Leadership and management

A REVIEW OF HEALTH LEADERSHIP AND MANAGEMENT CAPACITY IN PAPUA NEW GUINEA

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HUMAN RESOURCES FOR HEALTH KNOWLEDGE HUB

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Papua New Guinea

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ACRONYMS

AIDS	acquired immune deficiency syndrome
AusAID	Australian Agency for International Development
GDP	gross domestic product
GHExp	government health expenditure
HEO	health extension officer
HIV	human resources for health
IMRG	Independent Monitoring Review Group
Lao PDR	Lao People's Democratic Republic
MAKER	Managers taking Action based on Knowledge and Effective use of Resources
MDG	Millennium Development Goal
NDoH	National Department of Health, Papua New Guinea
PNG	Papua New Guinea
PPP	purchasing power parity
UN	United Nations
UNDP	United Nations Development Programme
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
US	United States
USD$	United States dollars
WHO	World Health Organization
WPRO	Western Pacific Regional Office

A note about the use of acronyms in this publication

Acronyms are used in both the singular and the plural, e.g. MDG (singular) and MDGs (plural).
Acronyms are also used throughout the references and citations to shorten some organisations with long names.

EXECUTIVE SUMMARY

Papua New Guinea has some of the worst health indicators in the Asia-Pacific region. **Maternal mortality ratio has nearly doubled from 370 in 1996 to 733 per 100,000 live births in 2006.**

This review describes the state of health leadership and management capacity in Papua New Guinea (PNG). The country has a population of about 6.4 million, over 30% of whom are under the age of 15 and about 80% live in rural areas. The country has enjoyed rapid economic growth and a relatively stable political environment in recent years.

According to the Asia Development Bank, PNG achieved an unprecedented eight consecutive years of economic growth in 2009 and sustained private investment despite the global financial crisis.

The rapid growth of the economy has not, however, reflected on the health status of the population. PNG has some of the worst health indicators in the Asia-Pacific region; maternal mortality ratio has nearly doubled from 370 in 1996 to 733 per 100,000 live births in 2006; only about 39% of births are attended by skilled health personnel; HIV remains a generalised epidemic with an estimated 34,100 people living with the virus in 2009 and access to quality health care is limited for many Papua New Guineans. Unless health delivery is drastically scaled up, PNG will miss several of its Millennium Development Goal (MDG) targets.

Under-investment in the health sector by government is believed to have contributed significantly to the poor state of health in PNG. Although as a proportion of gross domestic product (GDP) PNG spends over 3% of its revenue on health (which is relatively higher than the proportion of GDP spent on health in many Asia-Pacific countries), overall health spending has been on the decline in recent years, reflecting in reduction of funding to the National Department of Health (NDoH) in 2009.

Aside from the under-investment by government, weak management and leadership capacity coupled with an inadequate number of health personnel plays a crucial role in the poor performance of the health system. While the actual number of health personnel in PNG remains unclear due to a weak information management system, some 11,142 personnel of different categories reportedly worked in the health system in 2009. This was made up of 333 medical officers, 2,844 nurses and midwives, 3,883 community health workers, 718 allied health workers, 409 health extension officers, 1,821 support staff and 1,134 other cadres of health workers. Approximately 600 nurses, 600 community health workers and 100 midwives are reportedly required to fill the existing gaps.

The health management and leadership capacity in PNG has been a source of concern for many years and several initiatives have been taken to improve it but with little success. In general, the competence of health managers, especially at the local level, remains weak. Health extension officers (HEOs) who are largely involved in managing the district health service do not seem to have sufficient managerial skills for the task they are expected to perform. Although the majority of HEOs have adequate formal education with a four-year bachelor degree, questions have been raised as to whether there is sufficient management focus in their training to enable them to become good local managers.

Apart from deficient managerial skills, the effectiveness of health managers in the PNG is hampered by the country's weak administrative and management structures. The decentralisation of the health system has created 'management disconnect' especially at the district level.

District managers are responsible for coordinating and implementing national and provincial health plans and standards but they have no control over staff; under the country's Organic Law on Provincial and Local Governments, district health staff report to the district administrator – a political appointee. Similarly, provincial authorities enjoy considerable autonomy and are not compelled to follow national directives, particularly in the allocation of provincial resources. This has resulted in instances where provinces have failed to allocate sufficient funding for health care.

The health management working environment also presents additional challenges to district managers in PNG. One such challenge is lack of supportive supervision. District managers need to be supported by senior managers at provincial and central levels so that they in turn are able to supervise and support sub-district managers.

In PNG, there is evidence that provincial health offices do not provide the necessary supportive supervision to district managers and districts in turn do not sufficiently supervise and support sub-district managers. Other issues found to affect management effectiveness in PNG relate to the poor

The health management and leadership capacity in PNG has been a source of concern for many years and **several initiatives have been taken to improve it but with little success.**

functioning of key management support systems such as procurement and supply and health information. Socio-cultural factors associated with PNG's ethnic diversity also affect the effectiveness of local managers.

In summary, the health management and leadership challenges faced by PNG are not unique but mirror the challenges faced by many low-income countries.

The issues affecting the performance of health managers, especially at the district level, are both individual and system related. In seeking to strengthen management and leadership capacity, PNG must not focus only on building the competence of individual managers but also adopting an holistic approach that pays equal attention to systemic and structural issues affecting management performance.

SNAPSHOT: PAPUA NEW GUINEA

BASIC DEMOGRAPHIC AND SOCIO-ECONOMIC DATA

Population in 2007

6.4 million

GDP per capita
(PPP USD$) in 2007

$2,084

Life expectancy
at birth in 2007

60.7 years

Under age 5 mortality in 2007

65 per 1,000 live births

Maternal mortality in 2005

733 per 100,000 live births

Nursing and midwifery
density from 2000 to 2007

5 per 10,000 people

Doctor density
from 2000 to 2007

1 per 10,000 people

Key to acronyms

GDP	gross domestic product
PPP	purchasing power parity
US$	United States dollars

(Adapted from Mola 2009, UNDP 2009, WHO 2009b)

INTRODUCTION

Since 2003, HIV/AIDS has been declared a generalised epidemic. It is estimated that there are about **23,000 to 91,000 HIV-positive individuals in the sexually active population of 15–49 years of age.**

Papua New Guinea has a population of about 6.4 million, over 30% of whom are under the age of 15 and about 80% live in rural areas. PNG has enjoyed rapid economic growth and a relatively stable political environment in recent years. According to the Asia Development Bank, the country achieved an unprecedented eight consecutive years of economic growth in 2009 and sustained private investment despite the global financial crisis.

The rapid growth of the economy has not, however, reflected on the health status of the population. PNG has some of the worst health indicators in the Asia-Pacific region; maternal mortality is around 733 per 100,000 live births with only about 39% of births attended by skilled health personnel (Mola 2009, UNDP 2010).

The PNG health system remains one of the most under-performing health systems in the region. Reports from an Independent Monitoring Review Group (IMRG) indicate that very little progress has occurred on the health front in the last five to ten years (Hasfeldt et al. 2005, 2006, 2007; IMRG 2008a).

Health care in PNG is provided by the government and a host of non-state, largely church-based providers. The church health services provide and manage almost half of the country's health services (AusAID 2009). Private health care is available through a small private sector and through employment-related health care programs established by overseas-based companies, predominantly in the mining sector. Unregulated traditional healers provide an undocumented amount of health services (Government of Papua New Guinea 2000).

Communicable diseases remain the major causes of morbidity and mortality in all age groups with malaria being the leading cause of all outpatient visits. Since 2003, HIV/AIDS has been declared a generalised epidemic; it is estimated that there are about 23,000 to 91,000 HIV-positive individuals in the sexually active population of 15–49 years (WHO WPRO 2008). However, HIV prevalence seems to have reduced in recent years with the most current fact sheet from the PNG National AIDS Council estimating a new national prevalence of 0.9% in 2009.

Overall about 34,100 people were estimated to be living with HIV in 2009 (PNG National AIDS Council 2010). As in many developing countries, incidence of non-communicable diseases is rising in PNG; creating a double burden of disease.

A key feature of the health system is decentralisation of management and service provision responsibilities to provincial and district levels. The National Department of Health (NDoH) is responsible for setting policy and standards, procuring medical supplies, maintaining surveillance and monitoring systems, managing public hospitals and regulating church-operated programs. Provincial and local governments are individually responsible for the implementation of directives from the NDoH and for financing their own programs.

PURPOSE AND APPROACH

The Sixth National Socio-Economic Development Plan 2006–2010 recognises that **the health sector and health care services delivery do not fully meet the requirements of the population, either in quantitative or qualitative terms.**

The purpose of this review was to describe the current situation of health management and leadership capacity and analyse issues that affect the performance of district health managers. It was intended to inform the development of policy recommendations for improving management and leadership performance in six AusAID priority countries – Cambodia, Fiji, Lao PDR, Papua New Guinea, Solomon Islands and Timor-Leste.

The review was conducted through desk review of both published and grey literature and discussions with key individuals. The first six sections provide a brief description of key aspects of the health system of PNG and the final five sections attempt to assess management and leadership capacity using a modified version of the WHO MAKER[1] framework (WHO 2007).

Key components of the framework used include numbers and distribution of managers, managerial competency, the management working environment, management support systems and socio-cultural context in which managers operate.

A summary of key points about management and leadership in PNG has been provided at the end of this report. Detailed analysis and discussion of the issues identified will be available in a separate paper that brings together all the issues identified from the six countries. This synthesis will be available in 2011 from **www.hrhhub.unsw.edu.au**

[1] Managers taking Action based on Knowledge and Effective use of Resources.

ACCESS TO HEALTH CARE

Health services in PNG are provided free of charge by government and church-operated providers. Yet many Papua New Guineans have limited access to health care. Access to reproductive health care, in particular, is considerably limited, which partly explains the country's high maternal death rate (Hasfeldt et al. 2006).

Key issues affecting access to health care include geography, finance, human resources and poor quality of care. PNG has a harsh terrain which makes it very costly for health and other services to be delivered to and accessed by the population.

The geographical isolation coupled with the closure of some rural aid posts means many patients from remote districts need to travel significant distances in poor road conditions to access health care. In 2007, for example, it was estimated that 827 or nearly one-third of all aid posts were closed. In provinces such as Eastern Highlands and Enga less than 50% of their aid posts were believed to be functional (Foster et al. 2009, NDoH 2009).

The dearth of health care workers in rural and remote areas affects equitable access to quality care. While some progress has been made in strengthening the medical workforce, notably in the paediatric and surgical sub-specialties (AusAID 2009), the overall human resources for health numbers in PNG remain lower than required for the country's population.

In principle, primary health care services in PNG are provided free of charge to the population. However, in practice, all levels of health care reportedly charge user fees for all services except essential public health services, such as childhood immunisation (AusAID 2009). Some church health facilities also charge user fees similar to facilities in the government sector. Part of the revenue from these fees is used to improve services and to keep local facilities functional.

The level of fee for rural health services is set locally by the provincial authorities as there is no national legislation that deals with establishment of fees for rural health services. The national legislation on fees is applicable only to hospital services provided under the Hospital Act 1994. In government health facilities, the fees and fee exemptions are said to be unregulated and unaudited (McKay and Lepani 2010). In general, the user fees and related expenses coupled with the long distance to facilities are significant barriers to health care access, especially for the poor. There is currently no system of private health insurance but there are proposals to introduce a compulsory scheme for those employed in the formal sector (WHO WPRO 2008).

FINANCING THE HEALTH SYSTEM

Government health spending represents about 83% of total health expenditure in PNG (AusAID 2009). Under-investment by government is perceived to be a major contributor to the poor performance of the health system. As a proportion of GDP the PNG government spends about 3.5% on average of its revenue on health. Compared to health expenditure as a proportion of GDP in other low income countries this appears relatively high. For example, countries such as Cambodia, Laos and Fiji, on the average spend around 2–3% or less of their GDP on health.

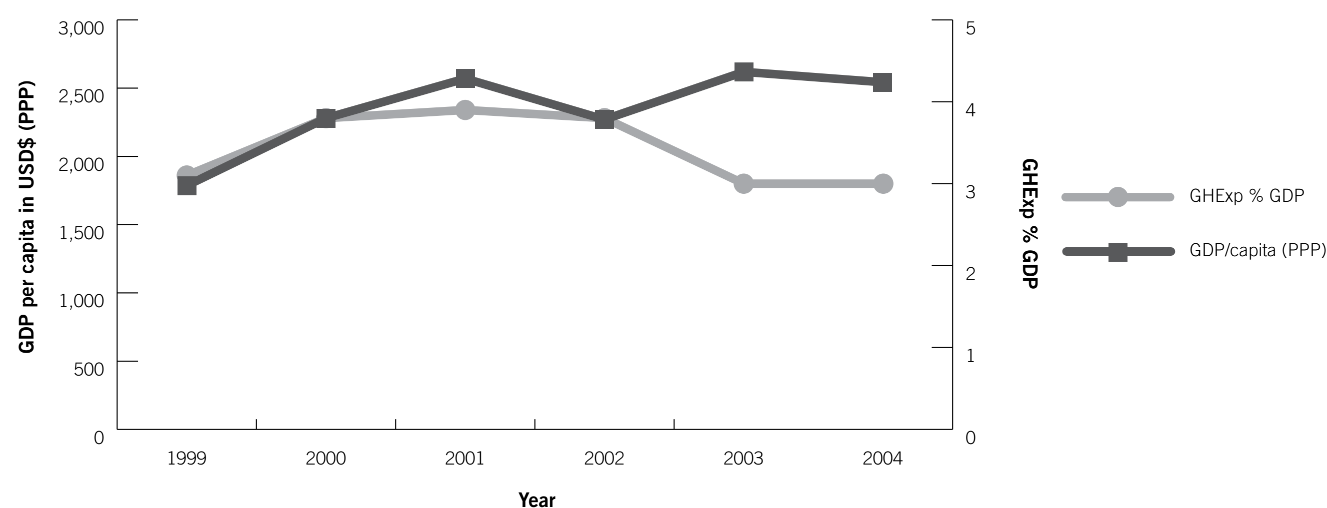
Despite the relatively high proportion of GDP spent on health, total health spending in PNG has been on the decline in recent times, especially when compared with the rise in the country's GDP per capita. Health spending, for example, declined from 3.8% of GDP in 2002 to 3.0% in 2003 and 2004. During the same period, however, GDP per capita (in purchasing power parity terms) rose by about 15% (Figure 1). More recently in the 2009 budget, the health sector emerged as one of the 'biggest losers'. Although the government injected some 46 million Kina of recurrent funds into hospital management services, this was offset by a reduction of 17% of total funding (amounting to 131 million Kina) for the National Department of Health. Additionally, domestic funding for HIV and AIDS was cut from 17 million Kina in 2008 to 5 million Kina in 2009 (Batten 2008).

A significant amount of the health budget in PNG goes into payment of salaries; according to WHO over 80% of recurrent provincial health budgets were allocated to salaries in 2006 (WHO WPRO 2010). Like many developing countries, PNG is reliant on external donor assistance to finance public spending. In 2001, it received overseas development assistance worth 7.2% of the gross national product (USD$203 million).

In 2004, overseas development assistance accounted for 24% of the health budget (WHO WPRO 2008). External assistance from bilateral partners is provided in the form of both direct budgetary support and targeted project financing to both public and non-profit operators. Other assistance is targeted to specific diseases; beginning in 2005, the Global Fund to fight AIDS, tuberculosis and malaria has provided multi-year grants worth USD$91 million (WHO WPRO 2008).

FIGURE 1. GDP PER CAPITA AND GOVERNMENT HEALTH EXPENDITURE AS A PROPORTION OF GDP IN PAPUA NEW GUINEA, 1990 AND 2000-2004

(Adapted from UNDP 2000, 2002, 2003, 2004, 2005, 2006, 2008)



	1990	2000	2001	2002	2003	2004
GDP/capita (PPP)	1,786	2,280	2,570	2,270	2,619	2,543
GHExp % GDP	3.1	3.8	3.9	3.8	3.0	3.0

Key to acronyms

GDP	gross domestic product
GHExp	government health expenditure
PPP	purchasing power parity
USD$	United States dollars

HUMAN RESOURCES FOR HEALTH

With over 80% of the population living in rural areas, **the thrust of the PNG health system is primary health care.**

The actual number of health workers in PNG remains unclear due to a weak health information management system, particularly at the national level. However, it is estimated that some 11,142 personnel of different categories worked in the health system in 2009. This was made up of 333 medical officers, 2,844 nurses and midwives, 3,883 community health workers, 718 allied health workers, 409 health extension officers (HEO)[2], 1,821 support staff and 1,134 other cadres of health workers (see Figure 2); (Yambilafuan 2009).

Geographical disparities exist in the distribution of health workers, with a significant bias in favour of urban areas, particularly the capital, Port Moresby. Nationwide, there is a shortage of health workers, in particular a large number of vacant positions in rural and remote areas are reportedly unfilled. Approximately 600 nurses, 600 community health workers and 100 midwives are reportedly required to fill the existing gaps (Yambilafuan 2009).

With over 80% of the population living in rural areas, the thrust of the PNG health system is primary health care (Government of Papua New Guinea 2000). Three levels of health workers are in charge of delivering primary health care services – nursing officers, HEOs and community health workers.

The HEO is an intermediate level health worker who, with minimum supervision, is responsible for a complex mixture of clinical, community health and administrative duties in a health centre area serving a population of 5,000 to 20,000 (In-country reviewer 2011). The HEO cadre of health workforce is unique to PNG and was borne out of necessity to respond to the health needs and demands of the rural people. Its origin dates back to the colonial era in the 1950s when the Australian Colonial Administration introduced the Medical Assistant personnel to provide health services to rural people of PNG (Crouch 1982). In essence, HEOs bridge the gap between doctors and nurses and often operate in senior and middle management positions (Davy 2007).

The supply of new health workers from training institutions in PNG is believed to be insufficient to meet current and future demand (WHO WPRO 2008). From its inception in 1968 to 2004, the University of Papua New Guinea Medical School has trained about 700 doctors, including 100 Pacific Islanders and 50 expatriates (Watters and Scott 2004). Even if all the 700 doctors were alive and working in PNG, and with a population of 5.5 million at that time, there would have been one doctor to every 7,857 people. Based on NDoH health workforce figures for 2009, PNG has about 1.3 health workers[3] per 1,000 population; significantly lower than the WHO standard of 2.3 per 1,000 (WHO 2006).

Aside from the low numbers of trained personnel there are issues with the quality of health worker training in PNG. Midwifery training, in particular, appears to be of low quality with all four training schools in the country producing graduates in the last decade that could not be registered (IMRG 2008b).

This may partly explain why some 'trained' nurses are reportedly without work. In general, health workforce training in PNG is organised at the national level with linkages to training institutions but with insufficient links to Central Agencies, such as the Ministry of Finance and the Department of Personnel Management, which decide budget ceilings and workforce numbers for the public sector (IMRG 2008b). Training is also not adequately linked to provincial needs for health workers although the provinces have the autonomy under the Organic Law to determine the number health workers they can afford to hire (IMRG 2008b).

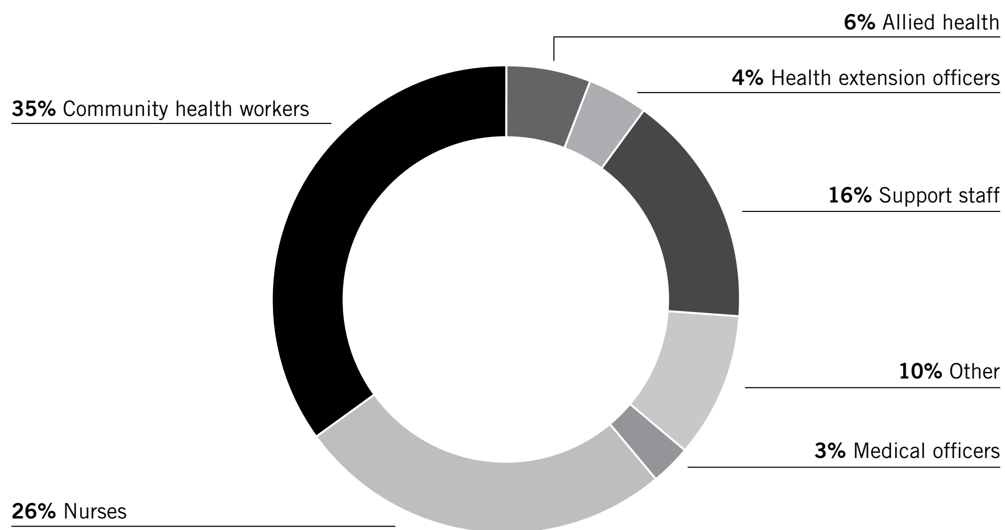
Another pressing human resource issue is the limited information and knowledge about health personnel costs in PNG. The Human Resource Directorate at the NDoH needs to know this in order to plan within budgeted employee expenditure. However, no detailed employee cost analysis appears to have been undertaken. In the past years, severe fiscal constraints have resulted in the imposition of a moratorium by the Public Service Commission on hiring of new staff across the public sector, including the NDoH. Unlike other countries, migration of health workers does not appear to be a major issue in PNG, however, there is evidence of attrition of health workers from the public sector (Duke et al. 2004), which, coupled with the ageing of the workforce (Yambilafuan 2009), poses a challenge to meeting the current supply shortfalls.

[2] Estimates from the HEO Association and PNG Medical Board suggest about there are about 672 HEOs in PNG (HEO Association and PNG Medical Board 2009).

[3] Health workers include medical officers (333), nurses and midwives (2,844), community health workers (3,883), allied health workers (718) and health extension officers (409).

FIGURE 2. DISTRIBUTION OF HEALTH WORKFORCE BY PROPORTION OF CADRES IN PAPUA NEW GUINEA, 2009

(Adapted from Yambilafuan 2009)



HEALTH MANAGEMENT STRUCTURE

One of the unintended outcomes of the earlier decentralisation efforts was the **fragmentation of organisational and administrative health structures of the provinces.**

The structure of health and human resource management in PNG can be understood within the context of decentralisation. Prior to independence, government health services were managed centrally by the National Department of Public Health in Port Moresby through its regional and provincial health offices (Izard and Dugue 2003). However, following the introduction of the Organic Law on Provincial and Local Governments in 1977 and subsequent revisions in 1995, the structure of health management changed significantly with management functions devolved along with funding and service delivery responsibilities to provincial and local governments.

Under the Organic Law, district and local governments currently have the responsibility for managing and supporting their health services with each having different powers and functions in relation to health (WHO WPRO 2008). The National Health Plan 2001–2010 outlines the management responsibilities for each administrative level – national, provincial and local.

Besides developing and implementing overall human resources for health policy, the national level is responsible for developing guidelines and providing support for improving the capacity of provinces to prepare strategic human resource plans. It also monitors the implementation of minimum staffing standards and develops guidelines for improving staff management (Government of Papua New Guinea 2000).

Within the public sector hospital management is divorced from management of other health services (health centres and sub-centres, rural hospitals and aid posts, known collectively in PNG as 'rural health services'). The National Department of Health manages the 19 provincial hospitals while provincial and local governments are responsible for all other services.

The provincial government provides staff and funding for rural health services. Provincial health authorities plan and conduct training for district health managers in addition to developing strategic and annual human resource plans. They also monitor staff composition and provide updated reports on staff. The provincial health adviser reports to the provincial administrator. Thus, the Provincial Health Office comes under the provincial administration and district-level health facilities under the district administration while the aid posts are the responsibility of the local government (Izard and Dugue 2003).

Given the nature of the decentralisation in PNG, a significant proportion of all health management activities is supposed to occur at the district level, where implementation of minimum staffing standards is expected to take place.

District health managers are required to maintain a staff inventory, provide regular reports on staffing, supervise staff, conduct in-service training and undertake community awareness and education activities. In practice, very little of these appear to occur, as district management still seem to be answerable to provincial managers. The district health managers report technical matters to provincial health authorities but they and staff of health centres, sub-centres and aid-posts also report to the district administrator.

Another key feature of the health and human resource management structure in PNG is the creation of Parallel Health Boards and diffusion of human resource management responsibilities. One of the unintended outcomes of the earlier decentralisation efforts was the fragmentation of organisational and administrative health structures of the provinces. The revised Organic Law of 1995 identified the need to standardise provincial and district health administrative structures (Table 1).

The National Health Administration Act 1997 consequently came into force leading to the establishment of health boards to advise the various levels of government. The National Health Board advises the Health Minister on health policy matters, sets national health standards and approves provincial implementation plans. It also liaises with provincial health boards and monitors their performance.

The provincial health boards advise the provincial governments and coordinate implementation of the national health plan, national health standards, and provincial implementation plans. At the district level, the National Health Administration Act 1997 provides for establishment of district health management committees to be responsible for coordinating the implementation of the national health plan, national health standards and provincial implementation plans (Izard and Dugue 2003).

The district health managers **report technical matters to provincial health authorities,** but they and staff of health centres, sub-centres and aid-posts also report to the district administrator.

Human resource management in the public health sector in PNG is a shared responsibility between a number of government agencies: the National Department of Health, Department of Personnel Management, the various national training institutes and local level health managers (Bolger et al. 2005).

The Department of Personnel Management was established as a central government agency under the Public Service Management Act, 1995, and has a primary responsibility for public sector management, specifically as it relates to performance, human resources and organisation management (www.dpm.gov.pg). Since its inception the department has controlled most staff management practices in the health sector including recruitment and selection, discipline and performance management.

The National Department of Health and Department of Personnel Management are supposed to work collaboratively in managing the public sector health workers but collaboration between the two departments has reportedly been ineffective (Hasfeldt et al. 2005).

TABLE 1. GOVERNANCE ARRANGEMENTS IN PAPUA NEW GUINEA

(Adapted from Bolger et al. 2005)

	Political structures	Administrative structures
NATIONAL LEVEL	▪ National Parliament ▪ National Executive Council ▪ Ministries	▪ National Parliament ▪ Statutory bodies ▪ National Department of Health ▪ National Health Board
PROVINCIAL LEVEL 20 provinces, including the National Capital District.	▪ Provincial Assembly ▪ Provincial Executive Council ▪ Provincial Committees ▪ Joint Provincial Planning and Budget Priorities Committee	▪ Provincial Administration ▪ Provincial Treasury ▪ Provincial Audit Service ▪ Provincial Health Advisor ▪ Provincial Health Board
DISTRICT LEVEL Each province is divided into districts. There are 89 districts in total.	▪ Joint District Planning and Budget Priorities Committee	▪ District Administration ▪ District Treasury ▪ District Health Manager ▪ District Health Management Committee
LOCAL LEVEL Each district is divided into local-level governments. There are 284 local-level governments.		
WARD LEVEL Each local-level government has many wards. There are 5,747 wards in total.		
COMMUNITIES AND VILLAGES Each ward is made of many hamlets, villages and non-traditional village areas.		

NUMBER AND DISTRIBUTION OF MANAGERS

As in other countries, there are different categories of health managers at different levels of the PNG health system. They include senior managers at the national and provincial levels, hospital administrators and managers of specific units in hospitals, health centres and sub-centres.

This section of the report attempts to capture the number and distribution of managers at the district level, specifically, designated district health managers who run the district public and primary health care services and members of the district health management committee or team.

It does not seek to capture district hospital and facility managers, unless the same person manages both the hospital and primary health care services or is part of the district health management team.

PNG is divided into 20 provinces and 89 districts (Table 2)[4]. Each of the 89 districts reportedly has a designated health manager or someone acting in that role (Personal Communications 2009). Thus, there are currently about 89 district health managers in PNG supported by a number of District Health Management Committee members. The district health managers in PNG are predominantly HEOs, although there are some with different educational and professional backgrounds.

There is a lack of information regarding the composition of the District Health Management Committee. Not all districts appear to have functional committees due to personnel shortages, particularly in rural and remote areas. In the East Sepik province, for example, Hasfeldt et al. (2006) observed a district health office which is run by only two people – a district coordinator and a clerk – due to lack of personnel. The gender distribution of district managers could not be established by the review although a list of HEO distribution by province obtained from the NDoH indicates a substantial number of women (HEO Association and PNG Medical Board 2009).

[4] Table 2 excludes the National Capital District, hence, the 19 provinces and 86 districts.

COMPETENCE OF DISTRICT HEALTH MANAGERS

The low performance of district managers appears to reflect the overall weakness in public sector management. Public sector management in PNG is generally seen as being **ineffective by political leadership, public servants and the public as a whole.**

Managerial competence may be acquired through a combination of training, experience and coaching (WHO 2009a). The plethora of management problems confronting the PNG health system has raised concerns about the nature of management education and training that health managers in general, and middle-level managers in particular, receive.

While the majority of the current cohort of district health managers are HEOs, in general, health managers in PNG have different levels of training and backgrounds. Some have Diploma in Applied Health Science, Health Extension, Community Health or Public Administration but others have a Bachelor in Health Management or Health Sciences and various nursing qualifications (In-country reviewer 2011).

The Divine Word University in Madang, for example, runs a four-year Bachelor of Health Sciences in Rural Health program which focuses on training HEOs for district health centres in rural areas (Hasfeldt et al. 2005). It also runs a four-year degree program in Health Management designed to graduate managers or supervisors working in administrative or clinical positions at provincial, district, hospital and other facility levels in the health system (Divine Word University 2009).

The School of Medicine and Health Sciences at the University of PNG in Port Moresby has introduced a Master in Rural Medicine, which aims to provide essential clinical, management and public health skills for doctors seeking postings at the provincial and district level (Foster et al. 2009). The PNG Institute of Public Administration, runs a Diploma in Public Administration which some health managers have undertaken.

Obtaining any of the qualifications mentioned above does not automatically make someone a district health manager. In general, health managers work for some time in the health system (two to five years according to an in-country reviewer) before being appointed as health manager. In principle, appointments follow a Public Service General Order of merit-

based appointments where positions are advertised and candidates openly selected based on merit. An in-country reviewer made the following comments:

> "Becoming a health manager depends on the Public Service General Order as it is a senior position. Someone with a four-year degree does not automatically become a district health manager. He or she needs to get some years of work experience"
> *(In-country reviewer 2011).*

Despite what appears to be an adequate educational and professional preparation of district health managers in PNG, management capacity and performance remains weak at that level. Health managers reportedly lack financial management and other skills necessary to function efficiently (AusAID 2009).

The low performance of district managers appears to reflect the overall weakness in public sector management. Public sector management in PNG is generally seen as being ineffective by political leadership, public servants and the public as a whole (Central Agencies Coordinating Committee 2000). A complex array of factors – political, social, economic and cultural – affect managerial competency and performance (for discussion of broad issues affecting management in the public sector see May 2009).

Efforts are being made in PNG to strengthen health management competency. For example, the PNG Institute of Public Administration with the support of development partners recently conducted a Certificate Course in Middle Management, which was reportedly well received[5]. For such capacity building programs to succeed, however, there is the need for them to be country-driven and owned and based on a concrete national training plan.

The NDoH reportedly has no comprehensive training plan that outlines the training needs of the health sector and how such needs would be met. Some have argued that the people usually selected for in-training are not necessarily those who would be most able to apply the skills they gain from the training (Hasfeldt et al. 2005).

MANAGEMENT WORKING ENVIRONMENT

Several issues relating to the work environment in PNG affect management and leadership capacity and performance. Lack of supportive supervision in the government health system is one of such issues.

To be effective, district managers should be supported so that they in turn are able to provide support to sub-district personnel. In PNG, there is substantial evidence that provincial health offices do not undertake supervisory visits to districts and districts in turn, do not provide support and supervision to sub-districts.

Less than half of provincial health facilities received a provincial health officer visit between 2002 and 2007 (Burnet Institute 2007, Foster et al. 2009). Davy (2007) reported that some community health workers had not been visited by a district team for years.

A complex set of factors may constrain the ability of health managers to fulfil their basic responsibilities such as supervision. The decentralisation of the health system has provided provinces with autonomy but it has created a 'management disconnect'. Provincial authorities are not compelled to follow national directives, the result of which is a failure to allocate sufficient funding and resources to health provision.

The low operating budget of districts makes it difficult for supervisory activities to be undertaken. The country's forbidding geography also plays a role; the poor physical access making direct supervision of staff difficult. High frequency radios have been identified by the NDoH and development partners as providing an alternative, less costly and less time-consuming means of staff supervision.

In 2006, high frequency radio network coverage in PNG was estimated to be about 85%. The national health radio network has reportedly expanded from two to all provinces, connecting health facilities at district level and below to their provincial health offices (Foster et al. 2009). With such easy radio network access one would expect frequent interaction between health managers but this does not appear to be the case. A failure to adequately incentivise staff to work in rural and underserved areas has created chronic shortages in staffing levels, especially in front-line staff (Hasfeldt et al. 2007). In 2007, these shortages partly led to the closure of an estimated 827 aid posts (Foster et al. 2009).

[5] Specific information on the number of district health managers participating in the program could not be obtained.

TABLE 2. DISTRIBUTION OF HEALTH PERSONNEL AND FACILITIES BY PROVINCE IN PAPUA NEW GUINEA, 2009

(Adapted from Yambilafuan 2009)

PROVINCE	DISTRICTS	POPULATION	HEALTH FACILITIES*	HEALTH PERSONNEL^	HEALTH WORKER PER POPULATION
Western	3	205,332	123	91	1:2,256
Gulf	2	134,678	86	60	1:2,245
Central	4	225,766	76	63	1:3,584
Milne Bay	4	262,776	146	121	1:2,172
Northern (Oro)	2	169,121	115	70	1:2,416
Southern Highlands	8	791,066	223	164	1:4,824
Egna	5	381,598	160	72	1:5,300
Western Highlands	7	549,531	110	83	1:6,621
Simbu	6	307,641	72	55	1:5,593
Eastern Highlands	8	526,645	177	85	1:6,196
Morobe	9	691,596	237	140	1:4,940
Madang	6	467,155	213	176	1:2,654
East Sepik	6	417,427	243	184	1:2,269
West Sepik	4	229,937	131	83	1:2,770
Manus	1	54,662	69	54	1:1,012
New Ireland	2	153,076	59	36	1:4,252
East New Britain	4	274,916	97	85	1:3,234
West New Britain	2	253,661	126	102	1:2,487
North Solomons	3	200,276	180	131	1:1,529
Total	**86**	**6,296,860**	**2,643**	**1,855**	**1:3,395**

Key to accompany table

* Comprised only of aid posts

^ Includes only aid-post staff

FUNCTIONING OF MANAGEMENT SUPPORT SYSTEMS

The performance of health managers in PNG may be influenced by **ineffective payroll systems which sometimes pay health workers irregularly,** maintain 'ghost workers' and do not exclude health workers who fail to report for duty.

The financing channels and reporting and management systems at provincial level and below are not standardised. The different sources of funding for the health system are not well coordinated. Requests for funds channelled through the Health Sector Improvement Program go to the NDoH and funds are deposited and accessed through provincial Health Sector Improvement Program trust accounts. Local budgets (functional grants and provincial internal revenue) from provincial governments are accessed by district health managers through normal government funding mechanisms.

Support from the Global Fund is channelled through the HSIP. There are many other channels for accessing support from other funding bodies including those in the HIV/AIDS sector. The multiple mechanisms for requesting and accessing funds and the cumbersome annual auditing process, sometimes requiring the on-site reconciliation of original documentation, put considerable strain on district health managers (Burnet Institute 2007, Foster et al. 2009). In addition to the above, the performance of health managers in PNG may be influenced by ineffective payroll systems which sometimes pay health workers irregularly, maintain 'ghost workers' and do not exclude health workers who fail to report for duty.

The current health information management system provides little support to managers at all levels of the health system. The NDoH administers the nation's performance monitoring system. Reporting is high with 90% of health facilities returning information about health outputs, expenditure, financial management and management outcomes. However, reports of significant gaps in the data include disaggregation of indicators by gender, lack of information on aid posts and hospital in-patients and a lack of comprehensive management indicators relevant to human resource management (Foster et al. 2009, Hasfeldt et al. 2005).

The procurement and supply management system is ineffective and leads to frequent stock-outs of essential pharmaceuticals and medical supplies at all levels of health service provision (Davy 2007, Hasfeldt et al. 2006).

Considerable efforts have been made by development partners to improve the procurement and supply management but such attempts have not been sustainable. For example, an AusAID-financed initiative providing 'drug kits' was designed to temporarily relieve the situation. The program was somewhat successful at reducing 'backlogs', but it was ultimately unsustainable as it created a parallel procurement and supply management system.

A Ministerial Task Force was established in 2007 to investigate the drug and supply issues. In the short term it is expected that the 'drug kit' system will be reinstated (Foster et al. 2009). Investment from UNICEF and WHO in cold-chain management and vaccine distribution has improved stock availability and quality control, but there is still a lot of work to be done in order to strengthen the procurement system (Foster et al. 2009).

SOCIO-CULTURAL CONTEXT

Analysing the interplay between politics and business in PNG, Kavanamur (2001) observes that the collapse of quality state enterprise management is **attributable to political intervention and wantokism.**

Health managers in PNG operate in a complex socio-cultural environment characterised by extreme linguistic and ethnic diversity. Over 750 indigenous languages are spoken, each a defining characteristic of a clan (Nita 2006).

Associated with this diversity is the country's wantok system – a strong system of allegiance and a high sense of obligation to one's clan and extended family. In the public service, this clan-based allegiance frequently supercedes the responsibilities of a specific administrative function and inadvertently leads to conflict of interest and nepotism (Izard and Dugue 2003).

Analysing the interplay between politics and business in PNG, Kavanamur (2001) observes that the collapse of quality state enterprise management is attributable to political intervention and wantokism. There are perceptions of favouritism based on wantok in the management of the district health services but also in appointments and discipline of staff.

Another key socio-cultural issue that may affect leadership and management capacity in the health sector is gender-based discrimination. A highly masculine society, discrimination against women is reportedly widespread in PNG (Nita 2006, UNDP 2007).

Women are significantly under-represented in high-level decision-making. For example, only one of the 109 Members of Parliament is a female. Women play a relatively small role in commerce, either as entrepreneurs and traders or in small-scale businesses (UNDP 2007).

Although no specific evidence of gender bias with regards to provincial or district health management was found, the generally high gender-based discrimination at the national level in PNG may not encourage women to seek or take up management or leadership positions at the provincial and district health service levels.

SUMMARY

Access to health care

- Papua New Guinea reportedly has one of the most under-performing health systems in the Asia-Pacific region. Reports from the Independent Monitoring Review Group indicate that very little progress has occurred in the health sector in the last five to 10 years.
- Approximately 80% of the population lives in rural areas, with geography and transport presenting significant barriers to access.

Financing the health system

- Government health spending represents about 83% of total health expenditure in PNG. In recent times, government spending on health has been on the decline; in 2009 the government reportedly injected some 46 million Kina of recurrent funds into hospital management services but this was offset by a reduction of about 17% of total funding for the NDoH.

Human resources for health

- It is estimated that about 11,142 health personnel worked in the country's health system in 2009. These were made up of 333 medical officers, 2,844 nurses and midwives, 3,883 community health workers, 718 allied health workers, 409 health extension officers. 1,821 support staff and 1,134 other cadres of health workers.
- Approximately estimated 600 nurses, 600 community health workers and 100 midwives are reportedly required to fill the existing gaps. Provincial governments provide staff for rural health services. The national level develops and implements overall human resources for health policy for the country.
- Management of health personnel is a shared responsibility between several government agencies including the Department of Personnel Management and the NDoH.

Health management structure

- The structure of health and human resource management in PNG can be understood within the context of decentralisation. Under the Organic Law, management functions have been devolved along with funding and service delivery responsibilities to provincial and local governments.
- The NDoH manages provincial hospitals while provincial and local governments are responsible for managing rural health services. The decentralisation of the health system has provided provinces with significant autonomy which has created a 'management disconnect'. Provincial authorities are not compelled to follow national directives, the result of which is a failure to allocate sufficient funding and resources to health provision.

Number and distribution of district health managers

- PNG has 89 districts and each reportedly has a designated health manager or someone acting in that role, so there are at least 89 district health managers who together with members of their respective district health management committees, manage the primary health care system.

Competence of district health managers

- District managers in PNG come to the job with a varying level of educational and professional qualifications and experience. In general, health managers work for about two to five years in the health system before being appointed a health manager.
- The current cohort of district health managers in PNG are predominantly HEOs. These officers bridge the gap between doctors and nurses and often operate in senior and middle management positions.

Management working environment

- A complex array of political, social, economic and cultural factors influence the effectiveness of managers in PNG including: weak administrative and management structures, inadequate supportive supervision, ineffective procurement and supply, and weak health information systems.

Socio-cultural factors

- Performance of managers at the district level in PNG appears to be affected by socio-cultural factors particularly the wantok system.
- Information from consultations with key individuals suggests, for example, that preferential treatment based on wantok is common in the selection of people to attend in-service training by provincial health officers.

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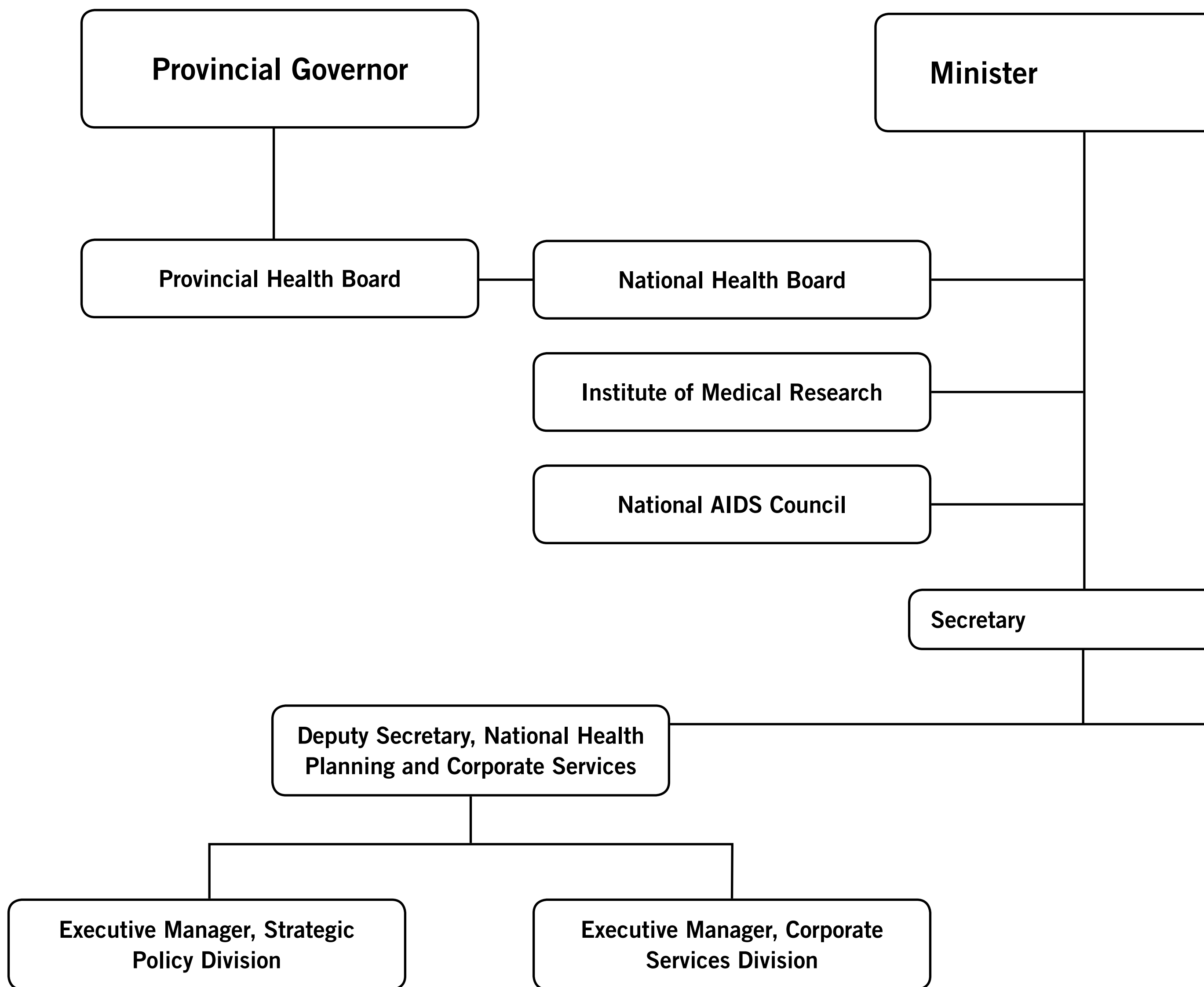
APPENDIX

STRUCTURE OF THE MINISTRY OF HEALTH

(Adapted from WHO WPRO 2010)

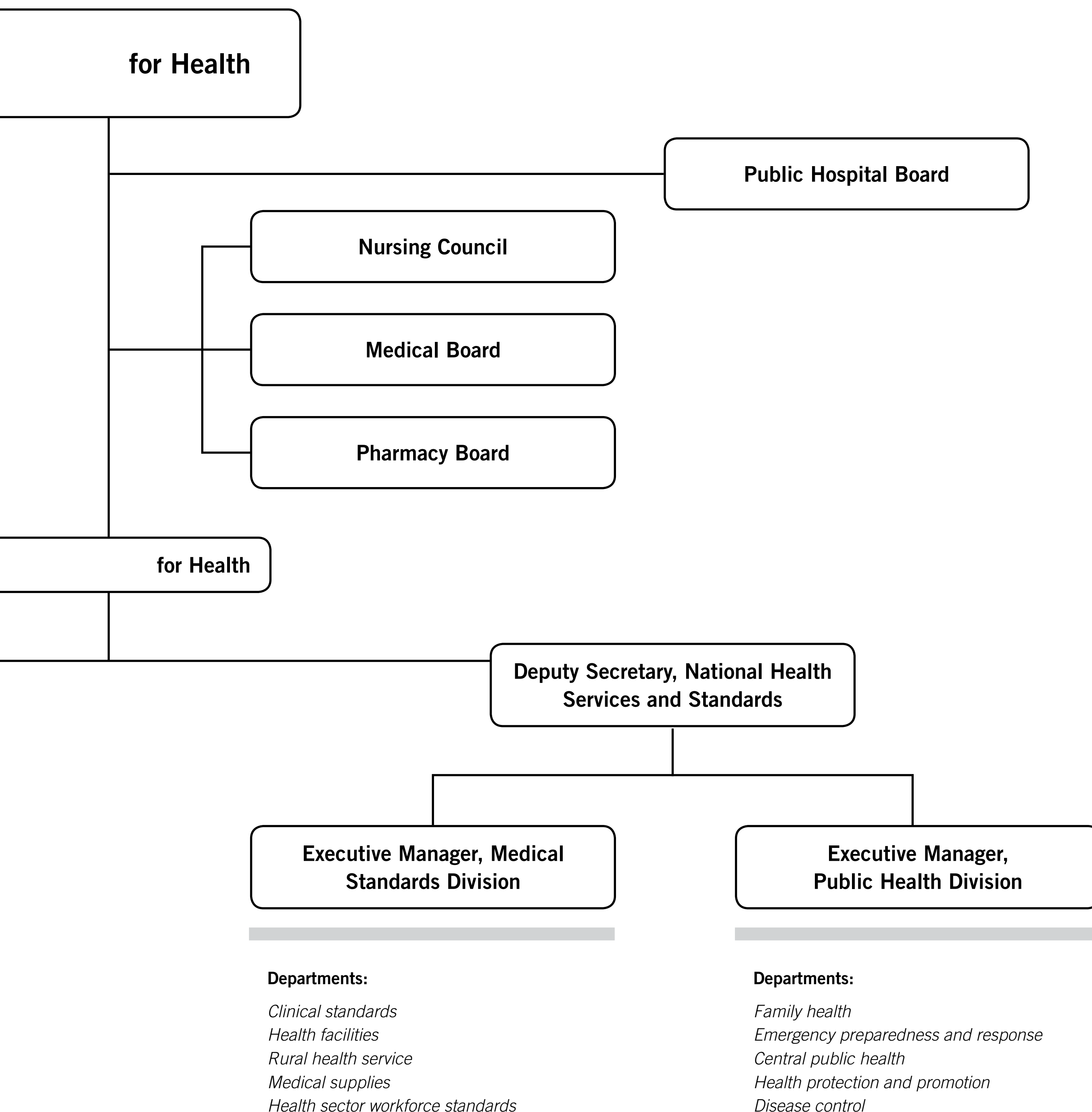


Departments:

Plans
Policy
Industrial relations
Legal
Corporate performance

Departments:

Finance
Human resources
Infrastructure and major systems
Commercial support
Logistics


for Health
Public Hospital Board
Nursing Council
Medical Board
Pharmacy Board
for Health
Deputy Secretary, National Health Services and Standards
Executive Manager, Medical Standards Division
Executive Manager, Public Health Division
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