low	Very low	Very low	Very low	Low	Moderate with Department of Social

government departments				and with department of Local Government		Education and Department of Social Welfare						Welfare
Activities that benefit from economies of scale	Mass media IEC	Mass media IEC and the production of health promotion materials such as posters and leaflets		Mass media IEC	Mass media IEC	Food fortification	Mass media IEC	Mass immunisation campaigns	Mass media IEC	See health promotion	Mass media IEC	
Organisation of the five PHC programme sub-directorates 1999-2000												
Size of sub-Directorate	One DD, 2 ADs, 1 Chief CLO and 1 Social Worker	1 DD and 3 ADs (one for each section)			1 DD, 1 AD and 2 PNs for MCH; and 2 ADs for Nutrition.		1 DD, 1AD for TB and 1 PN for EPI.		1 DD, 1 AD and 2 PNs			
Proposed 2001 changes to the PHC sub-directorates	Now a Directorate, combined with HIV				Now a sub-directorate on its own	Now a sub-directorate on its own	Abolished and integrated with HIV/AIDS	Abolished and integrated with MCH				

6.7 Health Planning

This section describes the planning framework of the Free State DOH, and presents an analysis of the Free State "Service Plan", the Business Plan of the DoH, as well as the plans and planning tools of the PHC programme sub-directorates. Planning at the national and district level are also described briefly.

6.3.1 Strategic Health Plan

The development of the 1999 Strategic Health Plan followed a two-day workshop involving senior managers at which the department's vision, mission and values were re-examined. Six core strategic areas (called 'strategic themes' in the document) were established, as well as a set of departmental values. After this workshop, six task teams were set up to solicit inputs from a wider group of people and to develop a set of objectives for each of the strategic themes (STs). Each task team was composed of a mix of people from different levels of the health system as part of a deliberate effort at "involving people from the lower levels to influence the direction of the department". Meetings were held to communicate the mission and vision to the whole department, and the task teams went on a "road show" to get inputs from people on the ground.

Although provincial informants felt that the process of planning had been inclusive of district and provincial-level managers, most district level informants felt that the process of consultation had been "sporadic and limited". According to a couple of informants, the strategic plan didn't really "trickle down" to the lower levels of the health system, and that it "was not well understood at the ground level". Another informant said, "we would be orientated on the strategic plan though really it was not very clear".

Eventually the Strategic Plan consisted of 36 objectives and 146 strategies (see below). In addition, over 400 success indicators were set annually for a three year period.

	Strategic Theme	Number of Objectives	Number of Strategies
1.	Promoting the well-being of the people	8	31
2.	Ensuring customer satisfaction	2	14
3.	Rendering quality comprehensive and affordable health services at all levels	3	21
4.	Empowering and developing departmental personnel (training)	5	20
5.	Transforming health services towards PHC founded on the DHS	7	24
6.	Improving the management of health services	11	35

Each objective (and its respective strategies and success indicators) was then followed by a table that listed the roles and activities of the following five divisions of the DoH:

- Provincial Health Services (under which were five directorates)
- District Health Services (which incorporated three directorates for district development and a number of provincial PHC programme sub-directorates)
- Planning and Support (a directorate)
- Human Resources (a directorate)
- Finance (a directorate)

The large number of objectives, strategies and success indicators resulted in a dense and long 77 page document. An analysis of this document revealed the following findings and observations.

Strategic Themes, Objectives and Strategies

The six STs, which are the foundation of the plan, were not optimally constructed. On the whole, the STs represent 'areas of activity' that avoid overlapping each other. For example, ST2 demarcates a set of activities related to the DoH's interface with the broader public; and ST4, 5 and 6 define the areas of 'HRD', 'DHS development and decentralisation' and 'health management' respectively. However, ST1 merely repeats the Mission and Vision of the DoH and does not really demarcate a discrete 'area of activity'. This results in ST1 ending up as a conflation of un-linked objectives related to PHC programmes, resource allocation and inter-sectoral collaboration that do not fit together. Similarly, ST3 doesn't so much define an 'area of activity' as a broad goal or aim, and ends up reflecting a mix of broad and generic objectives such as 'improving the quality and comprehensiveness of care' and 'rendering services at the correct level', as well as specific objectives such as 'the implementation of an Essential Drugs Programme' (EDP).

In addition, the STs do not cover certain important and discrete 'areas of activity' that one might expect to see in an over-arching departmental strategic plan. For example, 'inter-sectoral collaboration' and engagement with the 'private and traditional health sectors' did not feature as key 'areas of activity' (although they were mentioned either as objectives or strategies).

The construction of the objectives also contained some weaknesses. Of note was the way in which PHC programme objectives were spread across a number of STs in a fragmented manner. ST1 included a number of PHC programme objectives (increasing the TB cure rate; rendering an environmental health promotion package; and improving nutrition). At the same time, ST3 incorporated objectives to "improve the quality of health service delivery" and to "implement special programmes", including strategies related to reproductive health services. Maternal health,

rehabilitation and mental health services were mentioned under ST5. Furthermore, child health was not mentioned in any of the objectives, except for school health services under ST5.

There were several examples of objectives and strategies that should also have been grouped together. For example, a strategy under objective 3 of ST3 to develop curricula and guidelines for basic and in-service training overlaps with all the objectives of ST4 and with a strategy under objective 3 of ST6 to maintain a HRD plan.

Several objectives and strategies tended to duplicate each other. While ST2 was about "ensuring customer satisfaction", one of the objectives under ST3 was to "develop a customer service plan". In another example, "raise awareness on the transmission of HIV/AIDS/STDs" and "intensify awareness of transmission of HIV and STDs to high risk groups" were separate strategies.

Another feature of the plan was unevenness amongst its objectives and strategies. For example, one of the strategies under ST3 was to "restructure services within Universitas Hospital", whilst another was to "consolidate the neo-natal ICU and obstetric high-risk services at Universitas". Not only is the second strategy a sub-component of the earlier one, but the naming of a particular institution for restructuring may be an inappropriate degree of specificity for this level of strategic planning.

In another example, the objective to "increase the TB cure rate through effective, efficient treatment and preventive strategies" listed one of its strategies as the provision of TB drugs. This seems obvious and unnecessary as providing a TB service should automatically imply the need for drugs. The supply of TB drugs should also be captured in a more generic objective to 'ensure the consistent and reliable supply of adequate drugs to all health facilities'. Specifying the supply of TB medicines should be considered inappropriate to mention at the level of a provincial strategic plan as it would imply having to specify other elements of a TB programme such as sputum specimen jars, or having to explicitly mention the drug supply of other clinical services.

There were also instances where strategies were confused with, or expressed as, objectives. For example, two strategies under Objective 3 (ST1) are really objectives – "manage MDR" and "provide TB drugs". At other times, the objective is expressed as a strategy.

The link between strategies and objectives was also not always appropriate or clear. For example, an objective to "ensure an inter-sectoral approach in promoting health among people" has four strategies that do not provide any clarity on how the different sectors will work together. Three of the four strategies refer to a set of generic statements with no bearing to inter-sectoral collaboration (for example, "focussing health messages according to the burden of diseases and priorities" and "formulating and presenting appropriate messages to target groups to promote desired impact").

Success indicators

The 400 success indicators in the Strategic Plan were each linked to an individual strategy. The plan therefore did not have a set of common, over-arching indicators to reflect the overall functioning of the health system, or the achievement of a number of strategies and objectives simultaneously.

In many instances, the success indicators were not in fact indicators. For example, the strategy to "ensure inter-sectoral counselling and support" has indicators that listed a set of steps and benchmarks, and did not consist of measurable indicators (listed as: Year 1: "Counselling and support services in place"; Year 2: "Implement counselling and support services"; and Year 3: "Maintain the service"). At other times indicators were expressed as further strategies or objectives (e.g. "improve clinical audit on: consultation frequency; frequency of same operation per patient; decrease in items per prescription per patient for the same condition; and decrease in the frequency of tests done for the same condition". In another example, "training and demonstration districts" was specified as a success indicator for TB control, rather than as a strategy.

Many of the indicators were also rarely specific, measurable, achievable, realistic or timely. For example, "the existence of a well-functioning Inter-Departmental Committee on HIV/AIDS". There were also poor links between success indicators and their objectives or strategies. For example, a strategy of Objective 1 of ST1 was to "provide appropriate training to roleplayers on health promotion strategies". However, the success indicators only made reference to personnel from the health sector, and even then, only to community liaison officers and special auxiliary service officers.

Allocation of roles and responsibilities

Although the strategic plan included a section to help allocate roles and responsibilities to the different divisions of the DoH in relation to the objectives and strategies, there were times when it read like an operational plan for the different divisions of the provincial head office. Rather than provide a broad indication of the primary responsibilities of each of the organisational divisions of the provincial office, it listed quite specific activities.

In addition, the plan made no reference to the regional complexes and health districts themselves, and therefore did not clarify the allocation of roles and responsibilities between the divisions at head office and the divisions at the periphery. There was therefore some dislocation between the structure of the DoH and the structure of the plan.

A final observation is that often the list of responsibilities and activities that fell under each directorate had no relation to the listed strategies. For example, while "managing MDR" is listed as a specific strategy in one objective, there was no mention of this in the section on roles and responsibilities.

Strategic Health Plan 2001

This section makes a brief comment on the Strategic Health Plan of 2001 to assess whether there had been any change to the structure, content and quality of the plan over time.

Structurally the 2001 Strategic Health Plan was the same as the 1999 plan, with 6 STs, 36 objectives and a long list of strategies and success indicators. The STs were more or less the same as 1999, with some slight changes. The list of objectives changed much more significantly, with a number of new objectives (some which had been expressed as strategies in the 1999 plan), and several that had been removed or modified.

However, most of the weaknesses of the 1999 plan were still apparent. For example, objectives that should have been clustered together were spread across several themes, and included the PHC programme and human resource objectives mentioned earlier. Areas of activity such as child health remained absent amongst the objectives; the repetition and unevenness of objectives and strategies was common; strategies were constructed and expressed as objectives, and vice versa; objectives were uneven in terms of detail and specificity; and many of the indicators were still not properly constructed.

6.3.2 Business Plan

The DOH Business Plan forms the budget of the DOH. In contrast to the Strategic Plan, it is structured according to the following eight budget "programmes" which are each then broken down further into a set of standard accounting line items (such as staff, equipment, medicines, etc.).

Programme 1	Management (primarily provincial office costs including the Directorates that fall under each of the two Chief Directorates in the province)
Programme 2	PHC / DHS (costs associated with PHC delivery through the health regions

	and districts, including regional offices costs, PHC personnel, drugs and transport; it includes provincial subsidies to LG for PHC delivery)
Programme 3	Regional Hospitals
Programme 4	Academic Complex
Programme 5	HRD (nursing school and ambulance college)
Programme 6	Support
Programme 7	Capital Works
Programme 8	Supernumerary staff

The budget is therefore structured according to organisational divisions (programmes 1,5 and 6) and levels of the health care system (programmes 2,3 and 4). Programme 2 however includes budgets based on geographical / line management divisions of the DoH as well as budgets based according to PHC programme support divisions.

Under each of the eight budget programmes, there are eight sub-headings: 'Purpose', 'Relevance', 'Outcome', 'Success Indicators', 'Person Responsible', 'Activities', 'Monitoring and Evaluation' and 'Cost Centres' (further un-packed into 'purpose', 'relevance', 'outcome', 'success indicators' and 'activities', with a timeframe and budget).

In order to make a link to Strategic Health Plan, the Business Plan notes the six STs and also highlights certain issues such as developments with regard to local government and devolution and changes to the provincial organogram. However, when the lists of objectives, strategies and success indicators and activities of the HIV/AIDS sections of the two plans were compared in detail, there was a striking lack of similarity. Activities and indicators that relate to the same health issues or health objectives were not always phrased in the same way, and in some instances there were completely different targets, activities and indicators listed for the same broad area of health care.

It is also important to note that significant amounts of HIV funding came from the national budget. However, the Business Plan only reflected the budget and plan of provincially funded activities. There were therefore a number of other plans related to HIV/AIDS that existed separately in addition to what was in the Business Plan and the Strategic Health Plan.

6.3.3. PHC Programme Plans

This section describes how PHC programme policies, plans and guidelines were developed and structured, and how they articulated with the Strategic and Business Plans. It was not possible to describe and discuss all the provincial PHC programme plans, so a special focus was applied to the

HIV/AIDS programme. In addition, the planning framework at the national level and how this articulated with the provincial planning framework is mentioned.

PHC programme planning at the national level

After 1994, a central thrust of the national DoH was to ensure that health care activities were better orientated towards the principles of Primary Health Care. Policies and plans were developed at the national level and were used to influence the implementation of PHC programmes at the provincial level. However, this influence on the province was fragmented and uncoordinated because there was a lack of integrated planning and coordination amongst the different PHC programme directorates at the national level.

In addition, an analysis of the national DoH's strategic framework and plans revealed that for the differentiation between a policy, a plan and a strategic framework, as well as the link between the three, was missing. In addition, the national PHC Programme Directorates developed their plans that did not always articulate with the national DoH's over-arching strategic framework. For example, a national HIV/AIDS strategic plan consisting of four focus areas and 15 goals did not correspond with the national DoH strategic framework, nor with the Free State plans. Furthermore, because of several 'conditional grants' for a variety of specific HIV-related activities (for example, there were dedicated set aside for implementing VCT, HBC and PMTCT services), the sub-units of the national HIV/AIDS Directorate which were responsible for these services had plans and budgets that were developed in parallel to the national HIV/AIDS strategic framework.

PHC programme planning at the provincial level

The provincial DoH also had specific PHC programme plans. In some cases, these were developed specifically to access funds held at the national level for specific programmatic activities (for example, the Primary School Nutrition Programme). In other cases, they developed out of the recognition that the provincial Strategic and Business Plans were only intended to provide a broad and strategic overview, and that there needed to be more detailed PHC programme plans. In addition, plans emerged out of the operational planning of the PHC programme sub-directorates themselves.

An example of a PHC programme plan was the "Proposed Strategic Response for HIV / AIDS (2000-3)" which was drawn up for the entire provincial government by the HIV Sub-Directorate. It was first drafted in December 1999 and circulated to all other relevant line ministries in the province as well as to districts for comment. No comments came back, and the final version of the plan was completed in May 2000.

The plan broke down HIV/AIDS into six 'priority areas' and a list of 7 objectives and 34 activities. The immediate jump from seven broad objectives to activities, without any intermediate sub-objectives or expressions of strategy, meant that many of the 'activities' listed in the plan actually represented sub-objectives and strategies. For example "support NGOs doing HBC at facility level"; "ensure distribution of condoms to the regions" and "promote condom usage via health promotion" should really have been conceived as sub-objectives, rather than actual activities.

Although most areas of a comprehensive HIV/AIDS plan were covered, some aspects of HIV prevention were not – for example, the prevention of mother-to-child transmission, the prevention of HIV transmission through blood products and the establishment of an occupational health safety plan for health workers.

What is also notable is that the priority areas, objectives and activities did not mirror or correspond to the HIV-related sections of the Business and Strategic Health Plans, nor the national HIV Strategic framework. Although there was some complementarity, there were many differences in the way objectives were expressed and in the way targets and indicators were identified. Finally, the plan did not clarify how the different organisational divisions of the DoH would share the roles and responsibilities required to achieve the objectives and targets. Neither was it clear whether the plan represented a plan of the DoH as a whole or for the HIV / AIDS sub-directorate specifically.

At the beginning of 2000, after the annual Business Plan had been drawn up and after the provincial office had been re-shuffled, each of the five DDs within the Directorate: PHC Programmes was also asked to produce their own 'operational plans'. The 'operational plans' were to consist of a set of main objectives under which action steps were drawn up in the form of a GANTT chart. Some objectives also had a list of goals after each objective, and an identifiable person was attached to each action step. Although the 'operational plans' showed some complementarity with the relevant sections of the Strategic Health and Business Plans, there were many instances when they could have been more clearly linked to each other. The operational plans were also unclear in terms of the precise level at which they applied. At times they read as though they were plans for the DoH as a whole. At other times they read as plans for a particular sub-directorate, or even for particular individuals.

What was also notable in virtually all the plans was the absence of any mention of the DHS as an important vehicle for the delivery of their PHC programme objectives, and for the integration of different PHC activities.

In addition to the 'operational plans', each of PHC programme sub-directorate was required to define five or six 'focus areas'. The selection of these 'focus areas' was done individually by each sub-directorate and for this reason, areas of overlap between the focus areas became evident. For

example, both the Sub-Directorate: Mental Health, Chronic Diseases, Eye Care, Cancer and Geriatrics and the Sub-Directorate for HIV/AIDS identified a focus area related to the establishment of home-based care for the terminally ill. A more integrated approach would have identified "home-based or community-based services" as a focus area of all PHC programmes and then proposed a mechanism for prioritising between the different sub-directorates. Another example was the overlap / duplication between the focus area of the Directorate: MCH and Nutrition to provide case management dietary guidelines and protocols which overlapped with the 'focus area' of the Sub-Directorate: Mental Health, Chronic Diseases, Eye Care, Cancer and Geriatrics "to develop case management guidelines".

Ironically, what was meant to be an exercise to encourage prioritisation ended up doing the opposite because of a decision to allocate each sub-directorate an equal number of focus areas. This implied that each sub-directorate was considered of equal importance irrespective of the breadth and scope of PHC areas that it covered, or the relative importance of different PHC programmes.

The 'focus areas' also varied from being highly specific (e.g. 'guidelines' for specific diseases) to being broad (e.g. implementing a quality assurance programme for mental health). The degree to which these focus areas were consistent with the PHC programme operational plans also varied. Although they were consistent with the Sub-Directorate for Communicable Diseases, this was not the case with the Sub-Directorate for Environmental Health Services, Health Promotion and Occupational Health Services.

Last but not least, the PHC programme sub-directorates were also asked to write a set of 'guidelines' to summarise the various policy documents, directives and clinical protocols of the key 'focus areas' into a concise document, and to develop standards and criteria which could inform a quality assurance process. As with the 'focus areas', the 'guidelines' were developed by individual PHC programme managers without a common framework, and as a result, reflected an uncoordinated, non-integrated and vertical approach.

A review of the 'guidelines' also revealed that they consisted of a confusing mix of:

- clinical guidelines for patient care (e.g., providing ante-natal care and treatment regimens for particular clinical conditions);
- clinical policy (e.g., the immunisation schedule and the treatment policy for cases of MDR);
- administrative procedures (e.g., what form to use when notifying a case neonatal tetanus and how to check the cold chain);
- correct technical procedures (e.g., the procedure for using 'vaccine vial monitors');
- management procedures (e.g., how to apply for poverty alleviation project funding); and
- referral and admission criteria.

Some of the clinical guidelines were written in the form of a textbook or as education material for service providers. Several duplicated existing training manuals or clinical protocols, and some were even clinically incorrect or inappropriate. Often, the target audience was not always clear – sometimes they targeted clinics, sometimes hospitals; sometimes they targeted nurses, sometimes doctors. In some cases, the clinical care guidelines were developed in a clinical policy vacuum – for example, patient care clinical guidelines on HIV/AIDS treatment were drawn up without policy decisions about treatment costs having been made.

One DD felt that she was wasting her time translating one set of generic guidelines into another set of generic guidelines. "It's difficult and time consuming to be involved in developing national guidelines and to then have to transcribe it all again. It would be good to get clearer advice on the difference between policy, clinical protocols and guidelines".

In many instances the "guidelines" were written up as another operational plan for the individual sub-directorates, but often the terms "goals" and "standards" were used incorrectly, or there was an inconsistent and / or incomplete understanding of 'indicators' and 'targets'.

6.3.4 District / regional plans

The status of district health plans within the Free State varied. None of the five districts had a unifying and comprehensive health plan. More often than not, district-level managers operated in accordance with provincial plans. There were therefore fragments of a district plan that might include plans related to PHC programme areas such as TB or HIV/AIDS, or plans that were facility-specific (e.g. a hospital business plan). One reason for the lack of comprehensive district plans was the division between local government and provincial services. In many districts, local government clinics operated on the basis of their own plans.

Although there were district planning activities, these were rarely afforded a high status, and there was a general feeling that plans and instructions from province would always take precedence. Only in one district, which had been host to a district-strengthening initiative managed by a non-government organisation and which had undergone a sustained process of district planning facilitated by external experts, was there any indication of district plans guiding district activities and resisting pressure from the outside.

However, there was a growing consensus that district health plans needed to feed into the provincial plans much more than they had in the past. According to one of the senior provincial managers, "it will actually help with the provincial plan to be based on the district plan and not the other way round. The role of head office is then to see how they support those district plans. I think

it's something that needs to happen. We need to assist the districts, and to get to a point where we have clear district plans".

A point that was made strongly by both provincial and district level informants was that the degree of variation between the five districts required different plans to suit the local context. Comments about the variability in needs and available resources between the five districts included a depiction of "elite and non-elite areas"; comparing urban areas with good infra-structure with squatter areas, rural areas, small towns with high unemployment and farm areas that have been hit by drought. The difference between districts was also described in terms of the number of doctors and nurses, as well as geographic distance and the quality of roads.

This was expressed strongly by the HoD: "Yes! The variation affects the organisation. There is nothing like one size fits all", emphasising in particular the influence of distances, population density, poor roads and communities which lack transport and access on management structure and health staffing requirements. "So you definitely have to look at it differently" in terms of the vastness, the disease profile and what people have to deal with ... "every job and every structure has to be evaluated to fit according to that".

Chapter 7
Explanations and reasons

This chapter discusses the findings presented in Chapter 6 with the intention of explaining some of the reasons as to why there were problems related to the coordinated management of PHC programmes. During the course of data collection, some informants also offered their own interpretations as to why there were problems. The chapter also incorporates some of that data, using it to strengthen and support the analysis of the researcher.

7.1 Structural reasons

The data presented in chapter 6 indicated that structural factors were clearly important in determining how the different divisions of the organisation interacted with each other. Taken in its entirety, the DoH was a geographically-based divisional configuration, centred on three regional complexes and five health districts, as well as certain large tertiary hospitals. Head office was structured (after 1998) according to a separation of support and line divisions. The support arm of the organogram was further divided into divisions based either on functional areas of management such as HRM and finance, or on technical areas such as the PHC programmes.

This configuration can be understood using Mintzberg's framework for defining the major functional components of an organisation.[13] The deconcentrated divisions of the region and district, consisting of clinics, hospitals and frontline health workers form the *operating core* of the organisation with a line of authority extending upwards to the *strategic apex* at head office, through a middle layer of *line management* (the district managers and regional directors). The functional support divisions such as the Directorates for Human Resources and Finance (concerned mainly with the internal maintenance of the organisation) would be the *support section*; and the PHC programme sub-directorates would form the *techno-structure* that provided discrete and specialised technical inputs, mainly in the form of strategic planning and policy development, as well as other technical functions such as training, monitoring, evaluation and research.*

Because of the 'service and product' variables of PHC described earlier, as well as the geographic variability of the Free State, it can be argued that the DoH was appropriately configured as a geographically-based multi-divisional structure. It can also be argued that South Africa's need to change the whole orientation of health care from its apartheid past, meant that it was particularly important to have a *techno-structure* that would provide policy direction and strategic planning

* Some PHC activities that benefited from economies of scale (see Table 7.1) and needed to be delivered from the centre of the organisation, meant that certain *operating core* activities (i.e. activities that involve a direct engagement with the external environment) were also located as responsibilities of the PHC programme sub-directorates.

inputs. There was therefore a strong and valid rationale for the creation of PHC programme sub-directorates at the provincial level.

The *techno-structure*, represented by the PHC provincial programme sub-directorates, however was not limited to the centre of the organisation. At the district level there were also PHC programme coordinators operating with a 'specialist' brief or portfolio. Although they were officially accountable to the district manager and were part of the district, many of them operated as though they were accountable to the PHC programme sub-directorates and as though their function was to help implement the aims and objectives of the PHC programme sub-directorates.

Some of the tensions described in Chapter 6 may have been a reflection of an unclarity between the district PHC coordinators acting in a role that saw them as an extension of the *techno-structure* of head office, as opposed to acting in their designated role as a separate *techno-structure* that belonged to the health district.

The tendency of the provincial PHC programme *sub-directorates* to operate as though they had line authority, and to super-impose a vertically organised configuration of PHC programmes upon a geographic-based divisional configuration, appears to have been due in part to a lack of clarity about the difference in roles and functions between line and support divisions. Eight out of the nine provincial informants who had structured interviews agreed that 'the roles and responsibilities of the provincial support directors and provincial PHC programme managers vis-à-vis the regional directors was not sufficiently clear'. One informant said, "we all had to find our feet in terms of exactly what should the support structures do, and what should the line functions do".

The redeployment of staff at the end of 1999 seems to have added to this lack of clarity. Many people in new positions had to accustom themselves to new jobs and responsibilities, and this was said to have delayed their understanding of how to interact with other managers.

Another area of confusion about roles and functions was with the lack of demarcation between the two forms of 'staff authority' within the support divisions should exercise. As described in Chapter 3, while '*service authority*' is advisory only, '*functional authority*' is directive in respect to certain prescribed functions of a particular specialism. In several instances (e.g. the case of the radiographic services described in Chapter 6), support function managers at head office were not clear as to when they could exercise *functional authority*. In other words, there were questions as to when they should or could be directive to the services under line management. As the Chief Director for Support Services explained, they were unclear about "how far can we manage and what was our responsibility; are we mainly there to do policy and monitoring, or are we responsible for more issues?"

The difficulty with defining the boundaries between staff functional and staff service authority was also compounded by the variability in technical capacity and expertise amongst district level managers. One support division manager cited an example related to information technology (IT), a functional area that involved technical expertise that was not fully available at the district level. However, the authority of the centralised IT expertise in relation to the authority of the district and regional managers was made more unclear by the fact that IT expertise at the regional and district level varied considerably.

The blurred distinction between line, service and functional authority also resulted in different interpretations of the role of setting strategy and policies. For some, the development of strategy and policies went beyond the setting of standards and guidelines to include "making sure that standards are adhered to", or "ensuring that the same policy and programme in one district is the same in another". In other words, the role was interpreted to include an element of enforcing compliance within the line divisions. This inclination to stray into the territory of the line authority divisions was recognised to some extent by the support divisions. According to the Director for PHC Programmes, for example, "In our provincial operational plans, we have implementation activities that should be at district level. We confuse our implementation, with the implementation of what should be at district level".

In addition, many of the *operational* plans of the PHC programme sub-directorates included objectives and targets that were phrased and constructed as line management objectives and targets. For example, indicators and targets relating to the improvement of service delivery could only be achieved with and through the district health services, and not by the PHC programme sub-directorates on their own. This resulted in the PHC programme sub-directorates playing more of an instructive role vis-à-vis the districts, rather than a supportive role. The construction of objectives and targets for the provincial PHC programme sub-directorates that reflected their role of providing technical support and guidance to the district may have helped ensure a more appropriate engagement with the districts.

Finally, the encroachment of the support divisions and the PHC programme upon the line authority of the districts was also affected by pressure from the national PHC programme directorates. The involvement of the national level of government in the operationalisation of PHC programmes within provinces and the assumption of a role of 'line managing' the PHC programme managers at the provincial level can be partly explained by the fact that national PHC programme managers were ranked higher than their provincial counterparts. In addition, the budget structure for certain PHC programmes meant that the funding for certain staff and activities was held at the national office, which contributed to a blurring of the line between the prescribed role of policy development, and the actual role of managing funds and activities within provinces. This influence of the national DoH

also neatly illustrates the way in which the provincial DoH was 'embedded' within a hierarchy of systems, as described by general systems theory.

A further source of problems was the structural configuration of rank and authority within the DoH. Because rank is a marker of the importance and status of a post, it can help to define the relationship between individuals and divisions in an organisation. The organisation of rank within the line and support divisions of the Free State DoH and the hierarchical positioning of their managers in relation to each other is shown in Table 7.1 below.

Table 7.1: The organisation of rank between the line and support divisions

Rank	Line divisions	Support divisions
Director	Head of regional complex	Head of Directorate for PHC Programmes and Directorate for Planning and Support
Deputy Director	District manager	Head of provincial PHC programme sub-directorates
Assistant Director	Sub-district manager	Certain provincial PHC programme coordinators
Chief Professional Nurse	District and sub-district PHC programme coordinators	

PHC programme managers at the provincial level were higher ranked than their district counterparts, and it is likely that this encouraged a more top-down and line authority relationship between them. The directors of the support divisions of the provincial head office, including the Director for PHC programmes, were also ranked higher than the district managers, and this could also have influenced the support directorates and sub-directorates to view their relationship with the districts from a vantage point of superiority. District managers who are ostensibly in charge of delivering PHC in their districts were only ranked as DDs, the same as the provincial PHC programme managers.

Although most provincial informants did not think that rank played a role in determining how line and support managers interacted with each other, district informants were much more likely to agree with the statement that Support Service directors believed that they had equal authority with regional directors in determining district-level activities and plans, *because they had equal rank.* Several of them felt that if the Support Directorates at head office were more explicitly subservient to the regional director, they would be compelled to "be in line with what is happening in the district and not what the provincial level thinks should happen". Another informant explained how the provincial office believed that they had authority over the districts. "Whatever instruction they give, that will not be questioned. They even give the ultimatum. Because some of the responsibilities are unclear, they think they have got more power, or equal powers like in the district".

District level informants therefore argued for the rank of the district manager to be raised to that of director, thus placing each of the five districts on an equal level to the support divisions of the provincial head office. It was mentioned that this would also solve the problem of some district managers having a rank that was lower than some of the hospital managers who were part of the district health team. One district manager complained of having to manage the whole district including all the hospitals while earning the same as the hospital manager. Another explained, "If you look at the number of people who serve under you, I have got 21 clinics, three district hospitals, about 340 staff members and my budget is about R41m" so it is much broader than "the average deputy director sitting at head office or anywhere else".

In addition, it was felt that a higher rank would better reflect the depth and breadth of responsibility of the district managers. "When you look at the scope of work of a district manager and you look also at their remuneration, you will find that somewhere there is an injustice that has been done". It was also argued that the rank and status of district PHC programme co-ordinators should be higher for the same reasons.

Although it is not uncommon for a divisional configuration of the public sector to be unmatched by a real transfer of authority from the centre to the divisions, the Free State DoH leadership appeared to have a genuine desire to decentralise authority, as shown by the deconcentration of authority to the regional complexes. Furthermore, senior head office managers were physically relocated to regional complex offices to accompany this deconcentration of authority, resulting in the size of the senior staff complement at head office actually shrinking. This suggests the need to signal a deconcentration of authority with changes to both the organisational and physical structure dimensions of the DoH.

In terms of the horizontal relationships between different PHC programmes, a mix of organisational structure factors seemed to undermine the effective management of PHC programmes.

One problem was the failure to assess or appreciate the differences in workload, function and rank (Table 6.1) negatively affected the organisation of work amongst the PHC programme sub-directorates. For example, one apparent weakness was the fairly even allocation of rank and posts amongst the different sub-directorates in spite of the differences in workload, urgency, importance and breadth of issues.

When asked how decisions about the number of divisions and sub-divisions are made, the answer was fairly vague, and seemed to be based mainly on criteria related to the number of posts of a certain rank that were allowed (or affordable). Functions were then allocated as best as possible to those posts. Although studies of workload were conducted to inform structural design, according to some informants this was not done by people with an understanding of what each PHC programme entails. As

mentioned earlier, there was a feeling that the design and structure of organograms was not "scientifically done".

Although divisions can bolster their capacity by seconding people to tasks and functions, by working in collaboration with others or by out-sourcing work, it was noticeable that the sub-directorates made little use of, for example, specialists, clinicians or academics working in health facilities, universities or health NGOs. It is therefore not surprising that some of the provincial PHC programme managers experienced feelings of role and work overload.

However, the revisions and improvements made to the organogram between 1994 and 2000 reveal a conscious and deliberate process of 'learning by doing', and a recognition that having a correct structure was important. One of the chief directors noted that the changes reflected a department that was constantly asking itself whether things were working and was not afraid to say "it is not working". Although the changes had been disruptive, the general feeling was that they had been appropriate and necessary. This is seen by the fact that in 2001, the CD for Support Services was to undergo a reorganisation in recognition of the problems that had been experienced. The changes included separating the functions of HRD and HRM into separate directorates; abolishing the Directorate for Planning and Support; creating a new Logistics Directorate; and moving the EMS and legal services functions to the CD for Clinical Services.

There were also some changes to be made to the organisation of the PHC programmes which included combining HIV/AIDS and TB into a single programme and turning it into a new directorate; moving the Sub-Directorates for Oral Health and Rehabilitation into the Directorate for PHC programmes; integrating responsibility for EPI back into MCH; and separating MCH and Nutrition into separate Sub-Directorates.

From the perspective of the line managers, the allocation of workload and tasks to posts was not always appropriately done. In particular it was felt that one of the five districts, which was very large and under-resourced, was too great an area to be managed under one district management team.

7.2 Individuals

As described in Chapter 3, organisations that are well designed with clearly defined and appropriate roles and responsibilities, may not function effectively if posts and jobs are occupied by people without the required competencies or aptitudes. This research did not conduct any psycho-metric testing in order to formally assess the fit between individual capacities and their posts. However, certain observations made during the course of data collection did shed some light onto an understanding of this structural factor.

The importance of individual skills, expertise and competencies is particularly relevant with respect to the PHC programme sub-directorates because of their role within the DoH as the *techno-structure* to the organisation. The *techno-structure* is supposed to house specialists in particular areas of expertise who provide technical input, and guide and assist the work of the *operating core.* As the *operational core* of a DoH consists largely of fairly highly trained nurses and doctors, one would expect the techno-structure to consist of individuals with a higher degree of expertise in their respective areas of speciality. In addition, the requirements of effective policy development, strategic planning, monitoring and evaluation and human resource training for comprehensive health programmes are significant and require a broad set of competencies (e.g. generic planning skills; clinical expertise; epidemiological skills; information and research skills; and public health knowledge).

However, many of the provincial PHC programme managers, as well as their district counter-parts, were not adequately equipped with the knowledge, experience and skills to perform the functions and roles that were demanded of by their posts. In many instances, frustration over the lack of integration and implementation of PHC programmes appeared to be centred on the lack of a shared and adequate level of technical understanding of PHC.

None of the PHC programme managers had any medical training and few had any formal post-graduate qualification in public health. Several didn't even have any experience with the programme that they were managing. For example, the DD for MCH and Nutrition explained how she had to learn about basic maternal and child health issues because it was an area not familiar to her. In another example, the AD for STI control and management was a hospital nurse who had been appointed without any prior experience in the field. The poor quality of the PHC programme guidelines and clinical policies described earlier also indicated the extent to which many of the provincial PHC programme managers lacked the required skills and competencies.

Even district informants reported having experienced frustration at knowing more about a particular programme than their provincial counterparts, especially when it came to what was and wasn't feasible to implement. It is probable that another reason for the top-down encroachment of the PHC programme sub-directorates onto the districts was their own lack of technical confidence which translated into an insecurity with having only staff authority to operate with.

At the level of the district, there was also a lack of human resource capacity. District managers did not always have the technical authority to challenge the incursion made by the provincial head office into their districts, nor did they have a clearly developed plan of their own priorities and strategies to help inform provincial support as to their needs. As a result, they struggled to act as a buffer between the service providers and the provincial PHC programme sub-directorates.

This was particularly the case when the redeployment at the end of 1999 meant that all the districts except one got new district managers, many of whom didn't have a background in district health management. One informant explained how this "affected their confidence which I think tended to make them defensive. I mean imagine if you are moved for the first time to a particular district and then suddenly the people come from the top to talk to your people." However, the initial defensiveness and insecurity of the district managers became less of a factor as they matured and became more confident. One informant explained how good communication "is easier with a more confident manager who has been in the post and knows what they are talking about. When you're experienced, you are confident, and you are more able to relate to other people and understand their view".

This was echoed by a view that the tensions between the two CDs were also the result of "growing pains" after the redeployment, during a period when each chief directorate "looked inside itself" and focused on dealing with making their own chief directorate work. "I think we were all consolidating our positions. I was busy making my regional complex work but also wondering, 'where are these guys?' They were also saying that we were not communicating with them, 'what is he busy doing?' So it was characterised by the fact that we were in year one".

7.3 Planning

The function of planning is especially critical for the Free State DoH because of its organisational complexity. Ensuring that the different parts of a large and dispersed department work towards a single set of goals and aims is a demanding challenge that involves getting the content of the plan right; ensuring adequate ownership and participation in the development of aims, objectives and targets; finishing the planning exercise timeously; and linking the plan to a clear process of implementation, evaluation and re-planning.

A "network" of inter-connecting and mutually reinforcing plans that "talk to each other" is also required, as it would be impossible to have one single plan capable of serving the entire organisation. Therefore, an over-arching framework or foundation for the development of all health plans (e.g. provincial plans, district plans, PHC programme plans, support systems plans, health facility plans and individual workplans) needs to include 'a plan for planning', as well as a description of the manner in which the organisation is configured (how roles, responsibilities and authority are distributed; and how the different components of the organisation fit together; etc). Without this, strategic planning could result in defining a clear 'destination' for the DoH, but without the DoH knowing how the vehicle for getting to the destination works.

However, the Free State DoH had no clear planning framework. The poor selection of the six strategic themes and thirty-six objectives that formed the basis of the Strategic Health Plan meant

that more detailed operational plans could not be on the foundation of a strong strategic plan. Of note was the failure to identify an appropriate set of 'domains' or 'areas' of activity upon which strategic plans could be developed coherently and comprehensively.

In addition, there was an inadequate articulation between the Strategic Health Plan and the organisational configuration of the DoH. Ideally, the Strategic Health Plan would have formed a framework for the development of a series of strategic and operational plans for each of the 'major divisions' of the DoH. This would have resulted in there being 11 'major' strategic and operational plans for the five Support directorates, the five districts and the Academic Health Complex, with each relating to each other through a common and over-arching strategic framework.

As it was, there was a poor articulation between the various plans that did exist. For example, there were significant dissimilarities between the structure and content of the Strategic Health Plan and the Business Plan; and this was also the case between the national and provincial plans. Indeed, the number of different of plans and documents consisting of various PHC aims, objectives, targets and lists of activities must have in itself been a cause for stress and confusion.

Another problem was the lack of consistent planning guidelines. Plans used different templates and formats; and terms such as 'goals', 'objectives' and 'indicators' were used inconsistently as well as incorrectly. According to several informants the task teams which had been set up to develop each of the Strategic Themes had employed different definitions of 'objectives' and 'strategies'.

Plans also need to be developed in an appropriate sequence and with the right mix of bottom-up and top-down planning, which coincides with getting a proper inter-relationship between *strategic* and *operational* plans. In the Free State the lack of differentiation between strategic and operational plans contributed to the tension between the periphery and centre of the health system. As described earlier, the wording of the provincial PHC programme plans suggested that the provincial *techno-structure* had line authority over districts in their area of health care.

The lack of district plans (and information to inform provincial strategic planning) also made it difficult for the provincial level plans to be more strategic because they had no district plans with which to interact with. Several district level informants suggested a need for more involvement of districts in planning and some even felt that the whole approach to planning should be turned on its head. "I would suggest that first there should be district plans. Then with this district plan, a workshop should be done to the Province and the Province draw their plan out of that district plan". Other informants pointed to the need for people at head office to have their policies and plans informed by inputs from the district level.

At implementation level "you cannot just copycat the programme as it is. You have to see what will be suitable for you, for your service and the community. I believe policies should come into play having consulted with the people on the ground so that we can see what can be achievable within the constraints that are existing in the province". Another informant wanted head office people "to come often to us so that they also get from down there. If they can keep coming down, we can tell them down here what the actual needs are".

The lack of pressure from the periphery to force integrated planning was also in part due to an extraneous factor in that the policy on devolution and the role of local government had not been finalised. For this reason, there was a long period when stable and robust district-level health management structures could not be developed to present more of a 'bottom-up' challenge to the poorly coordinated and vertically imposed guidelines and directives coming from head office.

There were also problems related to the lack of prioritisation. The strategic plan for the DoH had 400 success indicators, and read like a wish list of objectives. According to one informant, there were so many aims and strategies that "at the end, we are shooting ourselves for failure".

Plans were also not developed as integrated plans. Instead of the development of shared aims, goals and objectives as the foundation of integrated planning, people tended to plan from the perspective of their particular position or division. One informant described this as a strong influence on the construction of the Strategic Health Plan. "In the end, the themes got linked to the directorates .... people were speaking from their directorates and then fitted into the strategic themes. The HoD was also called out of the meeting for some of the time, and this contributed to people participating in the planning from their position". The existence of 400 success indicators in the over-arching strategic document of the DoH also points to a lack of integrated thinking in terms of defining certain departmental indicators for assessing progress or success.

Some of the reasons for this have been alluded to in the earlier sections. For example, the fragmented nature of PHC programme planning at the national level and the effect this had on PHC programmes. Many managers also had different understandings of the concept of PHC programme integration. For several managers, integration was not a generic term, but meant a particular model of health care delivery where all services were delivered through polyvalent staff and health facilities.

The misconception that integrated health care excluded specialists or vertically organised systems for certain categorical health issues was also prevalent in the Free State. For example, the "integration of mental health into PHC" caused a lot of confusion because it was interpreted to mean that all mental health patients should now be seen by general practitioners and mental health clinics would be stopped. This led to the mental health practitioners no longer being able to provide

a specialist service to a particular group of clients. Another informant mentioned how the concept of integrating school health services into PHC had also caused a lot of confusion.

The different interpretations of integration led in some instances to disagreements about how certain activities could be coordinated and organised. In 2000 for example there was a difference of opinion within the Directorate for PHC programmes about what it meant to integrate TB with HIV. According to one, integration meant that district TB coordinators at the periphery would become TB *and* HIV coordinators and take on a portfolio of HIV-related work. Another felt that it meant the continuation of dedicated TB coordinators who would merely include some aspects of HIV work into their TB work.

Some managers however were able to understand that integration meant different things at different times. According to one provincial programme manager, the concept of integration was relatively clear at the level of the clinic. However, it was integrating the management of PHC programmes that caused a confusion. "At provincial level where you are responsible for policies and for co-ordination and developing monitoring tools, I find it actually very difficult to actually view how it can actually happen. What does integration mean? I could never grasp what it would be like – all I got was that all of us would get into one car and then you go and visit the district, and that is now called integration. We talk big things that is not a reality - integrate your plans, integrate your policy, integrate your training. But how do you do that? So integration to me is a mind-boggling thing .... a lovely word but no-one has a clear guideline to say to me, this is the way that you do it".

The externally facilitated initiative to develop a single integrated HIV/AIDS and Nutrition plan also revealed a difficulty amongst PHC programme managers in grasping the concept of differentiating between the shared aims, objectives and strategies of the DoH as a whole, and the functions and responsibilities of their particular PHC sub-directorates.

Another feature that contributed to the lack of effective and integrated planning was the fact that many managers did not use their plans and tended instead to react to external and short-notice demands. As one manager complained, "It is impossible to have a plan – things crop up at the last minute, and you have to change your plans. You start one thing and before you finish it, you have to start another thing". Thus the bureaucratic basis for public administration was often undermined by last-minute planning, political interference and a ad hoc decision-making.

7.4 Performance management of PHC programme sub-directorates

The organisational literature has pointed to the potential for an emphasis on individual performance management to cause organisational fragmentation. As individuals pursue their personal performance targets, the organisation's goals can become relegated.

In the Free State DoH, performance management had just been introduced amongst the senior provincial managers (director level and above). Although it was not linked to a financial reward system, managers were having to sign performance contracts. Such contracts had not reached the level of the PHC programme DDs and ADs at the time of the research, but there was already a growing culture of a more rigorous assessment of individual performance. Individuals were increasingly being judged according to what they personally delivered, and for some, there were already signs that this was distorting organisational priorities. One informant, for example, commented that the "things that you could deliver on, you would put in your agreement. But things where you need to work very closely or are dependent on other colleagues, you would not include in the plan - they are secondary things you will concentrate on".

The words of another informant provide a vivid description of the kind of effect that individual performance assessments was already having. "You know, let me explain some of the things you may not be aware of. The MEC, for example, made an announcement that she was going to evaluate us after 6 months. It was a big burden. The new MEC is very demanding. The intention was to evaluate us all after six months, and it was a sword hanging over our heads. There were incredible demands to deliver. With the new MEC, she is much more hands-on. She spends two days doing field visits at which she identifies problems. When she comes back with a list of problems, she will make immediate inquiries into the problems. At the re-shuffling meeting, the MEC openly criticised the under performers by name. The first 6 months I struggled to find direction. There was one crisis after another. It was very difficult. You're trying to do 150 things at once".

The emphasis on individual rather than on team performance did not just influence the horizontal relationships between inter-dependent support service structures at the same level of management. They were also said to have influenced the diagonal relationship between the provincial support divisions and the districts, and there was a common feeling that the performance management system encouraged some of the support service directors to over-step the boundaries of their roles and authority because their performance targets were to some extent dependent on the performance of health workers in the district level.

This would suggest that the 'task management culture' described by Handy as being appropriate when influence and authority is dependent on technical expertise and when inter-dependencies require staff to co-operate with each other, was at times inappropriately subsumed by a 'person management culture' which is typical in situations when group goals are secondary to individual goals, or where work is not inter-dependent. Indeed, the description of the effect of the MEC also suggests that at times the organisation reverted to a 'power management culture' which is centred on the authority and power of a few key individuals.

7.5 Management style and leadership

As indicated in the literature review, leadership can play an important part in ensuring coordination between the different divisions of an organisation, ensuring optimal communication, defining roles and responsibilities clearly and reducing and resolving confusion, tension or conflict.

Generally speaking leadership in the Free State was considered to be very good by most informants. There was a widespread degree of mutual respect fostered within the department, leading to high levels of morale and motivation. One provincial deputy director said, "I would say there was a level of maturity and sincere effort put in by all our management. We are very lucky in the Free State - the people really have been trying to work together. The things that we are still struggling with are purely, to my view, because we are still young as a province. We have done a lot of transformation in a short time and all of the people have grown tremendously".

The generally positive approach of the Free State managers is exemplified by the fact that in spite of the pressure that provincial managers felt was being placed on them by the MEC, there was also a commitment to support her and an appreciation of her strengths.

However, there was evidence that leadership weaknesses contributed directly to the lack of coordination between the different PHC programme sub-directorates and the failure to develop a more coherent and integrated set of PHC plans. The lack of leadership was mainly manifest by a failure to appreciate the need for PHC programme integration and the problems that were being caused for the front line providers. This was compounded by the lack of a clear strategy for developing the plans, guidelines and policies of the PHC programme sub-directorates as described in Chapter 6, and emphasises the point made in the literature that leadership is an important determinant of how divisions interact and coordinate their activities amongst themselves.

The new Director for PHC programmes abandoned the externally-facilitated process to develop integrated PHC programme plans, and went back to non-integrated "planning in silos". For several of the PHC programme coordinators who had been part of that process, this was a cause of frustration. As one said, "integration will improve if we can continue the way we started – if we go back to what we were doing that would help – why did we stop?"

While the provincial PHC programme DDs and ADs were complimentary of the style of management of the Director for PHC programmes, and his warmth and approachability, they were less happy with his approach to how the different programmes were being managed. The most frustration expressed by the DDs and ADs was in terms of their confusion about how to integrate the different PHC programmes, how to interact with the districts as well as with the various paper exercises set by the Director (developing plans, policies, guidelines, etc.).

From the perspective of the district, the feeling that the management culture was generally supportive was much less marked. Although there was an appreciation of the approachability of senior managers and their willingness to commit time to meeting with and talking to front-line health workers, there was a feeling that the organisation was hierarchical and authoritarian. District level managers in particular made frequent reference to a generally accepted culture of 'doing as you're told'. "We used to get orders from the top and we just go. We are used to it and we just do what we are told or asked to do". The lack of appreciation for the need to have district-level plans that was highlighted earlier was seen as a consequence of the view that the lower levels of the health system should merely implement plans that had been developed at the centre.

The ingrained culture of head office managers being in charge may have led to some resistance amongst the support managers at head office to accept the more limited staff authority they had over regions and districts. The culture of seeing the centre as being inherently superior to the periphery was reflected in many ways. Amongst managers for example, there was a feeling that being in management carried a greater degree of responsibility and authority than being responsible for service delivery at the level of a health facility. "I am a Chief Professional Nurse who is doing managerial work, whereas there is a Chief Professional Nurse who is earning the same salary like myself, who is just a functionary" (i.e., providing health care in a clinic).

7.6 Organisational culture

The non-technical attributes of individuals also appeared to have some role in determining whether posts and positions operated as they should. For example, one informant made the point that some problems were related to "attitudes". Inter-personal trust and friendship were also considered factors that affected organisational coordination and cohesion. Another informant described the importance of workshops at which people were learning to see the need to "change attitudes" and to "learn to work together".

On the whole, evidence of poor inter-personal relations, hostility and distrust were not observed by the researcher. However, as emphasised in the literature conflict and intra-organisational resistance can be hidden and expressed in passive ways. However, senior managers in the Free State DoH, placed great emphasis on promoting a positive culture of inter-personal relations. According to one of the CDs, there was a "constant reminding in meetings to say hey, remember we are in this thing for the same purpose. If you fail, I fail. If I fail, you fail. So we need to be working together".

The HoD also emphasised the need to remind people of their common mission and vision and to encourage people to see the clashes over territory and turf differently. "None of us will go into an area and go to accost and destroy things. We are going in there because we want it to succeed. To say your success is my success - that is what it is about. And, you know, it is about saying, 'let's talk

about this'. Let's put our differences behind and if you find out that I have talked to your people, don't question my motives. Accept that I was there to support you".

Finally another senior manager talked of the soft issues of an organisation, reflecting once again, the strong emphasis placed on facilitating good inter-personal relations within the DoH. "The level of maturity, the individuals .... those are factors which are not always considered, but which sometimes have a bigger influence than organisational structure. So a lesson for me in any organisation is that the soft issues are more important than the hard issues. You can have the best structures in the world, but the soft issues must be dealt with effectively".

Chapter 8
Conclusions

A central theme of this case study has been to describe how the characteristics and features of the different services and products inherent in *comprehensive* PHC delivery, when applied across a large geographical area, have important organisational implications. The breadth and diversity of activities, as well as the nature of their inter-dependencies, that characterise different PHC programmes need to be assessed and understood so that they can inform organisational design and management structures. In the past, there has been inadequate attention paid to kinds of variables listed in Table 6.1 when it comes to the configuration of organisations.

Although the influence of the classical management theorists has waned over time, one of the conclusions is that the structural design of a health service organisation matters. This case study demonstrated that even within a department with a high degree of morale, motivation and job satisfaction amongst its senior managers, structural design faults can constrain the optimal functioning of a DoH.

The unclear and at times inappropriate allocation of roles and responsibilities within the DoH, was one of the structural design faults in the Free State that contributed to the poor coordination of PHC programmes. Some of these faults arose from a lack of appreciation of the functional requirements and characteristics of different components of the DoH. An example of this was with the first provincial organogram which split up the 'techno-structure' of the PHC programme sub-directorates and then incorporated the fragmented sub-directorates into the line management divisions of the health districts. The relevant directors were then faced with having to simultaneously manage fragments of the techno-structure and of service delivery through the districts.

This structural fault was identified and rectified when the staff authority functions of all the support service divisions were separated out from the 'line authority' functions of regional and district health management into separate chief directorates. Such a structural design fault might have been avoided by applying certain generic rules about organisational design such as arranging the structural configuration of different organisational divisions according to appropriately differentiated and demarcated functions.

Three other illustrations of structural design affecting organisational performance were highlighted in this case study, and which may provide lessons that are generalisable to the organisation of public sector health departments.

The first is related to the erroneous placement of the management of EMS in the CD: Support Services, which formed one of the points of tension between the CD: Support Services and the CD: Clinical Services. It suggests that if a DoH is to organise its head office divisions according to a split between line and support functions, it should be careful to avoid placing line functions within the support divisions, and vice versa. More careful thought could have avoided problems that ensued from the placement of a key line function out of the direct control of the regional and district managers.

The second illustration was the combination of the HRM and HRD functions into a single directorate. Although at first glance it may appear that this follows the rule of clustering inter-related functions within the same division, on closer inspection, HRM and HRD represent quite different *types* of activities and tasks. HRM largely consists of 'administrative and bureaucratic' functions which can be managed through the application of fairly explicit and clearly-defined rules guiding, for example, recruitment, pay, disciplinary, retirement and sick leave. HRD on the other hand is a more 'technical' function requiring 'specialist' understanding of health care and an ability to judge the kinds of skills and competencies that need to be developed within the workforce. Thinking more about the different *types* of activities and task cultures inherent within different management portfolios may have assisted with a more appropriate allocation of functions to structure.

The third illustration was the DoH's decision to amalgamate the management of regional health services and district health services under a single Director in charge of a regional complex. The conflict between regional hospitals and district health services prior to the restructuring in 1999 was said to have virtually disappeared when district services and regional health services came under the management of the regional Director. This example illustrates the importance of getting divisions with intense functional inter-dependencies or interactions to come under shared management. Although on one level it might make sense to have all regional hospitals across the province placed under common management, the important functional inter-dependencies and interactions of regional hospitals are not with each other, but with the district health services in their catchment areas. Line management may therefore be better organised according to geographical clusters of regional hospitals and district health services rather than according to province-wide horizontal segments of the tiered health care system.

Ideally, the structural design of organisations as large and complex as a DoH should be based on the development of a 'functional organogram'. A 'functional organogram' is a map of the different functions required of a DoH, appropriately clustered according to the type of activities and tasks inherent in each function, and to their inter-dependencies and interactions. In other words, it charts out the activities and the interactions of the different functional components of a department of health.

This then allows consideration to be given to the development of a 'staff organogram' which superimposes upon the functional organogram the allocation of rank and posts, based on a consideration of further variables such as skill level, workload, volume and intensity of interactions with other divisions or organisations, public health importance, and the availability of skilled personnel. In this sense, developing a 'functional organogram' for a DoH is a generic function based on the inherent characteristics and tasks of certain health care delivery functions that might apply to any other DoH, whilst the 'staff organogram' would be tailored to the contextual variables of a particular DoH.

Table 6.1 highlighted some of these variables for the different PHC programme areas and was used to help explain why some of the clustering of the different PC programme areas was inappropriate. However, instead of defining a functional organogram for the PHC programme areas first, and then super-imposing a 'staff organogram', the PHC programme areas were clustered after a decision had been taken to create five sub-directorates of roughly equal size.

This discussion of the relationship between a 'functional' and 'staff organogram highlights a further conclusion of this case study which is that an appropriately designed structure or organisational configuration must be served by a complementary allocation of responsibility and authority, and by an understanding of the underlying rationale of the structure. If structure matters, it needs to be applied and understood correctly. This is explained by the following discussion.

The geographic-based divisional configuration of the DoH seemed to be highly appropriate given the nature of health care delivery, the size of the DoH as well as the geographic variation within the province. However, the department did not really function according to this configuration. One of the reasons that stands out for this was the lack of deconcentration of authority and management responsibility to the districts, and the relatively low rank of the district manager. This organisational 'signal' of status effectively undermined the rationale of having deconcentrated geographical areas as the divisional basis for the configuration of the DoH. An appropriate configuration failed to be buttressed with an appropriate allocation of rank and authority.

This contributed to the support divisions at head office adopting a 'line authority' attitude towards the districts, encouraged districts to continue acting in a subservient role vis-à-vis the centre and made it difficult for the districts to resist the uncoordinated demands of head office. It also meant that the external pressures from the national DoH and from the MEC were harder to resist, and that the ingrained culture of the centre 'being in charge of' the periphery was harder to resist.

The modus operandi of the MEC which ran counter to the organisational rationale of a geographically-based divisional configuration illustrates the need for important actors to understand the rationale of an organisation's structural configuration. It is possible that with a better

appreciation of the rationale, there might have been a loosening of the tendency for the centre to want to assume direct responsibility and control for service delivery. If the MEC wanted to play a direct and hands-on role in the way the DoH operated, it might have been better done through a more intensive one-on-one engagement with each of the five districts individually, rather than collectively through the provincial managers.

Some of the centre-periphery problems could have been reduced through a more appropriate allocation of rank and authority between the centre and the periphery. Raising the rank of the district manager to that of a director would place the DM at a rank equal to those of the five Support Service directors and help make the relationship in rank between the line and staff divisions of the DoH (Table 7.1) more congruent with the structural configuration of the DoH.

However, were this to be done, the three regional complexes would become problematic. If the five districts were to be managed by a director, it would not make sense to also have three regional directors, (especially as one region covered exactly the same geographic area as one of the districts). One option would be to abolish the level of the region altogether and only have five districts, an attractive option in view of the fact that there were some complaints that some of the regions were too large to manage effectively.

This wasn't done because of the anticipation that the districts would eventually become managed by local government, in which case the province could continue with its three regions, and engage with five districts health structures that would in the future be part of local government. However, in 2002, a decision was taken to limit the devolution of health care to a narrow package of environmental health services. Under these circumstances, it may now make sense for five directorates to be established at the level of the district and for the successful deconcentration that occurred to the regions to be extended one notch further to the districts. The three regional complexes would then be dismantled as an unnecessary level of bureaucracy and management.

The experience of the deconcentration to the regional complexes in the Free State provides another illustration of the importance of aligning structure to organisational policy, in this case the policy to decentralise authority and responsibility. The deconcentration of authority and responsibility seemed to have been relatively successful in this case because it was accompanied by a restructuring of the organogram which saw the simultaneous movement of senior managers out of the head office to the regional offices to accompany the deconcentrated functions.

The need to reconsider structural design in light of the change in policy to devolve health care to local government also illustrates the need for organisations to be adaptable and ready to change the way it is organised as required. In such instances, a clear and well articulated organisational

rationale for change is important, as well as plans to work through the anxieties and difficulties that accompany organisational change.

What may also support the on-going organisational development of making the divisional configuration functional, is an appreciation of the changes of the DoH's strategic priorities over time. As explained earlier, the immediate period after the 1994 elections was a time when central office functions were extremely important due to the restructuring and transformation required of the health system as a whole. The development of new policies and strategies to reorganise the DoH, promote equity and instil a new culture and philosophy of health care required a strong centre. However, over time, as the policies, strategies and restructuring of the DoH began to solidify at a macro level, the operational (and more peripheral) divisions began to acquire more importance because the challenge now became one of implementing the policies and operationalising the new vision.

Furthermore, as the need to adapt policy to suit local conditions becomes increasingly important, experience, skill and expertise is required more at the periphery of the organisation than at the centre. An appreciation of this shift in importance from the policy development functions of the centre to the delivery functions of the periphery (or from the *techno-structure* to the *operational core*) might be useful in facilitating organisational change and development. This would not however negate the continued need for a *techno-structure* at the provincial level to monitor, evaluate and modify policy as required, as well as provide technical and specialist support to the districts.

Although raising the rank and authority of the districts relative to the other organisational divisions at head office might promote an organisational environment in which more bottom-up planning is possible and the PHC programme sub-directorates are more supportive and responsive to the needs of the district, an issue that was raised in Chapter 7 was the role of the *techno-structure* at the district level. As described earlier, the existence of PHC programme coordinators at the district level had facilitated the ease with which the provincial PHC programme managers had been able to influence and direct activities within the districts. There was a feeling that the district coordinators operated as though they were more accountable to their provincial counterparts than to the district manager or to other PHC programme coordinators in the same district. One way to improve the coordination and integration of PHC programmes within the districts would therefore be to make the district PHC programme coordinators more accountable to the district manager and to each other.

It had also been suggested that raising the rank of the district PHC programme coordinators to be on a par with their provincial counterparts might help to break the traditional top-down and hierarchical culture of authority. A danger of this however would be that the district *techno-structure* could now assume a position of superiority over the individual facility managers within the district,

and perpetuate the 'problem' of the clinics and district hospitals being affected by multiple requests and instructions if they were inadequately integrated, or coordinated by the district manager.

An alternative approach would be to change the techno-structure at the district level from being a collection of 'specialists' organised around discrete PHC programme areas to being a techno-structure made up of skilled 'generalists' with a degree of multi-programme expertise to support the front line providers. In the Free State, such health personnel already exist in the form of 'clinic supervisors', whose job is to provide 'general' support and supervision to providers at the facility level, and to ensure the proper implementation of PHC policies, guidelines and principles.

At present, clinic supervisors appear to act mainly as line managers for health facilities, whilst PHC programme coordinators *in theory* provide technical support and input. This alternative approach to the management of PHC programme areas at the district level suggests that at some point, the tension between having discrete and specialised support and policy structures for different aspects of PHC and having health facilities and health workers providing integrated health care may need to be resolved structurally in the form of a unit or position that incorporates all the different PHC programmes areas, and combines certain line and support authority functions.

Such an approach would not necessarily mean getting rid of health personnel with areas of specialist expertise within the district. Certainly at the level of a district hospital, there would be a degree of skills differentiation (for example there would be doctors and midwives with specialist expertise in maternal health). Even within clinics, staff often develop particular areas of expertise and interest. In many instances, these 'specialist' staff would be busy providing health care as part of the 'operational core' rather than acting as part of a 'techno-structure'.

The balance between having health personnel with areas of specialisation or expertise and having health personnel who are generalists will depend upon the availability of health staff relative to health needs, the capacity to organise specialised services within health facilities, and the opportunities for staff to develop skills in areas of interest.

The challenge would therefore be to get the right balance between having a *techno-structure* of district-based 'generalist' (or multi-programme) support staff for front-line providers, using district-based specialists from the operational core to periodically provide technical support across the district, and blending in support from the provincial techno-structure.

Another conclusion from this case study seems to be that while bureaucratic clarity about organisational structure is important and may be guided by certain theories about the division of different roles and functions, management leadership remains critical to making the right judgements about getting the right balance between different organisational variables and factors.

For example, the case study illustrated that while the difficulties that existed between the line and staff authority divisions were partly due to structural design faults, there will always be an overlap between line and staff authority, and in particular between line authority and *functional* staff authority. Disputes about turf and territory are inevitable, especially in an organisation as complex and multi-divisional as a DoH, and where contextual variables such as the level of competence and expertise of different managers will vary. While good structural design will help to minimise intra-organisational disputes and conflict, management leadership will be important to optimise inter-personal relationships and communication and to resolve disputes as they arise.

The importance of management leadership was also illustrated in this case by the way in which it influenced the inter-action of the PHC programme sub-directorates with each other. In spite of the appropriate clustering of most of the PHC programme sub-directorates into a single division, the units did not integrate functionally. Reasons for this included an inadequate conceptual and technical understanding of the meaning of integration shown by the head of the Directorate, as well as the failure to foster shared goals and objectives amongst the sub-directorates.

Managers who work within narrow and discrete areas of specialisation, but which have inter-dependencies and interactions with other units, require leadership and integrative devices capable of ensuring coordination, good inter-personal working relationships, effective communication and integrative devices such as meetings to promote communication or joint projects to encourage cooperation and teamwork.

As described in this case study, one of the biggest weaknesses of the Free State DoH was its fragmented, inconsistent and disjointed planning framework, as well as the poor technical quality of certain individual plans. A possible conclusion that arises from this case study is that the poor quality plans and the fragmented planning framework reflected a structural problem of confused and unclear roles. Alternatively, inadequate analytical or planning skills contributed to the lack of structural clarification and cohesion by depriving the organisation of the use of planning as a key integrative device.

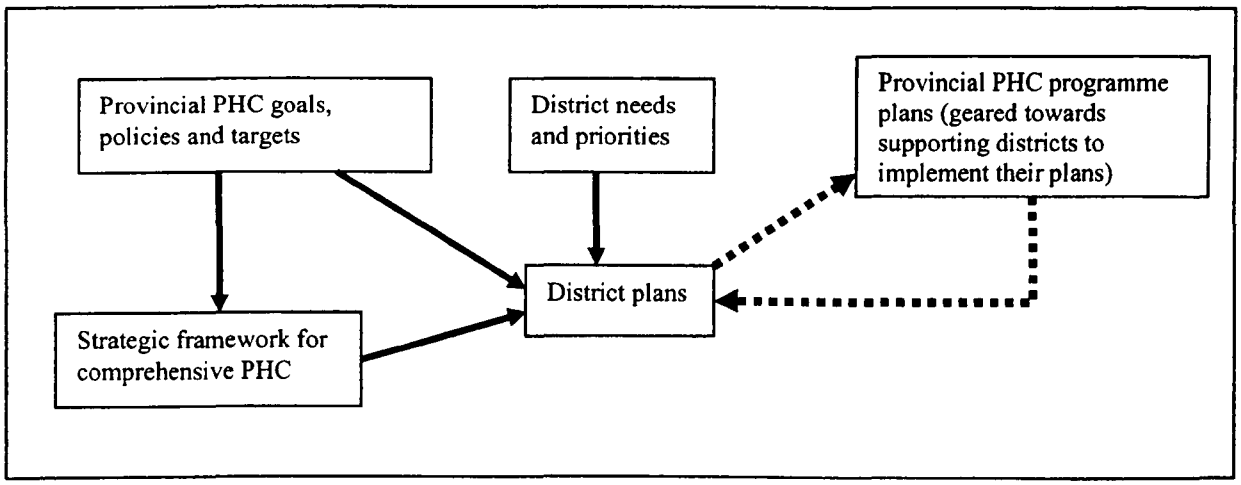
Clearly, an organisation like the DoH which has to provide services and products that are sensitive to various external factors and variables will need to change or modify plans frequently. Rigid plans and budgetary allocations can in many instances act as constraints to good management. However, the case study also reveals that the organisational complexity of a DoH requires some structure to the planning process to enable the different divisions to have a shared 'map' about what they are expected to do and how they relate to each other functionally. While plans that express the health outcome objectives of a DoH and its strategies are useful and relevant, what seems to be equally important are plans that explain and prescribe *how* the different organisational divisions will work

together in order to achieve the set health outcome targets and goals. In other words, not a health plan, but an organisational plan.

A conclusion of this case study is therefore that the exercise of planning is critical for a DoH that has set out to provide comprehensive health care. However, planning needs to be considered both as an integrative device for effective management, and as a technical exercise (based on epidemiological, clinical or economic criteria).

The concept of planning as an *integrative device* has been described earlier in terms of the development of a common PHC plan with objectives and indicators that would be shared by all the relevant PHC programme sub-directorates. In addition, it can be illustrated through a process of improving the relationship between the centre and the periphery. As described earlier, the lack of comprehensive district plans contributed in part to the imposition of vertical and uncoordinated programme plans and instructions. Because districts themselves did not have clearly defined priorities, aims and objectives, they were less able to resist the uncoordinated demands of the centre. At the same time, provincial plans filled in the gap by inappropriately incorporating operational objectives and activities into their strategic plans. As noted earlier, one of the effects of this lack of integrated planning between the centre and the periphery was a conflation of strategic and operational plans, and a lack of differentiation between policy development and plans to implement policy.

A planning framework constructed in such a way as to promote integration would emphasise the dynamic and iterative interaction between PHC programme policy development, strategic planning and operational planning illustrated in the diagram below. This involves a clearer separation of policies, strategies and goals from the operational plans designed to implement policy and reach goals.



The kind of iterative, bi-directional planning interaction between the centre and periphery suggested in the diagram above requires time and possibly external facilitation to work effectively. It is a slow process that engages with optimising organisational relationships, refining operational strategies, identifying areas of inefficiency, promoting solutions and instigating quality improvement cycles through which the techno-structure at the central and district level are able to direct their technical support efficiently and effectively.

In the Free State DoH, one of the constraints to this approach of building up from the bottom through a process of organisational strengthening was the external pressure which resulted in a more vertical and rapid approach geared towards the delivery of a few measurable outputs. An effective and appropriate planning system to facilitate organisational cohesion and efficient and effective PHC delivery in the DoH would therefore require a change in certain aspects of organisational culture, as well as recognition that the time that is required to optimise organisational linkages is a worthwhile investment for more effective and efficient organisational performance and effective management in the long run.

Finally, running across many of the organisational factors and variables raised in this chapter is the issue of human capacity. As highlighted in Chapter 4 of this thesis, organisations are essentially social systems made up of communities of individuals. While organisational factors such as their motivation, role clarity and inter-personal relations are important aspects of the human dimension of organisations, the case study also highlighted the importance of technical competence.

An understanding of the technical issues relating to PHC policies and guidelines, a recognition and awareness of the points of synergy and overlap between different PHC programme areas and an understanding of the practical constraints and possibilities of service delivery at the periphery are important requirements for the optimal integration of PHC programmes. In addition, the case study

highlighted the technical skills required to make the process of planning an effective integrative device. The essential importance of human resource capacity development is therefore a further important conclusion of this study.

Chapter 9
Discussion about the relevance of the research

This chapter discusses the dissemination and use of the findings, for the Free State DoH as well as for a broader audience. It also discusses the way in which research of this type might be commissioned and monitored by a research commissioning body or funding organisation.

9.1 Dissemination and use of findings

As described earlier, this research was built upon an NGO-managed initiative to improve the quality of health care delivery in the Free State. This provided entry into the research field as well as an opportunity for the researcher to be a participant observer in a way that did not feel intrusive or unsettling to the members of the organisation.

More importantly, it also gave the researcher an opportunity to provide on-going feedback to health managers of relevant findings and information rapidly and timeously. In a sense, the research provided some substantiation to a technical assistance initiative that was regularly and consistently feeding into the DoH as a matter of process. Put another way, the research added scientific rigour to various forms of technical assistance that were being provided in the field of decentralisation, PHC programme implementation and strategic planning.

While some researchers, as discussed in Chapter 4, would consider a simultaneous process of engaging with the subject matter tantamount to 'contaminating' the research matter, others argue that it is only by actively engaging with the very issues under study that real and true insights about the social dynamics of a particular situation can be understood or appreciated.

During the process of this research therefore, a variety of face-to-face meetings were held with senior managers at which data and feedback from the field were presented in a way that both informed managers, as well as helped to elicit further information and data for the research. In addition, there were a series of informal semi-structured interviews during which time observations about the implementation of PHC programmes were put to informants to comment on. By asking about certain phenomena, the informants were also being informed about certain phenomena. In some instances the informants may have been unaware of the phenomena, while in other instances the process of being asked to think about and comment on certain phenomena would have triggered thought processes or an understanding about what was happening within the DoH that might have led to better understanding or change.

This iterative process of feedback, data collection and opportunity to reflect and discuss various intra-organisational took place over the full course of the study and occurred with a number of managers, including the Head of Department, the Director for PHC programmes, the regional directors and several of the PHC programme ADs and DDs.

On three occasions, feedback about the process of decentralisation and PHC programme implementation was also given collectively to the managers of the DoH during formal departmental meetings. Once again, although the research was not presented as formal research findings, the research process was used to assist with and substantiate technical feedback given to the DoH. On another occasion the research into the organisation of PHC programmes and into the relationship between the centre and periphery of the DoH was used to inform a meeting of senior health managers from all nine provincial health departments.

In addition, there were a number of written reports that were generated as part of the technical assistance initiative, and which had benefited from the research process. For example, because the research was interested in the way PHC programme objectives were reflected in the DoH's plans, an in-depth critique and assessment of the DoH's Strategic Health and Business plans was conducted. While this was used to feed into the research, a separate report was produced for the DoH at the time of the assessment. Similarly, the assessment and analysis of the PHC programme guidelines, focus areas and policies was written up as a report that was made available to the DoH during the period of the fieldwork.

Finally, the research had some application to the DoH through an indirect form. Because most of the managers were aware that the research being conducted was serving a dual purpose of informing a technical assistance project as well as an academic thesis, some health managers expressed an interest in the academic theory that lay behind the policy issues of integration, decentralisation and organisational structure. As a result, some of the organisational theory that was reviewed for the thesis was shared with certain health managers.

Management and organisational research in the form of an in-depth case study does however contain inherent difficulties involved in the dissemination of findings and the provision of feedback. Because organisations are social, and because the performance of organisations ultimately reflects the performance of individuals and groups of people, describing and explaining certain organisational phenomena may point to issues about specific individuals or groups of people. While certain abstract or structural elements of an organisation's performance may be easy to comment on, highlighting the poor performance or the presence of conflict within organisations is sensitive and can be difficult. This is especially the case if the person delivering the information is perceived to be a 'meddlesome' research outsider.

On this matter, there do not appear to be any hard and fast rules for researchers (or technical advisors / consultants). Much is left to the discretion, tact and judgement of the researcher as to how to communicate certain kinds of findings, and this will be assisted where the researcher has developed accurate and empathetic insights into the organisation concerned. Because of the long period of time over which the researcher was providing technical assistance, there had been a fair investment in the development of relationships and a tacit understanding of the intra-organisational dynamics of the DoH which helped inform the appropriate manner in which to provide feedback provided to the DoH.

As far as the broader dissemination of findings is concerned, The methodological approach of this study speaks very much to a recognition that organisations are social systems that are ultimately unique. Many of the findings presented in this thesis speak to a particular DoH at a particular time, and do not suggest any 'law-like regularities' about phenomena that would apply to other organisations, or even the same organisation at a different period in time.

However, as discussed in chapter 4, there are a variety of ways to extract generalisable findings from one case study, as well as to identify lessons or insights that might be of relevance to other audiences. In terms of the subject matter of the research, the issue of the effective implementation of health programme across a wide geographic areas remains topical and relevant.

Many programmatic initiatives that sometimes start with the initiation of one or two pilot projects are looking for insights and lessons that can inform scaling-up, and help meet the challenge of sustainability. Central to these issues is the manner in which central management structures interface with peripheral management structures; and the manner in which over-arching strategic plans inter-face with more detailed operational plans.

The thesis also emphasises an important dimension of pubic sector health management that appears to be relatively neglected in health policy circles, that is the importance of the structural dimension of departments of health in influencing organisational performance. Even though this thesis is based on a single case study, it has drawn out some messages that may resonate with other situations.

Finally, the conceptual models of organisations, such as the one developed by Mintzberg, as well as the model analysing the service and product variables and factors of different PHC programme areas (Table 7.1) are potentially useful generic tools that could assist and inform health managers who are planning to restructure the organogram of their health departments.

In order to reach out to a relevant broader audience shorter papers will be drawn out from this thesis and targeted for publication in appropriate journals. In addition, presentations at conferences and meetings offer another opportunity to disseminate findings.

9.2 Relevance to research commissioning bodies and funding organisations

Organisational studies that are conducted from within an action-learning / applied paradigm require the approval and support of the organisation under question. Studies such as the one conducted here would not be possible without the DoH concerned supporting, and to some extent, either commissioning the research, or requesting a research funder to do so.

This requires the nurturing of appropriate relationships between government departments and non-government research / development organisations. Research designed to study organisational performance requires trust and agreement at the outset that findings will be used to support organisational development, and not embarrass the organisation publicly or undermine it.

The fine line between academic research and technical assistance that was tread by this research process also draws attention to the issue of the applicability of research in developing countries, and the contribution that research makes towards meeting the priority development needs of the country concerned.

The recognition that research often fails to inform policy timeously or effectively has led to conclusions that research methods aimed at solving practical problems but which do not employ an action-learning design and which only present findings at the end of the research process (instead of during the course of the research), have an ineffectual impact. In addition, research outputs need to suit the readership and 'learning style' of the key stakeholders involved in the subject matter. This often means writing reports in a way that is constructed quite differently from those targeting academic journals.

In some instances it could be argued that research endeavours are geared more towards meeting the needs of the research and scientific community rather than the needs of the service providing organisations that are being studied. Research funders and donors could do much to facilitate the application of research and a more productive relationship between researchers, technical assistance projects and health care delivery organisations such as departments of health. Funders can do this by insisting on greater clarity about the proposed interface between research and development, what kind of interface is being envisaged and the relative degree of emphasis between research and development when deciding to fund a research or project proposal.

The challenge will be, as experienced with this thesis, to maintain the appropriate balance between the demands of scientific rigour with the demands of practical problem-solving and capacity development. Ideally, this would lead to the construction of projects that combine research and development as inter-dependent but equally important components. In addition it would lead to the co-development of research *and* public health leadership and management skills within an increasingly larger number of public health professionals who will become better able to facilitate the translation of research into policy and implementation. The DrPH is one route through which it is intended to create this required set of multi-disciplinary skills.

References

Chapter 1

1. World Health Organisation. World health report 2000. Geneva: World Health Organisation, 2000.
2. Department of Health (South Africa) and Medical Research Council (SA). South African demographic and health survey. Pretoria: Department of Health, 1998.
3. Price, M. Health care as an instrument of apartheid policy in South Africa. Health Policy and Planning. 1986; 1(2): 158-70.
4. Van Rensburg, H.C.J. and Benatar, S.R. The legacy of apartheid in health and health care. South African Journal of Sociology. 1993; 24(4): 99-111.
5. McCoy D. 1999. Restructuring the health services of South Africa: The District Health System. In Khosa, M. (Ed.) Infra-structure mandate for change, 1994-1999. Pretoria: Human Sciences Research Council.
6. Van Rensburg, H.C. and Harrison, D. The history of health policy. In Harrison, D. (Ed.) 1995 South African Health Review. Durban: Health Systems Trust, 1996.
7. Buch, E. The health sector strategic framework: A review. In Ntuli, A., Crisp, N., Clarke, E. and Barron P. (Eds.) 2000 South African Health Review. Durban: Health Systems Trust, 2001.
8. Dollery, B and Wallis, J. Administrative constraints on policymaking in the new South Africa: Government failure and the Ncholo Report. New South Wales: University of New England Working Paper Series in Economics No. 99-8. ISSN 1442 2980. 1999.
9. McIntyre, D., Bloom, G., Doherty, J. and Brijlal, P. Health expenditure and finance in South Africa. Durban: Health Systems Trust, 1995.
10. Ngwenya, S and Friedman, I. Public participation in health. In Harrison, D. (Ed.) 1995 South African Health Review. Durban: Health Systems Trust, 1996.
11. African National Congress. Reconstruction and Development Programme. 1994.
12. African National Congress. A National health Plan for South Africa. 1994.
13. Gilson, L., Morar, R., Pillay,Y. et al. Decentralisation and health system change in South Africa. Johannesburg: Health Policy Coordinating Unit, 1996.
14. Department of Health. Towards a national health system. Pretoria: Department of Health, 1995.
15. Power, D. and Robbins, D. Health Systems reform in South Africa: Organisation and management. In Barron, P. and Harrison D. (Eds.) 1996 South African Health Review. Durban: Health Systems Trust, 1997.
16. Gilson, L., Morar, R., Pillay,Y. et al. Decentralisation and health system change in South Africa. Johannesburg: Health Policy Coordinating Unit, 1996. pp. 46.
17. Schierhout, G. and Fonn, S. The integration of primary health care services: A systematic literature review. Durban: Health Systems Trust, 1999.
18. Gilson, L., Morar, R., Pillay,Y. et al. Decentralisation and health system change in South Africa. Johannesburg: Health Policy Coordinating Unit, 1996. pp. 56.
19. McCoy, D., Harrison, D., Bamford, L. et al. The development of the District Health System in South Africa: Lessons learnt from the experience of ISDS. Durban: Health Systems Trust, 1998. pp.23.
20. McCoy, D., Harrison, D., Bamford, L. et al. The development of the District Health System in South Africa: Lessons learnt from the experience of ISDS. Durban: Health Systems Trust, 1998. pp.24.
21. McCoy, D., Harrison, D., Bamford, L. et al. The development of the District Health System in South Africa: Lessons learnt from the experience of ISDS. Durban: Health Systems Trust, 1998.m pp. 25.

22. Gilson, L., Morar, R., Pillay,Y. et al. Decentralisation and health system change in South Africa. Johannesburg: Health Policy Coordinating Unit, 1996. pp. 56.
23. McCoy, D., Harrison, D., Bamford, L. et al. The development of the District Health System in South Africa: Lessons learnt from the experience of ISDS. Durban: Health Systems Trust, 1998.
24. Gilson, L., Morar, R., Pillay,Y. et al. Decentralisation and health system change in South Africa. Johannesburg: Health Policy Coordinating Unit, 1996. pp. 62.
25. Gilson, L., Morar, R., Pillay,Y. et al. Decentralisation and health system change in South Africa. Johannesburg: Health Policy Coordinating Unit 1996. pp. 64.
26. Cabral, J., Schneider, H., Gilson, L., Cele, M. et al. Strengthening District Health Systems in South Africa – Early observations from a project in two provinces. Johannesburg: Centre for Health Policy, 1997.
27. Collins, C. Management and organisation of developing health systems. Oxford: Oxford University Press, 1994, pp. 241.
28. Conn, C.P., Jenkins, P. and Touray, S.O. Strengthening health management: Experience of district teams in the Gambia. Health Policy and Planning 1996; 11(1): 64-71.
29. Saether, E.M. and Hertzberg, A. Decentralisation and health systems change: the Norwegian case. Preliminary version of a paper presented for the WHO-project: Decentralisation and health systems change.
30. Larbi, G.A. Institutional constraints and capacity issues in decentralised management in public services: The case of health in Ghana. Journal of International Development. 1998; 10:377-86.
31. Collins, C. Management and organisation of developing health systems. Oxford: Oxford University Press, 1994, pp. 243.
32. Mills, A. Improving the efficiency of public sector health services in developing countries: Bureaucratic versus market approaches. London: London School of Hygiene and Tropical Medicine, 1995.
33. Gilson, L., Kilima, P. and Tanner, M. Local government decentralisation and the health sector in Tanzania. Public Administration and Development. 1994; 14: 451-7.
34. Saltman, R. A. Conceptual overview of recent health care reforms. *European Journal of Public Health* 1994; 4: 233-35.

Chapter 2

1. Losrch, J. W. and Allen, S.A. Managing diversity and interdependence: An organisational study of multi-divisional firms. Boston: Harvard University. 1973.
2. Smith, D.L. and Bryant, J.H. Building the infra-structure for Primary Health Care: An overview of vertical and integrated approaches. Social Science and Medicine, 1988; 26(9): 909-17.
3. World Health Organisation. Integration of health care delivery. Geneva: World Health Organisation. 1996.
4. Unger, J.P. and Killingsworth, J. Selective primary health care: a critical review of methods and results. Social Science and Medicine, 1986; 22: 1001.
5. Gish, O. The political economy of primary care and 'Health by the People': An historical exploration. Social Science and Medicine 1979;13C: 203-11
6. Gonzalez, C. L. Mass campaigns and general health services. Public Health Paper No 29. Geneva: World Health Organisation. 1965.
7. World Health Organisation. Integration of health care delivery. WHO Technical report series 861. 1996. pp. 48-52.
8. Morss, E.R. Institutional destruction from donor and project proliferation in sub-Saharan African countries. World Development, 1984; 12:465-70.
9. Banerji, D. Primary health care: selective or comprehensive? World Health Forum, 1974; 5: 312-15.
10. Fieldler, J.L. El Salvador's Ministry of Health, 1975-1986: A provisional performance assessment. Health Policy, 1988; 10: 177-206.
11. World Health Organisation. Integration of mass campaigns against specific diseases into general health services: A report of a WHO study group. WHO Technical Report Series 295. 1965.
12. World Health Organisation. Declaration of Alma Ata. WHO. 1978.
13. World Health Organisation. Methodology of planning an integrated health programme for rural areas. Second report of the expert committee on Public Health Administration. Geneva: World Health Organisation. 1954.
14. Ingham, B. and Kalam, A.K.M. Decentralisation and development: theory and evidence from Bangladesh. Public Administration and development, 1992.; 12: 373-85.
15. Unger, J.P. and Criel, B. Principles of health infrastructure planning in less developed countries. International Journal of Health Planning and Management 1995; 10(1): 23-45. pp. 125.
16. Chen, L. C. Primary health care in developing countries: overcoming operational, technical and social barriers. Lancet 1986; 2: 1260-65.
17. Walsh, J. A. and Warren, K.S. Selective primary health care: An interim strategy for disease control in developing countries. Social Science and Medicine, 1980; 14(C): 145-64.
18. Rifkin, S. and Walt, G. Why health improves: Defining the issues concerning 'comprehensive primary health care' and selective primary health care. Social Science and Medicine, 1986; 23(6): 559-66.
19. Newell, K.W. Selective Primary Health Care: The counter-revolution. Social Science and Medicine 1988; 26:903-6.
20. Unger, J.P. and Killingsworth, J. Selective primary health care: A critical review of methods and results. Social Science and Medicine, 1986; 22: 1001.

21. Cassels, A. Health sector reform: Key issues in less developed countries. 1995; 7(3): 329-49.
22. Mills, A. Reforming Health Sectors: Fashions, Passions and Common Sense. Public Health Forum. London: London School of Hygiene and Tropical Medicine, 1998.
23. World Health Organisation. Priority setting and the integrated delivery of health care. Report on an informal meeting on health intervention packages. Geneva: World Health Organisation. 1994.
24. United Nations Population Division (Department of Economic and Social Affairs) and United Nations Population Fund. Cairo Declaration on Population & Development. www.un.org/popin/icpd/conference/bkg/egypt.html
25. Criel, B., de Brouwere, V. and Dugas, S. Integration of vertical services in multi-function health services. Studies in Health Services Organisation and Policy, No.3 1997.
26. Cairncross, S., Peries, H. and Cutts, F. Vertical health programmes. Lancet 1997; 349: 20-22.
27. Gonzalez, C.L. Mass campaigns and general health services. Public Health Paper no 29. Geneva: World Health Organisation. 1965.
28. Mills, A. Vertical versus horizontal programmes in Africa: Idealism, pragmatism, resources and efficiency. Social Science and Medicine 1983; 17(24): 1971-81.
29. Cairncross, S., Peries, H. and Cutts, F. Vertical health programmes. Lancet 1997; 349: 20-22.
30. Collins, C. Management and organisation of developing health systems. Oxford: Oxford University Press. 1994, pp. 194.
31. Gish, O. Selective Primary Health Care: Old wine in new bottles. Social Science and Medicine 1982; (16): 1049-54.
32. Schofield, C.J. Southern Cone Initiative against Chagas Disease. 1997; 349: 21.
33. Taylor, C. and Parker, R.L. Integrating PHC services: Evidence from Narangwal, India. Health Policy and Planning 1987;2(2): 150-61.
34. Taylor, C., Sarma, R.S., Parker, R.L. et al . Integration of family planning and health services: The Narangwal experience. Washington, D.C: World Bank, 1980.
35. O'Connor, R. W. Managing health systems in developing areas: Experiences from Afghanistan. Lexington, Massachusetts: Lexington Books. 1980.
36. Parker, A. Health technology and primary health care. Social Science and Medicine 1978; 12: 29-41.
37. Fong, C.O. Population development programme implementation: The Malaysian experience. Economic Development and Cultural Change 1987;35(3):539-60.
38. Loretti, A. Leprosy control: The rationale of integration Leprosy Review, 1989; 60:306-16.
39. Walley, J.D. and McDonald, M. Integration of mother and child health services in Ethiopia. Tropical Doctor 1991; 1:32-5.
40. Criel, B., de Brouwere,V. and Dugas,S.. Integration of vertical services in multi-function health services. Studies in Health Services Organisation and Policy, 1997; 3: 1-31.
41. UNICEF Steering Committee. Sustainability of achievements: Lessons learned from universal child immunisation. New York: UNICEF. 1996.
42. The World Bank. Better health in Africa. Washington: World Bank. 1993.
43. Dissevelt, A.G. Integrated maternal and child health services. Nairobi: Royal Tropical Institute. 1978.

44. Bradley, D. J. The particular and the general. Issues of specificity and verticality in the history of malaria control. Parassitologia 1998; 40: 5-10.

45. Kegels, G. Development of a methodology for a feasible and efficient approach to health problems by basic health services in rural Africa. University of Antwerp. 1995.

46. Mercenier, P. Guidelines for a research protocol on integration of a tuberculosis programme and primary health care. Geneva: World Health Organisation. 1983.

47. World Health Organisation. Integration of health care delivery. WHO Technical report series 861. 1996. pp. 33

Chapter 3

1. Pfeffer, J. and Salancik, G. 1978. The external control of organisations: A resource dependence perspective. Nay York: Harper and Row.
2. Hannan, M.T. and Freeman, J.H. 1989. Organisational ecology. Cambridge, Mass: Harvard University.
3. Aldrich, H.E. Organisations and environments. Englewood Cliffs, NJ: Prentice-Hall.
4. Hatch, M.J. 1997. Organisation theory: Modern, symbolic and post-modern perspectives. Oxford: Oxford University Press. Pp. 133
5. Etzioni, A. 1961. A comparative analysis of complex organisations. New York: Free Press.
6. Boulding, K.E. 1956. General systems theory – The skeleton of science. Management Science; 2: 197-208.
7. Weber, M. The theory of social and economic organisation. Free Press, 1947.
8. Urwick, L.F. Principles of management. Pitman, 1933.
9. Fayol, H. General and industrial management. Pitman, 1947.
10. Taylor, F.W. Scientific management. Harper and Row, 1947.
11. Mayo, E. Hawthorne and the Western Electric Company. In Pugh, D. (Ed.), Organisation theory: Selected readings. London: Penguin, 1997.
12. Peters, T. and Waterman, R. In search of excellence. New York: Harper-Row, 1982.
13. Maslow, A. Motivation and personality. New York: Harper-Row, 1954.
14. Barnard, C. 1938. The functions of the executive. Massachusets: Harvard University Press
15. Weick, K. E. 1979. The social psychology of organising. Massachusets: Addison-Wesley.
16. Berger, P.L. and Luckmann, T. 1966. The social construction of reality: A treatise in the sociology of knowledge. New York: Doubleday.
17. Hatch, M.J. 1997. Organisation theory: Modern, symbolic and post-modern perspectives. Oxford: Oxford University Press.
18. Linstead, S. 1993. Deconstruction in the study of organisations. In Hassard, J. and Parker, M. (eds.), Postmodernism and organisations. London: Sage.
19. Hatch, M.J. 1997. Organisation theory: Modern, symbolic and post-modern perspectives. Oxford: Oxford University Press. P.193
20. Child, J. Organisation: A guide to problems and practice. London: Harper and Row, 1984. pp. 5.
21. Katz, D. and Kahn, R.L. The social psychology of organisations. Wiley, 1966.
22. Mintzberg, H. Structure in fives: Designing effective organisations. Prentice Hall, 1983
23. Cole, G.A. Management: Theory and practice. London: Letts Educational, 1996. pp. 174.
24. Handy, C.B. Understanding organisations. Harmondsworth: Penguin, 1985. pp. 188-96.
25. Handy, C.B. Understanding organisations. Harmondsworth: Penguin, 1985. pp. 269-70
26. Schaefer, M. New needs in health management. World Health Forum. 1989; 10: 438-47.
27. Collins, C. Management and organisation of developing health systems. Oxford: Oxford University Press, 1994.
28. Collins, C. Management and organisation of developing health systems. Oxford: Oxford University Press, 1994. pp.183.
29. Bossert, T. Decentralisation. In Janovsky, K. (Ed.), Health policy and systems development: An agenda for research. Geneva: WHO, 1996.
30. Conyers, D. Decentralisation: The latest fashion in development administration. Public Administration and Development, 1983; 3:97-109.

31. Berman B. Structure and process of the bureaucratic states of colonial Africa. Development Change. 1984; 15: 161-202.
32. Bossert, T., Soebekti, R. and Rai, N.K. "Bottom-up" planning in Indonesia: Decentralisation in the Ministry of Health. Health Policy and Planning. 1991; 6(1): 55-63.
33. Aitken, J. Voices from the inside: Managing district health services in Nepal. Health Policy and Management, 1994; 9:309-40.
34. Premdas, R. and Steeves, J. The Honiara Town Council: Decentralisation and dissolution in the Solomon Islands. Administration for Development. 1982; 19: 37-59.
35. Rondinelli, D.A. Decentralisation programmes in Asia: A comparative analysis. Public Administration and Development, 1983; (3)3: 181-208.
36. Rondinelli, D.A. Government decentralisation in comparative theory and practice in developing countries. International Review of Administrative Sciences. 1981; 47 (2): 133-45.
37. Greiner, L. 1972. Evolution and revolution as organisations grow. Harvard Business review, 50: 37-46.
38. Gonzalez-Block, M, Leyva, R., Zapata, O. et al. Health services decentralisation in Mexico: Formulation, implementation and results of policy. Health Policy and Planning, 1989; 4(4): 301-15.
39. Cassels, A. and Janovsky, K. A time of change: Health policy, planning and decentralisation in Ghana. Health Policy and Planning. 1996; 7(2): 144-54.
40. Lind, J. and Capon, J. Realities or rhetoric? Revisiting the decentralisation of natural resources management in Uganda and Zambia. Nairobi: African Centre for Technology Studies, 2001
41. Conn, C.P., Jenkins, P. and Touray, S.O. Strengthening health management: Experience of district teams in the Gambia. Health Policy and Planning, 1996; 11(1): 64-71.
42. Thomason, J. Decentralisation in a developing country: The experience of Papua New Guinea and its health services. Canberra: National Centre for Development Studies, 1991. chapter 10.
43. Walsh, A. The urban challenge to government: An international comparison of thirteen cities. New York: F. Praeger, 1969. pp. 179.
44. Cassels, A and Janovsky, K. Management development for primary health care: A framework for analysis. International Journal of Health Planning and Management. 1991; 6(2): 109-24.
45. Rondinelli, D.A. Decentralisation of development administration in East Africa. In Cheema, G.S. and Rondinelli, D.A. (Eds.) Decentralisation and development. Beverly Hills: Sage, 1983.
46. Collins, C. Management and organisation of developing health systems. Oxford: Oxford University Press, 1994. pp.183.
47. Oliff, M., Mayaud, P., Brugha, R. et al. Integrating reproductive health services in a reforming health sector: The case of Tanzania. 2003; 11(21): 37-48.
48. Cole, G.A. Management: Theory and Practice. London: Letts Educational, 1996. pp. 184.
49. Collins, C. Management and organisation of developing health systems. Oxford: Oxford University Press, 1994. pp. 167.
50. Handy, C.B. Understanding organisations. Harmondsworth: Penguin, 1985. pp. 68.
51. Nellis, J.R. Decentralisation in North Africa: Problems of policy implementation. In Cheema, G.S. and Rondinelli, D.A. (Eds.) Decentralisation and development. Beverly Hills: Sage, 1983.
52. Harris, R.L. Centralisation and Decentralisation in Latin America. In Cheema, G.S. and Rondinelli, D.A. (Eds.) Decentralisation and development. Beverly Hills: Sage, 1983.
53. Gilson, L., Kilima, P. and Tanner, M. Local government decentralisation and the health sector in Tanzania. Public Administration and Development. 1994; 14: 451-7.
54. Hatch, M.J. 1997. Organisation theory: Modern, symbolic and postmodern perspectives. Oxford: Oxford University Press. Pp 131-2.
55. Dawson, S. Analysing organisations. Palgrave Macmillan, 1986. pp.115.

56. Woodward, J. Industrial organisation: Theory and practice. Oxford: Oxford University Press, 1965.
57. Pugh, D.S., Hickson, D.J., Hinings, C.R. et al. 1963. A conceptual scheme for organisational analysis. Administrative Science Quarterly, 8:289-315.
58. Cole, G.A. Management: Theory and Practice. London: Letts Educational, 1996. pp. 208.
59. Handy, C.B. Understanding organisations. Harmondsworth: Penguin, 1985. pp. 202
60. Perrow, C. Organizational analysis: A sociological view . Belmont, Ca.: Wadsworth Publishing Co, 1970.
61. Hage, J. and Aitken, M. Routine technology, social structure and organisational goals. Administrative Science Quarterly, 1969; (14): 366-76.
62. Dawson, S. Analysing organisations. Palgrave Macmillan, 1986. pp. 117.
63. Perrow, C. Organizational analysis: A sociological view . Belmont, Ca.: Wadsworth Publishing Co, 1970.
64. Lawrence, P.R. and Lorsch, J.W. Organisation and environment. Boston: Harvard University Press, 1967.
65. Lorsch, J.W. and Allen, S.A. Managing diversity and interdependence: An organisational study of multi-divisional firms. Boston: Harvard University, 1973. pp.181.
66. Thompson, J. Organisatiosn in Action New York: McGraw-Hill, 1967.
67. Lorsch, J.W. and Allen, S.A. Managing diversity and interdependence: An organisational study of multi-divisional firms. Boston: Harvard University, 1973. pp.167.
68. Drucker, P. The new productivity challenge. Harvard Business Review. 1991 (Nov-Dec).
69. Peters, T.J. Liberation management. London: Macmillan, 1992.
70. Lorsch, J.W. and Allen, S.A. Managing diversity and interdependence: An organisational study of multi-divisional firms. Boston: Harvard University, 1973. pp.167
71. Lorsch, J.W. and Allen, S.A. Managing diversity and interdependence: An organisational study of multi-divisional firms. Boston: Harvard University, 1973.
72. Hatch, M.J. 1997. Organisation theory: Modern, symbolic and post-modern perspectives. Oxford: Oxford University Press. Pp 64.
73. Hofstede, G. Culture's consequences: International differences in work-related values. London: Sage, 1980.
74. Rothenberg, I.F. Administrative decentralisation and the implementation of housing policy in Colombia. In Grindle, M.S. (Ed) Politics and policy implementation in the third world. New Jersey: Princeton University Press, 1980. pp. 146.
75. Koehn, P. The role of public administrators in public policy making: practice and prospects in Nigeria. Public Administration and Development, 1983; 3: 1- 26.
76. Roethlisberger, F. and Dickson, W. 1939. Management and the worker. Massachusetts: Harvard University Press.
77. Gullahorn, J.T. 1952. Distance and friendship as factors in the gross interaction matrix. Sociometry, 15: 123-34.
78. Conrath, C.W. 1973. Communication patterns, organisational structure and man: Some relationships. Human Factors, 15: 459-70.
79. Siehl, C. and Martin, J. 1984. The role of symbolic management: How can managers effectively transmit organisational culture? In Hunt, J.D., Hosking, D., Schresheim, C. and Steward, R. (eds.), Leaders and managers: International perspectives on managerial behaviour and leadership. New York: Pergamon, pp 227-39.
80. Jacques, E. 1952. The changing culture of a factory. New York: Dryden Press, pp.251.
81. Schein, E.H. Organisational culture and leadership. 1985. San Fransisco: Josey-Bass.

82. Gagliardi, P. 1990. Artifacts as pathways and remains of organisational life. In Gagliardi, P. (ed.), Symbols and artefacts: Views of the corporate landscape. Berlin: Walter de Gruyter, pp 3-38.
83. Ansoff, H.I. Implanting strategic management. Prentice Hall International, 1985.
84. Hofer, C.W. and Schendel, D. Strategy Formulation: Analytical concepts. West Publishing Company, 1986.
85. Chandler, A.D. Strategy and structure. MIT Press, 1982.
86. Thompson, A. and Strickland, A.J. Strategic management: Concepts and cases. Richard D. Irwin, 1990.
87. Cole, G.A. Management: Theory and Practice. London: Letts Educational, 1996. pp. 134.
88. March, J.G. 1978. Bounded rationality, ambiguity, and the engineering of choice. Bell Journal of Economics, 9:587-608.
89. Simon, H.A. 1957. A behavioural model of rational choice. In Simon, H.A. Models of man, New York: John Wiley.
90. Thompson, J. D. 1967. Organisations in action. New York: McGraw-Hill.
91. Adair, J. Effective teambuilding. Gower, 1986.
92. Handy, C.B. Understanding organisations. Harmondsworth: Penguin, 1985. pp. 118.
93. Newbrander, W.C. decentralization in government. In Thomason, J. (Ed.) decentralisaiton in a developing country: The experience of Papua New Guinea and its health services. Canberra: National centre for Development Studies, 1991.
94. Cole, G.A. Management: Theory and Practice. London: Letts Educational, 1996. pp. 53.
95. Handy, C.B. Understanding organisations. Harmondsworth: Penguin,. 1985, chapter 7.
96. Kolb, D.M. and Bartunek, J.M. (eds.) 1992 Hidden conflict in organisations: Uncovering behind-the-scenes disputes. Newbury Park: Sage.
97. Pondy, L.R. 1969. Varieties of organisational conflict. Administrative Science Quarterly, 14: 499-505.
98. Hatch, M.J. 1997. Organisation theory: Modern, symbolic and post-modern perspectives. Oxford: Oxford University Press. pp 307.
99. Walton, R.E. and Dutton, J.M. 1969. The management of interdepartmental conflict. Administrative Science Quarterly, 14: 73-84.
100. Fulop, T. Health personnel for 'Health for all': Progress or stagnation? WHO Chronicle. 1986; 40 (1): 194-9.
101. Ouchi, W.G. 19798. A conceptual framework for the design of organisational control mechanisms. Management Science, 25: 833-48.
102. Sandiford, P., Kanga, G.J. and Ahmed, A.M. The management of health services in Tanzania: A Plea for Health Sector Reform. Health Policy and Management 1994; 9:295-308.

1. Janovsky, K. and Cassels, A. Health policy and systems research: Issues, methods, priorities. In Janovsky, K. (ed.) Health policy and systems development: An agenda for research. Geneva: World Health Organisation, 1996. pp.77.
2. McPake, B. Methods for evaluating effects of health reforms. Geneva: World Health Organisation, 1997.
3. Ellencweig, A.Y. Analysing health systems. Oxford: Oxford University Press, 1992.
4. Laing, R. D. The politics of experience and the birds of paradise. Harmondsworth: Penguin, 1967. pp. 53.
5. Walt, G. Policy analysis: An approach. In Janovsky, K. (Ed.) Health policy and systems development: An agenda for research. Geneva: World Health Organisation, 1996.
6. Rein, M. Social science and public policy. Harmondsworth: Penguin Education, 1976.
7. Lincoln, Y. S. and Guba, E.G. The only generalisation is there is no generalisation. In Gomm, R., Hammersley, M., and Foster, P. Case study method: Key issues, key texts. London: Sage, 2000. pp. 40.
8. Lieberson, S. Small n's and big conclusions: An examination of the reasoning in comparative studies based on a small number of cases. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000. pp. 18
9. Brinkerhoff, D. 1996. Integrating institutional and implementation issues into policy decisions: An introduction and overview. In Brinkerhoff, D. (Ed.) Policy analysis concepts and methods: An institutional and implementation focus. Greenwich: CT: JAI Press, 1996.
10. Gill, J. and Johnson, P. Research methods for managers. London: Paul Chapman Pub. Ltd., 1997. pp. 112.
11. Denzin, N.K. The logic of naturalistic inquiry. In Denzin, N.K. (Ed.), Sociological methods: A sourcebook. New York: McGraw-Hill, 1978.
12. Hammersley, M. 1992. What's wrong with ethnography: methodological explorations. London: Routledge, 1992.
13. Giddens, A. Positivism and sociology. London: Heinemann Educational, 1979.
14. Townley, B. Reframing human resource management: Power, ethics and the subject at work. London: Sage, 1994.
15. Reed, M. and Hughes, M. (Eds.) Rethinking organisation. London: Sage, 1992.
16. Hassard, J. and Parker, M. (Eds.) Postmodernism and organisations. London: Sage, 1992.
17. Bechhofer, F. Current approaches to empirical research: Some central ideas. In Rex, J. (Ed.) Approaches to sociology, London: Routledge, 1974. pp. 73.
18. Silverman, D. Interpreting qualitative data. London: Sage, 2001. pp. 61.
19. Miles, M. and Huberman, A. Qualitative data analysis. London: Sage, 1984. pp.28.
20. Silverman, D. Interpreting qualitative data. London: Sage, 2001. pp. 70.
21. Mintzberg, H. An emerging strategy of 'direct' research. Administrative Science Quarterly, 1979, 24: 582-9.
22. Susman, G. I. and Evered, R. D. An assessment of the scientific merits of action research. Administrative Science Quarterly, 1978, 23: 582 –602.
23. Agyris, C., Putman, R. and Smith, D.M. Action science. San Francisco, California: Jossy-Bass, 1985.
24. Susman, G. I. and Evered, R. D. An assessment of the scientific merits of action research. Administrative Science Quarterly, 1978, 23: 582 –602.

25. Gill, J. and Johnson, P. Research methods for managers. London: Paul Chapman Pub. Ltd., 1997, pp. 75.
26. Gill, J. and Johnson, P. Research methods for managers. London: Paul Chapman Pub. Ltd., 1997.
27. Fielding, N.G. and Fielding, J.L. Linking data. London: Sage, 1986. pp. 32.
28. Mays, N. and Pope, C. Qualitative research: Observational methods in health care settings. British Medical Journal 1995; 311: 182-4.
29. Yin, R.K. Case study research. London: Sage, 1994.
30. Spradly, J.P. The ethnographic interview. New York: Holt, Rinehart and Winston, 1979.
31. Silverman D. 2001. Interpreting qualitative data. London: Sage. pp.71.
32. Gill, J. and Johnson, P. Research methods for managers. London: Paul Chapman Pub. Ltd., 1997. pp. 131
33. Atkinson, P. and Hammersley, M. Ethnography and participant observation. In Denzin, N. and Lincoln, T. (Eds.), Handbook of qualitative research. Thousand Oaks, CA: Sage, 1994 . pp 249.
34. Schein, E. H. The clinical perspective in fieldwork, Sage University Paper Series on Qualitative Research Methods, Vol. 5. Beverly Hills, California: Sage, 1987.
35. Fay, B. Social theory and political practice. London: Allen and Unwin, 1975. pp. 94-5.
36. Hamel, J. (Ed.) The case study method in sociology. Current Sociology, 1992, 40 (whole issue).
37. Perry, J.M. and Kraemer, K.L. Research methodology in the public administration. Public Administration Review, 46: 215-26.
38. Yin, R.K. Case study research. London: Sage, 1994. pp. 3.
39. Eckstein, H. Case study and theory in political science. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000.
40. Gomm, R., Hammersley, M. and Foster, P. Case study and generalization. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000.
41. Schofield, J. W. Increasing the generalisability of qualitative research. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000.
42. Cronbach, L. J. Beyond the two disciplines of scientific psychology. American Psychologist 1975, 30: 116-127.
43. Kolb, D. A., Rubin, I. M. and McIntyre, J. M. Organisational psychology: An experiential approach. London: Prentice-Hall, 1979. pp. 38.
44. Stake, R. E. The case study method in social inquiry. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000.
45. Gluckman, M. Ethnogaphic data in British social anthropology. Sociological Review 1961, 9: 5-17.
46. Donmoyer, R. Generalizability and the single-case study. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000.
47. Becker, H. S. Social observation in case studies. In Sills, D.L. (Ed.) International Encyclopaedia of the Social Sciences. Chicago: Aldine.
48. Gomm, R., Hammersley, M. and Foster, P. Case study and generalization. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000. pp. 103.
49. Gomm, R., Hammersley, M. and Foster, P. Case study and generalization. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000. pp. 103.
50. Lincoln, Y. S. and Guba, E.G. The Only Generalisation is There is no Generalisation. In Gomm, R., Hammersley, M., and Foster, P. Case study method: key issues, key texts. London: Sage, 2000.

51. Goetz, J. and le Compte, M. Ethnography and qualitative design in education research. Orlando: Academic Press, 1984.
52. Goffman, E. Asylums. London: Penguin, 1961.
53. Mintzberg, H. The nature of managerial work. New York: Harper and Row, 1973.

1. Lorsch, J.W. and Allen, S.A. Managing diversity and interdependence: An organisational study of multi-divisional firms. Boston: Harvard University, 1973.
2. Thompson, A. and Strickland, A.J. Strategic management: Concepts and cases. Richard D. Irwin, 1990.
3. Mintzberg, H. Structure in fives: Designing effective organisations. Prentice Hall, 1983.

DrPH statement

In keeping with the regulations of the University of London, a short statement summarising the areas of public health covered by the student and the links between the three components is required.

Taught element

The three compulsory modules study are: 'management and leadership'; 'research methods and paradigms' and 'effective communication'. These modules are designed to equip the student with a sub-set of the multi-disciplinary skills that are required by public health professionals. The research module covers a wide range of research disciplines and methodologies, and provides the student with enough competencies to be able to judge good research from bad research, a skill that is essential in public health practice. In addition, it provides the student with some of the skills that will be required for the completion of the thesis. The 'effective communication' and 'management and leadership' modules were practical courses designed to equip the student with some concrete skills in the expectation that DrPH students pursue a career as a health practitioner, and not as an academic.

The three study modules that I chose were: 'analytical models for decision-making', 'health care evaluation' and 'clinical infections diseases'. The first two were selected because they represent useful skills for a public health practitioner interested in promoting improvements in efficiency and quality of care through the health system. This is an area of particular interest of mine, and the discipline in which I have spent most of my post-graduate career.

I chose the module on 'clinical infectious diseases' for no reason other than to update my knowledge about recent developments. It was my intention to pursue a career in public health in Africa and an up-to-date understanding of the clinical and biomedical dimensions of the major infectious diseases is always useful for the public health practitioner.

During my two terms as a student at the London School of Hygiene and Tropical Medicine, I voluntarily enrolled onto a 'health economics' course. Again, this is because a basic understanding of health economics is an essential competency for any public health practitioner operating anywhere in the world.

Thesis

My thesis was a form of health systems research, with a focus on public sector management within the health system. It therefore linked nicely with the some of the taught material on 'management and leadership' as well as with my own particular field of interest within the broad discipline of public health.

Professional attachment

My professional attachment with a small UK-based non-government organisation (Medact) was not in any way connected to the topic of my thesis, nor with any of my taught elements. I chose to develop an attachment with Medact because of their work on public health issues at the global level, and their expertise in the field of conflict and health. In addition, they represent a civil society dimension to the discipline of public health which is very different from past experiences.

Conclusion

Instead of choosing study modules, a research subject and a professional attachment that were overtly linked to each other, to a large extent I consciously chose to study and learn from a broad range of experiences and disciplines.

From the micro level of intra-departmental management in the Free State to the macro level of economic globalisation; from the latest diagnostic tests for TB in children to the mathematical modelling of patient flow in a health facility; from philosophical debates about epistemology to the pitfalls of cost-effectiveness studies.

My experience as a DrPH student has fulfilled one of the prime functions of the degree which is to equip post-graduate students interested in pursuing a career in applied public health, with the range of eclectic skills that will enable him/her to be an effective and informed jack-of-all-trades.