



REPUBLIC OF THE GAMBIA

Public Expenditure Review 2001

Health Sector Situation Analysis

DEPARTMENT OF STATE FOR HEALTH AND SOCIAL WELFARE

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ABBREVIATIONS AND ACRONYMS

ADDC	Assistant Director Disease Control
ADFH	Assistant Director Family Health
ADHPP	Assistant Director Health Promotion and Protection
AIDS	Acquired Immunodeficiency Syndrome
ARI	Acute Respiratory Infections
BCG	Bacilus Calmet and Gurine
BH	Bansang Hospital
BHS	Basic Health Services
BI	Bamako Initiative
CAC	Catchment Area Committee
CDD	Control of Diarrhoeal Diseases
CHN	Community Health Nurse
CHW	Community Health Worker
CNO	Chief Nursing Officer
CP	Chief Pharmacist
CRD	Central River Division
DDHS	Deputy Director of Health Services
DfID	Department for International Development
DHS	Director of Health Services
DHT CRD	Divisional Health Team, Central River Division
DHT LRD	Divisional Health Team, Lower River Division
DHT NBDE	Divisional Health Team, North Bank Division East
DHT NBDW	Divisional Health Team, North Bank Division West
DHT URD	Divisional Health Team, Upper River Division
DHT WD	Divisional Health Team, Western Division
DHT	Divisional Health Team
DoSH	Department of State for Health
DPI	Director of Planning and Information
DPT	Diphtheria Pertusis and Tetanus
DRF	Drug Revolving Fund
EHU	Environmental Health Unit
EPI	Expanded Programme on Immunization
ESU	Epidemiology and Statistics Unit
GDP	Gross Domestic Product

GNP	Gross National Product
GoG	Government of The Gambia
HE	Health Education
HEHS	Household Economic Health Survey
HEU	Health Education Unit
HIV	Human Immunodeficiency Virus
HIV/AIDS	Human Immunodeficiency Virus Acquired Immune Deficiency Syndrome
HO	Health Officer
IDA	International Development Association
IEC	Information Education and Communication
ISTU	Inservice Training Unit
KMA	Kanifing Municipal Area
LRD	Lower River Division
MCH	Maternal and Child Health
MCH/FP	Maternal and Child Health Family Planning
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Rate
MRC	Medical Research Council
NACP	National AIDS Control Programme
NBDE	North Bank Division East
NBDW	North Bank Division West
NBDW	North Bank Division West
NECP	National Eye Care Programme
NGO	Non Governmental Organisation
NLS	National Laboratory Services
NU	Nutrition Unit
OPD	Out Patient Department
ORT	Oral Rehydration Therapy
PER	Public Expenditure Review
PHC	Primary Health Care
PHO	Public Health Officer
PHPNP	Participatory Health Population and Nutrition Project
PPHO	Principal Public Health Officer
RHT	Regional Health Team
RVH	Royal Victoria Hospital
SEN	State Enrolled Nurse
SRN	State Registered Nurse
SSS	Sugar Salt Solution
STD	Sexually Transmitted Disease

STI	Sexually Transmitted Infection
TB	Tuberculosis
TB/Lep.	Tuberculosis and Leprosy
TBA	Traditional Birth Attendant
TT	Tetanus Toxoid
UN	United Nations
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
URD	Upper River Division
VCU	Vector Control Unit
VDCs	Village Development Committees
VHS	Village Health Services
VHW	Village Health Worker
WB	World Bank
WD	Western Division
WDR	World Development report
WHO	World Health Organisation
WID	Women In Development

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EXECUTIVE SUMMARY

1	1.	HEALTH SERVICES
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1.1. Introduction

Formal health services in The Gambia are delivered mostly in health facilities funded by the Government of Gambia. These facilities are also supported by a number of donors and Non-Governmental Organisations (NGOs). NGOs and private practitioners also provide services though most of them are located in the Greater Banjul Area. In addition, there are a large number of private pharmacies, drug sellers, and traditional healers that deliver health services of some kind. This chapter reviews the government health care services and provides some information on the range of services provided by the NGO’s and private sector clinics and doctors.

1.2. Government health services

1.2.1 Health Services Administration

Government health services in the Gambia are provided through the Department of State for Health and Social Welfare (DoSH&SW). There are three Directorates in the Department of State for Health:- Health Services, Planning and Information, and Support Services.

1.2.2 Divisional Health Teams:

In 1993, as a move to reform primary and secondary services, the three Regional Health Teams (RHTs) were sub-divided into six geographical health divisions¹ Each Division is managed by a Divisional Health Team (DHT)². The DHTs are responsible for the day-to-day administration, management, and supervision of the secondary level (major and minor health centres and dispensaries) and primary level (village health services) in their respective divisions.

¹ For operational reasons, the 6 health divisions do not correspond to the country’s 5 government administrative divisions.

Administrative	Health Division
Banjul	}
Kanifing	} Western
Brikama	}
Kerewan	} North Bank
	} North Bank East
Mansakonko	Lower River
Kuntaur	} Central River
Janjanbureh	}
Basse	Upper River

² The Divisional Health Teams includes the established posts of the Divisional Officer in charge (Medical Officer, Divisional Public Health Nurse or Senior Public Health Officer), Public Health Officer, Public Health Nurse, Community Health Nurse Trainer, Accountant and Pharmacist/Divisional Pharmacy Technician.

Despite much talk about decentralization, the degree to which effective management is possible at the DHT level is severely constrained by the centralised nature of the management system and lack of trained DHT staff. Staff numbers vary per division and some DHTs have more highly trained staff than others. Furthermore, the DHTs lack control over operational budgets and the central level sometimes overrule re-deployment of staff made by them within their divisions. For decentralization to be meaningful, decision-making and control of resources must be as close as possible to the operational level.

1.2.3 Structure of the government health care services

The health care system follows the primary health care strategy and is organised into three levels - tertiary, secondary, and primary. In addition there are a number of vertically based programmes that complement the general health care system. Table 1.1 summarises the number of health care service points at each level as at 2001. The thrust of the health policy has been extending health services to the under-served rural area.

The public health sector has three hospitals – Royal Victoria Hospital [RVH], situated in the capital city of Banjul; Bansang Hospital in Bansang in Central River Division and the AFPRC General Hospital located in Farafenni in North Bank East. A new hospital is being built in Bwiam while another is being planned for Serre Kunda. The private/NGO sector has a total of seven hospitals, all of which are located in the WD, within the Kanifing Municipality. Overall, there are ten functioning hospitals in the country with eight of them located in WD.

There are six Government major health centres. Two are located in Western Division, one in each of the four other Health Divisions and none in North Bank East. There are 12 government minor health centres, spread across the country including four in the Western Division. The 16 government dispensaries are located across the divisions.

In total, there are 37 government health facilities and about 48 private/NGO facilities in the country. 11 (29.7%) and 35 (72.9%) of the public and private/NGO health facilities respectively are all located in the WD. NBW has the least numbers – no hospital, three public health and two private/NGO facilities (See table 1.1 below).

Table 1.1: Distribution of Government (G), and Private and NGO (Other) health facilities, 2001

	WD		NBW		LRD		NBE		CRD		URD		TOTAL	
Population	803,930		97,469		74,349		106,476		185,107		209,256		1,476,587	
	G	Other	G	Other	G	Other	G	Other	G	Other	G	Other	G	Other
Hospital	1	7	0	0	0	0	1	0	1	0	0	0	3	7
Major H/C	2	1	1	0	1	1	0	0	1	0	1	0	6	2
Minor H/C	4	6	1	1	2	0	1	0	2	1	2	0	12	8
Dispensary	4	6	1	1	1	1	2	3	5	1	3	1	16	13
Special	0	15	0	0	0	0	0	2	0	0	0	1	0	18
NATIONAL	11	35	3	2	4	2	4	5	9	2	6	2	37	48

Notes: Government of The Gambia data obtained from Divisional Health Teams and DPI, 2001

Other: Private and NGO health facilities. Data based on information obtained from DPI

Special: this category is according to DPI categories (See Annex H)

1.2.4 Primary, Secondary and Tertiary Levels of Health Care

The Alma Ata Primary Health Care (PHC) strategy was adopted by The Gambia in 1979. Its essence is to make basic health services universally accessible to the population. PHC is delivered through three levels of care:

- ❖ The **primary level** provides for initial care and preventive action through a network of village health posts, linked through key villages and staffed by Village Health Workers (VHWs) and Traditional Birth Attendants (TBAs) supervised by Community Health Nurses (CHNs). This level is first point of contact for people seeking health care.
- ❖ The **secondary level**, which provides for procedures less complicated than the tertiary, has a network of major and minor health centres, and dispensaries with more specialised staff and equipment. It provides for routine preventive and curative services and some medical, surgical and obstetrics interventions.
- ❖ The **tertiary level** provides for more specialised services and interventions and is intended to function as a referral service for the secondary level.

Because of the nature of the services provided unit costs of treatment increases through the levels. Primary level delivery points should be easily accessible to all, especially the poor. The network of secondary centres should provide for all but the more complicated cases, while tertiary institutions should be limited to those cases referred on from another level, and emergencies.

However the situation in The Gambia appears to be very far from the ideal envisaged in the PHC strategy. The recent Health Mapping Study [Synergy International, 2000] found that the primary level coverage was reasonably good and covered about 70 per cent of the catchment population. At the secondary level coverage was low with some mal-distribution. The three semi autonomous³ referral hospitals located in Banjul, Bansang and Farafenni, give reasonable coverage.

What is of concern in a system that is being driven by a primary health care policy is the level of resources allocated to the hospital sector. In recent years the hospitals have accounted for nearly half of the total government resources budgeted and expended. This is a level approximately twice that of neighbouring countries such as Senegal and Guinea Conakry. However to equate the hospital expenditures with tertiary care of a referral nature would be a mistake. Hospitals provide a significant and growing proportion of Primary care through outpatients and polyclinic services. They also provide significant secondary care through direct referral from primary level centres and through referral from secondary centres which are unable to provide the services themselves.

Over the past five years the number of outpatient consultations provided through hospitals has more than doubled, growing at a rate of nearly 25 per cent per year. In the same period the number of consultations in secondary facilities has increased by less than fifty per cent. While similar statistics are not available for secondary procedures carried out in referral hospitals the chief executives confirmed that it was a persistent feature. Thus not only do hospitals function in their allotted roles but also in other ways as well. It must be noted that there are no secondary and only few primary facilities located close to the hospitals, and as such they provide these services. However it is clear that the actual services provided (including support given to patients by relatives living close to hospitals) attract patients from the catchment areas of other secondary and primary facilities.

³ They are financed through grants from the DoSH&SW budget and governed by Boards

2

HEALTH POLICY

2.1 Introduction

The Gambia adopted Primary Health Care (PHC) in 1979 following the Alma-Ata declaration in 1978. Subsequently a PHC Plan of Action from 1980/81 to 1985/86 was formulated, and this formed the basis for the National Health Policy. In the PHC Plan of Action PHC has been defined as:

An approach aimed at mobilising all potential resources including the communities' own resources, towards the development of the National Health Care System, the aim being to extend health services coverage to the entire Gambian population and to attract the main disease problems of the communities. PHC is also a mechanism for ensuring an equitable re-distribution of the limited health resources available in the country in favour of the under-served majority, who live and work in the rural area.

Even though the PHC system is working well, with a high level of coverage and contact, it is believed that the impact is below expectations in some areas. This has led to the creation of programmes (selective PHC) designed to intervene at village level to control priority diseases such as Acute Respiratory Infection, Diarrhoeal Diseases, Tuberculosis, Malaria, Preventive Eye Care and HIV/AIDS.

Since the adoption of PHC a number of changes have taken place in health development as part of the global concept of Health Sector Reform. The changes include:

- ❖ The restructuring of the DOSH, this includes the creation of Divisional Health Teams in 1993 and the process of shifting authority (decentralisation) from the centre to facilitate decision making at the periphery;
- ❖ Establishment of new health facilities and more outreach stations;
- ❖ Creation/training of new cadre of staff for special interventions;
- ❖ Introduction of user fees, and the Bamako Initiative;
- ❖ Increase in the number of donors and NGOs interested in health development.

During the mid 70s to 80s The Gambia experienced severe drought with a consequent economic recession with adverse effect on the social sectors.

The need for a co-ordinated approach to avoid duplication and wastage became apparent. Subsequently a National Health Policy was developed in 1994 to ensure that health programmes were implemented in a co-ordinated and comprehensive manner reflecting the PHC approach, which emphasises equitable distribution of resources.

2.2 The 1994 – 2000 Health Policy

The policy was envisaged as a framework for future National Health Development, and it aimed at improving the health status of The Gambian population to enable them live an economically productive life.

In 1998 the DoSH, with WHO support, developed the National Plan of Action 1999-2003 for all programme areas. While there was clarity of purpose, with good intentions to provide an efficient and effective service, a number of policy issues could not be fully implemented.

2.2.1 Objectives of the Policy

The primary objectives of the policy were to:

- ❖ reduce infant and maternal mortality rates;
- ❖ ensure significant improvement in quality of services, efficiency, effectiveness and sustainability.

2.2.2 Elements of the policy

Its elements revolve around the principles of PHC:

- ❖ Safe motherhood
- ❖ Family Planning
- ❖ Child Survival
- ❖ Proper Nutrition
- ❖ Control of common endemic diseases
- ❖ Health Promotion/Protection and
- ❖ The provision of essential drugs and vaccines

2.2.3. The 1994 Policy Reviewed

Decentralisation

Health Service delivery was to be decentralised into 6 Health Divisions which would be coterminous with the administrative divisions except for the North Bank, which by virtue of the River is divided into two divisions. The decentralisation process was part of government policy of decentralisation and the Strategy for Poverty Alleviation, which was intended to provide the environment for a multi-sectoral and integrated approach to development. However, the present form of decentralisation, which is a mixture of functional and prefectural de-concentration does not encourage adequate decision making (especially with resources) at divisional level, and inter-sectoral co-ordination. For any meaningful decentralisation the authority for decision making and control over resources must be shifted from the centre to the periphery. As health cuts across other sectors like Agriculture, Nutrition and Education inter-sectoral co-ordination, which is facilitated by decentralisation, is mandatory.

However, the mild form of decentralisation (functional and prefectural de-concentration) is not suitable. In functional de-concentration the field officers are directly answerable to the centre (DOSH) and as such decisions cannot be taken at DHT level. Prefectural de-concentration (with the Divisional Commissioner as the head) allows co-ordination between field officers of different departments, but it also

has the problem of dual authority (Collins C, 1994). Technically the Commissioner cannot supervise the health professionals and as such the chain of command is confusing. Devolution, which is the shifting of authority to the local councils, is considered the best form of decentralisation (by Health Planners) as the local councils in this case have the statutory recognition of the right to make their own budget arrangements. However, most of the local councils in The Gambia lack the tax base to raise adequate revenue, and the management capacity to run a health service.

Strengthening/Capacity Building of the Primary Level of Health Care

The emphasis on capacity building at the primary level was a result of the poor performance of health services delivery in PHC villages. The main reasons for this were:

- ❖ ineffective Village Development Committees [VDC];
- ❖ embezzlement of drug funds from sales;
- ❖ lack of required administrative, financial and managerial skills by the VDC members;
- ❖ poor supervision.

As a result the Bamako Initiative (BI) strategy, with its elements of co-management and co-financing, became high on government's agenda to strengthen village health services.

With government's efforts, community involvement and donor assistance, selective PHC can be effective. However selective PHC has equity implications such as:

- ❖ diseases that are not among the chosen ones may not be given adequate attention, and patients may be left with no alternative other than seeking private care including traditional practices that could, at times, be harmful;
- ❖ community participation could be jeopardised as the diseases to prioritise are decided at the national/central level (Barker C, 1996).

Strengthening of Secondary and Tertiary Levels

The emphasis in the policy was on the establishment/strengthening of MCH services at secondary level to reduce the high MMR and IMR, and also to refurbish, equip and ensure full functioning of the 3 referral hospitals RVH, Bansang and AFPRC Hospitals.

Service Expansion

This includes the introduction of PHC to more villages, increasing the number of Basic Health Care facilities by upgrading outreach stations to dispensaries, and Farafenni Health Centre to a referral hospital.

Urban Health

The development of urban health was highlighted in the policy. The impetus was the increase in the urban population with negative impacts on health and diseases associated with poverty, malnutrition, poor housing, overcrowding, poor environmental sanitation compounded by the lack of PHC structures. The lack of PHC structures in the urban area has led to an increase in avoidable/preventable diseases. However urban health has been given little attention, except for the establishment of an Urban Eye Health Programme in April 2000 (funded by Sight Savers International) with the ultimate aim of meeting the eye health needs of the urban population, particularly the marginalized poor, and to reduce avoidable/preventable blindness by 50% in

the planned five-year period. This initiative should be extended to other programme areas, drawing upon experiences of the Eye Care Programme.

Community Participation

The intention was to strengthen existing mechanisms of community participation, which is facilitated by decentralisation as a pre-requisite for BI. However decentralisation particularly for decision making has not been effective and as such there was no adequate community involvement in health interventions.

Donor Co-ordination

In order to strengthen existing mechanism for donor co-ordination:

- ❖ NGOs were requested to enter into a memorandum of understanding with DOSH for a determined period with each party stating the required responsibilities, inputs and expected outcomes.
- ❖ NGOs were encouraged to work through the framework and structures of existing health institutions thereby avoiding duplication of efforts and confusion of both providers and users of health services.

However Donor/NGO co-ordination has not been effective partly as a result of vertical programmes. Most often donors/NGOs supporting the health sector deal directly with staff of programmes of their interest.

Health Financing

Although government will meet its obligation to finance the health sector, the policy advocates the development and strengthening of cost sharing mechanisms for all levels of health delivery. The Drug Revolving Fund (DRF), meant to strengthen the procurement of essential drugs, The Participatory Health, Population and Nutrition Project (PHPNP) funded by the World Bank is another financing source which

is designed to improve the quality of, and access to, family health services, including reproductive health, infant and children services, nutrition services, and the management of such services in The Gambia.

Other major sources of funding included the African Development Bank (ADB) and the Islamic Development Bank (IDB).

The current health financing mechanisms cannot adequately fund the health sector. The user fees are inadequate despite government subsidies. The DRF has not functioned well due to a combination of factors:

- ❖ the non-reinvestment of the resources into the system
- ❖ the lack of a co-ordinated accounting and reporting system
- ❖ low cost recovery – average cost recovery for BI facilities was about 40%, and 28% for non-BI facilities

The slow disbursement rate of PHPNP funds partly due to difficulty in formulating Terms of Reference (TOR) for Consultants and delay in getting approval from the World Bank has led to delay/lack of implementation of planned activities (Country Portfolio Performance Review, May 2000). Such activities include the formulation of a Health Financing Policy, Health Management Information System, and the Health Public Expenditure Review.

The need to review the cost recovery instruments, and to look for other forms of financing health such as encouraging the private sector into health cannot be over emphasised.

Public/Private Sector collaboration

The Private/NGO sector is encouraged to make services accessible thereby reducing pressure on government services.

Human Resource Development

The policy intends to ensure the supply of a well-motivated trained and equipped staff, and emphasises a minimum staffing levels.

However, the attrition rate particularly for Registered Nurses of the public sector has been on the increase. This has led to chronic shortage of nurses at all levels particularly the primary level. Albeit this area needs a detailed study for the cause, some of the contributory factors are:

- ❖ nurses in the hospital receive special allowances that those in health centres/dispensaries do not;
- ❖ poor housing facilities in the rural areas;
- ❖ high demand for nurses overseas particularly America and the United Kingdom.

Summary:

Programmes have been designed to intervene at village level to control priority diseases (selective PHC) because the impact of PHC will be higher. Decentralisation of health services is being introduced to provide a better environment for a multi-sectoral and integrated approach to development. Having attracted a number of donors/NGOs the policy advocated entering into a memorandum of understanding with them. Community involvement, and donor/NGOs support should have been given more emphasis; and the Directorate of Planning and Information taking a more proactive monitoring role, if such programmes were to be effective. Performances of the sector are below expectations and need more attention. The public sector has lost a lot of nurses due to low salary and less attractive conditions.

2.3 Health Policy 2001-2005

The final draft has been reviewed at national consensus meeting, and annotations made. It also advocates the 1994 – 2000 Policy Issues with special emphasis on **health care financing**, and an **Essential Care Package within a decentralised health system**. This will serve as the Department's Policy for the next five years with the following **Vision, Mission, and Guiding Principles:**

Vision

Attainment of, and access to, quality health care for The Gambian population that would be a model in the African Region by the year 2020.

Mission Statement

Provision of quality health care services and management practices within an enabling environment, delivered by appropriately and adequately trained, skilled and motivated personnel at all levels of care with the involvement of all stakeholders to ensure a healthy population.

Guiding Principles

- ❖ Equity
- ❖ Gender equity
- ❖ Ethics and standards
- ❖ Client satisfaction
- ❖ Cultural identity
- ❖ Reformed health system
- ❖ Skills circulation
- ❖ Partnership

2.4 Poverty Reduction and National Health Policy

Poverty could be defined as lack of adequate resources and basic needs such as food and shelter. However, it is almost impossible to achieve general agreement about what is “enough” as people have different needs and priorities, and different ideas about what constitute basic needs (Barker C., 1996).

The basic factors that affect and influence health include nutrition, safe water, housing, environmental and personal hygiene, and family planning. From this it becomes obvious that health is not the prerogative of the Department of State for Health alone, and therefore inter-sectoral collaboration particularly with education, finance, and agriculture should be a priority. Both the 1994-2000 and the 2001-2005 Health Policies advocate working closely with relevant Departments of State. However, this could only be effective if decentralisation is adequately implemented.

2.4.1 The Strategy for Poverty Alleviation (SPA)

The SPA process was initiated in 1991 drawing upon experiences of both the Economic Recovery Programme (ERP), and the Programme for Sustainable Development (PSD). The ultimate objective of the SPA is to improve the quality of life, satisfaction of basic needs and poverty alleviation (SPA, 1996).

2.4.2 The Poverty Reduction Strategy Paper (PRSP) Process

The achievements and shortcomings of SPA-I have been assessed, and lessons learnt now form the basis for the process of formulating The Gambia’s PRSP (also called the Strategy for Poverty Alleviation II, or SPA-II). The objective is “to ensure greater focus on poverty reduction and renew emphasis on higher economic growth in order to achieve sustainable poverty reduction targets”.

2.4.3 Health Aspects of Poverty Reduction

Reduction of poverty could enable more marginalized people have adequate food supply and easier access to health care. Nutrition has a direct effect on health, and user charges and cost of transportation to health facilities may not always favour the poor, despite the exemption mechanism in place.

Education has been found to increase people’s awareness about good diet and good health practices. As the PRSP advocates a participatory approach involving inter-alia Agriculture, Education and the Health sectors the impact of poverty reduction is envisaged to be far reaching.

The consequences of poverty are nearly always obvious, and may range from:

- ❖ short supply of food to actual starvation, and poor health;
- ❖ difficult access to health care, and death in extreme cases.

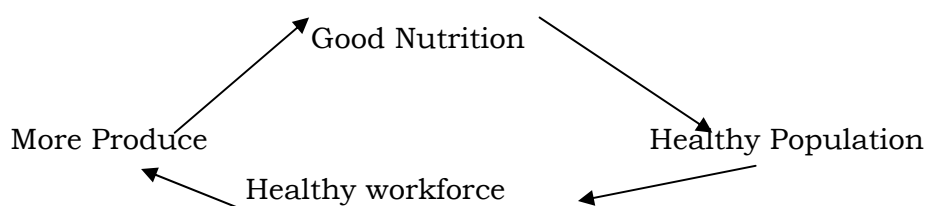


Fig.1. Health and Poverty Cycle

Characteristics of the poor as listed by M. Claeson, C. Griffin et al. (June, 2001) include inadequate service utilisation, unhealthy sanitary and dietary practices which are caused by:

- ❖ lack of income and knowledge;
- ❖ poverty in community – social norms, weak institutions and infrastructure, bad environment;
- ❖ poor health provision – inaccessible, lack key inputs, irrelevant services, low quality;
- ❖ exclusion from health finance system – limited insurance, co-payments.

In summary:

For health interventions to benefit the poor:

- resources must be redistributed; and
- greater focus on PHC.

Currently the three hospitals are providing all the three levels of care (Primary, secondary and tertiary), and this will be so for the time being. However, activities in the hospitals should be clearly identified to indicate what resources are for various levels of care, and ensure that resources adequately target the poor.

3

HUMAN RESOURCES IN HEALTH

The 1994 and the present 2001 Health Policy documents aim at improving the quality of life for all Gambians. In order to attain this standard there must be remarkable improvement in the quality of health care services provided. This is however, to a very large extent, dependent on various variables i.e. adequate and appropriate human resources, supplies, equipment, etc. The public health sector has, over the past 14 years (1987-2001), not been very successful in establishing an extensive network and plentiful supply of health personnel, especially nurses (See table 3.1).

Table 3.1: Human resources in DoSHSW, 1987 -2001

CATEGORY	1987	1997	10 -yr. Increase	2001	4-yr. Increase
Doctors/Dentists	48	124	158%	211	70%
Registered Nurses		340		261	-23%
Enrolled Nurses		248		250	1%
Community Health Nurses		196		144	-27%
Total Nurses	669	784	17%	655	-16%
Public Health Officers	83	79	-5%	122	54%
Technicians	20	43	115%	47	9%

Source: 1987/1997 figures extracted from the 1998 PER. 2001 figures obtained from DOSH DHTS

Note: Technicians includes all categories of technical staff (radiology, pharmaceutical, laboratory, etc.) on grade 5 and above. These however exclude pharmaceutical staff at Headquarters.

3.1 Supply of Health Workers

Nationally the 1994 Health Policy did not set target ratios for the supply of health workers. Overall the ratio of doctors to population is about one per five and a half thousand, and of nurses about one per two thousand persons. For Public Health officers and technicians the ratios are about one per twenty-five thousand population [see Table 3.2]. These overall figures disguise quite large variations in the ratios between divisions. For example, for doctors the ratios range from one doctor per two and a half thousand persons to one doctor per nine thousand persons. While not as great there are similar variations for nurses. However the total figures also include very specialised national services, mainly located at RVH, so the actual figures taking these into account would accentuate the differences; that is, Western Division would actually have a higher population per doctor and nurse, and North Bank a lower ratio than the table reports. In part the differences reflect inherent efficiencies in supply - that is, it is easier to provide large scale services in locations where there

is a high density of population such as the western part of the country. In areas that are relatively more remote and sparsely settled there must be more supply points such as Health Centres if the rural poor are to have adequate access. Upper River Division seems to be under supplied in this regard. Although the most remote area in terms of hospitals, specialised services and private provision, it is also the region with the highest ratios in every class of health worker. It is not the poorest section of the country, nor would it be rational to position some scarce health resources at one extreme of the country, nevertheless a case could be made in the light of the population and remoteness of the area for a greater supply of human resources.

Table 3.2: National health human resources (HHR) ratios 2001

HEALTH DIVISION	Population	DOCTORS			NURSES			PHO'S	TECHNICIANS			
		TOTAL		Ratio/	TOTAL		Ratio/	TOTAL	Ratio/			
		Gam	Exp.	Pop	Gam	Exp.	Pop	Pop	Gam	Exp.	Pop	
Western	803,930	23	86	1/7,376	336	59	1/2,035	29	1/27,722	37	12	1/16,407
NBW	97,469	0	15	1/6,498	49	3	1/1,874	4	1/24,367	0	0	0
LRD	74,349	0	24	1/3,098	46	4	1/1,487	5	1/14,870	1	1	1/37,175
NBE	106,476	0	41	1/2,597	76	10	1/1,238	5	1/21,295	2	1	1/35,492
CRD	185,107	1	47	1/3,856	91	6	1/1,908	11	1/16,828	2	1	1/61,702
URD	209,256	0	23	1/9,098	72	0	1/2,906	7	1/29,894	1	1	1/104,628
Total	1,476,587	260	260	1/5,679	752	752	1/1,964	61	1/24,206	59	59	1/25,027

Source: DOSH Divisional Health Teams and DPI, June 2001
2001 projected population from Information Unit (ESU)

3.2 Doctors

There has been a massive increase in the number of active doctors⁴ since 1987, with a 67 per cent increase between 1997 and 2001. This increase is largely due to the medical co-operation entered into with the Government of Cuba, which has resulted in a large number of Cuban doctors working at every level in the public health system. Consequently the number of doctors in public employment grew by 70 per cent in this period, while private employment rose by 44 per cent [see Figure 3.1].

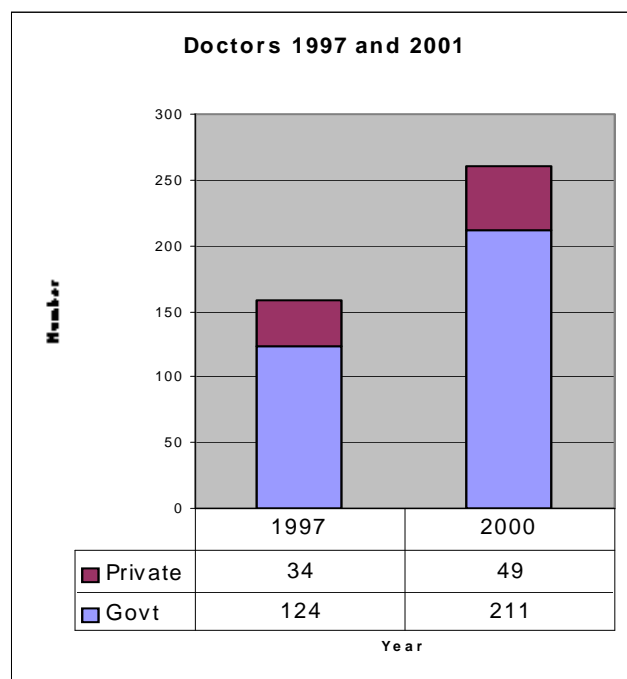
The growth in the number of doctors has been accompanied by strong redistribution away from a concentration of doctors at the government tertiary level in the national capital [about half of all doctors in the country in 1997] to a more even spread between levels and around the country. As a result only one in five doctors is now in the tertiary level in the national capital. Four out of five doctors were in Western Division as recently as 1997 – now only two in five is located in this region. The strongest growth has come in the primary and secondary sectors, which registered a growth of 400 per cent in the last four years [see Table 3.3]. The goal of providing more doctors to the primary and secondary health services is thus being realised, though only by assigning foreign doctors provided through external assistance to such locations and posts. Inherently this solution is not sustainable.

Estimated figures in 1997 indicated a doctor population of 124 working in the public health services (1998 PER). Currently, the public health sector has a total of 211 doctors with 91 (43%) working at the tertiary level (55% of these in RVH). Compared to 1997, the percentage of doctors in the tertiary public sector has decreased by 7% (99 doctors in 1997 to 91 doctors in 2001) including a decrease of one third in RVH. About half of the government doctors work at the secondary level compared to only

⁴ active doctors = doctors actively working full-time in health facilities.

one in five in the 1998 PER. Nearly one in ten public sector doctors work at the primary level in villages.

Figure 3.1: Doctors in the government and private sector, 1997 and 2001



The country is very dependent on technical assistance for both junior and specialised doctors coming mainly from Cuba, Nigeria and Egypt. Currently, there are only 24 Gambian doctors with 18 working in the public sector. This is 8.5% of the total doctor population in the public sector. Though an increase of 157% when compared with 1997 (7 Gambian doctors), this is still not encouraging as the number of expatriates 193 (91%) far exceeds them (See Annexes A – F).

Table 3.3: Doctors by Division and location – percentage change 1997-2000

Division	Government Hospital	Government MHC+ PHC	Private/ NGO	Divisional increase
WD	-33%	100%	6%	-9%
NBW	0%	1300%	N/A	1400%
LRD	0%	1900%	300%	1100%
NBE	N/A	667%	N/A	1267%
CRD	17%	600%	0%	85%
URD	0%	350%	N/A	475%
Total	-7%	400%	44%	67%

It is worth noting that of these 18 Gambian doctors, 17 are in the RVH and only 1 in Bansang Hospital. Overall however, the total doctor population (public, private/NGO) is 260 [see Table 3.2]. 109 (41.9%) of this number work in the Western part of the country. 35 (32.1%) of doctors in the Western Division are in the private sector (See Table 3.4 & Annex A-F).

The national average is one public sector doctor for every 6,998 people, an improvement of 13.6per cent over the figure of 1/8,100 in the previous PER. Currently also, if private practitioners are included the ratio falls to one doctor for every 5679 people

(See Table 3.2). This is again an improvement of about 21.7 per cent when compared to the 1998 PER figure of 1/7260.

Table 3.4: Number of doctors by Division

<i>Division</i>	<i>Government Hospital</i>	<i>Government MHC</i>	<i>Government PHC</i>	<i>Private/ NGO</i>	<i>Total</i>
WD	50	24	0	35	109
NBW	0	10	4	1	15
LRD	0	20	0	4	24
NBE	14	12	11	4	41
CRD	27	21	0	0	48
URD	0	15	3	5	23
Total	91	102	18	49	260

The geographical distribution of both public and private sector doctors however is still uneven (See Table 3.2 and Figure 3.1). URD as opposed to NBW in the 1998 PER had the least doctor/population ratio (1 for every 9080) whilst NBE had the most (1 for every 2597). The growing number of private/NGO facilities and doctors in WD over the years including public sector doctors does not seem to make any difference in the doctor/population ratio. Despite having the largest number of doctors both in the public and private/NGO sectors, WD is fifth on the list on doctor/population ratio, following NBE, LRD, CRD and NBW on first, second, third and fourth positions respectively (See Table 3.2). When doctors in RVH and MRC Fajara are excluded, WD has a ratio of 1 doctor for every 20,614 people. In NBE when doctors at the AFPRC hospital are also excluded, the ratio drops considerably to 1 doctor per 3944 population. Likewise in CRD, exclusion of Bansang hospital doctors indicates a divisional ratio of 1 doctor for every 8815 persons.

The need for a radical solution to decrease the dependency on expatriate doctors cannot therefore be over emphasised. The creation and start of the Medical School of the University of The Gambia is therefore a very timely and welcome development. This will offer some scope for finding a solution to problems caused by the declining proportion of Gambian doctors in the public sector. Currently there are 19 Medical students in their second year with six more years to go. However at this rate it will be the next generation of Gambians who may hope to be treated by a fellow Gambian when they consult a doctor.

The 2000 Health Mapping document established staffing norms and standards of 1 doctor for 50 beds for hospitals with more than 200 beds. If this norm is to be relied upon with the term medical doctor not defined to mean only Physicians, then Royal Victoria Hospital, which has 50 MDs with a bed capacity of 650, has 37 extra MDs (See Annex A). The AFPRC and Bansang Hospitals, which fall under category B (large MaHC/small hospitals) with 156 and 154 beds respectively, equally have 11 and 24 MDs more than required (See Annexes D & E). There are thus 72 more doctors in these facilities than the strict minimum required under the bed provision.

It is very difficult, though not impossible, to tie specific staffing norms or standards to these facilities since they [especially RVH, as a referral hospital] provide very specialised services. As a start the ratio of general doctor services to beds should be established, and then the provision of specialised services should be justified as to existence and level by the hospitals. Each over-establishment doctor located in such a facility is one less that could be provided in a primary or secondary facility and thus providing greater access to the rural poor.

Group A facilities (20 – 40 beds) such as Faji Kunda HC (2 MDs), Brikama HC (9 MDs), Soma HC (15 MDs) and Basse HC (6 MDs) have all met the minimum requirement of MDs as per the 2000 Health Mapping document (See Annexes A - F). Minor HCs, which include Dispensaries, may do without an MD but “*it would be preferable if an MD could serve at this level*” (See Annexes A – F).

3.3 Nurses

Nurses provide the bulk of clinical care at all levels of the public health sector. There are three cadres of nurses: State Registered Nurses (SRN), State Enrolled Nurses (SEN) and Community Health Nurses (CHN). SRN is a professional nursing cadre while SEN and CHN are para-professional nursing cadres. SRNs have the highest academic qualifications, followed by SENs and CHNs respectively. Whilst SRNs and SENs are employed primarily to work in health facilities, CHNs on the other hand work mainly in the communities.

In the past three years (1997-2001) the number of nurses working in the public sector has gone down considerably (see Table 3.1). The percentage decline of SRNs is at 24 per cent i.e. from 340 SRNs in 1997 to 261 in 2001. There has also been a decline of 27 per cent in the number of CHNs from 196 to 144 over the same period. The only professional nursing cadre without a decline in percentage has been the SEN where in fact there has been an increase of one per cent during the three year period under review.

Contrary to the trend observed in the 1998 PER, the general nursing cadres (SRN, SEN and CHN) have registered a decline of 16 per cent. In actual figures the number decreased from 784 Nurses to 655 in three years. This decrease has a very significant impact in the nurse/population ratio thus affecting the quality of health care delivery in public facilities.

Half [or 326 out of 655] of the total number of nurses in the public sector are concentrated in the WD. Out of the 326 Nurses in WD, 210 (64.4 per cent) are employed in RVH. There is also an uneven distribution of public sector nurses in the six health divisions (See table 3.2).

Table 3.5: Geographical distribution of midwives, June 2001

<i>Division</i>	<i>SCM</i>	<i>SEM</i>	<i>CHN/M</i>	<i>TOTAL</i>
Royal Victoria Hospital	39	45	0	84
Western	14	24	20	58
NBW	6	7	4	17
LRD	7	5	5	17
AFPRC General Hospital	1	6	2	9
NBE	3	2	5	10
Bansang Hospital	6	7	2	15
CRD	8	6	5	19
URD	2	8	4	14
TOTAL	86	110	47	243
*West Field Clinic	3	2	0	5
*Ndemban Clinic	6	0	0	6
*Lamtoro Med. Centre	4	0	0	4
*Sibanor H/C	3	2	0	5
TOTAL	16	4	0	20
G/TOTAL	102	114	47	263

Sources: DOSH Divisional Health Teams, June 2001

Note: *Indicates Private/NGO facility

The public sector has a total of 243 midwives. Out of this one third [86] are SRN/Midwives also referred to as State Certified Midwives (SCM), 110 (45 per cent) SEN/Midwives also referred to as State Enrolled Midwives (SEM) and 47 (19 per cent) CHN/Midwives. Three in five [142] of these midwives are employed within the Western Division with RVH alone capturing 84, one third of the overall total of public sector midwives in the country. The majority of midwives in the public sector are SEM followed by SRN/M and CHN/M respectively (see Table 3.5 below).

Overall, there are 263 Midwives in both public and private/NGO sectors. The majority of midwives 243 (92.3 per cent) are within the public sector with 108 (44.4 per cent) working at the tertiary levels (See Table 3.5).

The bulk of nurses in both public and private/NGO facilities are Gambians. Of the 752 nurses in public and private/NGO facilities, 670 (89 per cent) are Gambians. Here again, the majority of the nurses in both sectors are concentrated in WD including Banjul and Kombo St. Mary (see Table 3.2).

The loss of trained human resources (Nurses) from the public sector to private/NGO facilities or overseas could be largely attributed to low income, transfer and posting problems, unfair or lack of promotions, lack of prospects for further training etc.

Table 3.6: Nurse Graduates from the three public Nursing Schools

YEAR	SRN School	SEN School	CHN School	Annual Total
1990	-	19	0	19
1991	21	23	42	86
1992	23	20	0	43
1993	16	22	0	38
1994	16	22	20	58
1995	26	21	0	47
1996	22	42	21	85
1997	23	21	0	44
1998	34	24	21	79
1999	37	21	20	78
2000	38	0	21	59
GRAND TOTAL	256	235	145	636

Source: Data obtained from the SRN, SEN and CHN schools respectively

The yearly supply of new graduates from the three Nursing Schools in Banjul (SRN), Bansang (SEN) and Mansa Konko (CHN) has not been able to improve the nursing population in the facilities over the years. Over the period of 11 years (1990 – 2000), 636 nurses graduated from the three Nursing Schools i.e. an average of 58 nurses annually. An average of 23 SRNs, 21 SENs and 13 CHNs respectively, graduated from the three schools annually (See table 3.6). In addition to the above graduates, the University of The Gambia has commenced a four year BSc Nursing programme. It has a class of 6 (already qualified and experienced SRN) students who are due for graduation around September 2002.

The national average nurse/population ratio is one nurse for every 1,964 people. The geographical ratio is also uneven with NBE in the best position (1/1238) once again. Despite again having the highest concentration of nurses, the nurse/population ratio for WD stands at one nurse for every 2,035 persons (See table 3.2).

Staffing norms established by the 2000 Health Mapping document stipulate three midwives for a Group B facility (110 – 150 beds). If SEN and CHN Midwives are still considered here to be para-professionals, then the situation at the AFPRC Hospital

in Farafenni NBE does not seem to meet these criteria, as it has only one SRN Midwife.

The Registered Nurses requirement of 14 for Group B facilities has been met by the AFPRC and Bansang Hospitals as they have 18 and 20 SRNs respectively. Although AFPRC General Hospital has more than the required number of 26 SENs, Bansang Hospital has five less (See Annexes D & E).

3.3 Public Health Officers (PHO)

This is another critical cadre of health professional staff who are responsible for health promotion and protection including Environmental Sanitation, Food Hygiene, Immunisation and other preventive health services. Out of a total of 122 PHOs, half [61] are directly involved in the routine execution of public health programmes. The remainder are employed in DOSH headquarters in the administration and management of vertical programmes. Of those working in health facilities in the divisions, there are considerable geographical differences. WD has a PHO number of 29 (48 per cent) with a ratio of one PHO per 27,722 population. URD is the least served health division with one PHO for every 29,894 population. Other divisions are equally poorly served (See Table 1.4).

Out of the 61 PHOs engaged in routine public health duties, two are attached and working with the National Laboratory Services, RVH. Currently one is in Nigeria pursuing a degree in Laboratory Technology in preparation for the establishment of the Public Health Laboratory, which is to be constructed under the Health Services Development Project II, financed by the ADB. The establishment of the Public Health Laboratory is in line with the 2001 Health Policy, which aims at strengthening Health Promotion and Protection, most especially in the area of Food Hygiene.

Table 3.7: Evolution in the number of Public Health Officer graduates from The Gambia College School of Public Health

YEAR	1970	1971	1974	1975	1977	1981	1982	1983	1985	1986	1990	1992	1993	1996	2000	Total
No:	10	10	12	18	18	7	4	8	20	19	25	27	26	14	11	239

Source: Data obtained from the School of Public Health

The School of Public Health supplies Public Health Officer employees in the Department of State for Health. Until recently (1999), the school was located in Banjul with a maximum of only two classes at any given time. The school previously (pre-1996) ran a three year local certificate and a Royal Society of Health (RSH)/West Africa Health Examination Board (WAHEB) diploma course in Public/Environmental Health. This has since been changed to a 4-year Higher National Diploma (HND) with its first batch graduating in 2000. The school is now located in a very spacious modern complex at The Gambia College campus in Brikama. The University of The Gambia has, in 2000, also started a 4-year BSc programme in Public/Environmental Health. It currently has a class of eight, two of whom are finishing around September 2002 having previously qualified as PHOs at the School of Public Health. The School of Public Health and University of The Gambia seem to be running the same four year Public/Environmental Health course with different certificates. There is therefore an urgent need for the relevant authorities to look into the issue and regularise the situation.

With an average of 15 PHOs graduating per batch, the public sector is expected to have adequate numbers to handle the demanding public health issues, provided they are motivated enough to stay.

3.4 Technicians

This category of professional staff complements the work of clinical staff by providing laboratory, pharmaceutical and radiology services. During the period 1987 to 1997 there was an increase of public sector technicians from 20 to 43, which is an increase of 115 per cent (1998 PER). From 1997 to 2001 there was a further increase of 9 per cent, i.e., from 43 to 47 technicians.

The public sector has seven out of ten [31] of its technicians concentrated at the main referral hospital in Banjul, RVH. A division like NBW has no technician of this type (See table 3.2). When public and private/NGO technicians are combined, there are 59. Of this total 43 (73 per cent) are Gambians and the remaining 16 expatriates. The total average is one technician for every 25,027 persons (See table 3.2).

Table 3.8: Technicians in the public health sector

Category	Gambian	Expatriate	Total
Pathologist	*1	1	2
Haematologist	-	1	1
Microbiologist	2	-	2
Lab. Technologist	4	7	11
Lab. Technician	6	1	7
Sub total	12	10	22
Pharmacist	1	3	4
Pharmacy Technician	2	0	2
Senior Dispensing Assistant	3	0	3
Subtotal	6	3	9
Radiologist	0	1	1
Radiographer	1	1	2
Radiographic Technician	4	0	4
Subtotal	5	2	7
NATIONAL	23	15	38

Source: Data obtained from the National Laboratory Services, RVH Banjul

Note: *Indicates the only Gambia public sector pathologist who is now DHS

Looking at the Gambian technicians however reveals a very worrying situation. The country as a whole has only two public Pathologists – one Gambian and the other an expatriate, Cuban. Currently the full time service of the only Gambian Pathologist has been greatly reduced since his appointment as the Director of Health Services (DHS). Another worrying situation is that the only Haematologist in the public sector is an expatriate. The public sector also has two Microbiologists (both Gambians) working with the RVH (See Table 3.8).

3.5 Divisional Health Teams (DHT)

In order to further promote and ensure an effective and efficient public health sector, the Department of State for Health in 1992 divided the country into 6 health divisions managed by Divisional Health Teams. Each health division was provided with core team of staff with limited authority for decision-making and control over resources.

All DHTs have the required core members of staff [see Table 3.9], except for CRD and URD, who have the DHO positions being acted upon. In CRD and URD, the DPHO and DPHN respectively have been acting in the DHO positions for several months now. This is an indication that the said DHTs are under-staffed and the officers over stretched with more responsibilities.

Table 3.9: Staffing pattern of Divisional Health Teams, June 2001

<i>Division</i>	<i>DHO</i>	<i>DPHO</i>	<i>DPHN</i>	<i>DHA</i>	<i>SCHNT</i>	<i>DRF Accountant</i>	<i>Pharmacy Technician</i>
WD	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NBW	Yes	Yes	Yes	Yes	Yes		
LRD	Yes	Yes	Yes	Yes	Yes	Yes	Yes
NBE	Yes	Yes	Yes	Yes	Yes		
CRD	*No	Yes	Yes	Yes	Yes	Yes	Yes
URD	*No	Yes	Yes	Yes	Yes		

Source: DoSH Divisional Health Teams

Note: *Shows positions being acted upon by one member of staff among the core team

The positions of DRF Accountant and Pharmacy Technician are still not divisionalised. These categories still operate under the former regional system of Western, Central and Eastern Regions. All efforts must be made to ensure that all positions at DHTs are occupied in the shortest possible time to avoid officers “wearing two caps” as it were. The national DRF office and Central Medical Stores should endeavour to create and ensure representation at all DHTs in line with the spirit of the decentralisation process.

3.6 Central Level Staff

The Central level of the Department of State for Health (DoSH) comprises the Office of the Secretary of State (SoS) at the Quadrangle and the Medical and Health Headquarters in Banjul. The office of the SoS is the highest decision making body in DoSH responsible mainly for administrative and policy issues. There are a series of other functions and services that are co-ordinated by the different vertical programmes and units at Medical and Health headquarters. At the office of the SoS, there are about ten personnel at the decision making level. Among these are two MDs as Director and Deputy Director of Health Services. The DHS is the only public service Gambian pathologist, referred to earlier in the technician section (See table 3.8).

The Directorate of Planning and Information apart from its seven professional staff in post has recently received two ADB/WHO Technical Assistance (Experts) in the fields of Health Planning and Health Research. Another Technical Assistant in Human Resource Development is expected soon.

Although most of the units seem to be under staffed, it is even more evident with the CDD, ARI, NACP, Lep./TB and IST units (see Annex G). With one to three technical staff running each vertical programme, perhaps it would make more sense to merge some where necessary and feasible. The IMCI strategy (provided it is appropriately implemented) could not have come at a better time when both human and material resources are very difficult to acquire.

3.7 Community Health Workers (CHW)

These are composed of Village Health Workers (VHW) and Traditional Birth Attendants (TBA). They are selected by the community’s Village Development Committee (VDC) and trained by the Divisional Health Teams (DHT) to provide health services to the community. They are not government employees and are supposed to be supported by the VDC. The TBA attends to pregnant women and conducts normal deliveries while the VHW attends to minor ailments and promotes public health activities.

Both officially trained and recognised, VHWs and TBAs are stationed in Primary Health Care (PHC) villages where they are occasionally supervised by the CHN from the Key Village of that area.

Table 3.10: Distribution of CHWs and Village Health Services (VHS), June 2001

<i>Category</i>	<i>Western</i>	<i>NBW</i>	<i>LRD</i>	<i>NBE</i>	<i>CRD</i>	<i>URD</i>	<i>TOTAL</i>
VHW	124	58	55	44	80	51	412
TBA	147	66	75	88	76	104	556
PHC Village	127	64	64	43	89	60	447
Key Village	15	9	8	9	16	12	69

Source: DoSH Divisional Health Teams

CRD is the only division with less TBAs than the number of PHC villages it has. With 89 PHC villages, CRD has only 76 TBAs. Other divisions have between two and 45 more TBAs than PHC villages. Some DHTs have been training TBAs in non-PHC villages (See Table 3.10). Except for NBE, which has one VHW more than the number of PHC villages, all other divisions have a short fall of between three and nine VHWs (See Table 3.10).

3.9 Policy Goals and The Allocation of Resources

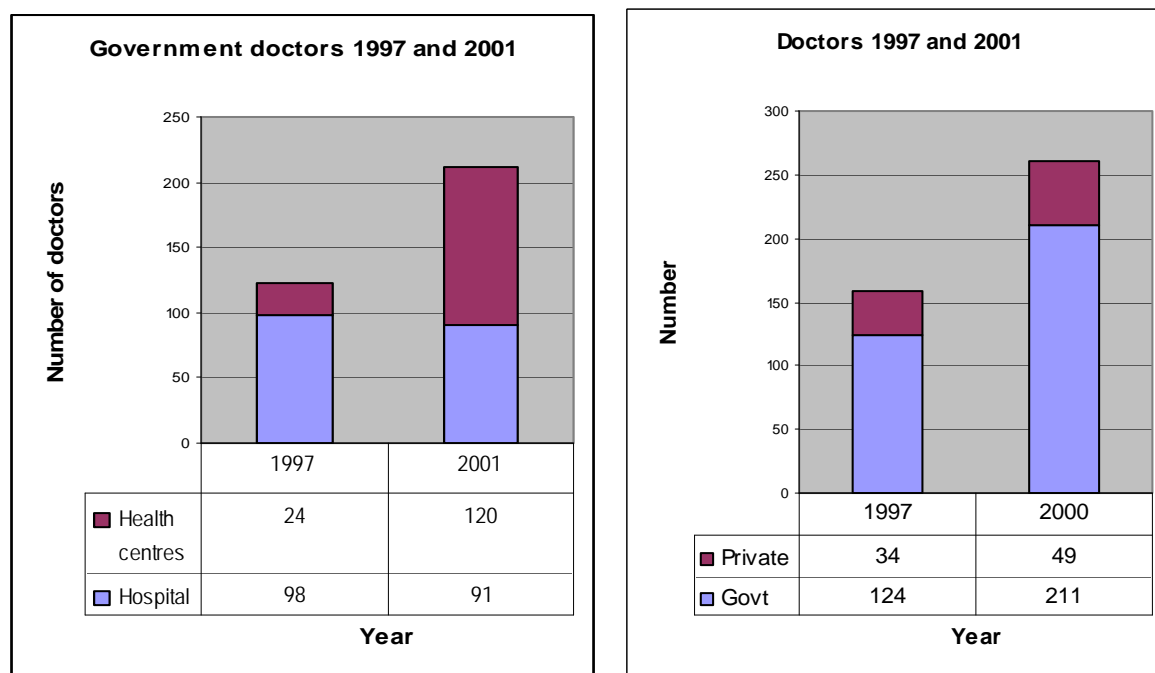
The Health Policy 1994-2000 endorsed the principles underlying Primary Health Care as the means of attaining the major goals of the policy to reduce infant and maternal mortality rates and ensure significant improvements in health services delivery. These principles of delivery through primary levels, with a network of secondary health centres supported by tertiary referral services feature prominently in the strategies of the policy [see Chapter 2]. With this strong endorsement, reinforced by the stated intention to strengthen this PHC delivery system through the provision of Basic Health Services [BHS] using Bamako Initiative principles and delivered through a network of BHS facilities, it could be anticipated that there would be re-allocation of resources towards the primary level and away from the tertiary level with complementary strengthening of the secondary facilities.

3.9.1 Allocation of personnel resources

The location of health delivery personnel, especially doctors and nurses, is important to the success of the policy initiatives being pursued. There are two aspects of this that are important: the intended location of staff expressed in the establishment [which governs the budget allocation] and the actual location of staff, which reflects the availability of appropriate personnel.

Location of doctors

Nearly half of the doctors in post in the country are located in government primary and secondary health facilities. This represents a major change in favour of these locations since 1997 when only one in six doctors was located in these facilities. In 1997 nearly half of the doctors in Gambia were in RVH, now only one in five is so located. It is still the case that URD has less doctors than could be expected on a population basis; with 14 per cent of the population it has nine percent of the doctors, though this is an improvement on the three per cent present in 1997.



Relocating doctors has not brought about this change in distribution. Apart from RVH each category and division has more in absolute terms than were present in 1997. What has happened is that a large number of expatriate medical officers have arrived and been posted in health centres and other facilities across the country. However the distribution has not completely matched the population based on demand [see Table 3.11].

Table 3.11: Distribution of doctors by Division and facility 2001 [pct]

<i>Division</i>	<i>Govt Hospital</i>	<i>Govt MHC</i>	<i>PHC</i>	<i>Private/ NGO</i>	<i>All facils.</i>	<i>Pop. est. 1999</i>
WD	19	9	0	13	42	53
NBW	0	4	2	0	6	7
LRD	0	8	0	2	9	5
NBE	5	5	4	2	16	7
CRD	10	8	0	0	18	13
URD	0	6	1	2	9	14
Gambia	35	39	7	19	100	100
Number	91	102	18	49	260	1.3 m

The situation in regard to established posts is somewhat different. The overwhelming majority of established positions for doctors are located in hospitals. This proportion has been increasing steadily throughout the period from 83 per cent in 1997 to 93 per cent in the current year. There are only six established posts for doctors in the government primary and secondary health facilities although there are currently 120

doctors serving in these locations⁵. On the other hand there are 91 doctors in hospitals for the 112 established posts⁶.

Table 3.12: Established posts for doctors in selected facilities 1996-2001 [percentage of all established posts]

	1996	1997	1998	1999	2000	2001
Dispensaries	0	0	0	0	0	0
Health Centres	6	5	4	4	4	5
Hospitals	83	85	87	94	94	93
Number of est. posts	70	81	99	95	95	121

Thus the distribution of established posts for doctors highly favours the hospitals, which have increased their established posts for doctors by nearly half in the period 1996-2001. However the actual allocation of available qualified persons has attempted to address the imbalances, and to facilitate the stated policies, albeit in a non-sustainable fashion. It will be important, with doctors and other scarce and highly trained personnel, to develop a rational staffing and training policy which addresses the long term permanent needs of the PHC-driven policies to place staff where access favours those who cannot afford to pay for private care, and where private providers are unlikely to set up facilities.

Location of nurses

The great majority of nurses in The Gambia are located in the public health sector; only 13 per cent of nurses work in private or NGO facilities. About half of the government sector nurses work for primary and secondary facilities⁷. This represents a fall in the proportion in these facilities since 1997 when three in five nurses worked in such facilities.

Table 3.13: Distribution of nurses by Division and facility 2001

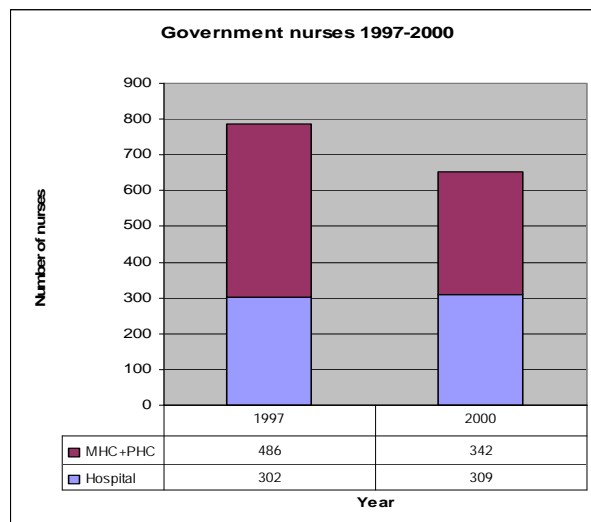
<i>Division</i>	<i>Govt Hospital</i>	<i>Govt MHC</i>	<i>PHC</i>	<i>Private/ NGO</i>	<i>Total</i>
WD	210	116	0	69	395
NBW	0	45	0	7	52
LRD	0	46	0	4	50
NBE	55	27	2	4	88
CRD	44	47	0	6	97
URD	0	61	3	8	72
Total	309	342	5	98	754

⁵ As the salary and other costs of the expatriate doctors are paid through external grants the Department has not sought to establish the positions and provide salaries. It does represent a tacit admission that it is unlikely that they could be filled by local recruitment in the foreseeable future.

⁶ In part this is due to the creation of positions at the new hospital in Bwiam in the 2001 establishment. This facility is not yet open and the posts are therefore unfilled.

⁷ A number of nurses or nurse positions in the tertiary institutions actually deliver primary or secondary services through polyclinics or accident/emergency services, or through the provision by hospitals of secondary services

Not only has there been a change in the relative distribution of nurses in the levels of health service delivery, there has been a serious decline in the number of nurses available in the sector. Overall there are 17 per cent less nurses than there were in 1997. The decline in numbers is much more serious in the primary and secondary facilities than in the hospitals overall, though the establishment of a new hospital disguises the fall in the number of nurses in the existing hospitals.



Apart from the hospital in Farafenni [created since 1997] every category and region has suffered declines in the number of nurses. The most serious declines are in the more remote divisions – CRD and URD, where the number of nurses has nearly halved in the period. The percentage of total government sector nurses in CRD has fallen from eleven to six, and in URD from fifteen to eight. It must be remembered that these are net changes; that is they represent the loss of nurses after graduates from the three schools of nursing have entered the service. Since 1997, 260 persons have graduated from the schools. If it is assumed that all of these entered government service then the gross loss of nurses in this period was 392 persons or nearly 100 nurses per year – this represents an attrition rate approaching 15 per cent per year, and suggests an average working life in government service of about six years.

Table 3.14: Percentage change in number of nurses 1997-2001 [Pctges]

<i>Division</i>	<i>Govt Hospi- tal</i>	<i>Govt MHC + PHC</i>	<i>Total</i>
WD	-11	-16	-13
NBW	0	-8	-8
LRD	0	-25	-25
NBE	N/A	-15	147
CRD	-32	-47	-41
URD	0	-44	-44
Total	2	-29	-17

Whatever the policy, the consequences of these staff changes are that in both relative and absolute terms the major focus for delivery of health services, the primary and secondary facilities, are much worse off than they were. While the hospital sub sec-

tor has been stable in terms of numbers overall, both RVH and Bansang hospitals have also had net losses in terms of qualified nurses. The number of nurses in the primary and secondary services in 2001 represents the number in 1997 less attrition [resignation, death, promotion to non-nursing positions, study leave, etc] plus new graduates posted to these facilities, plus transfers to and less transfers from the hospital sub sector. The result of all these movements is negative – that is the number is declining in absolute terms. This seems an urgent area for DoSH to investigate and to consider policy changes in the terms and conditions of nursing staff.

Table 3.15: Established posts for nurses in selected facilities 1996-2001 [percentage of all established posts]

	1996	1997	1998	1999	2000	2001
Dispensaries	15	15	14	18	17	16
Health Centres	36	37	31	37	41	42
Hospitals	45	44	52	42	39	39
Number of est. posts	808	820	923	1,079	1,207	1,373

Note: These do not sum to 100 per cent because of nurses in central and special programmes

The number of established positions for nurses at the primary level has increased by 45 per cent since 1996, and the rise in established nurse positions in health centres has risen by 50 per cent. The growth in hospital positions has been much slower at 32 per cent even allowing for the new hospitals at Farafenni and Bwiam, which are both in the 2001 establishment. This means that while slow the trend in establishing new nursing positions is in the right direction to support the policy of delivery of services through PHC.

Table 3.16: Nurses and posts 2001

	Nurses	Posts	Pctge
Prim and sec facilities	347	802	43
Hospitals	309	532	58
All facilities	656	1334	49

However the creation of new positions is not a solution to the shortage of qualified staff to fill those positions. Unless the appropriately trained staff are available the posts will remain unfilled or be de facto filled by persons who do not have the capacity to properly discharge the duties. It is clear that the hospitals, while still understaffed, are more successful in attracting and retaining nurses. They have 58 per cent of their established posts filled while the other government facilities have only 43 per cent filled. It would be useful to see what the underlying causes for the difference are, though it is likely to be a combination of higher take home pay through allowances, better working conditions, and location.

4

HEALTH STATUS

4.1 Introduction

Health status is dependant on a number of factors, such as the level of socio-economic development, nutritional status, environment and sanitation and the responsiveness of the health sector in controlling, preventing and treating major causes of morbidity and mortality.

Information used to assess the health status of the population is based on census data, sample surveys and routine statistics from the Epidemiology and Statistics Unit and other programme units within DoSH. A number of national surveys have been undertaken to assess the health status of the population, e.g., the Contraceptive Prevalence and Fertility Determinant Survey and the Maternal Mortality Survey, both carried out in 1990. Health service activity data is collected and compiled routinely.

As women and children are the most vulnerable groups in the population policies of DoSH over the years have emphasized on the reduction of infant and childhood morbidity and mortality and maternal mortality. Special programme units, e.g., Expanded Programme on Immunization, Maternal and Child Health, Malaria Control, Control of Diarrhoeal Diseases, and Acute Respiratory Infections Units, have been established in this endeavour. The health action plans and health projects have supported policy pronouncements. The 1980 PHC Action Plan, the National Health Development Project, the Bamako Initiative, The Gambian-German Family planning Project and recently the Participatory Health Population & Nutrition Project, among other projects and initiatives have contributed or are contributing to these significant improvements.

4.2 Demographic and Health Indicators

Total Population (1993 Census):	1,038,145
Annual Growth Rate:	4.2%
2000 Projected Population:	1,384,625
Infants (0 – 11 months):	3%
Children Under 5:	16%
Population Under 15:	44%
Females 15 to 49 years:	23%

The Gambia's population pyramid is typical of a developing country's, very high percentage of young persons and little elderly population. The 1993 Census estimated population growth at a very high rate of 4.2 per cent per annum though this has been subsequently revised downwards to approximately 3.5 per cent; the projected 2000 population is nearly 1.4 million. Nearly three percent of the population are under one and 13 percent one to four years of age. Nearly half of the population are under 15 years whilst only about one in fifteen are aged 55 years and above.

Significant improvements have been made in the health status of The Gambian population in the past. Census results indicate that infant mortality was reduced by 23 percent between 1973 and 1983 (from 217/1000 to 167/1000), and by 49 per cent between 1983 and 1993 (from 167/1000 to 85/1000). Under five mortality fell by 19 per cent between 1973 and 1983 (from 320/1000 to 260/1000), and by 47 percent between 1983 and 1993 (from 260/1000 to 137/1000). Life expectancy at birth rose from 33 years in 1973 to 53 in 1993. These census-based mortality and life expectancy trends are expected to continue when the next national census is conducted in 2003.

Estimates have been made from a number of large-scale national surveys. Currently the most recent estimates are that the infant and child mortality has continued to fall by a further 25 per cent and 40 per cent respectively. Infant and under five mortality are 64/1000 and 82/1000, respectively and life expectancy for males 56.0 and females 58.9 years.

Health outcomes in The Gambia compare favourably with neighbouring countries (see Table 4.1), especially after differences in GNP per capita are taken into account. Infant and under five year mortality rates are the lowest in the sub-region after Senegal which has a per capita income twice that of The Gambia. The death rates for infants, children and pregnant women are still high when compared with other parts of Africa.

Table 4.1: Sub-regional comparisons of vital indicators

Country	Population (million) 1999	Total per cent GDP 1990-1998	Under 5 MR (per 1000)	IMR (per 1000)	HIV Prev.	Life exp. (years)	MMR (per 100,000)
The Gambia	1.2	3.7	110	75	1.95	53	N/A
Burkina Faso	11.6	3.9	210	105	6.44	45	N/A
Benin	5.9	3.2	145	87	2.45	53	500
Ghana	19.7	4.7	109	57	3.6	58	210
Mauritania	2.6	4.8	142	88	0.52	54	550
Nigeria	108.9	2.8	151	83	5.06	47	N/A
Cote d'Ivoire	14.5	3.8	180	111	10.76	46	600
Togo	4.5	2.6	143	77	5.98	49	480
Guinea Bissau	1.2	2.2	235	139	2.6	44	910
Guinea Conakry	7.4	3.6	167	96	1.54	46	1000
Mali	10.9	4.2	223	120	2.03	43	1200
Sierra Leone	4.7	5.5	283	168	2.99	37	1800
Senegal	9.2	4.5	124	67	1.77	52	600
Africa	596.1	4.3	161	92	8.38	47	700

Sources: UNICEF: State of the World's Children Report 2000 and World Bank: World Development Report 2001

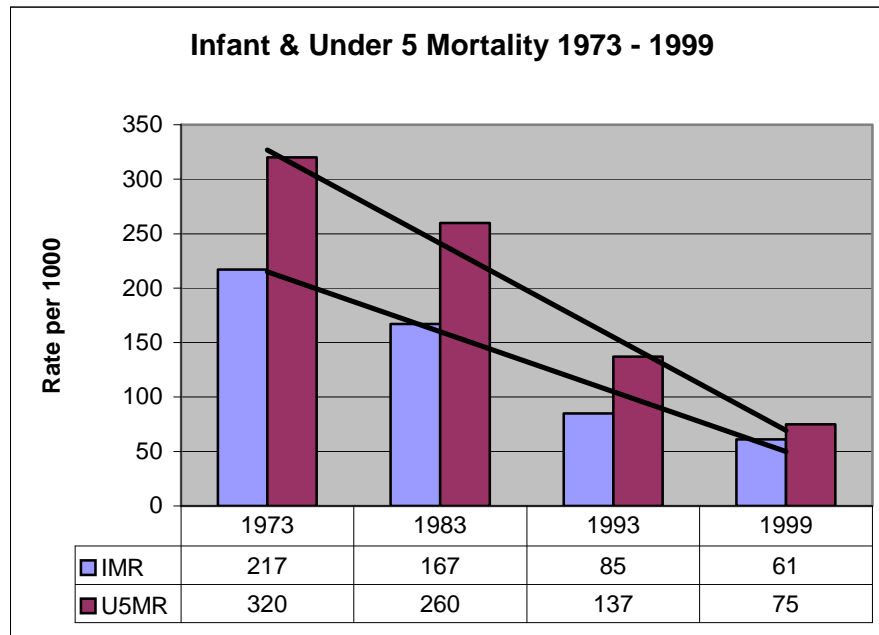
These impressive achievements can be attributed to the policies adopted by the Government of The Gambia during the past fifteen years. Economic adjustments policies, rising educational levels, reform in health policy resulting to expanded health service, better health intervention measures, clean water and sanitation have contributed to the improved health outcomes.

Table 4.2: Demographic and Health Indicators 1973-2000

	1973	1983	1993	Latest
Population size	493,499	687,817	1,038,145	1,384,145 (2000)
Annual growth rate (%)	3.4%	3.4%	4.2%	3.5%
Urban Population (%)	15%	18%	26%	
Life expectancy: Total	33	42	53	58 (1999)
Male	32	40	52	56 (1999)
Female	35	44	54	59 (1999)
Total fertility rate	6.1	6.4	6.1	5.1 (1999)
Crude birth rate (per 1,000 population)	49	51	46	N/A
Crude death rate (per 1,000 population)	30	21.2	19	N/A
Infant mortality rate (per 1,000 live births)	217	167	137	61 (1999)
Under 5 mortality rate (per 1,000)	320	260	137	75 (1999)
Population access to safe water (%)	N/A*	23%	50%	
Adult literacy	N/A	23%	37%	

Source: National Census 1973, 1983 and 1993; Latest figures are based on UNICEF estimates

The National Household Survey on Health and Education conducted in 1993 provided information on the extent of the disease burden on Gambians. Approximately 15 per cent of individuals in the selected households reported having suffered from an illness or injury in the preceding two weeks. Reported illnesses and injuries were similar for all income categories, although, there were marked divisional variations. For example, the lowest income quintile in URD reported twice the national average rates of illness. Conversely, the top quintile in Banjul and Kanifing Municipality also reported a higher incidence of injury or illness than the national average.



A reduction in maternal mortality was one of the main goals of the 1994 health policy. However no regular collection of national statistics has been collated and no reliable national sample survey has been collected since 1990, which suggests great need to improve on the monitoring of stated policy goals and objectives. The maternal mortality ratio of 10.5/1000 collected through the national survey in 1990 is thus still the only available national data. The MCH/FP Unit of DoSH plans to con-

duct a maternal mortality study this year. Findings of this study will indicate the current status of maternal mortality in the population.

According to the CRS/GAFNA/DoSH 2000 Anthropometric Survey nine percent of the under five were stunted, ten percent wasted and sixteen percent underweight. Using the WHO relative classification of these three anthropometric indices the prevalence of stunting is low, wasting is high and underweight is medium.

The latest survey data suggests a total fertility rate of 5.1. This high rate influences the high annual population growth rate, which translates into an increased population size and population density. The 1998 Poverty Survey showed a high association between poverty and total fertility, ranging from 3.9 for women in non-poor monogamous relationships to 6.8 for extremely poor women in polygamous relationships. For each category of poverty total fertility was higher for women in polygamous relationships than in monogamous.

There are considerable variations in health status between urban and rural areas and between the administrative divisions. The eastern half of the country, specifically LRD, CRD and URD, has poorer indicators than the western half, including NBD

Table 4.3 Incidence Rates (per 1000) of Major Leading Outpatient Conditions, 1996-1999

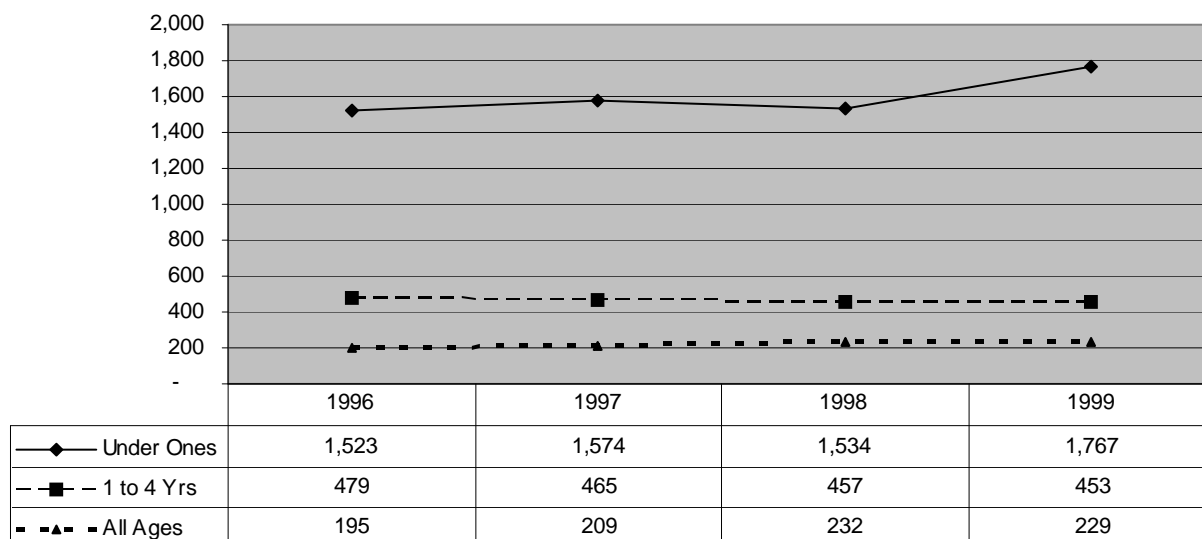
Infants (Children Under 1 Year)								
Diagnosis	1996		1997		1998		1999	
	Number	Incidence	Number	Incidence	Number	Incidence	Number	Incidence
Malaria	49,357	1,523	53,183	1,574	53,987	1,534	64,819	1,767
Upper Respiratory Tract	32,568	1,005	33,258	985	33,987	966	34,981	954
Skin Disorders	19,867	613	19,998	592	20,968	596	29,232	797
Diarrhoea	16,897	521	17,998	533	18,967	539	19,237	525
Fever	13,679	422	14,869	440	18,811	534	19,561	533
Eye conditions	6,356	196	7,368	218	7,469	212	7,598	207
Abdominal pains	5,615	173	5,699	169	6,268	178	6,322	172
Ear, Nose and Throat	4,681	144	5,236	155	5,299	151	5,312	145
Children 1-4 Years								
Malaria	90,537	479	91,654	465	93,675	457	96,897	453
Upper Respiratory Tract	81,345	430	82,345	418	82,987	404	84,110	393
Skin Disorders	65,789	348	65,987	335	76,789	374	81,879	383
Diarrhoea	48,197	255	48,799	248	49,768	243	51,797	242
Fever	17,897	95	18,111	92	18,498	90	18,997	89
Eye conditions	8,765	46	8,897	45	8,987	44	9,918	46
Abdominal pains	6,896	36	6,911	35	7,169	35	7,388	35
Ear, Nose and Throat	5,389	29	5,426	28	5,498	27	6,244	29

All Ages								
Malaria	229,049	195	255,542		296,226	232	303,981	229
Upper Respiratory Tract	152,451	130	168,163	137	178,383	140	211,034	159
Skin Disorders	85,802	73	86,566	71	72,929	57	82,024	62
Diarrhoea	79,159	67	77,879	64	75,355	59	75,827	57
Fever	68,547	58	69,073	56	72,019	56	75,564	57
Eye conditions	30,408	26	32,475	27	32,792	26	37,094	28
Abdominal pains	27,522	23	27,935	23	28,296	22	29,575	22
Ear, Nose and Throat	21,550	18	27,709	23	28,277	22	32,843	25

Source: DoSH Epidemiology and Statistics Unit

The most frequently seen conditions in the health facilities are infectious diseases [Table 4.3]. These are the disease conditions that befall poor developing countries like The Gambia. Infants are as the worst affected, followed by children aged one to four years. DoSH policies in reducing infant and child mortality are therefore in line with the morbidity pattern seen in health facilities. The incidence of malaria seems to be fairly stable over the 1996 to 1999 period although a significant increase has been recorded among infants in 1999, see Figure 3.3.1 below. Incidences of all the other major conditions also seem to be stable with no significant increases or downward spirals. With an annual growth rate of 4.2 per cent and a budgetary allocation below the WHO recommended per capita on health (US\$12.0), DoSH has still been able to keep the lid on these incidences. The incidence data on Table 4.3 confirms the fact that infants are the most vulnerable and most hit by morbidity conditions.

Fig 3.3.1: Incidence of Malaria Per Thousand Population, by Age Group, 1996 to 1999



4.3 Mortality and Morbidity

During the past decade there has been a dramatic decline in mortality rates in The Gambia. The extent of success has varied significantly between the urban and the rural area. The people most affected by ill health and premature death are pregnant

women and young children. The main causes of death and illness in The Gambia are infectious parasitic diseases, maternal and neonatal causes.

4.3.1 Infant and Under-five Mortality:

As noted above there have been significant declines in both infant and child mortality. The decline in IMR is similar to a decrease in rate of the probability of a child dying before his or her fifth birthday from 28 per cent to 16. Improvements in IMR and U5MR can be attributed to the government's effort to expand the health services to the entire population and especially to the very high coverage of the EPI programme.

Nevertheless, The Gambian child's probability of survival depends upon where within the country he or she is born. The 1993 census estimates of IMR range from 67 in Banjul to 108 in Mansa Konko and 107 in Janjanbura, while the IMR national average was 85 (Table 4.4). Childhood mortality was around 30 percent higher in the rural areas (94/1000 live births) than the urban areas (28/1000 live births). Similarly the under five mortality was 50 percent higher in the rural areas (198/1000) than in the urban areas (114/1000). Geographically, infant and U5M were higher (117/1000 and 224/1000 respectively) in the eastern part of the country than in the western part (52/1000 and 138/1000 respectively). The high infant and under five mortality rate in rural areas can be attributed to infectious diseases, notably malaria, diarrhoea, Acute Respiratory Infections and malnutrition. Other contributing factors are high levels of female illiteracy and difficulties with communication between Village Health Services (VHS) and Basic Health Services (BHS). The ability to bring together other sector interventions (e.g. clean water and sanitation, improvements in agricultural productivity) would produce a significant impact on rural health outcomes.

Table 4.4: Divisional Disparities⁸ in Health Indicators, 1993

Administrative Division	Banjul	Western Kanifing	Western Brikama	LRD M'Konko	NBD Kerewan	CRD Kuntaur	CRD Jan'Bureh	URD Basse	Gambia
Population 1993 (1)	42,326	228,214	234,917	65,146	156,462	67,774	88,247	155,059	1,038,145
Annual Pop. Growth Rate (per cent) (1)	10.4	8.4	5.5	1.7	3.4	1.6	2.6	3.4	4.2
Life expectancy (2)	57.6	54	50.5	44.7	48.3	46.7	45.7	44.8	52
Per capita income (2)	7,106	5,150	2,346		2,097	1,950	2,070	1,817	2,989
Infant Mortality Rate (2)	67	71	90	108	92	92	107	103	92
Crude Birth Rate (per 1,000) (1)	44	47	47	50	52	56	51	56	51
Total Fertility Rate (per 1,000) (1)	4.65	4.72	5.88	7.01	6.84	7.34	6.52	6.56	6.04
Probability of child dying before age 2 years per 1,000 (1)	114	150	172	239	197	226	221	256	202

Sources: Population Census 1993, Secretariat of the National Population Commission; UNDP Human Development Report 1997. All data are for 1993 except income data, which is for 1992.

Neonatal deaths account for about 60 per cent of infant deaths (UNICEF, 1997) and while most deaths occur outside of a health facility, various indicative studies sug-

⁸The DoSH is organised into geographical divisions, which differ from the administrative divisions of the government. This is discussed in section 3.

gest that sepsis, low birth weight, birth asphyxia and neonatal tetanus are significant causes of death.

4.3.2 Maternal Mortality:

Data from the 1983 population census suggested that the maternal mortality rate was 30 per 1,000. By 1990, when a National Maternal Mortality Survey was conducted, the MMR appeared to have declined by 35 per cent to 10.5 per 1,000. When available, more recent data on MMR should help in refining the analysis. However, in 1990, MMR in The Gambia was one of the highest in the sub-region. Despite relatively high levels of contact with health services at primary and secondary level (see section 5.), maternal mortality rates remain very high, twice the level of neighbouring Senegal (Maternal Mortality Survey 1990). The principal causes of maternal mortality are eclampsia (18 per cent), sepsis (12 per cent), ante-partum haemorrhage (10 per cent), and post-partum haemorrhage (10 per cent). Some of the causes of death are preventable by giving adequate attention to prompt identification, referral and treatment of obstetric complications. Other measures to reduce MMR include risk screening and the provision of adequate and appropriate manpower, equipment, and support services to secondary levels of health care.

Significant differences were documented in the MMR in the 1990 survey between rural and urban areas and the divisions (see Table 1.4.). Rural areas had nearly twice the levels of MMR as the urban areas. It would also be observed that MMR is much higher in the northern part of the country where it is difficult to access good antenatal care and specialized health facilities coupled with poor infrastructure and communication facilities. Furthermore, PHC villages, having better access to care, had far lower levels of MMR than non-PHC villages. Again, Government's efforts to expand the health services to the entire population appear to have played a large role in improving women's health status.

Table 4.5: Maternal Mortality Rates, 1990

<i>Location</i>		<i>Maternal deaths per 1,000 live births</i>
<i>Rural/urban</i>	National	10.5
	Urban (Banjul & Kombo)	6.0
	Rural	11.7
<i>Region</i>	Western Region	10.8
	Central Region	8.2
	Eastern Region	13.4
<i>Access to health care</i>	PHC villages	8.9
	Non-PHC villages	16.0

Source: Maternal Mortality Study, 1990

4.3.3 Causes of Mortality

No national reporting system for deaths is in operation in The Gambia. Some information on causes of death may be obtained from the routine health information system returns, which provide information on causes of deaths within health facilities. Unfortunately the only recently collated information on causes of mortality in The Gambia currently available is from The Royal Victoria Hospital (Table 1.5.).

Table 4.6: Ten Leading causes of deaths in Children's Ward Royal Victoria Hospital, 1993 and 1995

Causes of Death	1993	Causes of death	1995	Causes of death	1999
	per cent		per cent		per cent
Cerebral Malaria	21	Malaria	37		
Severe Malaria	13	Pre-Mature & Pre Term	9		
Pneumonia (ARI)	9	Birth Asphyxia	8		
Malnutrition	9	Septicaemia & Sepsis	8		
Anaemia	8	Upper Respiratory Tract Infection	7		
Neonatal sepsis	7	Pneumonia	6		
Premature birth	6	Diarrhoea	6		
Gastro-enteritis	5	Neonatal sepsis	6		
Septicaemia	3	Anaemia	4		
Meningitis	3	Neo-Natal tetanus	3		

Source: Annual Report, Royal Victoria Hospital, 1993 and 1999

Malaria is endemic in The Gambia with a marked seasonal variation, most cases occurring in the rainy season (July-October). It is the leading cause of morbidity and mortality, and is estimated to account for four percent of deaths in infants and a quarter of deaths in children aged five years and under. In 1995 the mortality rate for malaria was estimated to be 6.3 / 1,000 for infants and 10.7/1,000 for 1 - 4 year old children. Around 1,000 children die from the direct effects of malaria every year while the disease contributes indirectly to many more.

It is estimated that over 20 percent of all attendance at Government health facilities are as a result of malaria. Malaria also accounted for a large proportion of paediatric admissions. During the period 1993-95, 39 percent of paediatric admissions in RVH were related to malaria. Most of these admissions to hospitals were due to cerebral malaria, which had a mortality rate of 18 percent.

The pattern of malaria varies substantially between rural and urban areas. Evidence of past and current malaria infection averages around 40 - 50 per cent in under ten-year-old rural children as opposed to only around ten percent in urban and peri-urban areas. The South Bank show higher rates than the North Bank. Chloroquine resistant forms of malaria are an increasing problem, estimated as 30-40 percent of cases in Western Region, but lower (7-10 per cent) in other parts of the country.

Two surveys have estimated the incidence of diarrhoea in children under five years in the community: the Household Education & Health Survey (HEHS) conducted in 1993 and the Multiple Indicator Cluster Survey (MICS), a joint Government of The Gambia and UNICEF study, in 2000. The HEHS survey reported a rate of 24 per cent and the MICS study 22 per cent. The apparent reduction is likely to be a result of seasonal variations and definitional differences than a true reduction.

A major contributing factor in the incidence of diarrhoea is the availability of safe water supplies. Data from the 2000 MICS survey documented that overall 84 per cent of households reported using a safe drinking water source. As expected, however, there were regional variations with Western Division, excluding Banjul, having the worst access (49 per cent), while Banjul had a much higher proportion.

No national estimate of the incidence of ARI is available although a number of localized surveys indicate the extent of the problem. MRC studies of infant mortality over a seven year period around Farafenni in NBD found that 14 per cent of under five years infant mortality was caused by ARI. Amongst children in the first month of life,

ARI was the cause of 19 per cent of mortality. A survey of rural community morbidity in URD in 1988 found that 35 per cent of under five's had suffered from an acute lower respiratory tract infection in the previous year (both data from ARI Programme Action Plan)

Hospital statistics prior to the introduction of the ARI Programme indicated that ARI was the second most common (after malaria) reason for attendance at a health facility and in 1993 ARI was the third most common diagnosis for children admitted to RVH with over 9 per cent of admissions (RVH Annual Report). According to routine reported statistics, for the period 1990 - 1996, an average of 73,000 cases of upper and lower respiratory tract infection were diagnosed each year in government outpatient departments and 72,600 in MCH clinics

4.4 Special Programmes

As well as the health care pyramid of primary, secondary and tertiary health services, there are a set of vertical special programmes, which focus on both preventative and curative aspects of particular diseases or conditions. These have specialist staff in headquarters that have responsibilities to train and sensitise staff at all levels in disease and case management. One major focus has to do with family health in pursuit of the major thrust of the health policy. The other focuses on a number of specific diseases and conditions judged to be serious threats to the health status of The Gambia.

Family Health Programmes

The main focus of the family health is on reproductive health, which is a generic term that includes HIV/AIDS, sexually transmitted infections [STIs], maternal and child health [MCH], contraceptive use and female genital mutilation (FGM). The aim of programme is to improve maternal health, reduce incidence of teenage pregnancy, STIs and infertility among couples.

4.4.1.1 Maternal and Child Health, and Family Planning

The MCH/FP programme provides a number of services to mothers and children through a schedule of routine clinics held at community and health facility level. The MCH teams deliver the EPI, Nutrition and ARI programmes as well as outpatient treatment of common childhood diseases and number of services to women.

Table 4.7: Number of Antenatal Clinic Visits, 1996-1999

Year	Antenatal Attendance		Average no. visit during pregnancy	Percentage of first visit by trimester		
	New	Re-attendances		1 st	2 nd	3 rd
1996	35927	124443	3.5	6.4	56.1	37.9
1997	37738	141623	3.8	6.1	55.0	38.9
1998	22769	83006	3.6	5.9	54.5	39.6
1999	16237	47430	2.9	6.1	56.7	37.2

Family Planning

MCH teams deliver advice and contraceptives throughout the country through the primary health care network. A recent survey reported that approximately 60 percent of women knew at least method of contraception, 22 percent had used a method of contraception and just over half of these (13 percent) had ever used a modern method of contraception. Current use of modern contraceptives was just six percent of respondents.

Antenatal clinics

Ninety percent of all pregnant women make at least one visit to the health facility. In rural areas, on average, expectant mothers make 3.0 visits compared to 5.3 visits in urban areas. A trained midwife attended ninety percent of these women. The timing of antenatal care is very important and a recent survey cited problems with improperly timed and managed visits. There is a contributing cultural factor to this problem in that women do not readily disclose their pregnancy and childbirth status. For this major reason many pregnant women report to clinic during the second or third trimester.

Supervised Deliveries

Trained health workers, including TBAs, conduct 60 per cent of all reported deliveries. The percentage of supervised deliveries rose from 42 per cent in 1990 to 51 per cent in 1996. Recent information indicates a marked increase in the proportion of births supervised by trained health personnel (65 per cent). In spite of the relatively high proportion of deliveries attended by trained health personnel and the high percentage of ANC attendance, mortality morbidity rate is still high considered very high. This could be due to delays in reporting to clinic, poor referral system to adequately deal with obstetric emergencies.

Post Natal Care Services

In terms of postnatal care (i.e. care given to newly delivered women up to six weeks after delivery), the Safe Motherhood Needs Assessment Report (1998-2001) revealed that only 21 per cent of women reported for post partum care by six weeks. Of postnatal care clients, 38 per cent had delivered at a health facility while the majority (62 per cent) delivered at home. Only 14 per cent could remember being advised to return for postnatal check-up. Lack of promotion and motivation for postnatal care may be contributing factor to the low utilisation of postnatal services.

Further analysis showed that home visits by health personnel after delivery was reported by 47 per cent of clients. Of these, 7 per cent were by CHNs, 3 per cent by Nurse/Midwife and 90 per cent by TBAs. The TBAs therefore play a very important role in postnatal delivery. In addition 96 per cent indicated that the visit was made within one week after delivery, while 4 per cent was after one week. The quality of post partum care was really low, between 6 and 16 per cent received essential postnatal care services. This is more so with the minor health centres. The main reason being that postnatal services concentrate more on the baby and very little is done for the mother. A 3-month pilot study from March-May 2001 on post partum care was completed and analysed done by the Epidemiology and Statistic Unit of DoSH. The MCH/FP Unit is now considering the way forward in strengthening the post partum care services of The Gambia.

Postnatal services regarding family planning reported 36 per cent practising family planning. Of these 37 per cent were practising abstinence, and 21 per cent were using the pill and 19 per cent were using injections.

UNFPA Contribution To The MCH/FP Unit For The Year 2001.

The MCH/FP unit is mainly sponsored by the UNFPA in most of its activities, especially the procurement of FP commodities.

Adolescent/Youth Health	D 3,197,347.00
Integrated Reproductive Health	D10,327,265.00
TOTAL	D13, 524,612.00

Gambia government contribution towards the MCH/FP services for the year 2001

- Integrated Reproductive Health D 550, 349.00
 - Adolescent/Youth Health D 275, 175.00
- TOTAL D 825, 524.00**

GRAND TOTAL D14, 350,136.00

The results for the recently concluded survey on Maternal Mortality, Infant Mortality Neonatal Mortality Peri-natal Mortality and Contraceptive Prevalence are still being analysed. Provisional results will be available in early 2002.

4.4.1.2 Expanded Programme on Immunization**Table 4.8: Immunisation Coverage by Antigen, 1991 – 2000***

<i>Antigens</i>	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000*
BCG	97.4	96.8	98.0	99.1	99.4	99.6	99.2	99.0	96.3	96.1
OPV3	89.1	86.2	92.2	92.9	94.5	87.0	98.5	95.2	87.8	91.8
DPT3	84.7	84.8	89.5	92.7	96.3	95.9	96.2	96.7	87.5	74.4
HIB3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.7	87.5	74.4
Hepatitis B3	0.0	0.0	56.0	56.5	0.0	88.0	93.4	92.8	87.6	86.9
Measles	86.6	83.4	87.0	88.6	91.1	93.8	91.6	91.9	87.9	91.7
Y/Fever	87.4	82.5	87.3	82.2	91.1	94.6	91.6	90.8	85.6	90.8
F/Imm>1yr	53.7	67.7	69.9	80.3	79.5	80.6	83.7	79.8	64.1	68.6
F/Imm>2yr	83.0	83.0	74.2	79.8	83.4	87.0	86.9	87.7	78.6	76.0
TT3	77.0	86.6	81.9	56.5	86.0	75.7	86.7	96.8	70.6	75.5

*The 2000 data provided is provisional

Source: EPI Unit, Department of State for Health & Social Welfare

The EPI programme started in 1979. The programme goal is to reduce childhood morbidity and mortality due to the immunizable diseases. This it does through vaccinating children to protect them from these communicable diseases, and training/retraining staff. Apart from the original six WHO traditional EPI target diseases (tuberculosis, polio, pertussis, diphtheria, tetanus and measles) The Gambia's EPI included yellow fever at the start of the programme in May 1979, hepatitis B in 1990 and *Haemophyllus influenzae* type B in 1997. The last two were added following the successful efficacy trials of these vaccines in the country. Currently a pneumococcal vaccine efficacy trial is being conducted in URD and CRD. If successful this will be added to the routine Gambian EPI vaccines. The level of immunization coverage in the Gambia has increased markedly from 1991 to 1997 where nearly 84 per cent of the children were fully immunized before their first birthday (see Table 4.8. However, fully immunized coverage for infants started to decline in 1998. This trend persisted up to year 2000 in which the preliminary results indicate 68.6 per cent full immunization coverage for children less than one year of age.

The decline in national fully immunized coverage over the past few years has been attributed to the intermittent shortages of certain vaccines especially DPT and Hib. Since the start of the programme vaccines and injection equipment have been provided almost entirely by donors (e.g. WHO, UNICEF, UNSAID, Rotary International, EC, etc.) in spite of the fact that there is government budgetary allocation for the procurement of vaccines.

Table 4.9: Notifiable Cases of EPI Diseases, 1991 – 2000

Diseases	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Measles	111	111	804	242	195	312	1585	127	856	336
NNT	18	21	8	8	7	2	0	0	1	2
AFP-Polio	1	4	0	0	1	1	0	0	0	13
Diphtheria	0	0	0	0	0	0	0	0	0	0
Pertusis	1	0	0	0	1	0	0	0	5	0
Y/Fever	0	0	0	0	0	0	0	0	0	0

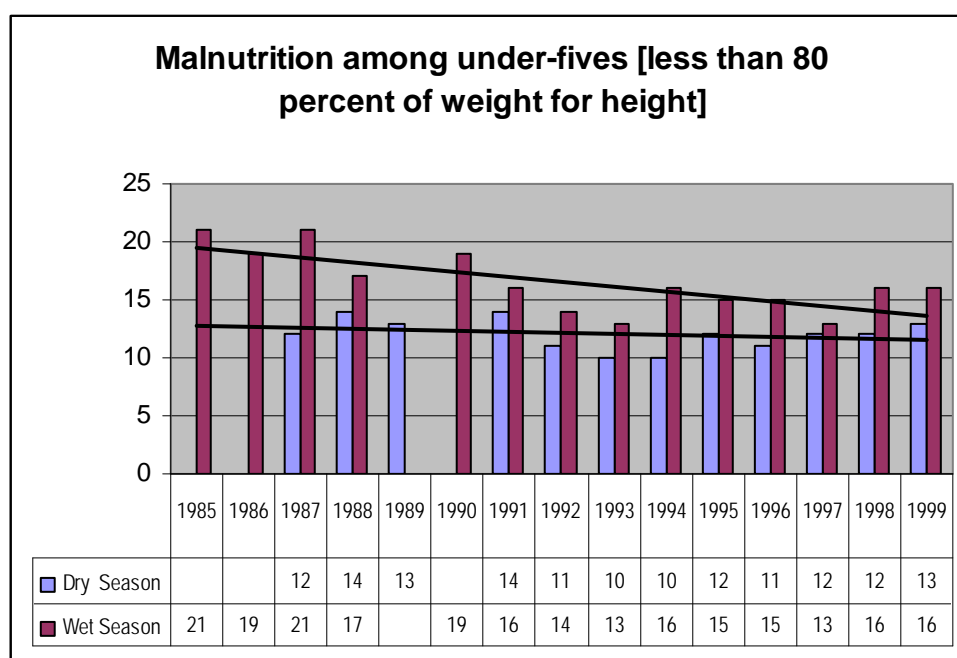
Source: EPI Unit, Department of State for Health & Social Welfare

The EPI programme has been one of the success stories of DoSH. Incidences of the immunizable diseases have fallen dramatically since 1979. No cases of diphtheria have been reported in the last 10 years and only 7 cases of pertusis were seen in the same years. Cases of neo-natal tetanus and polio incidence have also fallen. The results, however, show that for measles, in spite of the high coverage, many cases are still being reported, especially in 1993, 1997 and 1999, Many of those cases are seen in the unimmunized cohort of less than nine month olds, whereas the target age for measles immunization is nine months and above. This phenomenon has also been seen in other countries.

Despite the high coverage, there are still pockets of low coverage. To increase coverage, and quality of immunisation there is need for continuous training of health workers, education of the communities, especially mothers on the importance bring their children for immunization. Also the introduction IMCI will ensure that children who visit health facilities are fully assessed including their immunisation status.

4.4.1.3 Nutrition

The National Nutrition Agency (NaNA) was established by Act of the National Assembly in 2000. It is charged with the responsibility of co-ordinating all nutrition and nutrition related activities in the country and is under the office of the Vice President. The vision of the Agency is "improvement of the nutritional status of The Gambian population, particularly women and children" (National Nutrition Policy 2000 - 2004). Prior to the establishment of NaNA in 2000, the then Nutrition Unit of the Department of State of Health (DOSH) was responsible for the implementation and co-ordination of nutrition and nutrition related activities in the country.



Malnutrition either as a result of protein-energy malnutrition or micronutrient deficiency continues to be a public health problem in The Gambia as it affects a large segment of the population. The most vulnerable groups affected by malnutrition are pregnant and lactating women, and infants and young children. However, this does not mean that malnutrition does not affect other groups like the school age children, the adolescent and the elderly. Recent evidence seems to suggest that malnutrition is also common among the school age children. In The Gambia, protein-energy malnutrition characterised by wasting, stunting and underweight among children under five years and a low body mass index (BMI), is the most common type of malnutrition. However, obesity is also on the increase especially among women living in the urban areas.

Results from The Gambia Nutrition Surveillance Programme (GNSP), which has been collecting data on the weight-for-height of children under five years living in the PHC villages since 1984, has shown that low weight-for-height, an indication of wasting or thinness, is common among children under five years. This survey documented a regional variation in the distribution of malnutrition across the country; malnutrition prevalence rates gets higher as one moves from the Western to the Eastern part of the country. Malnutrition is also found to be higher among the girls compared to the boys. A seasonal variation in the distribution of malnutrition was also documented; the rainy season figures being higher than the dry season figures. The trend of wasting among the under fives over the years seems to suggest a decrease in rainy season malnutrition, whilst dry season malnutrition appears to be constant (see above figure).

A 1998 National Anthropometric study of children under five indicated 16.8 per cent stunting, 6.8 per cent wasting and 17.1 per cent underweight (Anthropometric Baseline Survey, 1998). When the survey was repeated two years later, 9 per cent of the children were stunted, 10 per cent wasted and 16 per cent underweight (Anthropometric Exit Survey, 2000). There was a reduction in the proportion of stunted children between the two surveys but an increase in the proportion of wasted children (see table below).

Table 4.10: National prevalence of malnutrition among the under fives.

Year of Survey	per cent Stunted	per cent Wasted	per cent Under weight
1998 (Baseline Survey)	16.8	6.8	17.1
2000 (Exit Survey)	9	10	16

A National Micronutrient study conducted by NaNA in collaboration with the MRC (Micronutrient Survey, 1999) showed that 73 per cent of the pregnant women are moderately anaemic and 5 per cent severely anaemic. The same study also showed that 56 per cent of the non-pregnant women and 2 per cent severe anaemia, where as among children under five years of age the estimated figures are 76 per cent and 15 per cent for moderate and severe anaemia respectively, see Table 4.11.

Table 4.11: Prevalence of anaemia among women and children under five years

Category	Total	Hb <11 g/dl	per cent	Hb < 7 g/dl	per cent
Children	515	289	76	76	15
Pregnant women	322	234	73	15	5
Lactating women	441	248	56	8	2

Vitamin A deficiency was more common among the children under five years compared to the pregnant and lactating women, see Table 4.12.

Table 4.12: prevalence of vitamin A deficiency among pregnant and lactating women and children under five years.

Category	Total	Ret <0.7 um/l	per cent	Ret < 0.35	per cent
Children	405	259	64	37	9
Pregnant women	315	107	34	9	3
Lactating women	411	64	16	3	1

With regards to iodine deficiency disorders (IDDs), the results showed that the total goitre rate (TGR) was 16 per cent and the average urinary iodine excretion was 4.2ug/l which suggests that The Gambia has a mild to moderate iodine deficiency disorder.

The distribution pattern of micronutrient deficiency is similar to that observed for protein energy malnutrition among the under fives; that is the deficiencies increases as one moves from the western to the eastern part of the country. Since this was a baseline survey, studies need to be done in the future in order to look at the trend.

In recent years the Government of The Gambia has accorded nutrition a high priority among its development plan and agenda. These efforts has culminated in the establishment of a National Nutrition Council (NNC), approval of the National Nutrition Policy for the year 2000 to 2004 and the establishment of the National Nutrition Agency (NaNA). To address the high prevalence rate of malnutrition documented among the most vulnerable groups, pregnant and lactating women and children under five years of age, NaNA is currently implementing the National Nutrition Policy for the year 2000 to 2004.

Malnourished children, pregnant and lactating women used to receive food assistance through the GAFNA/CRS Food Assisted Child Survival Project. This project has been phased out now, and a Local Maternal Supplementation Programme, which promotes the consumption of "futukanya" by pregnant women, is being implemented by GAFNA. The Participatory Health Population Nutrition Project (PHPNP) funds this project and is co-ordinated by NaNA.

Through the Micronutrient Supplementation Programme, children aged between 6 to 59 months are supplemented with high dose vitamin A capsules at six monthly intervals. Postpartum mothers are also supplemented within eight weeks after delivery. The children and women are supplemented through the routine MCH/EPI services. The National Immunisation Days (NIDs) and the bi-annual nutrition surveillance programme are also used for the supplementation of the children. This supplementation programme, which started since September 2000, at the moment had 89 per cent coverage of children aged between 6 and 59 months during the NIDs and a national coverage of 63 per cent.

Pregnant women continue to be supplemented with iron and folic acid tablets to treat or prevent anaemia. This is done through the routine MCH services offered by all health facilities in The Gambia. Despite all these efforts taken to prevent and reduce anaemia, the prevalence of anaemia still continues to be extremely high and more concerted efforts are required to address the endemic health problem. One of the main problems identified with iron supplementation is the concern of non-compliance in taking the iron tablets by the women because of its side effects. There are plans by NaNA in collaboration with Helen Keller International (HKI) to improve the iron supplementation programme through improved drug supplies, better counselling techniques of mothers and through aggressive IEC.

Salt iodisation is one of the most cost-effective ways of making sure that people have enough iodine in their diets. There are efforts in improving the quality of the salt

produced in the country, to iodise it and also to legislate for the importation of only iodised salt.

The Baby Friendly Community Initiative Programme is community based nutrition education programme aimed improving the nutritional status of children under five and pregnant and lactating mothers. The Village Support Groups (VSGs), which comprise of 5 women and 2 men are selected by the villagers and trained by staff from NaNA on maternal nutrition, infant feeding practices, environmental and personal hygiene and growth monitoring. The VSGs in turn implement this programme in their respective villages. There is a significant increase in the proportion of women practising exclusive breastfeeding in the BFCI communities compared to the non-BFCI communities. Environmental sanitation has also tremendously improved in some of these communities. This programme is now being rapidly expanded into other parts of the country.

Other programmes like the Baby Friendly Hospital Initiative (BFHI) also promotes, protects and supports breastfeeding, especially exclusive breastfeeding, at health facility level. However, since its inception in 1994, no hospital or health facility has been certified as Baby Friendly yet. Like other programmes implemented through the hospitals and health facilities, it suffers from the regular movement of staff, which often takes away trained staff to facilities not implementing the BFHI.

Teachers from Lower Basic Schools and members of the Association of Health Journalists have also been trained on basic nutrition education. This is part of the efforts taken by the agency to collaborate with other partners who can also help in the dissemination of nutrition information and messages. Mothers who are admitted with their malnourished children are also counselled weekly by staff from NaNA, who also have similar counselling for diabetic patients at the RVH.

4.4.2 Disease programmes

4.4.2.1 HIV/AIDS

The first cases of AIDS were reported in The Gambia in May 1986. Since the advent of the disease in The Gambia, the Government and collaborating partners implemented series of activities to stem the spread of HIV and other Sexually Transmissible Infections (STIs). A multi-sectoral National AIDS Council under the Office of the President plays an advisory role with regards policy and strategies for HIV/AIDS prevention and control.

The Goals of the National AIDS Control Programme are:

- ❖ The prevention of HIV and other Sexually Transmissible Infections (STIs)
- ❖ The reduction of the social and personal consequences of HIV infection to those infected with the virus, those who have already developed AIDS and those affected by it.

Within the framework of the National Health Action Plan, the Government seeks to reduce the burden of disease associated with STIs and HIV through effective treatment, promotion of safer sex practices and reduction of stigma associated with these infections. The Department of State for Health and the Medical Research Council (MRC) with support from WHO conducted a study on HIV prevalence and its consequences on pregnant women and their children.

This 1993/95 study of 29,670 women conducted nation wide showed that 168 (0.6 per cent) were positive for HIV1, 336 (1.1 per cent) were positive for HIV2 and 16 (0.1 per cent) were dually reactive (HIV1 + HIV2). The recently concluded Sentinel Surveillance May 2000- August 2001 showed a prevalence rate of 1.2 per cent for HIV1

and 0.9 per cent for HIV2. Comparatively the prevalence is low but there is no room for complacency. The biggest enemy is denial and stigmatisation.

The Santa Yalla Support Society - a group of People Living With HIV/AIDS are actively collaborating with NACP and other partners in the fight against HIV/AIDS. The following strategies were adopted by the NACP:

- ❖ Intensification of IEC on HIV/AIDS/STIs
- ❖ Wider promotion of condoms
- ❖ Provision of safe blood at divisional and central levels
- ❖ Mobilisation of specific groups, youths, commercial sex workers and their clients
- ❖ Provision of STI care services
- ❖ Prevention of HIV transmission through health care setting
- ❖ Co-ordination, collaboration and partnership with key institutions
- ❖ Advocacy through opinion leaders

There is high level of Government Commitment. Recently a \$15 million HIV/AIDS Rapid Respond Project (HARRP) was signed with the World Bank. There is a National AIDS Secretariat under the Office of The President. The President chairs the newly re-constituted National AIDS Council.

Table 4.11: Reported Cases of AIDS, 1986 to 1999

YEAR	CASES		HIV TYPE			GENDER		CUMULATIVE TOTAL	
	Number	Percent	HIV 1	HIV 2	HIV1&2	Male	Female	Number	Percent
1986	11	1.36	2	9	0	9	2	11	1.36
1987	16	1.98	4	12	0	9	7	27	3.33
1988	28	3.46	18	10	0	18	10	55	6.79
1989	24	2.96	7	17	0	17	7	79	9.75
1990	45	5.56	20	23	2	25	20	124	15.31
1991	56	6.91	28	22	6	35	21	180	22.22
1992	56	6.91	27	24	5	27	29	236	29.14
1993	38	4.69	21	11	6	15	23	274	33.83
1994	53	6.54	30	18	5	26	27	327	40.37
1995	62	7.65	43	16	3	33	29	389	48.02
1996	78	9.63	48	26	9	33	45	467	57.65
1997	78	9.63	46	30	2	41	37	545	67.28
1998	126	15.56	69	50	7	62	64	671	82.84
1999	139	17.16	78	52	9	50	80	810	100.00

4.4.2.2 Malaria Control Programme

Malaria is a major public health problem in The Gambia. The main objective of the National Malaria Control Programme is to reduce morbidity and mortality due to malaria. At the global level, The Gambia has signed a document of intent to Roll back malaria and has launched the programme in 1999. At the sub-regional level the countries of Guinea-Conakry, Senegal, Guinea-Bissau and The Gambia have launched the health for Peace Initiative. One of the components is on malaria, which is being coordinated by The Gambia on a rotational basis. The Malaria Control Programme is involved in preventive, promotive and curative services and operational research.

Preventive Activities include the following: -

- ❖ National insecticide bed net treatment programme which is supported by WHO UNICEF, UNDP and other key partners such as Action Aid and CCF. In collaboration with the Government, the donors provide insecticide and some mosquito nets. During its pilot phase, the programme provided free chemical and mosquito nets and the user rate was 80 per cent. However in 1996 when a user fee of five Dalasis was charged, the bed net dipping coverage dropped from 80 per cent to 20 per cent.
- ❖ National insecticide treated nets (ITN) coverage is steadily increasing over the years from 20 per cent to 34 per cent. The 2000 multiple indicator cluster survey (MICS 2000) found out that 38 per cent of children under five years slept under treated nets. In order to have significant impact on morbidity and mortality pregnant women and children under five should sleep under ITN.
- ❖ Recently the Government in collaboration with WHO has provided 21, 500 mosquito nets to all government health facilities and the communities at Fato-to and Kuntaur Health Centre catchment areas. The nets have been given free of charge to pregnant women in these high malaria high transmission areas.
- ❖ Environmental sanitation is one of the preventive components of malaria control. Since July 2001 the Government has institutionalised environmental sanitation to encourage communities to clean the environment to deprive the mosquitoes breeding sites. The primary aim of environmental sanitation is to control breeding sites in order to reduce malaria transmission with the subsequent aim of reducing morbidity and mortality.
- ❖ Intensification of IEC and social mobilisation aim to create awareness amongst the general populace to be aware of malaria signs and symptoms and to seek prompt treatment as well as take preventive measures to reduce malaria morbidity and mortality.

The Curative Component

The curative component consists of the timely treatment and management of the sick person and the training and retraining of Village Health Workers, Nurses and Doctors in diagnosis, case management and proper prescription practices. Laboratory attendants and assistants have also been trained and retrained on accurate malaria diagnostic tests especially those in major and minor health facilities in rural areas. In this regard, the provision of adequate anti-malarial drugs and diagnostic equipment and material are essential. There is an urgent need to allocate adequate funds for the procurement of these items to prevent shortages during the malaria peak period.

Operational Research

Chloroquine sensitivity studies were conducted in Basse and Mansa Konko. The study revealed that 96 per cent of patients recruited had responded adequately to Chloroquine treatment. Chloroquine therefore remains the first line of anti-malarial treatment in The Gambia. There are plans to continuously conduct Chloroquine sensitivity study in various sites of the country in order to monitor malaria resistance in the country. Biological agent for malaria control has been tested at rice fields in Wally Kunda and has been found to be very effective. Wide scale implementation is being planned in 2002.

Constraints And Recommendations

The main constraint is inadequate logistic supply as the Unit is operating with only one old vehicle. There should be continuous training to build staff capacity. The malaria control programme is mainly donor driven and Government should allocate sufficient resources to facilitate programme planning, implementation and evaluation.

4.4.2.3 Control of Diarrhoeal Diseases Programme

The CDD Programme is responsible for the promotion of Oral Rehydration Therapy (ORT) and Sugar Salt Solution (SSS) for the treatment of diarrhoea, and the training/retraining of health staff and CHWs in proper diagnosis and case management. The 2000 MICS indicated that 22 per cent of under fives had suffered from diarrhoea in the preceding two weeks before the survey. Of these 65 per cent were treated with ORT in the home. This percentage is an increase over the 1996 MICS in which 42 per cent of under fives who had diarrhoea were similarly treated.

Diarrhoeal diseases are very much related to the availability of clean water and sanitary facilities. According to the 2000 MICS 84 per cent of the population have access to safe drinking water and 86 per cent live in households with excreta disposal facilities. In spite of this, however, the incidence of diarrhoea remains the same, see Table 4.3. One possibility is that the source of water may be safe but contamination may be occurring at storage. Also the 86 per cent with excreta disposal facilities include pit latrines. Pit latrines in The Gambia are usually uncovered and not properly maintained giving rise to fly infestation and breeding. With the exclusion of pit latrines the population living in household with excreta disposal facilities drops to 23 per cent with the rural areas being worst affected, 48 per cent compared to the urban areas, 9 per cent

4.4.2.4 Acute Respiratory Infections Programme

The ARI Programme has concentrated on three activities since its inception. In addition to research activities, the primary thrust of the programme has been to improve diagnosis and treatment skills of all health workers. ARI has been included in the curriculum of all nurses in The Gambia and in-service training provided to Village Health Workers and nurses to enhance their understanding of the disease

The second important component of the ARI Programme is aimed at reducing the very low levels of knowledge, identified by ethnographic studies, within the community on the signs and symptoms of ARI. IEC activities aimed at mothers and traditional healers have been developed and implemented. In the 1996 MICS survey over all 20 per cent of mothers in the sample knew the key signs and symptoms, a considerable achievement for a Programme that commenced only in 1994

According to Table 4.3 upper respiratory tract infections are the second most frequently seen conditions in health facility out patients. These form part of the Acute Respiratory Infections (ARI). Therefore it can be assumed that ARI is second to malaria as the leading morbidity condition in the population and by extension one of the top leading causes of mortality especially among infants and young children. The ARI Programme has been engaged in training/retraining activities for health staff and CHWs, and the provision of timers and drugs for the PHC level. In the past three years with assistance from UNICEF the programme has included traditional healers in their training programmes. This is very significant as the traditional healers see many children with ARI conditions.

4.4.2.5 Tuberculosis

Tuberculosis in the Gambia could be attributed to poor living conditions such as poor housing and overcrowding, poor nutrition, cultural beliefs about the disease and the co-infecter between TB and HIV. Tuberculosis remains a major public problem in The Gambia and in many parts of the world. In the early nineties the disease was on the decrease but that trend is now reversed. By 2000 the number of TB cases had increased by 46 percent compared to 1989, whereas the number of smear positive cases has increased by 20 percent [see Table 4.12].

Table 4.12: Tuberculosis Indicators, 1989-2000

Indicators	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Population (million)	0.9	0.94	0.97	1.00	1.04	1.08	1.13	1.17	1.22	1.28	1.33*	1.38
New cases of all forms TB	1048	1212	1006	867	900	882	930	1091	1257	1631	714	1530
Detection rate/100,000	116	129	104	87	87	82	84	95	106	132	55*	115
No. of smear positive TB patients.	720	766	599	564	694	653	706	729	820	900	459	866
Case detection rate of smear positive/100,000	80	81	62	56	67	61	64	63	69	73	64	65
Positive/New Cases (per cent)	69	63	60	65	77	74	76	67	65	55	64	55
Smear negative patients	0	351	319	225	142	161	154	251	310	608	206	550
EP	0	90	88	78	55	59	61	99	116	102	37	54
Relapses	0	0	0	0	9	9	9	12	11	12	12	19

Since 1993 relapses of TB cases have been recorded and it is on the increase. Could this be due to TB resistant strains? Recently non-Gambian patients have been registered with TB resistant to the multi drug therapy used internationally. This is of great concern to the programme and DoSH as the new drugs required to treat such cases are exorbitantly expensive. TB drugs are administered free of charge to Gambians.

4.4.2.6 Eye Care

A National Eye Care Programme (NECP) was established in The Gambia in 1986 to provide an integrated approach to reducing the national burden of blindness and low vision. At the outset, in order to assist with planning, a national survey of blindness and low vision was undertaken in 1986. A second national survey of blindness and low vision was carried out in 1996. The crude prevalence of blindness fell from 0.7 per cent to 0.4 per cent, a relative reduction of 40 per cent. During the same 10 year period, the population increased by 51 per cent from 775,000 to 1,169,000.

Table 4.13: Causes of blindness

Causes and burden of blindness	1986 percent	1996 percent
Cataract	47	46
Trachomatous	17	5
Other corneal opacity	11	17
Phthisical/disorganised globe	9	4
Uncorrected aphakia	8	13
Glaucoma	2	9
Optic atrophy	2	2
Others	4	4
All causes	100	100
Blindness prevalence rate	0.7%	0.4%

Over the same 10-year period, the programme developed and implemented a comprehensive Human Resources Development Plan for all levels, consolidate and expand eye care services to the periphery and a comprehensive Urban Eye Care Programme aimed at targeting the urban poor and marginalized people. The National Eye Care Programme office has been strengthened to effectively coordinate the blindness prevention programme. Programme for Cataract Services and Trachoma Control are being adequately addressed

However, the programme faces increasing challenges to offer quality services to patients with the following eye conditions: - Corneal Opacity, Glaucoma and Diabetic eye diseases. Recently, the Health for Peace Initiative has included Eye Care and The Gambia has been recommended to coordinate this component within the Health for Peace Initiative.

Table 4.14: Cataract Surgeries Over the 3 Years of the Project

	1998/99	per cent	1999/2000	per cent	2000/01	per cent
RVH ⁹	568	36	569	26	470	23
SECUs ¹⁰	638	40	1321	61	1115	54
Camps	387	24	284	24	495	24
Total	1593		2174		2080	
CSR	1328		1812		1733	

There was an overall 30 per cent increase in the Cataract Surgical Rate (CSR) over the three years, the single most important contribution of which came from secondary eye units (54 per cent), with RVH and cataract camps contributing about a quarter each. In all, eight cataract camps were organised, 2 in 1998/99, 3 in 1999/2000, 3 in 2000/01. These contributed a quarter of all surgeries for each year.

Table 4.15: Estimated Expenditure on Eye Care in 2000

Source	Amount (Dalasis)	Amount (UK£)	per cent
Government budget	1,682,637	76,483	59
IOL ¹¹ user charges	237,750	10,807	8
SSI ¹²	953,490	43,340	33
Total	2,873,877	130,631	100

While Government funds the largest share of eye care costs in The Gambia, SSI contributes a very significant proportion. If The Gambia wishes to maintain its eye care services at the current level of activity, there are a number of options that could be considered to fill the financing gap currently funded by SSI:

- ❖ Increased government spending on eye care
- ❖ Increased cost recovery for eye care
- ❖ Continued donor funding
- ❖ The establishment of an autonomous Eye Care Service

⁹ RVH: Royal Victoria Hospital

¹⁰ SECUs: Secondary Eye Care Units

¹¹ IOL: Intra-ocular lens

¹² SSI: Sight Savers International, a British NGO

5

USING HEALTH SERVICES

Access to or utilisation of health services is a function of distance, cost, availability of health services and staffing patterns. In assessing the utilisation of health services data from various sources such as routine statistics and survey data were used. Data showing both outpatient and inpatient activities have been examined.

5.1 Utilisation of Outpatient Services

Table 5.1: Outpatient Consultations by Health Division*, 1996-2000

Health Division	1996	1997	1998	1999	2000
Western	111,234	121,379	122,897	189,389	198,896
LRD	68,789	76,478	86,478	87,689	89,987
NBD-East	64,567	63,567	65,897	73,678	75,456
NBD-West	50,841	53,665	56,490	75,159	59,741
CRD	86,756	90,898	98,719	112,121	121,718
URD	74,179	87,199	90,379	98,778	101,953
Total	456,366	493,186	520,860	636,814	647,751

*Excludes Hospital outpatients

There is an upward trend in the number of persons seeking medical care or utilising outpatient services in all health divisions between 1996 and 2000 [see Table 5,1]. Between 1996 and 1997 there was an 8 per cent increase, between 1997 and 1998 the increase was by 6 per cent, 1998 and 1999 22 per cent increase, and 1999 and 2000 2 per cent increase. Over the five-year period there was an average increase of 8 per cent

Table 5.2 Outpatient Consultations at Hospitals and Basic Health Facilities*, 1996-2000

Year	Hospital		Basic Health Facilities		Total
	Number	Percent	Number	Percent	
1996	146,350	24	456,366	76	602,716
1997	194,545	28	493,186	72	687,731
1998	214,545	29	520,860	71	735,405
1999	256,328	29	636,814	71	893,142
2000	320,168	33	647,751	67	967,919

*Basic Health Facilities refers to health centres and dispensaries

Table 5.2 shows a comparison of outpatient utilisation of health services between hospitals and basic health facilities. Tertiary facilities in addition to their specialized

functions also carry out basic services to the communities they are located in. In 1996 three-quarters of the total outpatients were seen by the basic health facilities, and the two tertiary facilities, RVH and Bansang, seeing the other one-quarter. By the year 2000 with the coming into operation of AFPRC General Hospital and the closing down of Farafenni Major Health Centre, total outpatient attendance seen by the hospitals has increased to one-third. Over the period of five years outpatient attendants in hospitals has increased by an average of 24 per cent and the basic health facilities by 8 per cent.

5.2 Utilisation of Inpatient Services

There has been an upward trend between 1996 and 2000 in the number of persons admitted in basic health facilities in four of the six health divisions [see Table 5.3]. LRD and NBD-East have seen a downward trend. For NBD-East this was due to the closing down of Farafenni Major Health Centre and the opening of AFPRC General Hospital in Farafenni. For LRD the reason for the decrease is not clear. Overall, between 1996 and 1997 there was a 16 per cent increase in the in-patient admissions in the six health divisions, between 1997 and 1998 the increase was seven per cent, between 1998 and 1999 there was a four per cent increase, and between 1999 and 2000 a four per cent increase. Over the five-year period there was an annual average increase of seven per cent.

The trend observed in the increase in the percentage of in-patient admissions could be interpreted as being positive. The annual percentage increase has been steadily falling. A combination of positive factors might be responsible for this, for example, better quality of care especially with the significant presence of Cuban medical doctors at the divisional level, increased availability of medical supplies (reduced drug shortages) and people's health care seeking behaviour changing positively – sick persons are reporting for medical care earlier – which again is an indication of improved quality of care and trust and confidence in the health system.

Table 5.3: Number and Distribution of Inpatient Admissions in Basic Health Facilities, 1996 to 2000

<i>Health Division</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>	<i>1999</i>	<i>2000</i>
Western	19,987	21,987	25,876	27,980	28,786
LRD	2,689	3,245	1,879	1,665	1,815
NBD-East	2,896	3,895	3,987	2,869	1,345
NBD-West	1,311	1,467	1,575	1,804	3,253
CRD	6,186	8,987	9,654	10,765	10,149
URD	9,546	9,980	9,990	10,076	11,980
Total	42,615	49,561	52,961	55,159	57,328

Table 5.3 shows a comparison of in-patient admissions between hospitals and basic health facilities. All six major health centres across the country and a number of minor health centres and dispensaries in the divisions have in-patient facilities. Cases that these facilities cannot manage are usually first sent to the nearest major health centre and from there to the nearest hospital. Tertiary facilities are the final referral destination for all admissions. In 1996 two in five in-patients were admitted at the hospitals, with the basic health facilities admitting the remainder.

Table 5.4: In-patient Admissions at Hospitals and Basic Health Facilities*, 1996-2000

Year	Hospitals		Basic Health Facilities		Total
	Number	Percent	Number	Percent	
1996	27,089	39	42,615	61	69,704
1997	29,053	37	49,561	63	78,614
1998	30,897	37	52,961	63	83,858
1999	38,495	41	55,159	59	93,654
2000	46,450	45	57,328	55	103,778

*Basic Health Facilities refers to health centres and dispensaries

By the year 2000 with the coming into operation of AFPRC General Hospital and the closing down of Farafenni Major Health Centre, total in-patients admitted by the hospitals has increased to 45 per cent [see Table 5.4]. Over the period of five years in-patient attendants in hospitals has increased by an annual average of 14 per cent and the basic health facilities by 7 per cent. With the opening of new hospitals this trend is likely to continue, with implications of a higher cost per patient.

5.3 Economic Access to Health Services

Table 5.5: Utilisation of Health Services by Income Status

Indicator	1993			1998		
	Extremely Poor	Poor	Non-Poor	Extremely Poor	Poor	Non-Poor
No. of persons interviewed	3251	3287	9623	7962	2810	4839
No. of persons reporting illness/injury	473	452	1234	-	-	-
reporting Illness/injury	15	14	13	-	-	-
No. persons consulting health workers	290	335	936	467	190	223
ill persons consulting Doctor	21	21	31	24	28	30
ill persons consulting Nurse	75	77	65	52	50	50
ill persons consulting Traditional Healer	4	2	4	6	3	7
ill persons consulting other Health Worker	-	-	-	17	18	12
Visited private health facility	24	27	34	14	11	16
Visited public health facility	76	73	66	86	89	84

To determine whether poverty has an impact in the demand or utilisation of services Table 5.5 was derived from the 1993 Household Education and Health Survey Report and 1998 National Household Poverty Survey Report. Between 1993 and 1998 the major differences in the health services are the provision of medical doctors to all public health facilities and the opening of a new hospital in Farafenni. These major achievements in the health sector are reflected in the utilization indicators in Table 5.5. In 1993, one in five of the extremely poor saw a medical doctor for consultations compared to one in three for the non-poor, a ten-percentage point difference. In 1998 this percentage point difference has reduced to six through a rise in the proportion of the poor consulting doctors.

Access to a medical doctor is now available to many communities especially in rural areas. Across the spectrum of the income status consultations with nurses have significantly reduced. In 1993 75 percent of the extremely poor, 77 percent of the poor and 65 percent of the non-poor consulted with nurses for their illnesses. In 1998 these consultations has declined to 52 percent, 50 percent and 50 percent respec-

tively, a decrease of about a third in each category. There has been a considerable reduction in the number of nurses available in health centres in the past few years along with an increase in the number of doctors. This evidence is strengthened by the percentage of visits to the public health facilities compared to the private ones. Visits to private facilities are reducing and increasingly patients are using the public health facilities. This has serious human, material and financial resource implications as the substitution of doctor consultations for nurse consultations is likely to raise the overall cost of providing services.

5.4 Inpatient Beds

Generally, the growth in the number of beds in government facilities has been very slow. Public sector beds per 1000 population were 0.88 in 1993, dropping to 0.78 in 2000 and then rising again to 1.00 in 2001. The bed rise between 2000 and 2001 could be associated with the new facility built in Soma. While the bed/1000 population ratio in places like NBW and URD has been going down, WD and NBE have registered steady increases during the three years under review (See table 5.6).

NBE has the best (1.75) bed per 1000 population ratio in 2001 when public and private/NGO facilities are combined. Despite most of the public and private/NGO facilities being located there, WD comes out third after CRD (1.48) with 1.31 bed per 1000 population. Fourth on the list is LRD (1.04), followed by URD (0.52) and NBW (0.45) respectively. It is interesting to note that both URD and NBW have continued maintaining the fifth and sixth bed per 1000 population ratio positions for all the years reviewed. This should definitely be a cause for concern to DoSH authorities.

Table 5.6: Bed distribution in public & private/NGO health facilities, 1993, 2000 & 2001

Division	1999 GG Beds	1993 Pop.	1993 Beds per 1000 Pop	2000 GG Beds	2000 Pop.	2000 Beds per 1000 Pop	2001 GG Beds	2001 Pop.	2001 Beds per 1000 Pop	2001 GG & Other Beds	2001 GG & Other Beds per 1000 Pop
WD	479	505,457	0.95	797	785,624	1.05	842	803,930	1.04	1059	1.31
NDW	29	71,573	0.41	29	93,778	0.29	22	97,469	0.19	44	0.45
LRD	48	65,146	0.74	52	73,131	0.68	78	74,349	1.04	78	1.04
NBE	54	84,880	0.64	175	103,468	1.58	187	106,476	1.75	187	1.75
CRD	214	156,021	1.37	240	181,193	1.27	246	185,107	1.30	274	1.48
URD	94	158,059	0.59	117	202,044	0.55	102	209,256	0.48	110	0.52
National	918	1,041,136	0.88	1410	1,412,238	0.78	1477	1,476,587	1.00	1788	1.21

Source: DoSH Divisional Health Teams and Information Unit (ESU), June 2001

Note: GG = indicates Gambia Government Health Facilities, including hospitals and health centres

5.5 Geographic Access to Health Services

The distance travelled or time taken to reach the nearest health facility is a measure of physical access to health services. Data in the above table are based on the perceptions of the respondents in the study. The total average travel time by foot to and from a health facility is 72 minutes, by vehicle is 80 minutes, by part foot/part vehicle 243 minutes and by cart 82 minutes. The National Health Policy recommends that all persons should have access to the nearest health facility within a maximum of 5 km, estimated as one hour walking distance.

Table 5.6: Average Travel Time (in minutes) to and from Health Facility by Mode of Transportation and Administrative Division, 1998 National Household Poverty Survey Report

<i>Division</i>	<i>Foot</i>	<i>Vehicle</i>	<i>Part Foot/ Part Vehicle</i>	<i>Cart</i>	<i>Other</i>	<i>Not Stated</i>
Banjul	49	67	0	.	.	.
KMC	75	67	508	55	10	1
Western	97	82	363	60	35	31
Lower River	33	113	.	.	5	0
North Bank	74	62	289	86	.	0
Central River	82	147	126	76	16	6
Upper River	39	26	72	87	118	350
Gambia	72	80	243	82	54	105

According to Table 5.6 Western Division has the highest average walking distance to and from a health facility, 97 minutes, which translates to less than 50 minutes walking distance to the health facility. Judging by this one can safely state that the majority of Gambian population have geographic access to health services.

6

Technical and Support Services

6.1 Technical Services

6.1.1 Pharmaceutical Services

6.1.1.1 Policy Framework

The Health Policy 1996-2000 and the National Drug Policy defined the following policy objectives of the pharmaceutical sector:

- ❖ To ensure that safe, efficacious and cost effective drugs are made available to the
- ❖ Population at a price the individual and the community can afford
- ❖ To promote the rational use of drugs

Subsequently, the four major functions of the Pharmaceutical Services were identified:

- ❖ *Essential Drug Supply* – this includes the selection, procurement, storage, inventory control and distribution of drugs, medical/ surgical, dental and laboratory supplies.
- ❖ *Drug Legislation* – the regulatory activities of the Medicines Board, which includes the control on import, distribution, and sale of pharmaceuticals in the private sector, through the Medicines Act, 1984
- ❖ *Drug Quality Control Services* – the laboratory analysis of drugs, including the narcotic drugs submitted by The Gambia Police Force.
- ❖ *Human Resource development and planning* for the pharmaceutical sector.

The Public Expenditure Review on the National Pharmaceutical Services focuses on the Medical Supplies System as apart from salaries and wages for the personnel, the only budget allocated for the pharmaceutical sector is for the procurement of drugs and dressing. There is no budget line for the Medicines Board activities or the drug quality control services, which are funded from the Medicines Board revenue generated from fees on licenses and drug registration. The bulk of the workforce, which in 2001 comprises 20 stores personnel (8 Store Officers / Clerks and 12 store hands) and 46 pharmaceutical personnel (10 pharmacists, 7 pharmacy technicians and 36 pharmacy assistants) and time is spent on the supply system.

The Medical Supplies System is therefore reviewed using these criteria:

- ❖ Quality control of pharmaceuticals
- ❖ Selection / Procurement
- ❖ Inventory Control
- ❖ Distribution / consumption of stocks

6.1.1.2 Medical Supplies System

The availability, accessibility and affordability of essential drugs and other medical supplies is an important part of the health service delivery. The budget for drugs and dressings for the basic health services, i.e. major and minor health centres, dispensaries and village health posts is provided under the Director of Health Services budget, while that of the hospitals form part of their respective subventions. The policy of the Department of State for Health is to centralise the procurement of pharmaceuticals and other medical supplies for all the public health institutions under the co-ordination of the Offices of the Chief Pharmacist and the Drug Revolving Fund.

There are five medical stores in the country, i.e. the Central Medical Store (CMS) in Banjul, Regional Medical Stores (RMS) in Banjul, Mansa Konko and Bansang and a Divisional Medical Store in Basse. The Regional Medical Stores are responsible for the distribution of drugs and other medical supplies to the health facilities within their region / division. There is no budget line for the operational activities for the medical stores. Funds are released from the budget line other medical stores, which is for the procurement of non-medical items, for the operational activities of the medical stores. This involves the clearing of goods from the sea and airport, transportation of consignments from the ports to the Central Medical Stores (CMS) and from the CMS to the Regional Medical Stores in Banjul, Mansa Konko, Bansang, Basse and the hospitals.

Quality Control of Pharmaceuticals

Whilst there are some activities geared towards monitoring of importation of pharmaceuticals into the country, and the drug registration process is also being developed, the laboratory assessment of pharmaceutical products is yet to commence. The National Drug Control Laboratory is presently engaged in the identification of suspected Narcotic and Psychotropic substances for The Gambia Police Force. The requisite human and material resources (drug analyst, equipment and reagents) for an effective drug control system is not available to the Pharmaceutical Services and these gaps in enforcing quality control of pharmaceuticals may have serious health and economic implications.

6.1.1.3 Cost Effective Selection / Procurement

Selection

The selection of drugs is based on the WHO Model List of Essential Drugs and Vaccines, which is defined as the drugs required for the majority of the population.

VEN analysis of the essential drugs list

This is a classification of the essential drug list into three main groups:

- ❖ V – Vital drugs – these are the critical life saving drugs
- ❖ E – Essential – these drugs are essential for diseases of public health concern
- ❖ N – Non-Essential – these drugs are desirable, they contribute to treatment, but curative care could still be achieved without them.
- ❖ The VEN analysis of the present essential drug list shows that 10 per cent of the products are vital, 88 per cent are essential and 12 per cent are non-essential drugs. For RVH, their procurement showed 18 per cent vital drugs, 81 per cent essential drugs and 1 per cent non-essential items. Bansang Hospital procurement list showed a 0.45 per cent of vital drugs, 84 per cent of es-

sential drugs and 16 per cent of non-essential items. The review therefore indicates that the selection is satisfactory as the bulk of the drugs purchased is vital and essential and in accordance with the WHO recommended list.

Procurement

The data on the procurement of supplies for 1999 and 2000 was reviewed. Three types of procurement were carried out during that period: 1) main order 1999/2000; 2) supplementary order 2000; and 3) others – tender waiver procurement.

The data cannot be separated for the two financial years as the bulk procurement was made in 1999 utilising the 1999 & part of the 2000 budget. The supplementary order was made in 2000 to augment the balance of stock. Tender waiver procurement was also made in 2000.

For the 1999/2000 bulk order, the following categories of supplies were purchased:

❖ Drugs	–	231 items
❖ Galenicals (for local production of eye preparations)		31 items
❖ X-ray consumables		17 items
❖ Medical & surgical items		119 items
❖ Dental items		38 items
❖ Laboratory items		220 items

For the 2000 supplementary order, the following categories were purchased:

❖ Drugs	48 items
❖ Galenicals	2 items
❖ Surgical items	8 items

The tender waiver purchase was for laboratory supplies (x items) and y items of drugs.

A review of the 1999/ 2000 main order shows the following pattern of procurement:

- ❖ *Health Facilities* - 72 per cent of the funds was spent on drugs, 25 per cent on surgical & medical supplies and 3 per cent on laboratory supplies.
- ❖ *Royal Victoria Hospital* spent 49 per cent on drugs, 7 per cent on galenicals and x-ray consumables, 20 per cent on surgical & medical supplies, 11.5 per cent on dental and 12.5 per cent on laboratory supplies.
- ❖ *Bansang Hospital* spent 56 per cent on drugs, 10 per cent on x-ray consumables, 19 per cent on surgical & medical supplies, 5 per cent on dental and 10 per cent on laboratory supplies.
- ❖ *AFPRC Hospita*: there was only a limited procurement as the bulk of their supplies were received as part of the Islamic Development Bank funded equipment and supplies.

An analysis of the breakdown on the 1999/2000 procurement shows that the bulk of drugs and dressings allocation is spent on drugs. However, RVH as the main referral hospital spent a substantial percentage of its budget on dental and laboratory supplies, because it is the only institution that provides certain and/or the bulk of the dental and laboratory services in the public health sector.

A breakdown in procurement of drugs according to the Anatomical Therapeutic Classification (ATC) is shown in the annexes. It shows that certain categories of drugs, i.e. anti-malarials and anti-microbial agents are priority groups. Here again, it can be seen that RVH spent the largest amount on anaesthetic drugs, antipsychotics (Campama Psychiatric Hospital), antidiabetics and specialists products. The analysis further shows that RVH, which functions as both a tertiary and primary health care institution has to allocate its limited budget to the various services expected to be provided by it.

Inventory Control

The Central Medical Stores has a computerised inventory control system, established in 1988 and updated in 1993 through donor funding. The major constraints with the software programme are that it is not user friendly (does not allow for editing, i.e. adding or deleting items), the list of surgical & medical items is not complete and it is not compatible to any of the common software programmes. The training provided to staff was also limited. Furthermore, it was not Y2K compliant, with the result that the software programme crashed at the end of 1999. There is an existing manual back up system, which is the tally Card, which provides the same information as the Kardex Card System that was scrapped earlier.

The future plan of the National Pharmaceutical Services on inventory control is for an upgraded Drug Information System as part of the integrated Health Management Information System (HMIS) to be funded under the PHPNP. This will also include computer networking at the regional / divisional medical stores level.

6.1.1.4 Distribution of Stock

According to the Central Medical Store policy, supplies (drugs, medical/surgical, dental & x-ray supplies) purchased for the hospitals are cleared and delivered directly to the respective hospitals. They are therefore not recorded on tally cards or the computerised inventory control system at the CMS. Laboratory supplies for the health facilities and hospitals are delivered to the National Laboratory Services, RVH for further distribution to the various institutions. Supplies for the health facilities (drugs and medical supplies) are stored at the CMS, distributed to regional medical stores for further distribution to the health centres, dispensaries and village health posts. This distribution to regional stores is recorded on tally cards and the computerised inventory control system.

The available data on distribution from the CMS is limited due to the constraints being experience with the inventory control system. The 1999 data is incomplete as it does not include all the items supplied from the CMS, but it is an indication on the distribution pattern for the bulk of the supplies.

A total of D10.4 million worth of drugs and supplies were distributed from the Central Medical Stores. The Regional Medical Store (western) received D4.0 million for supplies to health facilities in North Bank West and Western Divisions. Eastern regional store received D2.6 million for the Upper River and Central River Divisions, whilst Central regional store received D1.0 million for the Lower River and North Bank East divisions. A total of D1.8 million was supplied to the three hospitals, i.e. RVH, Bansang and AFPRC to supplement their own stocks, with RVH receiving 61 per cent of that stock. The three services institutions, i.e. Gambia National Army, Gambia Police Force and State Guards, also received a total of D450,205 worth of supplies for use in their clinics.

This data shows that a sizeable stock meant for health facilities (about 25 per cent) was issued to hospitals, services institutions and other clients. This information

shows that the CMS serving a function as a main source of essential pharmaceuticals and supplies to all public institutions providing health, for which it is not funded. The services institutions are supposed to pay 60 per cent of the cost of the supplies but default on payments. These findings therefore support the recommendation that the CMS should be transformed to a semi-autonomous pharmaceutical supply agency.

The transportation of supplies, which is an important component of the distribution of supplies, is very poor. The CMS has one 3-ton pick-up, which was received from the Office of the President in 2001 and a double cabin pickup that has exceeded its optimal life span. The Transport Unit does not have any heavy duty vehicle to assist in the transportation of supplies. The regional medical stores depend on the health facilities to use their respective ambulances to collect their supplies, because of the ineffectiveness of the transportation system.

6.1.1.5 Distribution/Use at Hospital level

RVH: Data received from the Pharmacy Unit showed that of a total stock receipt of D6.3 million in 1999, a total of D3.9 million was consumed in 1999. This was because the bulk supplies for two financial years, 1999 and 2000 were procured together. Thus of the supplies received for 1999 and 2000, 62 per cent of the stocks was consumed in 1999.

Bansang Hospital: the total receipt for 1999 and 2000 supplies was D3.3 million, of which D2.4 million (71 per cent) was consumed in 1999.

AFPRC Hospital: D1.9 million was received, with a total consumption of D1.8 million (96 per cent), which shows a different pattern. This was due to the fact that the storage space for the AFPRC hospital is limited and the bulk of the stock is stored at the CMS, which is therefore not reflected on the AFPRC receipts.

6.1.1.6 Recommendations for future development

- ❖ The needs of the Pharmaceutical Services should be re-assessed and a programme budget established for the various section of the sector.
- ❖ The Central Medical Stores should be transformed to a semi-autonomous Medical Supplies Agency. This would involve substantial investment in terms of providing seed stock of drugs and medical supplies, human resource development and improving the transportation system.

6.1.2 Laboratory Services

6.1.2.1 National Health and Research Laboratory

The policy objective of a national laboratory is to ensure quality service in collaboration with other stakeholders for the development of an effective national health care system. National Health Laboratories play a pivotal role in the health care system of all nations providing evidence based information that will assist patient management, guide policy and decision making when strategies for disease control and prevention are being formulated.

Presently, laboratory services are available at the three referral hospitals, all the major health centres and at one minor health centre, though the services provided at the health centres fall short of satisfaction. The activities of these labs are coordinated from the Central Laboratories based at the RVH while the respective Divisional Health Team or Chief Executive supervises the day-to-day activities.

6.1.2.2 Main goal and responsibilities

Its main goal is to strengthen the management structure of the national health laboratories to allow it to manage the following resources effectively: Financial, Human, Material and Logistics. Its roles and responsibilities include:

- ❖ Providing clinical laboratory services in the hospitals and health centres.
- ❖ Providing laboratory services for public health investigations.
- ❖ Serving as a reference centre for both public and private sector.
- ❖ Developing standards for the operation of pathology laboratories.
- ❖ Setting guidelines to regulate the establishment and operation of all public and private laboratories.
- ❖ Establishing mechanisms to ensure both public and private laboratories comply with set standards.
- ❖ Serving as a training centre in-country for appropriate personnel through
 - In-service training
 - Distance learning
 - Student electives
- ❖ Developing a curriculum for a training course leading to a diploma in Biomedical Sciences.
- ❖ Developing the research capacity of the NHL to provide information on the natural history of infectious, communicable and non-communicable diseases that are of importance in The Gambia.
- ❖ Evaluating new methods for use in clinical laboratories in the public sector.
- ❖ Providing national blood transfusion services

6.1.2.3 Achievements

Increase Use of laboratory services

Between 1995 and 2000 there was rapid expansion in the Gambian health system. Mansa Konko health centre was moved to Soma with upgraded infrastructure. Clinical laboratory services of the NHL were greatly strengthened both in terms of quality and range of tests offered. As a consequence there has been an increase in the demand and use of laboratory services. (Table 6.1). With the arrival of the Cuban doctors there has been a further rise as they also make use of the services at all levels.

Table 6.1: Laboratory Tests at RVH

MICROBIOLOGY SERVICES RVH 1995-2000					
Year	Misc. Cultures	Meningitis	Blood	Fertility	Annual Total
1995	N/A	816	Na	761	1,577
1996	5,904	870	236	772	1,878
1997	5,073	1,105	443	311	1,859
1998	5,019	700	175	381	6,275
1999	5,998	575	310	276	7,159
2000	6,904	466	346	370	8,086

HAEMATOLOGY			
Year	Out-patients	In-patients	Total
1998	47,377	NA	
1999	60,487	3,283	63,770
2000	61,887	12,118	74,005

6.1.2.4 Developments

Tertiary Level

Farafenni Health Centre was upgraded to the AFPRC Hospital, providing both tertiary and primary health care support. Facilities for Microbiology and Serology are now well established both at Bansang and AFPRC General Hospitals. Their clinical chemistry and histology units now need to be developed to complete the full range of pathology services.

Secondary Level

Soma health centre was also upgraded in infrastructure and now has the potential to offer a wider range of services.

Blood Transfusion Services

Transfusion services are now available or established at the various levels of the NHL network. To support this service a National Blood Transfusion Policy was formulated and is now going through the required legal processes for enactment.

6.1.2.5 Training

Human Resources:

Unfortunately this expansion of services did not go in tandem with the provision, nor development, of the human resources required to deliver the services effectively. Furthermore the NHL also has experienced a very high attrition rate during this period. This has seriously compounded the problem.

Table 6.2: Human Resource needs for NHL Services

Designation	Required	Available
Pathology	9	5
Microbiologist	15	8
Chemistry	6	3
Haematology	13	9
Blood Bank	10	2
Mortuary	5	3
Total	58	30

Human resource data provided by the laboratory indicates inadequacies in the number of laboratory technologist and worse in the number of technicians. It is worth noting that a good percentage of the senior staff of the laboratory are foreigners, and this is an area of concern for the sustainability of laboratory services. Specific units

in the laboratory, like Blood Bank and Chemistry are very thin in terms of human resources. The human resource situation is not better in the other hospitals and health centres too

6.1.2.6 Constraints:

The major constraint to the provision of laboratory services is the paucity in the number of senior professionally qualified staff to cope with increasing demands. What is needed are multi skilled technologists who know diagnostic analysis and are capable of fulfilling the role of adviser on the effective use of the services including the interpretation of results. Other constraints include:

- ❖ High attrition rate
- ❖ Material resources
 - equipment and maintenance
 - supplies
 - stationary
- ❖ Sustaining services
- ❖ Infrastructure - space
- ❖ Power supply for peripheral labs
- ❖ Mobility for supervision
- ❖ No budget line for National Health Laboratory Services (NHLS)

6.1.2.7 Recommendations for further development

- ❖ Management and Administration: Include NHL Representation at central level of the DOSH.
- ❖ Finance: Establish a budget line for the NHL
- ❖ Clinical Services
 - Introduce basic tests and expand microbiology and clinical chemistry services at major health centres and hospitals respectively and introduce basic microscopy in minor health centres. This will enhance the diagnostic and public health capacity of the NHL.
 - Establish a centrally co-ordinated National Blood transfusion Service.
 - Ensure regular and sustained power supply.
- ❖ Human Resources: Increase the staff
- ❖ National Public Health and Research Laboratory: There is a need for the establishment of a well organised laboratory that will be a reference centre to support effective delivery of health services, and have the capacity to carry out biomedical, epidemiological and operational research.
- ❖ Training:
 - Set up an accredited diploma course in biomedical science.
 - Post graduate training for eligible senior staff
 - Management training for senior staff
- ❖ Equipment needs: There are extensive needs for equipment

6.1.3 Radiology Services

Radiology services supports diagnosis of several disease conditions including priority diseases like pneumonia and Tuberculosis. Access to radiology services is not satisfactory, as the services are only available at only the three hospitals- Royal Victoria, Bansang and Farafenni hospitals. It is not unusual to find long cues for radiology services and at times long delays before the services are provided. Patients often travel long distances at high transportation costs, before reaching these hospitals.

The Health Policy 1994-2000 seeks to ensure that all the major health centres are provided with required standard equipment, logistics and support facilities to make them fully operational. Most of the complementary services to be provided at major health centres including radiology services were either insufficient or not provided at all. To enable the major health centres deliver the full complementary services and to improve on access to radiology services, the following basic resources will be needed.

❖ Human Resources per major health centre

To provide the minimum basic radiology services at major health centres will require this complement of staff

Table 6.3: Radiology personnel needs for major health centres

Description	Number	Grade	Cost annually (Dalasi)
Radiographic Assistant	2	3	15,432
X-Ray clerk	1	1	5,352
Orderly	1	1	5,352
TOTAL	4		26,136

❖ Equipment per major health centre

X-ray Unit 100kv /30Ma portable with light beam diaphragm for chests, extremities, spines and IVP`s	D197,560.00
X-ray viewing box double PVC coated steel on/off switching	D4,950.00
TOTAL	D202,510.00

❖ Building

This should preferably be a building standing out on its own i.e. not attached to any other building for radiation protection purposes. The walls of the x -ray room to be lead lined or barium plastered.

❖ Consumables and Accessories: D58,278 per year

❖ Total cost: The cost to provide Radiology Services for a single major health centre excluding provision of building and preparation of the building could be over D286,924. The estimated total cost for six major health centres could be over D1,721,544.

6.2 SUPPORT SERVICES

6.2.1 Transport and Vehicle Services

Transport and vehicles are utilised by various categories of facilities including hospitals, major health centres and minor health centres, Divisional Health Teams, and

others such as Medical Headquarters, Department of State, Schools, and Maintenance Units. The total fleet covers more than those directly linked to the health delivery system. More than 50 per cent of health services at peripheral level are delivered on a mobile basis. In addition, the requirements for supervision both by the divisional team and central levels exert a great demand for a reliable transport fleet. Another important fact is that vehicles allocated to health centre serve purposes of evacuation, MCH trekking, supervision of primary health levels, drug supply and staff welfare.

The transport fleet comprises of four-wheeled vehicles (ambulances, utility and others) and motorcycles. The four-wheel vehicle fleet is fairly standardised with the Toyota Model forming about 66 per cent of the fleet. This fleet, however, is in a poor state and only 39 per cent are completely roadworthy. The motorcycle fleet is predominantly of the Yamaha model. This fleet is in better state with about 60 per cent roadworthy. A key problem is insufficient budgetary provisions leading to chronic shortages of spares and consumables. Total budgetary provisions for all vehicles (spares and consumables 1999) are in the region of D750,000. A more realistic amount based on standards of five per cent of investment value or a computation of value of spares that are most likely to be changed in a year would be about D2,000,000. There is also general inadequacy of tools, equipment and maintenance facilities for the health transport unit.

The workforce is inadequate and insufficiently trained with limited prospects for growth. This has made hiring and retention of qualified personnel difficult. Apart from the transport manager, there are only two other people with technical certificate-level qualifications. Another problem is the bureaucracy in decisions concerning spare parts procurement. Because of the civil service structure and procedures, unnecessary delays in procurement cause shortages in crucial inputs like spares and materials. The absence of a vehicle replacement plan has led to a situation where vehicles are kept longer than their optimal lives. Average age of the fleet is 6.4 years and 3.3 years for four wheeled vehicles and motorcycles respectively.

Table 6.5: Minimum transport requirements for health facilities

Type of facility	Type of vehicle	Quantity
Hospitals	Ambulance	1
	Utility (also used for patient evacuation)	1
	Total yearly maintenance cost (Vehicles)	\$2,675.00
Major Health Centres	Ambulance	1
	Utility/Trekking (also evacuation)	1
	Motorcycles (pool)	
	Total yearly maintenance cost (vehicles)	2 (pool) \$2,905.00
Minor Health Centre	Ambulance	1
	Motorcycles	2(pool)
	Total yearly maintenance (vehicles)	\$1,780.00
PHC Village	Bicycle	1

6.2.2 Maintenance Services

6.2.2.1 The Maintenance Policy Framework

The maintenance policy framework recently approved by the National Assembly will ensure that a comprehensive approach is adopted towards the management of health assets. It is envisaged that it will provide the stage for better strategic planning, budgeting and implementation of a maintenance regime suited to the needs and circumstances of an expanding health delivery system. The need for capacity building, maximising of maintenance resources, efficient assets management system, performance monitoring systems and an information, education and communication network has resulted to the development of the following objectives for the maintenance policy framework.

- ❖ To develop an efficient and effective maintenance regime for all health assets;
- ❖ To develop capacity especially in the areas of management and supervision of maintenance;
- ❖ To create the enabling environment for the gradual handing over of the maintenance and upkeep of primary health and health related facilities to the local authorities;
- ❖ To increase the awareness of the various stakeholders on the benefits of timely maintenance.

6.2.2.2 The Current Maintenance Structure

The support services, i.e. maintenance and transport, are under the Deputy Permanent Secretary, who is responsible for and controls the budget for the maintenance and upkeep of the primary and secondary level health and health related facilities. The tertiary level facilities have their own buildings and equipment maintenance teams.

The maintenance of the six major health centres, 12 minor health centres, 19 dispensaries, 177 outreach stations, 396 village health posts, two nurses' training schools, staff houses, offices, medical and health headquarters, solar, cold chain and biomedical equipment comes under the maintenance unit. The Unit has a staff complement of 22 tradesmen and managers as outlined in the Table below.

Table 6.6: Maintenance personnel

Staff trade	Staff complement
Management	3
Electricians	3
Carpenters	4
Plumber	6
Mason	2
Cold-chain	2
Painter	1
Welder	1

The Maintenance Unit has finally moved from their temporary accommodation in Sukuta Health Centre to their newly built office premises in Kanifing, adjacent to the Transport Unit. The facility in Kanifing comprises of two blocks, one for administration and the other includes the store, workshop and offices for the various trades.

Despite the low staff numbers, the unit has started the decentralisation process by sending staff on postings in the past few years. This move was taken with the anticipation that DHTs would have ready access to tradesmen when and wherever required with minimum delay. However, shortage of materials and equipment for supplies to those areas has hampered the whole process and staff morale has declined as a result of long waits without proper maintenance activities. A detailed breakdown of maintenance personnel within the various administrative areas is indicated below.

Table 6.7: Maintenance personnel at the various levels

Staff trade	Kanifing	NB-West	CRD
Management	3	--	--
Electricians	2	--	1
Carpenters	2	1	1
Plumber	5	--	1
Mason	1	1	--
Cold-chain	2	--	--
Painter	1	--	--
Welder	--	1	--
Total	16	3	3

6.2.2.3 Maintenance Activities

The execution of maintenance work in the health sector falls between two systems. At the tertiary level of health care, each hospital has its own maintenance team under the direct control of the Chief Executive. The secondary facilities are maintained by the maintenance team located at Kanifing, with satellite activities at Essau and Bansang. The staffs of the unit are mainly engaged with the day-to-day maintenance activities, which comes mostly as emergency repairs from health and health related facilities.

With the upsurge of Cuban Doctors and Experts in the country in recent years, the maintenance workload has also increased as a result of the need to provide them with reasonable living conditions. Although, the Cubans have been allocated with a budget for the provision of accommodations and furniture, the Unit shoulders the day-to-day maintenance activities without an increase in the maintenance budget. Priority setting for maintenance work still remains a reality. Without a proper priority setting system, facilities far from reach (i.e. those in the rural areas) will receive the least maintenance attention than those in the Kombo's.

In the Kombo areas, plumbing work has been a major problem area particular for Bakau H/C, Serre Kunda H/C, Faji Kunda H/C and Brikama H/C and has drained the Unit's resources without much of a success. The problem still remains the same with the earth around the septic tank's and soak way's being over saturated with water thus requiring constant emptying, which is costly and time consuming. The plumbing problems in some of these facilities are as a result of poor planning and workmanship, use of low quality materials and an overload on the plumbing infrastructure.

These facilities were built with the plumbing works buried in concrete under the buildings. This type of construction technique is neither maintenance friendly nor a value for money. There is a need for a shift of culture within DOSH, where buildings are financed and built without consultation with the maintenance personnel for ad-

vice on maintenance issues. The unit would eventually inherit such facilities with little or no knowledge of the design and/or construction details as has happened in nearly all the hospitals and health centres in the country.

Electrical problems are as inherent as those of plumbing. This is even made worse as a result of the poor electricity voltage supplied by the National Water and Electricity Corporation (NAWEC). Most of the electrical installations in the country are problematic and require general overhauling, which is beyond the capacity of the unit's resources. Day-to-day maintenance and servicing of air conditioners, fridges and cold-chain equipments and biomedical equipments are also a demanding area that the unit tries to address.

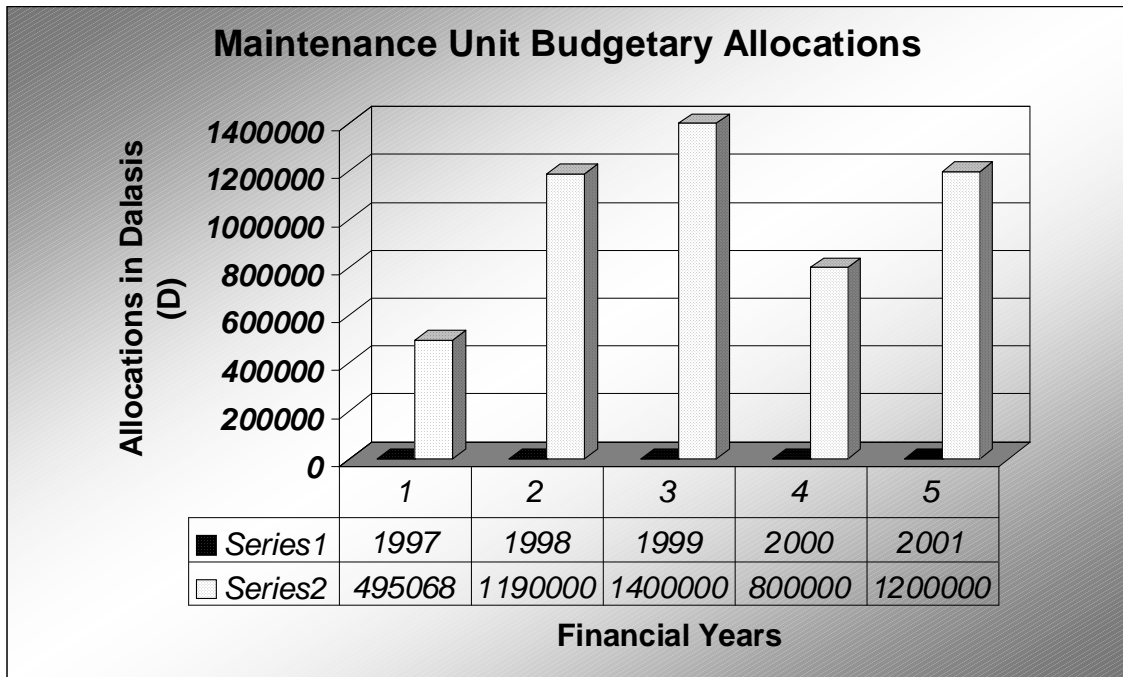
The period for the rainy season proves to be a demanding period for carpenters in both the Kombos and other administrative areas. Leaking roofs, roofs blown apart as a result of heavy winds and replacement of mosquito netting forms the bulk of the carpentry workload during this period. Now, they are mainly engaged on locks, doors, glazing and furniture replacement and repairs. Outward trekking to the rural areas is usually a problem. Trekking allowances are not readily available for staff and with the low pay scale of maintenance staff, self-catering is always impossible. Therefore trekking for long periods to enable substantial amount of work to be accomplished is difficult as imprest for the unit is not forthcoming and payment of accommodations and feeding for the staff whilst on trek is not acceptable to the Department of State for Finance.

All major construction works that are beyond the capacity of the unit are given out as contracts. Contracts are awarded to contractors by the Unit Head if the contract sum is below D25000. The criteria for the award of contracts are purely based on the lowest bidder, which is not always the best option. There needs to be a change of approach in the awarding of contracts by going into negotiation with contractors to form partnerships for the benefit of both parties. Such an approach would ensure that the contractor has a continued source of income throughout the year. However for the unit, the advantages are many. The contractor becomes used to the operation of the department thus becoming flexible with our system and foster greater understanding between the two teams. The cost of doing work even becomes cheaper than the lowest bidding system with a properly negotiated partnership arrangement. This also ensures continuous operations even when funds are exhausted and during the waiting period for the next quarterly allocation. However in any system there are bound to be disadvantages and those need to be highlighted and avoided.

6.2.2.4 Funding

The budget for the maintenance of health infrastructure has dwindled over the years. The tertiary facilities have their respective budget lines that are healthier than those for secondary facilities; the maintenance needs of the health sector remain largely among the list of priority activities. To further exacerbate the problem the health sector is currently undergoing a rapid expansion. New facilities are being built without any corresponding increase in the maintenance budget. Recently the multitude of Cuban accommodations, Sight Savers (Eye Unit) and Leprosy and TB Unit expansion projects and projects under the PHPNP are just a few examples.

For any building the annual budgetary allocations should at minimum be not less than five per cent of its development costs, for an efficient and effective maintenance regime. However the figure below not only outlines the fluctuating maintenance budget but also highlights the low budgetary allocations over the past five years that characterises the performance of the maintenance unit.



6.2.2.5 Procurement and Supplies

The current downturn in the economic situation in the country has given rise to unprecedented fluctuations in cost of construction materials. These fluctuations in cost have not been adjusted in the maintenance budget thus negatively impacting on the purchasing power of the Unit. Procurement of materials for maintenance activities is mainly carried out via the Accounts Department of DOSH. The Unit head, with the support of the Deputy Permanent Secretary, orders materials for the maintenance of health and health related facilities. Materials procured for prescribed facilities are obtained and delivered together with the team for the execution of the works. Consumable items such as light bulbs, taps, locks etc are stored in the unit’s store for use in emergency works. The procurement of materials is normally through a recognised and reliable vendor/supplier. Record of the inflow and outflow of materials to the unit’s store used to be the Card system supplied by the audits department. Such a system has not been in operation due to lack of trained persons for its operation.

6.2.2.6 Tools and equipment

A major contributor to the productivity and motivation of staffs is the availability of quality tools and equipment for the execution of their day-to-day activities. At present staffs are not supplied with basic tools. They rely on their own personal tools to function. There is no budgetary allocation for the purchase of tools and equipment for staff although more junior cadre staffs are being appointed thus increasing the current problem. This inherent problem has seriously affected the performance of the unit, as staff skills in the use and operation of high-tech powered tools and equipment are low.

6.2.2.7 Training

Training of staff is the responsibility of the Personnel Management Office. Past efforts to train staff locally have failed. Most staffs have not undertaken any form of training for the past decade or more. Training of staff is particularly important for the development of their skills and potentials and is also a motivating tool for managers. A very high percentage of our staff compliment is not literate. A systematic method of

appointing junior staff should be developed to encourage the appointment of literate persons who could be trained to high levels. The unit at present has only one highly trained person who has just achieved his Masters degree in Facilities Management and Bachelors degree in Construction Management.

6.2.2.8 Problems and Constraints

- ❖ Insufficient resources and the decline in budgetary provision
- ❖ Inflexible procurement system that does not allow fast track procedures
- ❖ Inadequate technical skills, facilities and equipment to execute maintenance
- ❖ Lack of strategic planning towards maintenance execution
- ❖ Lack of adherence to norms and standards
- ❖ Poor fuel allocation and maintenance of vehicles
- ❖ Procurement of substandard materials

6.2.2.9 Recommendations for development

In the short term:

- ❖ An increase in the budgetary allocation of the unit to meet the current fluctuations in market prices, to do the least.
- ❖ An increase in the staffing cadre but with qualified personnel from recognised institutions and also improving the image of the Unit to attract them.
- ❖ To improve the procurement system in order to shorten the lead times for materials and payment to contractors.
- ❖ Issue fuel coupons to the Unit Head for use at our disposal to avoid delays in fuel requisition from the Transport Unit.
- ❖ Review the contract agreement with Nissan Garage such that our vehicles are given priority when undergoing servicing or maintenance work at their depot.
- ❖ Allocate separate budget for training of staff and purchase of tools and equipment for the unit.
- ❖ As the need for upcountry trekking is inevitable and the need for it is high with maintenance, DOSH must see to it that allowances are made readily available to the unit in order to tackle the backlog of maintenance operations throughout the country.

In the long term:

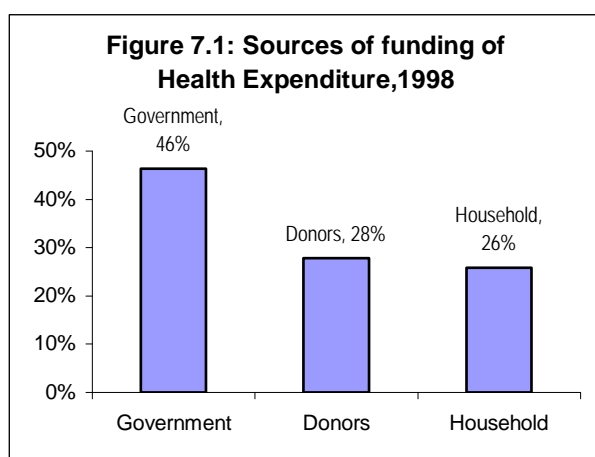
- ❖ The full implementation of the maintenance policy framework by the PHPNP and ensure that the systems in place are viable and sustainable before winding up the project.

7

HEALTH EXPENDITURE**7.1 INTRODUCTION**

The health sector in The Gambia is comprised of public and private (private for profit and private for non-profit) health services providers and the traditional healing system. Typically, Governments finance and direct the public health services at free or low-prices. Numerous non-governmental institutions and private individuals also deliver health services. Private physicians dominate provision of private modern curative services. Some private employers provide direct care for employees or finance its purchase from private practitioners. Some insurance companies also offer health care insurance packages. In addition, communities may organise and collectively finance the delivery of certain services for its members

A detailed analysis of the financing of the health sector by the above is an important step to establish a more equitable and efficient use of resources for health. This chapter aims to facilitate analysis that will provide the DoSH, and Government in particular, with sufficient information to develop a more sustainable, effective and efficient health system.

7.2 Sources of Funding for the Health Sector

The main sources of health financing in The Gambia are government through the annual recurrent and development budgets, donor, NGO, and private out-of-pocket expenditures.¹³ In 1998, total health financing from the combination of all of these sources reached Dalasis 143.3 million. On a per capita basis, this amounted to Dalasis 116 or US\$ 10.66 per person. Government provided the greatest share of resources, contributing Dalasis 66.5 million or 46 per cent of the total (See Figure 7.1). However, donors and household expenditures

were also very significant.

¹³

Private out-of-pocket expenditures are calculated on the basis of the 1998 Household Income and Expenditure Survey which finds average per capita 1998 health expenditures were 30 Dalasi. Donor health expenditures are derived from the 1999 UNDP Technical Cooperation Report.

The level of the Gambia's total health expenditures compares unfavourably to most other countries in the sub region, as well as to the average total health expenditure in Sub-Saharan Africa (See Table 7.1 for regional comparisons of health expenditure). Adjusting for the cost of living differences between countries by using purchasing power parity (PPP), The Gambia expended US\$ 56 per capita on total (public and private) healthcare. This level falls below regional neighbours Senegal (\$61), Mauritania (\$74), and Guinea (\$68), but above Mali (\$30) and Sierra Leone (\$27). In terms of health expenditure as a share of GDP, Gambia is also below regional and African averages.

Table 7.1: Regional Comparison of Health Spending

Country	Health exp. per capita (US\$) PPP	Per Capita (US\$) Current	As per cent of GDP
Burkina Faso	36	10	3.9
Cameroon	77	31	5.0
Cote d'Ivoire	62	29	3.8
The Gambia	56	13	3.7
Ghana	85	19	4.7
Guinea	68	19	3.6
Mali	30	11	4.2
Mauritania	74	19	4.8
Nigeria	23	30	2.8
Senegal	61	23	4.5
Sierra Leone	27	8	5.5
Sub-Saharan Africa	89	42	4.3

Source: World Development Indicators 2001, World Bank

7.3 Government Health Expenditures.

Public health expenditure¹⁴ levels in The Gambia have increased steadily throughout the 1990s. In 1991/92, total health expenditures were 43 million Dalasi. In 2000, total health expenditures had reached to 172 million Dalasi, a real increase of 185 per cent. Growth in public health expenditures has surpassed population growth rates. In 1991/92, real per capita health expenditures were 41.3 Dalasi. In 2000, real per capita expenditures had more than doubled to 85.1 Dalasi. Public health expenditures, measured in US dollars, were nearly US\$ 6 per capita in 2000. While this represents an improvement over 1991/92, The Gambia's per capita health spending nevertheless remains just half of the WHO recommended level of US\$ 12 to provide a minimum health care services (Better Health for Africa, 1994).

In recent years, the health sector has received an increasing share of total Government discretionary expenditures.¹⁵ Recurrent expenditures have risen more steadily than development expenditures, which have fluctuated significantly as a result of the

¹⁴ Government recurrent and development plus grants and loans recorded in the government recurrent and development budget

¹⁵ Total Government discretionary expenditures are defined as total expenditures less those expenditures dedicated to debt servicing.

lumpiness of donor programmes and their ability or willingness to provide financing to The Gambia.

For example, following the 1994 change in Government, donor programmes and financing dropped dramatically before climbing again in 1998 [See table 7.5]. Since 1999, recurrent health expenditures have averaged more than 13 per cent, while the average share of recurrent public resources (excluding debt services) devoted to health in the period 1990/91 to 2001 was ten per cent. Public health expenditure as a share of GDP averaged 2.6 per cent between 1998 and 2001. This places The Gambia among the countries with the lowest level of health care spending in Sub-Saharan Africa (Better Health for Africa, 1994).

Table 7.5 Trends in Total Public Health Expenditures (in '000 Dalasi)

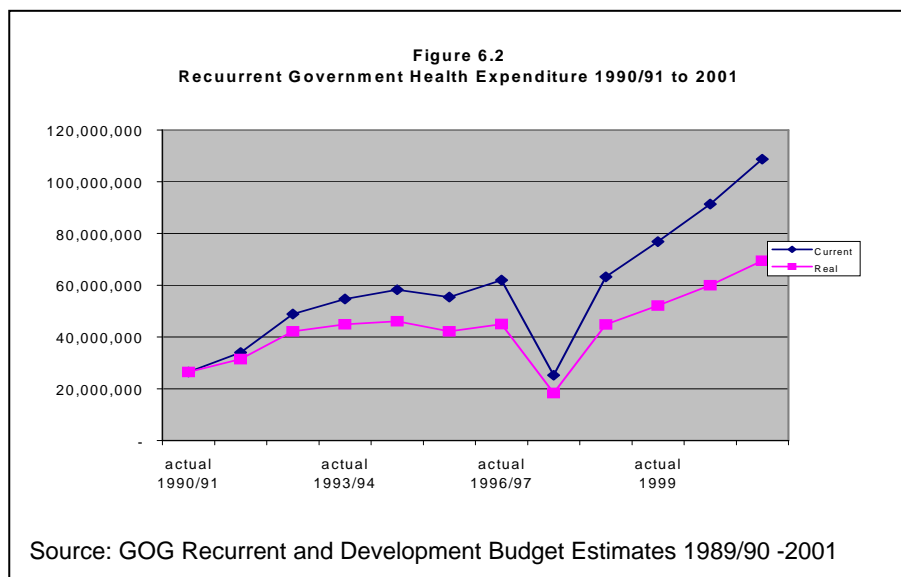
	91/92	92/93	93/94	94/95	95/96	1998	1999	2000 Rev est	2001 budget
Total Expenditure (current prices)									
Total	42,869	56,544	57,299	64,889	56,807	73,877	111,945	172,184	192,172
Recurrent	34,051	48,862	54,680	58,219	55,474	63,256	76,824	91,401	108,715
Development	8,818	7,681	2,620	6,670	1,332	10,621	35,122	80,783	83,457
Total Expenditure (Real prices, 1990)									
Total	39,583	48,745	47,005	51,295	43,166	52,342	75,971	113,009	122,812
Recurrent	31,441	42,123	44,856	46,023	42,153	44,817	52,136	59,989	69,477
Development	8,141	6,222	2,149	5,273	1,012	7,525	23,835	53,020	53,335
Real growth rate									
Total	-24.2%	23.1%	-3.6%	9.1%	15.8%	170.3%	45.1%	48.8%	8.7%
Recurrent	18.8%	34.0%	6.5%	2.6%	-8.4%	144.6%	16.3%	15.1%	15.8%
Development	-68.4%	-18.7%	-67.5%	145.4%	-80.8%	623.0%	216.8%	122.4%	0.6%
Per Capita Expenditure (real prices, 1990)									
Per capita exp.(Dalasi)	41.27	48.91	45.28	47.42	38.30	42.77	59.57	85.05	88.70
Per capita exp. (US\$)	4.52	5.53	4.77	5.00	3.96	3.92	5.06	5.91	5.91
Health share of GoG recurrent exp.	7.9%	10.8%	11.4%	11.8%	10.8%	11.5%	13.4%	12.8%	13.6%
Health expenditure as % of GDP						1.67%	2.27%	3.21%	3.31%

Source : Government Recurrent and Development Estimates

In sum, Government health expenditures have increased from very low levels at the beginning of the 1990s, with growth in health expenditures outstripping both inflation and population growth. The increases have been necessary, as The Gambia's health expenditure levels generally remain low when compared with the levels in the sub-region. The following sections provide description of how these overall expenditures are used.

7.4 Patterns of Expenditure (Intra-sectoral Allocations).

7.4.1 Recurrent Expenditure



In 1991/92 the health recurrent budget was D49 million and reaches D91 million in 2000 in current term. During the period 1992/93 to 2000 recurrent expenditure showed an upward trend in both nominal and real terms (Figure 7.2).

The recurrent expenditure as a share of the total government recurrent expenditure (excluding debt services) ranges fairly between 10.8 per cent and 13.4 per cent.

This represents a real per capita recurrent expenditure of D37 to D45. In 2000 the recurrent expenditure as a proportion of GDP reaches 1.2 per cent, which is slightly below the average in Sub Saharan Africa (Better Health for Africa). The section below shows a distribution of the recurrent expenditure by the type of services (functional composition) and by inputs (economic composition).

7.4.1.1 Functional composition

Earlier chapters have described The Gambia's adoption of a Primary Health Care (PHC) system, organised around primary, secondary, and tertiary levels of care. The primary level comprises a network of Village Health Centre, dispensaries and minor health centres and key villages that serve as points of entry into the system, and which have had significant impact in expanding access to health services. The secondary level is served by major health centres. Tertiary services are currently provided by three hospitals operated by the DoSH, with construction of a fourth (Bwiam) nearly complete and a fifth (Sere Kunda) planned. Individuals are referred up the pyramid from primary to tertiary care as the complexity of their health needs increases. In general, preventive care interventions take place at the primary and secondary levels while curative services dominate the tertiary level.¹⁶

Unfortunately, the functional classification system used by the Department of State for Health and Social Welfare and Department of State for Finance and Economic Affairs does not readily permit disaggregating recurrent public spending on Health by primary, secondary and tertiary levels of care, discouraging a more transparent tracking of expenditures. However, Table 7.6 attempts to reclassify DoSH spending into management, primary care, secondary care, tertiary care, and research and training.

¹⁶ However, this simple assumption does not always hold. Preventive health messages, such as through the hospital's antenatal clinics, are also delivered at the hospital tertiary level, while expatriate medical doctors have recently been placed in very basic, rural dispensaries at the primary and secondary level. Nevertheless, the general distinction between levels does hold and assists analysis.

Table 7.6: Functional composition of recurrent health by levels expenditure (in '000 D)

	1993/94	1994/95	1995/96	1998	1999	2000	2001
Total Recurrent Exp. (Current prices)	54,680	58,219	55,474	63,256	76,823	91,401	108,714
Management	7,207	7,258	8,122	8,652	9,739	10,862	19,771
Tertiary Care	24,568	27,601	23,389	27,501	36,149	48,382	48,038
Primary and Secondary Care	21,361	26,657	22,181	24,496	27,677	35,316	39,340
Training and research	1,543	1,703	1,782	2,606	3,258	1,841	1,896
Total Recurrent Exp. (Real prices, 1990)	44,856	46,023	42,154	44,817	52,136	59,989	69,477
Management	5,912	5,738	6,172	6,130	6,609	7,129	12,424
Tertiary Care	20,154	21,819	17,773	19,485	24,532	28,473	30,700
Primary and Secondary Care	17,524	17,120	16,855	17,356	18,783	23,179	25,141
Training and Research	1,265	1,346	1,354	1,847	2,221	1,108	1,211
% share of recurrent health expenditure							
Management	13.2%	12.5%	14.6%	13.7%	12.7%	11.9%	17.9%
Tertiary Care	44.9%	47.4%	42.2%	43.5%	47.1%	47.5%	44.2%
Primary and Secondary Care	39.1%	37.2%	40.0%	38.7%	36.0%	38.6%	36.2%
Training and Research	2.8%	2.9%	3.2%	4.1%	4.2%	2.0%	1.7%
Per Capita (current prices)							
Management	7	7	7	7	8	8	14
Tertiary Care	24	26	21	22	28	33	35
Primary and Secondary Care	21	20	20	20	22	27	28
Training and Research	1	2	2	2	3	1	1
Total	53	54	49	52	60	69	79
Per Capita (real prices, 1990)							
Management	6	5	5	5	5	5	9
Tertiary Care	19	20	16	16	19	21	22
Primary and Secondary Care	17	16	15	14	15	17	18
Training and Research	1	1	1	2	2	1	1
Total	43	43	37	37	41	45	50

Source: Estimates of Government Recurrent Expenditure, various year

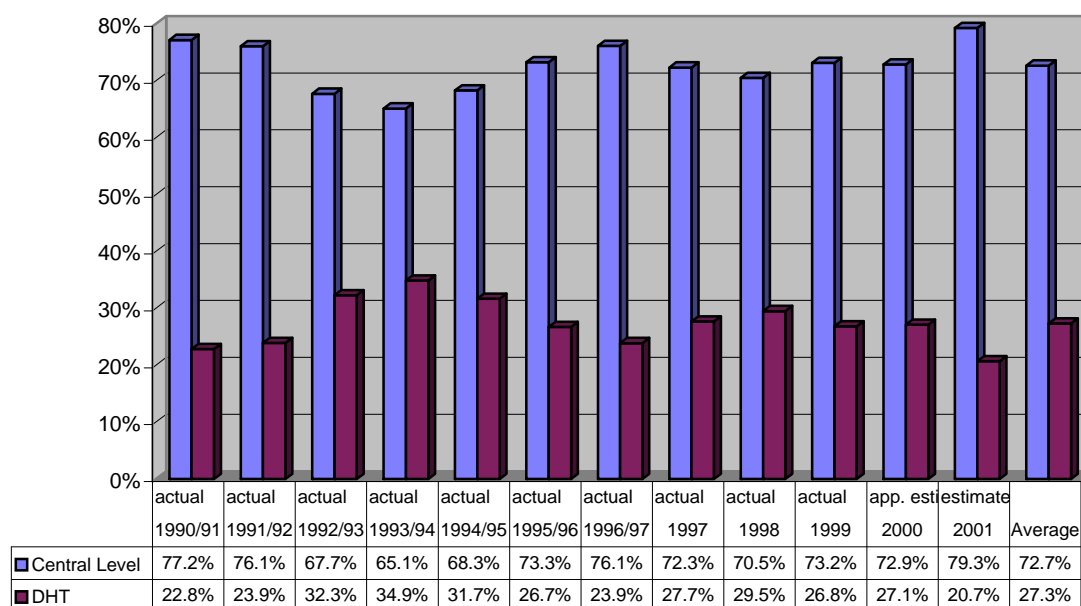
By this reclassification, primary and secondary care includes expenditures on dispensaries, sub-dispensaries, health centres (major and minor) and the drugs and dressings used at these facilities, while recurrent expenditure on tertiary health care are monies spent on hospitals. Although this disaggregating is not perfect (e.g. the inability to separate primary and secondary), analysis of these data can provide some idea about the efficiency and equity of public spending on health.

Management

Management, which includes monies spent at the central level and divisional health teams for management and administration, absorbed on average 15 per cent of health recurrent budget between 1990/91 and 2001. The management share of the recurrent budget has been fluctuating between 18 per cent and 12 per cent, with the recent 2001 budget at the high end of this range.

The central level consumes the lion’s share of the recurrent management budget, averaging nearly 73 per cent for the period under consideration. With the decentralization of health care Management to Divisional Health Teams in the early 1990s, additional resources initially flowed to the divisional level and the central level’s share of the Management recurrent budget fell in relative proportion (Figure 7.3). However in the last half of the decade the trend has changed in favour of the central level, with central Management comprising 79 per cent of total administrative budget in 2001

Figure 7.3 Central and DHT share of Recurrent Administration Expenditure 1990/91-2001



Primary and Secondary Care

One of the key messages in health economics is that preventive care interventions should have the first claim on public resources, because of their pure public good nature and the substantial externalities they create for the society and also because of under-spending on them by private agents. In most developing countries, however, the bulk of government health spending goes into providing curative services, especially at the tertiary level, with very few resources allocated to preventive and primary health programmes and The Gambia is no exception. Such a distribution is not only technically inefficient but is also highly inequitable, as household survey data typically show that a disproportionately large share of hospital users tend to be drawn from the more affluent sections of a population and their location tend to be urban bias. Recent growth in the number of hospitals in The Gambia has generated concern in some quarters that tertiary expenditures could “crowd out” expenditures on primary and preventive care. Primary and secondary expenditures have risen in proportion to increases in overall health expenditures.

Together, primary and secondary health expenditure in The Gambia received about 35.3 million Dalasis in 2000, equivalent to about 38 per cent of total health expenditures. This represents a real increase of 32 per cent in primary and secondary expenditures since 1993. In per capita terms, there has been little real change in primary and secondary health expenditures. Nevertheless, levels of 20 to 28 Dalasis per

person remain below international standards and, if it were possible to disaggregate purely preventive measures, this figure would be much lower.

Tertiary Health Care

In 1998, Farafenni Health Centre was expanded and converted to a 250-bed hospital with surgical wards. A hospital in Bwiam is currently under construction and should be operational in early 2002. The addition of Farafenni has contributed to a 41 per cent increase in tertiary level recurrent expenditures since 1993. In 2000, hospital expenditures were 48.5 million Dalasis; translating to D33 per capita representing nearly half of all DOSH recurrent expenditures.

However these figures should be interpreted with care as most of the hospitals do offer both primary and secondary care in addition to the tertiary services they offer. These have technical efficient implication in a bid to reallocate resources to the basic health and preventive services. Though the estimates are very crude and raw, it is an attempt to estimate the proportion of hospital expenditure directed for the provision basic health services. In 2000 the estimation shows that RHV spent ten per cent of its recurrent budget on basic health services. Though it was difficult to disaggregate the expenditure for the other hospitals their case would not be different from RVH's. If disaggregate data were available the proportion would have been greater.

Hospitals however play an extremely important role in the PHC referral system, providing support and technical assistance to lower level structures as well as training for health staff. With the addition of AFPRC General Hospital in the North Bank, facilities in The Gambia are better distributed to enable a regional referral system. At the same time, one problem that is often cited in The Gambia is insufficient delineation of services provided at the different levels of care. In a properly functioning system, each level of the health pyramid provides only what cannot be provided at lower levels, and should not offer services available at higher levels. This is important for economic and expenditure reasons in considering both allocative efficiency and equity as it is estimated that the unit cost of treating patients at the primary/secondary levels is much lower than at the hospital level. In The Gambia, significant wastage of resources—trained staff, space, equipment, etc.-- occurs when illnesses, which could be treated at lower levels, are treated at tertiary level.¹⁷ Moreover, they rob health centres and dispensaries of their chance to gain the credibility required for provision of good quality primary care, thus lessen the burden on referral facilities.

As the numbers of hospitals increase in The Gambia, additional attention is required to ensure that human and financial resources are not siphoned away from primary and secondary health facilities. Analysis should be undertaken to weigh the merits of hospital enlargement as opposed to hospital decongestion through improved performance at lower levels of the health pyramid.

Training and Research

Training and research expenditures are very low in The Gambia in general. Two of the training institutions of the health sector (School of Public Health and the School of Nursing and Midwifery) are on the budget line of the Department of State for Education. Training and research are the monies spent on the other two nurse training institutions and The Gambia Government and MRC research. In 1991/2 training and research amounted to D1.1 million and have being increasing both in current

¹⁷ According to some evaluations, the cost of treating a case could be 10 to 25 times higher in hospitals than in lower level facilities.

and real terms averaging to D1.8 million between 1991/92 and 2000. This expenditure amount averages to a very low percentage of 3.2 of the total recurrent budget. Efforts to train and retain appropriate health staff have been the subject of manpower studies and will require additional focus in future, especially given the sharp drop in nurses that has been highlighted in chapter three (a 16 per cent drop in the number of public sector nurses between 1997 and 2001).

A further disaggregation of the functional composition of the recurrent budget in Figure 7.7 indicates various components of the classification by the service.

Table 7.7: Functional composition of Recurrent Budget 1993/94 – 2001 in ('000D)

	1993/94	1994/95	1995/96	1998	1999	2000	2001
Central Level	4,694	4,939	5,952	6,100	7,126	7,917	15,416
Divisional Level Care	2,513	2,299	2,170	2,553	2,613	2,945	4,024
Hospitals	24,094	26,922	25,515	38,432	38,082	43,382	44,540
Health Centres	8,084	8,240	8,695	9,711	11,305	14,734	18,086
Dispensaries	2,114	2,126	2,247	2,887	3,099	4,954	5,543
Vertical programmes	3,234	3,335	3,093	2,879	3,823	4,180	4,211
Training and Research	1,523	1,703	1,782	2,206	3,258	1,840	1,896
Drugs and Dressings	7,930	7,946	8,146	9,000	9,451	11,450	11,500
% share of recurrent health expenditure							
Central Level	8.7%	8.6%	10.3%	8.2%	9.0%	8.9%	14.7%
Divisional Level Care	4.6%	4.0%	3.8%	3.4%	3.3%	3.2%	3.8%
Hospitals	44.4%	46.8%	44.3%	51.8%	48.4%	47.5%	42.3%
Health Centres	14.9%	14.3%	15.1%	13.1%	14.4%	16.1%	17.2%
Dispensaries	3.9%	3.7%	3.9%	3.9%	3.9%	5.4%	5.3%
Vertical programmes	6.0%	5.8%	5.4%	3.9%	4.9%	4.6%	4.0%
Training and Research	2.8%	3.0%	3.1%	3.5%	4.1%	2.0%	1.8%
Drugs and Dressings	14.6%	13.8%	14.1%	12.1%	12.0%	12.5%	10.9%

Source: The GoG Recurrent and Development Estimates

7.4.1.2 Economic Composition Of Recurrent Health Expenditure

In addition to the functional composition of expenditures described above, health expenditures can also be disaggregated into the economic categories—wages, operations, maintenance, etc.—in which they fall, such disaggregation facilitate analysis of efficiency of expenditures.

Table 7.8: Distribution of DOSH recurrent expenditures by input category (in '000D)

	1993/4	1998	1999	2000	2001
Total Health recurrent exp.	46,720	73,685	105,510	89,842	105,313
Personnel emolument	25,520	36,596	67,734	44,888	51,240
Operations and maintenance	18,859	32,803	32,508	39,204	40,240
of which drugs/dressings	6,586	19,000	17,881	22,900	22,930
O/w patients food	3,114	3,637	3,687	4,360	4,300
O/w medical stores	2,822	3,397	3,290	3,860	3,435
O/w vehicle fuel	2,822	2,227	2,485	2,479	2,529
O/w vehicle maintenance	0.00	0,568	0,684	0,741	0,809
O/w maint. H/centres, Dis, building, gen- erators, Equip	3,683	2,627	3,209	3,085	3,701
O/w others	1,007	1,348	1,272	1,778	2,543
Expenses of TAS	0.00	1,049	1,098	1,535	7,035
Grants and contributions	0,752	0,361	0,743	0.175	0,580
Treatment of Gov. off. Abroad	0,275	0,798	0,862	1,000	1,000
National Laboratory service	0.00	0,202	0,497	0,527	0,600
Rents	0,368	1,375	1,050	1,570	1,070
Training	0,187	0,073	0,113	0,125	0,100
Domestic capital Exp.	0,759	0,428	0,905	0,825	0,831
% of Total					
Wages and allowances	54.6%	49.7%	64.2%	50.0%	49.9%
Operations and maintenance	40.4%	44.5%	30.8%	43.6%	39.2%
of which drugs/dressings	34.9%	57.9%	55.0%	58.4%	57.0%
O/w patients food	16.5%	11.1%	11.3%	11.1%	10.7%
O/w medical stores	15.0%	10.4%	10.1%	9.8%	8.5%
O/w vehicle fuel	8.7%	6.8%	7.6%	6.3%	6.3%
O/w maintenance	0.0%	1.7%	2.1%	1.9%	2.0%
O/w maint H/centre, Disp, building, Gen- erators, Equip.	19.5%	8.0%	9.9%	7.9%	9.2%
o/w others	5.3%	4.1%	3.9%	4.5%	6.3%
Expenses of TAS	0.0%	1.4%	1.0%	1.7%	6.8%
Grants and contributions	1.6%	0.5%	0.7%	0.2%	0.6%
Treat. of Gov. off. Abroad	0.6%	1.1%	0.8%	1.1%	1.0%
National Laboratory Services	0.0%	0.3%	0.5%	0.6%	0.6%
Rents	0.8%	1.9%	1.0%	1.7%	1.0%
Training	0.4%	0.1%	0.1%	0.1%	0.1%
Domestic Capital Exp.	1.6%	0.6%	0.9%	0.9%	0.8%

Wages and Salaries

In 2000, DOSH wages and salaries were nearly 45 million Dalasis, comprising 50 per cent of total recurrent health expenditures. However, the personal emolument figure in Table 7.8 does not include the salaries of a significant number (over 200) of non-Gambian doctors and nurses who are spread throughout the country. Their salaries are paid by the Republic of China (Taiwan) and are not included in the Government's estimates of recurrent or development expenditure. In 2000, the salaries paid to non-Gambian doctors by ROC were US \$ 500,000 or nearly Dalasis 7.2 million. If these salaries were added to DOSH recurrent wage expenditures, the sum would reach about 53 million Dalasis. Furthermore, while expatriate doctor salaries are paid by ROC, the Government of The Gambia pays for housing and allowances through the TAS budget in the recurrent estimates. In 2001, Government paid about 7 million dalasis for the subsistence costs of these doctors. If these wage and allowance figures were added to the recurrent wage bill, government wages and salaries would jump further

It is sometimes argued that these salaries, paid by a grant from ROC, are a "free" good to The Gambia. However, if this grant were not used to pay doctors salaries, it could be used for alternative goods or services (e.g. drugs, maintenance, etc.) and one could thus argue that there is significant opportunity cost for these doctors. The expected duration of the non-Gambian doctors (and the grant to pay for them) is expected to continue until such a time that the first two batches of the medical school have graduated. It is hoped that additional Gambian doctors will have been trained and retained in the country and fewer expatriate doctors will be needed.

If one removed the salaries of policy makers, administrators and support staff from the wages and salaries budget, one could narrow the wage bill to those who are direct service providers. In 2000, the wages of direct service providers (doctors, nurses and technicians) were about 38 million Dalasis or 85 per cent of the total DoSH wage bill.¹⁸ Wages of personnel employed in hospitals comprised an average of more than 50 per cent of the wage bill through the 1990s. If DOSH priority is to increase access to health facilities in rural areas, the distribution and commensurate wages of providers located in non-hospital facilities will presumably have to increase.

Drugs and Dressings

One of the most important components of the operations budget is the amount spent on drugs and dressings. In 2000, Government spent nearly D 23 million on drugs and dressings. Hospitals received Dalasis 11 million, or just under 50 per cent of the total drug expenditure, split between RVH (24 per cent), Bansang (13 per cent) and AFPRC General Hospital (11 per cent). Public drug expenditure equates to about D 16.3, or \$1.25 per capita, and compares favourably to sub-regional and Sub-Saharan averages. Moreover, public drug expenditures are complemented by significant donor, NGO, and private out-of-pocket drug expenditures purchased in the numerous formal and informal pharmacies and drug dispensaries throughout the country. Adding these to public drug expenditures, one derives a drug per capita expenditure greater than the state figure above. Public drug expenditures are procured centrally then distributed to regional stores and from there directly to health facilities. Distribution is determined based on previous annual returns and stock balance at the drug store.

¹⁸ This figure is an estimate derived from adding the wage bill paid to all personnel at hospital, health centres, and dispensaries. Administrative staff working within these institutions, however, would be included.

Maintenance

In 2000, Government estimates of expenditure indicate that Dalasis 3.8 million were spent on maintenance of vehicles, equipment and facilities. Maintenance expenditures represent about four per cent of the total government recurrent budget, an extremely small percentage of the actual value of assets being maintained, and have generally fallen in real terms since the early 1990s.

Recent studies have identified insufficient financing for maintenance as one of the key problems in the health sector (Health Mapping Study). For example, the DOSH transport fleet, comprised of four-wheeled vehicles (ambulances, utility and other) and motorcycles, is in poor state; only 39 per cent of DOSH's four-wheeled fleet is completely roadworthy, while 60 per cent of the motorcycle fleet is roadworthy. Given that over 50 per cent of health services at the peripheral level are delivered on a mobile basis, these figures represent a significant constraint to quality care.

In addition to insufficient financing, maintenance is plagued by an inadequate and insufficiently trained workforce and slow and centralised decision-making. Maintenance requests are typically forwarded to the District Health Team (DHTs) who, in turn, passes them on to the central level where the actual budgetary decisions and allocations are determined. In many cases, the simple repair of doors, windows, and non-medical equipment are referred to central level where, if budget is available, an allocation is made and/or spare parts procured.

A number of actions should be considered to improve maintenance within the DOSH:

- ❖ Undertake careful assessment, and revise upwards, the level of maintenance financing. Based on 5 per cent investment value and an estimate of the annual value of spare parts, a recent study recommends increasing the Dalasis 750,000 currently allocated to vehicle maintenance to about two million Dalasis. Similar increases may be necessary to properly maintain facility and equipment.
- ❖ Improve the management information system to provide accurate, timely data on maintenance of vehicles and infrastructure, including age of equipment, causes of breakdowns, repair costs, etc.
- ❖ Decentralise maintenance responsibilities and expenditures to the district levels;
- ❖ A recent initiative has begun to contract out some of the DoSH's routine and special maintenance. Depending on its success, this initiative may be expanded to include additional vehicles and other equipment.

7.4.2 Development Expenditure

The development budget is financed by three main sources- external grants, external loans and The Gambian Local Fund (GLF). Funds are generally earmarked towards specific project and as a result development expenditure fluctuates widely depending upon changes and delays in the implementation, interest of donors and availability of government finances. A review of the development budget between 1991/92 and 2000 (Table 7.9) brings out a stark pattern. The development budget ranges from D8.8 million in 1991/92 to D81.0 million in 2000. The greater proportion of the expenditure is from External Loans, followed slightly by Donor grants. There has been a significant reduction in External Grants from 1995/96 to 2000. In complement there has been 336 per cent increase in the GLF contribution to the development budget from D1.5 million in 1991/92 to D6.4 million in 2000. Between 1998 and 2000 the development budget has expanded from D10.6 million to D80.8 million.

The main area of expansion has been the PHPNP, which accounted for 92.3 per cent of the development budget in 2000.

Table 7.9 Development Health Expenditures (in '000 Dalasi)

	91/92	92/93	93/94	94/95	95/96	1998	1999	2000 rev. est.	2001 budget.
Total Development Expenditure (current prices)									
External Grant	40,355	32,976	34,144	17,856	9,497	62,580	19,510	226,520	235,705
External Loan	98,429	121,205	159,487	117,457	39,228	144,083	53,775	296,731	425,061
GLF	18,242	32,949	34,927	32,225	47,890	51,084	27,722	45,000	61,000
Total	157,026	187,131	228,559	167,568	96,616	257,748	101,007	568,251	721,766
Total Development Health Expenditure (current prices)									
External Grant	4,982	472	2,101	4,297	2	0	0	0	0
External Loan	2,359	5,570	0	1,000	0	7,415	28,428	74,344	77,062
GLF	1,475	1,640	518	1,373	1,330	3,206	6,694	6,438	6,395
Total	8,818	7,682	2,620	6,670	1,332	10,621	35,212	80,782	83,457
Health Development Expenditure as% of Total Development Expenditure									
External Grant	12.3%	1.4%	6.2%	24.0%	0.0%	0.0%	0.0%	0.0%	0.0%
External Loan	2.4%	4.6%	0.0%	0.9%	0.0%	5.1%	52.9%	25.1%	18.1%
GLF	8.1%	5.0%	1.5%	4.3%	2.8%	6.3%	24.1%	14.3%	10.5%
Total	5.6%	4.1%	1.1%	4.4%	1.4%	4.1%	34.8%	14.2%	11.6%
As% of Health Development									
External Grant	56.5%	6.1	80.5%	64.4%	0.2%	0.0%	0.05	0.0%	0.0%
External Loan	28.8%	72.5%	0.0%	15.0%	0.0%	69.85	80.9%	92.0%	92.3%
GLF	16.7%	21.4%	19.9%	20.6%	99.8%	30.2%	19.1%	8.0%	7.7%

Source: The recurrent and Development budget 1989/90 to 2000

7.4.3 Household Health Expenditure

7.4.3.1 Cost Recovery

Gambian patients pay D5 for each outpatient visit, for registration at antenatal care (ANC) clinic or for registration of a child at the MCH clinic. Non-Gambians pay D20, D50 and D20, respectively, for the same services. The fee covers consultations, including prescription of medicine.¹⁹ A single payment for the ANC service covers a woman throughout her pregnancy; MCH registration covers a child up to the age of five. These fees have been in place, unchanged, since 1988. The 1994-2000 health policy exempts patients suffering from certain disease or high risk groups and all emergency patients needing referral services enjoy free treatment at the hospital level. Exemptions from OPD fees are provided to the very poor, and to armed forces personnel and their family. Given these exemptions, and the fact that return visits of pregnant women and registered children are free, a significant number of health care

¹⁹ However, when the required medicine is not available at the health facility, patients must go to a privately run pharmacy or dispensary and pay for the available drug.

visits do not involve any collection of fees. The 1998 Household Income and Expenditure Survey indicated that just 57 per cent of health consultations involved a user fee that was collected at the health facility.

In-patient and dental care operate on a different scale. General admission, per week in a general public ward, costs D 50 (D200 for a non-Gambian), while admission to a private ward of a public hospital costs up to D 750. The addition of private wards is the result of a policy change instituted in 1999 that was put in place to increase cost recovery to those who could afford it. In 2000, D32,322 was the monthly average income of the private ward in RVH and D137,170.00 was collected.

Table 7.10: Average Expenditure on Health Consultation by Poverty Category and Health Care Provider

<i>Health Provider</i>	<i>Extremely poor</i>	<i>Poor</i>	<i>Non poor</i>	<i>Total</i>
Public	9	10	10	9
Private	23	23	54	35
Marabout	28	192	40	70
Total	11	17	45	15

Source: 1998 National Household Poverty Survey Report

Household survey data from the 1998 Household Income and Expenditure Survey indicate that there may be substantial scope for increased cost recovery via user fees for health services. The Survey shows that, on average, Gambians spend D9.00 on health consultation (comprising fee, drugs, and transport) for a public facility. The Survey indicates that Gambians would be willing to pay substantially more in consultation fees for perceived better quality care. For example, for private providers (which presumably provide better quality care), individuals are willing to pay an average of D35.00. Even traditional healers or Marabout charge D70 for a consultation. The willingness to pay higher fees to private providers exists even among poorer income groups.

Table 7.11: Mean Annual Per Capita Expenditure by Division (in Dalasi)

	<i>Banjul</i>	<i>KMA</i>	<i>WD</i>	<i>NB</i>	<i>LRD</i>	<i>CRD</i>	<i>URD</i>	<i>Gambia</i>
Health Centre	17	34	11	11	6	8	9	16
Private clinic	47	94	29	30	8	10	29	54
Public hospital	23	16	17	34	13	17	39	21
Private hospital	18	372	32	38	5	4	11	168
Marabout	175	74	22	32	7	14	17	30
Trad. Medicine	90	108	10	20	19	19	26	36
Other health, personal care	--	108	12	1	--	--	7	26
TOTAL	40	62	15	21	8	13	21	30

Source: 1998 National Household Poverty Survey Report, Government of The Gambia

The cost of private health care is higher than Government health care in all the divisions of The Gambia, especially in Kanifing where many private operators exist. These data suggest that if government health facilities were to improve the quality of

care they offer and raise fees closer to levels charged by private providers, there could be a significant increase in the budgetary resources available for health.

7.4.3.2 Utilisation of Fees

Fees that are collected from non-hospital facilities are remitted to the central level and collected in the Drug Revolving Fund (DRF). Until recently, DoSH did not have direct access to DRF funds, but instead sought approval and clearance on their use from the DoSFE. However, in 1999 the Permanent Secretary and senior management of DoSH were provided greater authority and discretion to allocate DRF revenues to priority areas within the health sector. DRF non-hospital collections in 1999 and in 2000 were D 2,592,961 and D 2,543,317, respectively. This comprises just 3 per cent of total DoSH recurrent expenditures, or 21 per cent of the budget directed to non-hospital, non-administration DoSH expenditures.

A breakdown by Division indicates that Western Division collects the most revenue, collecting 52 and 54 per cent of total DRF revenue in 1999 and 2000 respectively. However, Western Division is also the most populated and busiest health service area and thus one would expect it to collect more DRF revenue.

7.4.3.3 Community Financing under the Bamako Initiative

Since 1993, The Gambia has been undertaking programmes under the Bamako Initiative to encourage local communities to play a greater role in the operation, management, and financing of health facilities. Ten health facilities, ranging from small dispensaries to major health centres, were initially chosen to participate. Each has been given the authority to retain the user fees collected at the facility, instead of remitting them to the DoSH and DoSF. Co-management committees, comprised of members from the local community and government workers, determine how these revenues are used.

7.5 Developing an Expenditure Framework.

The Gambia's 1998 Health PER identified several important constraints to improved expenditure planning and prioritization that still remain valid today. These include:

Health spending decisions that are highly centralised. The Divisional Health Teams have limited authority over budget and expenditure decisions. Although the DHTs contribute to budget planning and negotiations, the discretion and responsibility for accounting and disbursement of funds lies with the central authorities in DoSH and DoSF. As a result, the budgetary system contains too many steps and intermediaries, and district level staff and managers do not always know the amount of the national budget they will receive each quarter. In turn, this makes it difficult to plan and prioritize their expenditures.

A second area strikes at the central role of the Department of Health Planning and Information in facilitating development of the Sector Policy and Medium-term Strategy, and in formulating consistent recurrent and development budgets to implement it. Recent and significant effort has been underway to develop a National Health Sector Policy.

Implementing the broad policy objectives of the recent policy will require careful prioritization of activities, a multi-year implementation period, and the likely re-orientation of existing expenditure patterns. Such systematic planning of expenditures, matched to projections of expected revenues, is essential for effective utilization of scarce resources available to health

8

FUTURE COST PROJECTIONS

The last major detailed cost study of The Gambian Health Sector was conducted in 1995 [*Cost Analysis of the Health Care Sector in The Gambia*, Ministry of Health, The Gambia and WHO, August 1995]. This study considered all levels of care and covered both recurrent and capital costs contributed by the government, donors and the community. While it has not been possible to duplicate the detailed work of this study this chapter examines and costs the health care packages which the new Health Policy has defined and examines their implications for the implementation of the health policies under current and ideal conditions. The chapter also considers the budget for the sector projected over the medium term under two scenarios of resource increase. It concludes with the discussion of a number of indicators that will enable progress towards increasing access to quality health care for the poor to be measured and monitored.

8.1 Health care packages

The Health Policy currently being developed for the period 2002-2006 provides for a series of essential health care packages available to all. These do not cover all of the health services that might be provided, or even all of those that are currently provided. Rather they seek to lay out what is considered to be essential for basic health. Beyond these services then different principles might apply in providing for, costing and paying for the services. By definition then these services should be available to the poor, as they are considered the minimum essential for maintaining a dignified quality of life as far as health goes. The services include both curative and preventative aspects of service delivery.

The packages are designed to meet the needs of babies, children and adults, delivered in a variety of settings: primary, secondary and tertiary. In order to cost the delivery of these essential services they have been defined in terms of the treatment and labour inputs appropriate to the settings, the type of patient and the disease suffered. In estimating costs at each level population estimates based on the projections from the 1993 Census have been used, together with tables reflecting the incidence of various diseases within the relevant sections of the population. The figures therefore have a margin of error reflecting the length of time since the last Census and also of the severity of the diseases reflected in the incidence tables. For example if there has been a marked change in fertility in the past ten years this will influence the actual number of babies and children in a theoretical catchment area for a VHS or minor health centre as opposed to the calculated number based on behaviour at the time of the Census. Further the incidence of treatment conditions is not the same as the incidence of conditions – while the ratio of malaria cases to population is relatively well established, the proportion of these requiring treatment at each level may be affected by changes in behaviour brought about by education programs. Seeking early treatment may mean larger numbers at VHS and fewer numbers in

tertiary care. However these estimates provide a first basis for costing the delivery of policy – they may be, and should be in due course, refined by better data.

8.1.1 Primary level delivery costs

Delivery of essential health services at the primary level is through Village Health Services. While these are mainly staffed by voluntary trained local personnel, supervised by a village committee and a Community Health Worker from the DHT, there are now some locations where a doctor is posted. Currently these are Cuban doctors and the locations are listed in Annex 1 which gives the location of all staff in government health delivery facilities. Services without a resident medical doctor are defined as VHS 1 and those without a doctor as VHS 2.

8.1.1.1 Village Health Service I

Personnel:

The workers at this level are largely voluntary, supervised by a village committee and the Community Health Worker. The annual cost per village post is defined at the post level as the supervision is budgeted elsewhere.

Table 8.1: Village Health Services (I) Personnel costs

Category	Number	Annual cost	Total cost
Village Health Worker(250)	1	3,000	3,000
Traditional Birth Attendant(250)	1	3,000	3,000
Total	2		6,000

Services

These are defined in terms of babies, children, adolescents, and adult women and men, and cover the basic treatments at village level. The full range of services is found in Table ___ in Annex __. At this level one of the major services is provided through the Traditional Birth Attendants, who are present at most deliveries. The Village Health Worker is responsible for both preventative and simple curative treatment, and with referral to another level of services.

Costs

Costs at this level are minimal in keeping with the limited nature of the services provided. They include

Table 8.2: Village Health Services (i) costs

Category	Cost
Labour	6,000
Drugs	1,500
Equipment	2,000
Consumables	-
Total	9,500

8.1.1 2 Village Health Services II

Personnel:

VHS II services are delivered by voluntary workers but with the assistance of a medical doctor and a community health nurse. They are also assisted by a village committee.

Table 8.3: Village Health Services (II) Personnel costs

Category	Number	Annual cost	Total cost
Village Health Worker	1	3,000	3,000
Traditional Birth Attendant	1	3,000	3,000
Community Health Nurse(4)	1	9,084	9,084
Medical doctor (9)	1	26,436	26,436
Total	4		35,520

Services

The presence of a medical doctor and supporting Community Health Nurse in a limited number of Village Posts immediately affects the range of services which can be offered. This in turn affects the range of drugs and equipment which must be stocked. The services provided

Costs

The provision of extra personnel and equipment means that there is a significant rise in total costs. The estimated cost of a Village Post with a medical doctor is over eight times that of a simple post with voluntary staff. This is without taking into account housing and other associated allowance cost for the salaried staff. However there might well be some compensating reduction in the cost of service delivery at adjacent minor and major health centres as some cases will not be referred.

Table 8.4: Village Health Services (il) costs

Category	Cost
Labour	35,520
Drugs	15,000
Equipment	30,150
Consumables	-
Total	80,670

8.1.1.3 Maternal and Child Health Outreach Clinic

Presently the health centres provide this service, and that has considerable implications for the use of the ambulance and also the availability of skilled health workers at the health centre. An option for consideration is the centralisation of MCH outreach services under the Divisional Health Team, to be managed by the Divisional Public Health Nurse.

Personnel

The Outreach Clinic teams function as a mobile unit focussed on maternal and child health. They deliver services to women and babies through a series of clinics. The staff therefore includes a driver.

Table 8.5: MCH Outreach Clinic Personnel costs

Category	Number	Unit Cost	Total cost
SRM (State Registered Midwife) (7)	1	18,480	18,480
CHN Midwife (6)	1	14,556	14,556
Community Nurse Attendant(2)	2	6,168	12,336
Senior Health Superintendent (6)	1	14,568	14,568
Driver (1)	1	5,352	5,352

Total	6	65,292
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Services

The outreach team provides a range of services on a regular rotating basis, that supplements and in part supervises the operations at village posts. The services they provide include:

- ❖ Antenatal care
- ❖ Immunization
- ❖ Growth monitoring
- ❖ Family planning
- ❖ Health promotion
- ❖ Hb test
- ❖ Urinalysis
- ❖ STI screening
- ❖ Curative care - common disease conditions [village health services (I)]

Costs

At this stage the data are not available to fully cost the services delivered by these teams because of the mobile nature of the delivery and the difficulty of standardising the population catchments that they provide services to.

Table 8.6: MCH Outreach Clinic costs

Category	Cost
Labour	65,292
Drugs	-
Equipment	-
Consumables	-
Vehicle operations	-
Total	65,292

8.1.2 Secondary level

Delivery of services at the secondary level is through health centres. These are broadly classed as Minor and Major Health Centres. Minor Health Centres provide ; while Major Health Centres provide all these services plus

8.1.2.1 Minor Health Centre

Personnel:

Minor Health Centres provide a range of

Table 8.7: Minor Health Centres Personnel costs

Category	Number	Unit cost	Total cost
Medical doctor (9)	1	26436	26436
SRN Midwife (7)	1	18480	18480
SRN (6)	1	14,568	14,568
SEN (4)	1	9,084	9,084

CHN (based in community) (4)	4	9,084	36,336
Community Nurse Attendant(2)	3	6,168	18,504
Dispensing Assistant(3)	1	7,716	7,716
Senior Health Superintendent (6)	1	14,568	14,568
Orderly(1)	2	5,352	10,704
Driver(1)	1	5,352	5,352
Total	16		161,748

Services

The Minor Health Centre provides the first level of referral from a Village Health Post. In general it provides

Costs

Table 8.8: Minor Health Centre costs

Minor Health Centre	
Category	Cost
Labour	161,748
Drugs	110,000
Equipment	169,520
Consumables	27,560
Vehicle operations	-
Total	468,825

8.1.2.2 Major Health Centre

There are two types of Major Health Centre. Group A is ; while Group B is .

Personnel:

In Group A Major Health Centres

Table 8.9: Major Health Centre [referral only] personnel costs

Category	Number	Unit cost	Total cost
Medical doctor (9)	2	26,436	52,872
At-Risk Nurse Midwife (8)	1	22,344	22,344
SRN Midwife	1	18,480	18,480
Peri-operative Nurse(3)	2	7,716	15,432
Nurse Anaesthetist (8)	2	22,344	44,688
SEN	6	9,084	54,504
SRN	4	14,568	58,272
Community Nurse Attendant	8	6,168	49,344
Pharmacy Technician (6)	1	14,568	14,568
Dispensing Assistant(3)	2	7,716	15,432
Laboratory Technician(6)	1	14,568	14,568
Laboratory Assistant(4)	2	9,084	18,168
Senior Radiographic Assistant(3)	2	7,716	15,432
Records Clerk (3)	1	7,716	7,716
Management staff (8)	2	22,344	44,688

Support staff (1)	5	5,352	26,760
Total	42		473,268

In Group B Major Health Centres

Table 8.10: Major Health Centre personnel costs

Category	Number	Unit cost	Total cost
Medical doctor	3	26,436	79,308
At-Risk Nurse Midwife	1	22,344	22,344
SRN Midwife	2	18,480	36,960
Peri-operative Nurse	4	7,716	30,864
Nurse Anaesthetist	2	22,344	44,688
SEN	26	9,084	236,184
SRN	14	14,568	203,952
Community Nurse Attendant	36	6,168	222,048
Pharmacy Technician	1	14,568	14,568
Dispensing Technician	2	7,716	15,432
Laboratory Technician	1	14,568	14,568
Laboratory Assistant	2	9,084	18,168
Radiographic Assistant	2	7,716	15,432
Records Clerk	3	7,716	23,148
Management staff	6	22,344	134,064
Support staff	15	5,352	80,280
Total	120		1,192,008

*Services**Costs*

Major Health Centre as referral only:

Major Health Centre [referral only]	
Category	Cost
Labour	473,268
Drugs	300,000
Equipment	1,030,840
Consumables	290,710
Total	2,094,818

Major Health Centres (as both referral and basic health services facility) but where other services:

Major Health Centre	
Category	Cost
Labour	1,192,008
Drugs	300,000
Equipment	2,032,310
Consumables	290,710
Total	3,815,028

8.1.3 Tertiary level

At this stage the delivery of the basic health care package has not been fully costed for the hospitals.

8.2 Forecasting program costs for the medium term

8.2.1 Defining health programs

The financial reforms being introduced in The Gambia include an emphasis on forecasting medium term resource ceilings for departments and agencies funded from public revenues. In association with this, and as part of the Highly Indebted Poor Countries Initiative [HIPC], it would be seen as desirable that a greater share of these resources should be allocated to those agencies which provide services to the poor, such as DoSH. However not all programs and services provided by DoSH equally serve the poor by delivering basic health services. In order to group services together in coherent ways and to demonstrate which of these grouped services provide most benefits to the poor it was necessary to re-organise the existing budget layout. The current budget framework emphasises some programs, especially the vertical disease control and preventative programs, but groups many services in terms of their inputs or administrative controls rather than their outcomes.

A further consideration is that the spread of top-level programs is too great to easily comprehend. It was felt that a smaller more coherent set of programs would provide an easier grasp of the broad directions of the budget over the medium term. It would also make policy related changes to the relative allocations within the budget easier to manage and to monitor. With these considerations the existing budget lines were grouped into the following six programs [full details are in Annex ___]:

Table 8.13: Revised Budget programs

<i>Program</i>	<i>Contents</i>	<i>Proportion of 2002 Budget</i>
Management of the Health Sector	Administration of central departments, general responsibilities such as contributions to international organisations	17%
Planning, Monitoring & Evaluation	Directorate of Planning and Information	0%
Support Services	Technical and other support services	3%
Improving access to Basic Health Services	DHTs, primary and secondary care, vertical programs, some training, and drugs and operations for basic services	51%
Tertiary level health services delivery	Hospitals and some training	27%
Social Welfare	Directorate of Social Welfare	1%

A detailed analysis and review was carried out for the 2002 budget [see summary in Table 8.13. The budget is dominated by the two largest programs – basic and tertiary services which account for nearly four fifths of the total budget. About half of the total proposed expenditure for the current year is for basic health services, which are the principal policy focus of the latest health policy.

Programme costing projections for the next five years have been prepared on the basis of growth rates in total resources provided by the Department of State for Finance, with the assistance of the World Bank. Base Case and High Case Scenarios

have been prepared. The Base Case assumes six per cent resource growth for the government and project funds contained in the sector budget, the High Case nine per cent. The cases presented are indicative at this stage and represent rather simple projections of the totals funds available in the programs defined for the sector.

In the projections, priority has been given to raising the share of Basic Health Service delivery to meet the policy directions established in the Health Policy for the period, and recommended in the draft PRSP and the HIPC agreement. This has largely been done by restraining the growth of Tertiary Level delivery and management costs for the sector to rates below the sector increase. There is an absolute increase in resources to both these sectors however.

8.2.2 Base Case scenario

In the base case scenario total resources within the government budget for the health sector would rise from 199 million Dalasis to 252 million Dalasis in the period from 2002 to 2006. Salaries, wages and allowances would rise by 25 per cent from 65 to 81 million Dalasis, and operating budgets by 28 per cent from 68 to 87 million. The share of the budget going to basic health services would rise from 51 per cent to 53 per cent, while that going to tertiary services would fall from 27 to 26 per cent. Two new hospitals will begin operations in this period and this constrains the extent to which resources can be allocated away from this sub-sector. Resources will also be constrained in the management sub-sector. Although available resources will increase from 35 million to 40 million Dalasis this represents a change in relative share from 18 per cent to 16 per cent.

8.2.3 High Case scenario

When budget resources are set at an annual increase of nine per cent the resultant growth in overall resources is from 199 million Dalasis to 271 million. Personal emoluments grow from 65 to 88 million Dalasis and operating budgets from 68 to 95 million. This represents increases of 35 and 40 per cent respectively. The budget for basic health service delivery would rise from 101 million Dalasis to 134 million, while that for tertiary services would rise from 54 to 67 million. Thus the budget share for basic services would rise to 54 per cent from 51 per cent while that for delivery of tertiary services would fall slightly from 27 to 26 per cent. As before the opening of new hospitals represents a commitment that constrains the resources available for other sectors. Even so the rate of increase projected will depend on the achievement of efficiencies in the sub-sector, particularly in the light of growing needs at RVH associated with its development as a teaching hospital in association with the University of The Gambia²⁰

8.3 Increasing Access and Quality for the Poor

8.3.1 HIPC Triggers

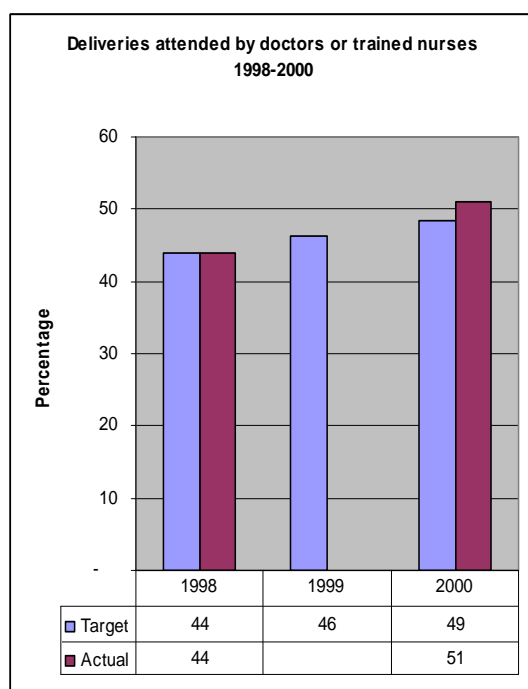
As part of the strategy for poverty alleviation The Gambia is seeking debt relief through Highly Indebted Poor Countries Initiative [HIPC]. The World Bank and IMF Decision Point Document [November 2000] reviews the eligibility of The Gambia and its poverty strategy and medium term financial framework. The document recommends a number of triggers for action on debt relief [Box seven, Page 24]. These include two for the health sector:

²⁰ It is not clear at this stage whether costs associated with teaching ought to form part of the health or education sector budget.

- Increase by at least 5 percent each year (from 44 percent in the base year of 1998) the number of births attended by a person trained in antenatal care. Monitoring mechanisms for this indicator have also been defined in the PHPNP, see Chapter I
- Increase the share of primary and secondary health care within the overall recurrent budget for health. The recurrent budget for primary and secondary health care is understood to comprise: health centres; dispensaries and sub-dispensaries; health promotion and protection; family health; disease control; and nurses' training. These are covered by budget lines 06 to 11 under heading 21 of the budget, to the exclusion of expenditures incurred directly or indirectly on (i) foreign personnel; and (ii) all the referral hospitals. The base year for measurement is 1999.

Attended Births

The Gambia has had a high maternal mortality rate in the past. The last national survey in 1990 produced a rate of 10.5 per 1000 births, which was the highest in the region, though lower than in the past [30 per 1000 in 1983]. This led to a focus on maternal and infant mortality in the context of primary health care as the major goal of the 1994 Health policy. In 1998 the proportion of births attended by a trained person was forty four percent. The associated trigger in the Decision Point Document is a rise in this proportion by five percent per annum.



DoSH does not collect statistics on maternal mortality so no fresh figures are available since the last national survey in 1990²¹. Further, collected figures on attended births have not been collated since 1998. Not all Health Teams have submitted all forms for 1999 and 2000 and submitted forms have not been processed in the statistics unit. However in 2000 a large scale national household survey was conducted which gives reliable estimates on a range of health related issues²². This showed slightly more than half of all deliveries [51 percent] were attended by skilled personnel in 2000. The target for 2000 based on a five percent annual rise was 49 per cent. Thus the target for this trigger has so far been met. However while urban households reported that nearly three quarters of all births were attended by trained personnel, only two in five rural births were supervised by skilled personnel. In two areas, Kuntaur and Basse,

less than thirty percent were so attended.

²¹ A second national survey, externally funded, is planned for later this year. However reliance on such methods and funding of collecting vital national statistics is inherently unsustainable and provides no managerial guidance on the proper deployment of resources, human and financial, to effectively reach policy targets on an annual or medium term basis.

²² *Multiple Indicator Cluster Survey 2000, Draft Report*, conducted by Central Statistics Department and UNICEF.

Budget allocation for primary and secondary health care

The second health sector trigger relates to the proportion of the recurrent health budget allocated to primary and secondary health care. It is defined as all that expenditure contained in lines 06 to 11 in the DoSH budget excluding all expenditure on foreign personnel and hospitals. There are no allocations to foreign personnel in these lines and no allocations to hospitals. The base year is 1999.

Table 8.7: Approved budget expenditure on primary and secondary programmes

Programme	1999	2000	2001	2002 proposed
02 Veh Fuel and Maint [Prim+Sec]				3,562,500
03 Drugs and dressings [Prim+Sec]	9,450,000	11,450,000	11,500,000	16,000,000
06 Health Centres	13,223,130	14,733,670	18,085,610	19,991,197
07 Dispensaries and Sub Dispensaries	4,724,040	4,953,590	5,543,070	5,707,724
08 Health Promotion and Protection	2,373,460	1,872,700	1,746,550	1,842,598
09 Family Health	966,120	953,050	966,220	1,037,152
10 Disease Control	697,810	1,353,910	1,273,350	2,140,018
11 Nurses Training	1,751,850	1,775,960	1,828,730	1,900,770
Total Recurrent Budget	84,438,090	91,401,370	108,417,760	125,747,700
Including part of Programmes 02 and 03	39per cent	41per cent	38per cent	41per cent
Excluding Programmes 02 and 03	28per cent	28per cent	27per cent	26per cent

There are two programmes that contain budget lines outside of those designated which directly impinge on expenditure for primary and secondary health services delivery. The first of these is in Programme 02 and refers to vehicle and generator maintenance and fuel for vehicles. From 2002 these will be centralised in the budget under a contract arrangement with suppliers for the whole Department. Previously they were allocated to divisional lines as appropriate. In Programme 03 the drugs and dressings line is also a centralised line, which holds all divisional expenditure on these items for primary and secondary health facilities. Hospital drugs and dressing are held within the subventions to those institutions.

If the intention is to measure expenditure on primary and secondary provision then parts of these two programmes ought to be included as far as they directly apply to these services. If they are excluded then the proportion of approved expenditure on primary and secondary care fell from 28 per cent to 26 percent in the period. If they are included it rose from 39 per cent to 41 per cent in the period. The trends in both instances are slight and in the inclusive scenario quite inconsistent. It appears that a more active approach will need to be taken by management to achieve this trigger.

The recasting of the budget into six main programs for the forecasting exercise in Section 8.2 gives another view of the comparative allocation of the budgets to basic and to tertiary care. With both scenarios the share of the budget represented by basic health service delivery rises appreciably faster than that of tertiary services and fulfils the intention of the HIPC trigger.

8.3.2 Development goals and indicators

In order to measure progress towards the goal of providing greater access by the poor to essential health services and also measure progress in meeting the goals of the health policy it is important to develop a set of core indicators. The trends in these indicators should enable the policy makers and managers in the sector to assess progress and to define those aspects of health care that need attention. The number of indicators should not be so great that the general direction of progress is masked by the details. In association with SPACO, DoSH has determined a number of indicators for this. Some of these are final impact indicators others are intermediate or process indicators.

8.3.2.1 Infant and Child Mortality rates

The Infant Mortality rate is the proportion of children who die before attaining 12 months of age, while the Child Mortality rate is the proportion of children who die before their fifth birthday. These are important indicators for general health and for the level of access to both preventative and curative services. These rates are usually correlated with geographical location, education and relative poverty. For Gambia this rate is calculated during the decennial censuses, and also relatively frequently in national sample surveys.

8.3.2.2 Prevalence of wasting in under fives

Comparison of child weights with standardised weights for age indicates transitional malnutrition and is associated with a range of health conditions. The proportion of children who are severely or moderately under weight for their age is a standard indicator of availability of food, particularly on a seasonal basis. It is closely associated with poverty, particularly for subsistence farm families who are dependent on their own stores of food. These figures are routinely collected by health staff at birth and subsequent MCH clinics and are available at a national level

8.3.2.3 Maternal Mortality Rates

Maternal mortality is an indicator of the access to, and quality of, care received by a woman during pregnancy, labour, childbirth, and the postpartum period. A maternal death is the death of a woman while pregnant or within 42 days of termination of pregnancy, regardless of the site or duration of pregnancy, from any cause related to or aggravated by the pregnancy or its management. Maternal deaths are subdivided into direct and indirect obstetric deaths. Direct obstetric deaths result from obstetric complications of pregnancy, labour, or the postpartum period. They are usually due to one of five major causes - haemorrhage (usually occurring postpartum), sepsis, eclampsia, obstructed labour, and complications of unsafe abortion - as well as interventions, omissions, incorrect treatment, or events resulting from any of these. Indirect obstetric deaths result from previously existing diseases or from diseases arising during pregnancy (but without direct obstetric causes), which were aggravated by the physiological effects of pregnancy; examples of such diseases include malaria, anaemia, HIV/AIDS, and cardiovascular disease

Maternal mortality rate is calculated as the number of maternal deaths in a given period per 100,000 women of reproductive age (usually 15--49 years).

Maternal mortality ratio is calculated as the number of maternal deaths during a given year per 100,000 live births during the same period. Although the measure has traditionally been referred to as a rate it is actually a ratio and is now usually called such by researchers

The first national maternal mortality survey for The Gambia was conducted in 1990. According to the findings the maternal mortality rate was 1050 per 100,000. Currently data from a national survey is being analysed to provide information on maternal deaths, among other indicators.

8.3.2.4 *Proportion of attended births*

8.3.2.5 *Access to MCH services*

8.3.2.6 *Contraceptive prevalence rate*

8.3.2.7 *HIV prevalence rate*

8.3.2.8 *Proportion of population with access to safe water*

8.3.2.9 *Vaccination coverage*

8.3.2.10 *Basic health care proportion of recurrent budget*

8.3.2.11 *Availability of essential drugs and vaccines*

8.3.2.12 *Availability of ambulances*

8.3.2.13 *Access to basic health care facilities*

8.3.3 Monitoring and reporting on indicators

9

ANNEXES

Annex A: Distribution On Human Resources In Public/Private/NGO Health Facilities in Western Division, June 2001

HEALTH DIVISION	DOCTORS			State Reg. Nurses			State Enrolled Nurses			Comm. Health Nurses			TECHNICIANS			PHOs	BEDS	
	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total			Total
Western																		
RVH, Banjul	17	33	50	114	17	131	72	7	79	0	0	0	20	11	31	1	650	
Leman St. Clin.	0	0	0	0	0	0	2	0	2	2	0	2	0	0	0	0	0	
Bakau H/C	0	2	2	2	0	2	3	0	3	4	0	4	1	0	1	2	14	
Sere Kunda H/C	0	4	4	3	1	4	10	0	10	7	0	7	0	0	0	3	23	
Faji Kunda H/C	0	2	2	6	0	6	5	0	5	12	0	12	1	0	1	2	35	
Sukuta Clinic	0	1	1	0	1	1	3	0	3	4	0	4	0	0	0	1	20	
Bjl-nding H/C	0	2	2	1	0	1	1	0	1	4	0	4	0	0	0	2	8	
Brikama H/C	0	9	9	3	1	4	15	0	15	7	0	7	2	0	2	2	49	
Gunjur H/C	0	2	2	1	0	1	4	0	4	4	0	4	0	0	0	1	26	
Brufut Disp.	0	0	0	0	0	0	1	0	1	3	0	3	0	0	0	0	5	
Bwiam H/C	0	2	2	1	0	1	5	0	5	0	0	0	0	0	0	1	12	
P.H. Division	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	13	0	
TOTAL	17	57	74	131	20	151	121	7	128	47	0	47	26	11	37	28	842	
*Ndemban Clin	1	3	4	2	9	11	0	0	0	2	5	7	1	0	1	0	20	
*MRC, Fajara	0	20	20	0	5	5	15	0	15	0	0	0	-	-	-	0	42	
*W/Field Cli.	2	1	3	3	0	3	0	1	1	0	0	0	1	0	1	0	19	
*Kololi Clinic	1	0	1	1	0	1	0	0	0	0	0	0	2	0	2	0	15	
*L/Med. Centre	1	0	1	4	0	4	0	0	0	3	0	3	4	0	4	0	25	
*Ahm. Hospital	1	2	3	0	2	2	0	0	0	3	0	3	-	-	-	0	56	
*Sibanor H/C	0	3	3	2	6	8	1	4	5	1	0	1	3	1	4	1	40	
TOTAL	6	29	35	12	22	34	16	5	21	9	5	14	11	1	12	1	217	
G/TOTAL	23	86	109	143	42	185	137	12	149	56	5	61	37	12	49	29	1059	

Source: DoSH Divisional Health Teams and DPI, June 2001

Note: * Indicates Private/NGO facility

Annex B: Distribution Of Human Resources In Public/Private/NGO Health Facilities North Bank West, June 2001

HEALTH DIVISION	DOCTORS			State Reg. Nurses			State Enrolled Nurses			Comm. Health Nurses			TECHNICIANS			PHOs	BEDS
	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total		
North Bank W																	
Essau H/C	0	6	6	9	1	10	9	0	9	9	0	9	0	0	0	2	19
Kuntair H/C	0	2	2	3	0	3	3	0	3	5	0	5	0	0	0	1	2
K/Cherno Disp.	0	2	2	2	0	2	1	0	1	3	0	3	0	0	0	1	1
@M.S/Mass	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
@Fass N/Choi	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*N/Kebbeh h/c	0	1	1	1	2	3	4	0	4	0	0	0	-	-	-	0	22
G/TOTAL	0	15	15	15	3	18	17	0	17	17	0	17	0	0	0	4	44

Annex C: Distribution Of Human Resources In Public/Private/NGO Health Facilities in LRD, June 2001

HEALTH DIVISION	DOCTORS			State Reg. Nurses			State Enrolled Nurses			Comm. Health Nurses			TECHNICIANS			PHOs	BEDS
	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total		
Lower River																	
Soma H/C	0	15	15	10	2	12	13	0	13	5	0	5	1	1	2	2	50
Karantaba H/C	0	2	2	2	0	2	1	0	1	3	0	3	0	0	0	1	15
Bureng Disp.	0	2	2	2	0	2	3	0	3	2	0	2	0	0	0	1	10
Kwinella Disp.	0	1	1	0	0	0	1	0	1	2	0	2	0	0	0	1	3
*MRC, Keneba	0	4	4	0	2	2	0	0	0	2	0	2	-	-	-	0	0
G/TOTAL	0	24	24	14	4	18	18	0	18	14	0	14	1	1	2	5	78

Source: DoSH Divisional Health Teams and DPI, June 2001

Note: * Indicates Private/NGO health facilities @ = Village with Cuban Doctor

Annex D: Distribution Of Human Resources In Public /Private/NGO Health Facilities in North Bank East, June 2001

HEALTH DIVISION	DOCTORS			State Reg. Nurses			State Enrolled Nurses			Comm. Health Nurses			TECHNICIANS			PHOs	BEDS
	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total		
North Bank E.																	
AFPRC Hosp.	0	14	14	9	9	18	34	0	34	2	1	3	2	1	3	0	156
Kerewan H/C	0	4	4	3	0	3	1	0	1	5	0	5	0	0	0	1	18
Salikene Disp.	0	4	4	1	1	2	0	0	0	3	0	3	0	0	0	1	7
Ngayen S/Disp.	0	3	3	1	0	1	0	0	0	4	0	4	0	0	0	1	6
Farafenni MCH	0	1	1	1	0	1	1	0	1	6	0	6	0	0	0	2	0
@Njawara	0	4	4	0	0	0	0	0	0	1	0	1	-	-	-	0	0
@Nawleru	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
@Sara Kunda	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
@Daru	0	3	3	0	0	0	0	0	0	1	0	1	0	0	0	0	0
TOTAL	0	37	37	15	10	25	36	0	36	22	1	23	2	1	3	5	187
*Kinder Clinic	0	0	0	1	0	1	1	0	1	1	0	1	0	0	0	0	
*MRC Farafenni	0	4	4	0	0	0	0	0	0	1	0	1	-	-	-	0	0
TOTAL	0	4	4	1	0	1	0	0	1	2	0	2	0	0	0	0	0
G/TOTAL	0	41	41	16	10	26	36	0	37	24	1	25	2	1	3	5	187

Source: DoSH Divisional Health Teams and DPI, June 2001

Note: * Indicates Private/NGO health facilities @ = Village with Cuban Doctor

Annex E: Distribution Of Human Resources In Public /Private/NGO Health Facilities in CRD, June 2001

HEALTH DIVISION	DOCTORS			State Reg. Nurses			State Enrolled Nurses			Comm. Health Nurses			TECHNICIANS			PHOs	BEDS
	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total		
Central River																	
Bansang Hosp.	1	26	27	18	2	20	21	0	21	3	0	3	2	1	3	0	156
Brikamaba Dis.	0	4	4	1	0	1	1	0	1	3	0	3	0	0	0	2	10
Dankunku Disp	0	3	3	1	1	2	1	0	1	2	0	2	0	0	0	1	5
Kudang H/C	0	2	3	1	1	2	1	0	1	2	0	2	0	0	0	1	18
Sami K/Disp.	0	2	2	1	0	1	1	0	1	1	0	1	0	0	0	1	5
Kuntaur H/C	0	4	4	4	1	5	3	0	3	3	0	3	0	0	0	1	26
Kaur H/C	0	2	2	2	0	2	3	0	3	2	0	2	0	0	0	1	20
Chamen Disp.	0	2	2	2	1	3	0	0	0	1	0	1	0	0	0	1	3
Bansang MCH	0	0	0	1	0	1	1	0	1	1	0	1	0	0	0	2	0
J'jangbureh Dis	0	2	2	1	0	1	1	0	1	2	0	2	0	0	0	1	3
TOTAL	1	47	48	32	6	38	33	0	33	20	0	20	2	1	3	11	246
*MRCBansang	0	0	0	2	0	2	1	0	1	0	0	0	0	0	0	0	0
*Jahally H/C	0	0	0	2	0	2	1	0	1	0	0	0	0	0	0	0	28
TOTAL	0	0	0	4	0	4	2	0	2	0	0	0	0	0	0	0	28
G/TOTAL	1	47	48	36	6	42	35	0	35	20	0	20	2	1	3	11	274

Source: DoSH Divisional Health Teams and DPI, June 2001

Note: 8 Indicates Private/NGO health facilities

Annex F: Distribution Of Human Resources In Public/Private/NGO Health Facilities in URD, June 2001

HEALTH DIVISION	DOCTORS			State Reg. Nurses			State Enrolled Nurses			Comm. Health Nurses			TECHNICIANS			PHOs	BEDS
	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Gam.	Exp.	Total	Total	Total
Upper River																	
Basse H/C	0	6	6	5	0	5	9	0	9	8	0	8	1	1	2	2	43
Yorobawol h/c	0	2	2	4	0	4	5	0	5	4	0	4	0	0	0	1	20
Fatoto H/C	0	2	2	3	0	3	4	0	4	3	0	3	0	0	0	1	20
Diabugu Disp.	0	2	2	0	0	0	1	0	1	3	0	3	0	0	0	1	6
Bajakd. Disp.	0	2	2	1	0	1	1	0	1	4	0	4	0	0	0	1	9
Gambisara Dis.	0	1	1	1	0	1	1	0	1	4	0	4	0	0	0	1	2
@Demba Kd. 1	0	1	1	1	0	1	1	0	1	0	0	0	0	0	0	0	2
@Demba Kd. 2	0	2	2	0	0	0	1	0	1	0	0	0	0	0	0	0	0
TOTAL	0	18	18	15	0	15	23	0	23	26	0	26	1	1	2	7	102
*MRC, Basse	0	3	3	0	0	0	8	0	8	0	0	0	-	-	-	0	8
*Garawol Hosp	0	2	2	-	-	-	-	-	-	-	-	-	-	-	-	0	-
TOTAL	0	5	5	0	0	0	8	0	8	0	0	0	-	-	-	0	8
G/TOTAL	0	23	23	15	0	15	31	0	31	26	0	26	1	1	2	7	110

Source: DoSH divisional Health Teams and DPI, June 2001

Note: * Indicates Private/NGO facilities

@ Village with Cuban Doctor

Annex G: Human Resource Capacity At Central Level, June 2001

Category.	O/SoS	PHPNP	DPI	ESU	NaNA	PHD	NECP	MCH	EPI	ISTU	MCP	CDD	ARI	NACP	L/TB	HEU	CMS	ACC.	DRF
No:	9	5	9	5	7	14	1	5	5	2	5	2	2	2	1	5	7	5	5

Drugs Tables

APPENDICES

DRUGS	PHARMACOLOGICAL/ANATOMICAL CLASSIFICATION
1. Aminophylline Injectable 2. Salbutamol Nebuliser solution 3. Salbutamol Injectable	Asthma
4. Hydralazine 20mg 1ml Injectable	Cardiovascular Hypertension
5. Chloroquin Injectable 6. Quinine Injectable	Malaria/Severe Malaria/cerebral
7. Ampicillin Injectable 8. Choramphenicol Injectable 9. Gentamycin Injectable 10. Benzyi Penicillin 11. Metronidazole 500mg/100ml Injectable	Antibiotic/septicaemia Antibiotic/Meningitis severe infections Antibiotic/severe infection Antibiotic/severe infection post partum Antibiotic/Septicaemia
12. Nalidixic Acid suspension	Shigella infection Renstant to first line Antibiotics
13. Diazepam Injectable	Convulsions
14. Dextrose 5 per cent Injectable 15. Dextrose 10 per cent 16. Dextrose 50 per cent	Post operative and other severe uinnesses Other severe urinesses
17. Sodium lactate compound solution 18. Sodium chloride 0.9 per cent solution	Severe Dehydration Severe Dhydration
19. Atropine Injectable	Pre Anaesthesia
19. Ketamine 20. Halothane 21. Ether 22. Pancuronium Bromide 23. Suxamethonium 24. Thiopentone	Anaesthesia Anaesthesia Anaesthesia Anaesthesia Anaesthesia Anaesthesia
25. Insulin soluble	Insulin dependent
26. Insulin Lente	Diabetes
27. Anti Rabies	Rabies
28. Anti Snake	Snake Bite
29. adrenaline	Respiratory/Cirdiorascular/Depression
30. Cefuroxime 750mg Injectable	Reserue for renstant Strains Post operative

ESSENTIAL DRUGS

All the other drugs were termed essential.

NON - ESSENTIAL DRUGS

Cough Syrups

1 DISTRIBUTION OF DRUGS FROM CENTRAL MEDICAL STORES 1999**Public Health Facilities**

Health Facility	Tot. cost Pharmaceuticals	Total cost Drugs	Total cost others
Basse Divisional Health Team	37,770.72	37,770.72	0
Basse Health Centre	81,667.43	11824.18	68942.25
Brikama Health Centre	964.00	964.00	0
Environmental Health	271.44	0	271.44
Epidemiology Unit	18,720.00	0	18720.00
Essau Health Centre	8528.16	8139.72	388.44
EPI	58804.00	0	58804.00
Eye Theatre	372.61	372.61	0
Fajikunda Health Centre	4736.87	0	4736.87
Farafenni Hospital	479,394.69	174,314.1	305,080.59
National Eye Care Programme	31,566.80	29681.91	1884.89
Pathology Laboratory	75224.26	0	75224.26
Royal Victoria Hospital Theatre	406.80		
Regional Medical Store (C)	1,090,606.54	621,397.48	469,209.06
Regional Medical Store (E)	2,637,174.30	1,614,743.09	1,022,431.21
Regional Medical Store (W)	1,106,923.18	1,493,014.72	?
Vector Control	3003.10	0	3003.10
Royal Victoria Hospital			
Bansang Hospital			
TOTAL			

Non- Public Health Facilities

Institution	Total cost Pharmaceuticals	Total cost Drugs	Total cost Others
<i>Gambia Police Force</i>	49,346.45	45916.15	3430.3
National Army	241,827.68	237770.08	4057.6
Presidential Tour	2220.51	1454.81	765.7
State Guards	86,858.60	59318.24	27540.36
Pilgrims	7980.52	7737.55	242.97
Miscellaneous (schools, NGOs etc)	28,324.44	19123.26	9201.18
Kanilai Wony	49,346.45	48,817.61	528.84
TOTAL	465,904.65	420137.7	45766.95

NGO Clinics

Clinic	Total cost Pharmaceuticals	Total cost drugs	Total cost others
<i>Kunkujang Catholic Mission</i>	7403.12	7403.12	0
Medical Research Council	7900.09	7803.09	97.0
Ndugu Kebbeh	57.50	57.05	0
WEC Mission	364.00	364.40	0
TOTAL	15,724.66	15,627.66	97.0

Private for-profit

Clinic	Total cost Pharmaceuticals	Total cost drugs	Total cost others
<i>Continental Airlines</i>	1323.41	1253.66	69.75
Dr. Senghore	109.00	109.00	0
Gambia Airways	1714.21	1337.19	377.02
Lamtoro Medical Centre	704.00	704.00	0
Ndeban Medical Centre	641.00	641.00	0
Olympic Travels	1426.84	1184.8	242.04
West Field Clinic	1282.00	1282.00	0
TOTAL	7200.46	6511.65	688.81

DRUGS RECEIVED BY CMS AND DISTRIBUTED IN 2000

HEALTH FACILITY	TOTAL COST	PERCENTAGE OF TOTAL
RECEIPT		
CMS	8,366,191.86	100 per cent
TOTAL RECEIPT	6,859,114.91	100 per cent
DISTRIBUTION		
Farafenni Hospital (additional)	469,482.24	5.61
Kanilai Wony	24,237.37	0.30
Miscellaneous clients	41,385.57	0.49
State Guards	14,832.43	0.18
Army	188,743.77	2.25
Police	37,870.38	0.45
Bansang Hospital (additional)	124,088.81	1.48
Medical Research Hospital	62,941.49	0.75
Royal Victoria Hospital (additional)	244,366.92	2.92
Central Regional Store(Mansa Konko)	878,094.72	10.49
Western Regional Store (Banjul)	3,832,374.96	45.81
Eastern Regional Store(Bansang)	1,278,691.53	15.28
TOTAL DISTRIBUTED	7,197,110.19	104.93 per cent

NOTE: This total receipt does not include the annual orders of the three hospitals, those data were not available from the data provided by CMS

RECEIPT AND DISTRIBUTION OF DRUGS: EASTERN REGION MEDICAL STORES 1999 AND 2000

HEALTH FACILITY	COST DRUGS 1999	TOTAL ISSUED	COST DRUGS CONSUMED 1999	TOTAL	COST DRUGS 2000	TOTAL ISSUED	COST DRUGS CONSUMED 2000	TOTAL
RECEIPT								
Regional Medical store	1,779,145.39		1,598,749.7		1,775,740.87		2,048,973.3	
DISTRIBUTION								
Divisional Medical store	438,960.09		427,738.7					
Basse Major	198,700.71		195,516.06					
Diabugu	46,461.92		45,385.65					
Fatoto	82,142.96		80,710.60					
Baja kunda					57,600.79		52,999.77	
Yorobawol	49,935.60		50,580.90		99,548.56		87,335.84	
Kaur	143,036.68		144,611.7		150,485.18		157,208.18	
Kuntaur	144,404.47		141,310.9		136,197.89		136,045.84	
Dankunku	32,269.40		31,845.81		68,615.85		68,128.405	
Bansang MCH	55,262.40		54,497.74		61,093.55		61,093.55	
Sami Karantaba	63,600.62		60,700.09		96,601.23		88,436.82	
Janjanbureh	63,490.18		53,712.683		63,918.00		61,072.25	
Kudang					87,532.53		82,660.56	
Brikamaba					113,320.88		106,974.18	
Chamen					34,913.80		32,385.37	
Gambisara					69,513.84		69,288.12	

Data received from Regional Medical Stores, Bansang and from individual health facilities.

It would have been useful to assess service level of the vital and key essential drugs at a selection of health facilities countrywide to determine adequacy of the issues from the medical stores.

ASSESSING RATIONAL USE OF ANTIBIOTICS

Antibiotics constitute a major portion of the total cost of drugs, it is therefore, useful to assess their use in the three hospitals.

COMPARING TOTAL CONSUMED OF SELECTED ANTIBIOTICS PER PATIENT LOAD OF EACH HOSPITAL**1. ROYAL VICTORIA HOSPITAL**

Antibiotic	Total Quantity Consumed	Total Patient Load	Quantity consumed / Patient Load
Ampicillin + Amoxicillin	1940000	212467	9.13
Co- trimoxazole 480 mg	384000		1.81
Erythromycin 25 mg	170000		0.80
Ampicillin 500mg Inject	65000		0.31
Gentamycin 80mg 12ml Inj.	16000		0.075
Penicillin Benzyl Imega	24000	212467	0.113
Cloxacullin 250mg	576000		2.71
Choramphenicol 250mg	163000		0.77
Penicillin V 250mg	144000		0.677
Tetracycline 250mg	379000		1.78

2. BANSANG HOSPITAL

Antibiotic	Total Quantity Consumed	Total Patient Load	Quantity consumed / Patient Load
Ampicillin + Amoxicillin	1017000	75773	13.42
Co- trimoxazole 480 mg	519000		6.85
Erythromycin 25 mg	239000		3.15
Ampicillin 500mg Inject	31650		0.42
Gentamycin 80mg 12ml Inj.	1700		0.022
Penicillin Benzyl Imega	142000		0.18
Cloxacullin 250mg	262000		3.46
Choramphenicol 250mg	90000		1.87
Penicillin V 250mg	306000		4.04
Tetracycline 250mg	272000		3.59

3. AFPRC GENERAL HOSPITAL

Antibiotic	Total Quantity Consumed	Total Patient Load	Quantity consumed / Patient Load
Ampicillin + Amoxicillin	650000	6583	98.74
Co- trimoxazole 480 mg	790000		120
Erythromycin 25 mg	290000	6583	44.05
Ampicillin 500mg Inject	9000		1.37
Gentamycin 80mg 12ml Inj.	3200		0.48
Penicillin Benzyl Imega	33720		5.12
Cloxacullin 250mg	222000		33.72
Choramphenicol 250mg	96000		14.58
Penicillin V 250mg	592000		89.93
Tetracycline 250mg	400000		60.76

TABLE: COMPARING DRUG CONSUMPTION, WORK LOAD AND REVENUE GENERATED OF THE THREE HOSPITAL IN 1999

HOSPITAL	Cost Total Drugs Issued	Cost Total Drugs Consumed	Total Revenue Generated	Total out-Patient Seen	Total In-patient	Total Surgical Operations
Bansang	3,620,693.39	2,425,729.7		65,895	9,878	
Farafenni	2,109,178.50	1,784,823.2		4,755	1,828	
Royal Victoria				185,678	26,789	

TABLE: AVAILABILITY OF SELECTED DRUGS AT REGIONAL MEDICAL STORES WESTERN

Name of Drugs	Last Issue Date	First Issue Date	Last Issue Date	First Issue Date
	1998	1999	1999	2000
Tabs. Indomethacine 25 mg	10.12.98	21.01.99	06.12.99	11.01.00
Caps Tetracycline 25 mg	14.12.98	12.04.99	08.12.99	08.02.00
Salbutamol	30.12.98	05.01.99	28.12.99	06.01.00
Chloramphenicol Eye Oint.	14.04.98	06.01.99	28.12.99	19.01.00
Zinc Oxide oint.	30.12.98	21.01.99	11.06.99	02.03.00
Silver Sulphadiazine Cream	10.12.98	18.01.99	24.11.99	05.01.00
Tetracycline Skin Oint.	08.12.98	24.11.99	21.12.99	11.01.00
ORS	30.12.98	04.01.99	02.12.99	06.01.00
Tetracycline Eye oint.	28.12.98	12.01.99	28.12.99	11.01.00
Levamisole Tabs	10.12.98	13.01.99	08.12.99	31.03.00
Magnesium Trisilicate	29.05.98	05.10.99	14.12.99	11.01.00
Metronidazole Pess	10.11.98	07.05.99	31.05.99	02.06.00
Tabs Phenyntion	16.07.98	-	-	15.05.00
Methyl Dopa.	10.12.98	04.01.99	26.11.99	15.05.00
Mebenzole	10.12.98	13.01.99	-	-
Tabs Propranolol	08.12.98	23.03.99	06.04.99	11.01.00
5 yr. Penicillin	09.06.98	17.05.99	27.12.99	04.01.00

**TABLE: AVAILABILITY OF SELECTED DRUGS AT REGIONAL MEDICAL STORES
CENTRAL**

Name of Drugs	Last Issue Date	First Issue Date	Last Issue Date	First Issue Date
	1998	1999	1999	2000
Cough Syrup	08.12.98	04.01.99	28.12.99	05.01.00
5 yr. C/Quine	15.12.98	04.01.99	30.12.99	04.01.00
Comp. Benzoic Acid Oint.	24.12.98	04.01.99	27.12.99	04.01.00
IV Flagyl	12.10.98	08.02.99	22.11.99	11.01.00
Largactil Injection 2ml	15.12.98	04.01.99	22.11.99	15.05.00
Hydrocortison Injection	12.10.98	12.01.99	01.11.99	11.01.00
Frusemide	24.12.98	12.01.99	09.12.99	02.02.00
Adrenaline Injection	02.09.98	06.01.99	28.12.99	11.01.00
Metronidazole 250mg.	29.09.98	19.03.99	26.11.99	04.01.00
Syrup Nystatin	28.07.98	24.11.99	27.12.99	25.01.00
Nystatin Pessaries	*01.12.97	-	-	11.01.00
G V Crystals	24.12.98	21.01.99	11.12.99	17.01.00
Calamine	08.12.98	16.03.99	19.10.99	11.01.00
Tabs Aminophytine	10.12.98	25.01.99	07.07.99	04.04.00
Caps Chloramphenicol	15.12.98	01.03.99	02.12.99	04.01.00
Tabs Cotrimoxazole 120mg	28.12.98	04.01.99	08.12.99	04.04.00
Tabs chlorpheniramine 4 mg	04.12.98	12.01.99	12.01.99	08.02.00
Anti Haemorrhoidal Oint	10.12.98	21.01.99	09.12.99	11.01.00

**TABLE: AVAILABILITY OF SELECTED DRUGS AT REGIONAL MEDICAL STORES
CENTRAL**

Name of Drugs	Last Issue Date	First Issue Date	Last Issue Date	First Issue Date
	1998	1999	1999	2000
Aluminum Hydroxide	14.12.98	11.01.99	28.12.99	05.10.2000
Caps Amp	30.12.98	12.01.99	28.12.99	04.01.00
Tabs B Co.	30.12.98	05.01.99	27.12.99	15.05.00
Ing Largactil	15.12.98	04.01.99	22.00.99	15.05.00
Ing. Amp.	30.12.98	12.01.99	28.12.99	11.01.00
Benzathine Pen	30.12.98	13.01.99	28.11.99	08.02.00
Ing chloroquine	29.10.98	21.01.99	12.10.99	
Lignocaine 2 per cent	15.12.98	13.01.99	09.12.99	11.01.00
Tabs Penv.	30.12.98	04.01.99	28.12.99	04.01.00
Ing. Erometrine	11.11.98	21.01.99	21.12.99	19.01.00
Felfa	10.11.98	29.01.99	24.11.99	14.01.00
Tabs Bendrofluazide 5 mg	15.12.98	04.01.99	26.11.99	11.01.00
Co-trimoxazole 480 mg	24.12.98	02.03.99	28.12.99	04.01.00
5 yr Amp.	08.12.98	22.03.99	27.12.99	04.01.00
Tabs Fancide	23.12.98	05.01.99	02.12.99	05.01.00

**COMPARING COST OF TREATMENT USING DIFFERENT DOSAGE FORMS OF
THE SAME DRUG – SELECTION EFFICIENCY
TREATMENT OF A CHILD 3 YEARS/10 KG OLD FOR 5 DAYS**

DRUG	DOSAGE FORM 1, QUANTITY AND COST OF TREATMENT	DOSAGE FORM 2, QUANTITY AND COST OF TREATMENT
Ampicillin	Suspension 125m/5ml	Amoxicillin 250mg tablet 10 tablets = D
Co-trimoxazole	Suspension 240mg/5ml 50 ml =D	Tablets 120 mg 20 tablets =D
Penicillin V 250 mg	Suspension 125m?5ml 100ml =	Tablets 250mg 10 tablets =
Paracetamol	Elixir/Syrup 100mg/5ml 10ml x 3 x 1 day 30 ml =	Tablet 100 mg 3 tablets=
Chloroquin	Syrup 50mg base 10 m/kg x 3 days 30 ml =	Tablets 100mg base 3 tablets =

Table 6.2: Human Resource needs for the National Health Laboratory Services

<i>Designation</i>	<i>Required</i>	<i>Available</i>
Pathology		
Histopathologist	3	2
Cytologist	1	0
Technologist	2	1
Laboratory Assistant	1	1
Laboratory Technician	1	1
Clinical Bacteriologist	1	0
Microbiologist		
Urologist	2	1
Parasitologist	2	1
Microbiologist	2	1
Laboratory Technologist	3	2
Laboratory Assistant	6	3
Chemistry		
Clinical Biochemist	1	0
Technologist	2	1
Technician	1	0
Assistants	2	2
Haematology		
Clinical Haematologist	1	1
Laboratory Technologist	3	2
Laboratory Technician	3	0
Laboratory Assistant	3	3
Phelobotomist	3	3
Blood Bank		
Technologist	1	0
Technician	1	0
Donor Organiser	2	1
Donor Recruiters	2	1
Phelobotomist	4	0
Mortuary		
Mortuary Attendant	2	2
Orderly	2	1
Assistant Attendant	1	0

Table 6.4: List of radiology consumables and accessories

Item Description	Unit	Quantity	Cost
X-ray cassettes with screens 18 x24cm	Pair	1	4180
X-ray cassettes with screens 24 x 30cm	Pair	1	4180
X-ray cassettes with screens 30 x 40 cm	Pair	1	4180
X-ray cassettes with screen 35 x 35cm	Pair	1	4180
X-ray cassettes with screen 35 x 43cm	Pair	1	4180
X-ray hangers for the cassettes			
Cassette hatch			
Film Hopper			
Chemical processing tank	1	4	6072
Lead rubber aprons	1	4	8360
Gonad shield adult	1	1	
Gonad shield children	1	1	
X-ray developer concentrate 2 x20L	1	2	1617
X-ray liquid fixer 2 x5L	1	2	1452
X-ray film 18 x 24	100	2	1683
X-ray film 24 x 30cm	100	2	2805
X-ray film 30 x 40cm	100	2	4675
X -ray film 35 x 35cm	100	2	5060
X-ray film 35 x 43cm	100	2	5654
TOTAL			58,278.00

Table 8.1: Services offered at VHS Level I

<i>Newborn/Infant/Child</i>	<i>>5 yrs up to 12 yrs</i>	<i>Adolescent</i>	<i>Adult women</i>	<i>Adult men</i>
<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Uncomplicated malaria 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm infestation • Uncomplicated malaria 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Uncomplicated malaria 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Skilled attendance at birth • Post natal care • Family Planning services • Uncomplicated malaria 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Family Planning Services • Uncomplicated malaria
<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Prevention of HIV/AIDS • Family Planning • Nutrition and Breast feeding • Malaria prevention • Eye Care • Appropriate home care • Proper hygiene practices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Environmental sanitation • HIV/AIDS/STI • Family Planning • Nutrition and Breast feeding • Malaria prevention • Eye Care • Appropriate home care • Proper hygiene practices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Promotion of adequate nutrition • Prevention of HIV/AIDS infection • Prevention of STIs • Prevention of unwanted and early pregnancies • Control of substance abuse 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Promotion of optimum nutrition especially during pregnancy • Promotion of exclusive breast feeding for up to 6 months and continued breast feeding up to 24 months • Promotion of family planning • Promotion of good hygienic practices and environmental sanitation • Promote breast feeding at work place • Promote use of labour saving devices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Prevention of HIV/AIDS and other STIs • Prevention and control of substance abuse • Promotion of family planning • Promotion of optimum nutrition for women, especially during pregnancy • Promotion of proper hygienic practices and environment sanitation

Table 8.2: Services offered at VHS Level II

<i>Newborn/ Infant/Child</i>	<i>>5 yrs up to 12 yrs</i>	<i>Adolescent</i>	<i>Adult women</i>	<i>Adult men</i>
<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Diarrhoea with some dehydration • Complicated malaria • Moderate pneumonia • Measles • Fungal Infection • Anaemia • Oral thrush • Asthma • Upper Respiratory Tract Infection • Acute Otitis media • Chronic otitis media • Ophthalmia neonatorum • Trachoma 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm infestation • Diarrhoea with some dehydration • Complicated malaria • Moderate pneumonia • Measles • Fungal Infection • Anaemia • Oral thrush • Asthma • Upper Respiratory Tract Infection • Acute Otitis media • Chronic otitis media • Ophthalmia neonatorum • Trachoma • Mild dysentery 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Complicated malaria • Diarrhoea with some dehydration • Fungal infection • Anaemia • Oral thrush • Gonorrhoea • Syphilis • Candidiasis • Mild dysentery 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Skilled attendance at birth • Post natal care • Family Planning services • Complicated malaria • Diarrhoea with some dehydration • Fungal infection • Anaemia • Oral thrush • Gonorrhoea • Syphilis • Candidiasis • Mild hypertension • Mild dysentery 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Family Planning Services • Complicated malaria • Diarrhoea with some dehydration • Fungal infection • Anaemia • Oral thrush • Gonorrhoea • Syphilis • Mild hypertension • Mild dysentery
<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Prevention of HIV/AIDS • Family Planning • Nutrition and Breast feeding • Malaria prevention • Eye Care • Appropriate home care • Proper hygiene practices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Environmental sanitation • HIV/AIDS/STI • Family Planning • Nutrition and Breast feeding • Malaria prevention • Eye Care • Appropriate home care • Proper hygiene practices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Promotion of adequate nutrition • Prevention of HIV/AIDS infection • Prevention of STIs • Prevention of unwanted and early pregnancies • Control of substance abuse 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Promotion of optimum nutrition especially during pregnancy • Promotion of exclusive breast feeding for up to 6 months and continued breast feeding up to 24 months • Promotion of family planning • Promotion of good hygienic practices and environmental sanitation • Promote breast feeding at work place • Promote use of labour saving devices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Prevention of HIV/AIDS and other STIs • Prevention and control of substance abuse • Promotion of family planning • Promotion of optimum nutrition for women, especially during pregnancy • Promotion of proper hygienic practices and environment sanitation

Table 8.3: Services offered at Minor Health Centres

<i>Newborn/Infant/Child</i>	<i>>5 yrs up to 12 yrs</i>	<i>Adolescent</i>	<i>Adult women</i>	<i>Adult men</i>
<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Diarrhoea with some dehydration • Complicated malaria • Moderate pneumonia • Measles • Fungal Infection • Anaemia • Oral thrush • Asthma • Upper Respiratory Tract Infection • Acute Otitis media • Chronic otitis media • Ophthalmia neonatorum • Trachoma • Mild dysentery 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm infestation • Diarrhoea with some dehydration • Complicated malaria • Moderate pneumonia • Measles • Fungal Infection • Anaemia • Oral thrush • Asthma • Upper Respiratory Tract Infection • Acute Otitis media • Chronic otitis media • Ophthalmia neonatorum • Trachoma • Mild dysentery 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Complicated malaria • Diarrhoea with some dehydration • Fungal infection • Anaemia • Oral thrush • Gonorrhoea • Syphilis • Candidiasis • Mild dysentery 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Skilled attendance at birth • Post natal care • Family Planning services • Complicated malaria • Diarrhoea with some dehydration • Fungal infection • Anaemia • Oral thrush • Gonorrhoea • Syphilis • Candidiasis • Mild hypertension • Mild dysentery 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Family Planning Services • Complicated malaria • Diarrhoea with some dehydration • Fungal infection • Anaemia • Oral thrush • Gonorrhoea • Syphilis • Mild hypertension • Mild dysentery
<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Prevention of HIV/AIDS • Family Planning • Nutrition and Breast feeding • Malaria prevention • Eye Care • Appropriate home care • Proper hygiene practices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Environmental sanitation • HIV/AIDS/STI • Family Planning • Nutrition and Breast feeding • Malaria prevention • Eye Care • Appropriate home care • Proper hygiene practices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Promotion of adequate nutrition • Prevention of HIV/AIDS infection • Prevention of STIs • Prevention of unwanted and early pregnancies • Control of substance abuse 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Promotion of optimum nutrition especially during pregnancy • Promotion of exclusive breast feeding for up to 6 months and continued breast feeding up to 24 months • Promotion of family planning • Promotion of good hygienic practices and environmental sanitation • Promote breast feeding at work place • Promote use of labour saving devices 	<p>Prevention and Promotion</p> <ul style="list-style-type: none"> • Prevention of HIV/AIDS and other STIs • Prevention and control of substance abuse • Promotion of family planning • Promotion of optimum nutrition for women, especially during pregnancy • Promotion of proper hygienic practices and environment sanitation

Table 8.4: Services offered at Major Health Centres

<i>Newborn/Infant/Child</i>	<i>>5 yrs up to 12 yrs</i>	<i>Adolescent</i>	<i>Adult women</i>	<i>Adult men</i>
<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Diarrhoea with some dehydration • Severe dehydration • Complicated malaria • Cerebral malaria • Moderate pneumonia • Measles • Fungal Infection • Anaemia • Oral thrush • Asthma • Upper Respiratory Tract Infection • Acute Otitis media • Chronic otitis media • Ophthalmia neonatorium • Trachoma • Mild dysentery • Moderate to severe dysentery • Meningitis 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm infestation • Diarrhoea with some dehydration • Severe dehydration • Complicated malaria • Cerebral malaria • Moderate pneumonia • Measles • Fungal Infection • Anaemia • Oral thrush • Asthma • Upper Respiratory Tract Infection • Acute Otitis media • Chronic otitis media • Ophthalmia neonatorium • Trachoma • Mild dysentery • Moderate to severe dysentery • Typhoid fever • Cholera • Meningitis 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Complicated malaria • Cerebral Malaria • Diarrhoea with some dehydration • Severe dehydration • Fungal infection • Anaemia • Oral thrush • Gonorrhoea • Syphilis • Candidiasis • Mild dysentery • Moderate to severe dysentery • Typhoid fever • Cholera • Haemorrhoid • Meningitis • Schizophrenia-follow up • Depression • Epilepsy 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Skilled attendance at birth • Post natal care • Family Planning services • Complicated malaria • Cerebral malaria • Diarrhoea with some dehydration • Severe dehydration • Fungal infection • Anaemia • Haemorrhoid • Oral thrush • Gonorrhoea • Syphilis • Mild hypertension • Mild dysentery • Moderate to severe dysentery • Typhoid fever • Cholera • Glaucoma • Cataract • Meningitis • Diabetes • Hernia • Schizophrenia-follow up • Depression • Epilepsy • Moderate hypertension • Hypertension • Incomplete abortions • Caesarean section • Diabetes • Hernia • Moderate hypertension 	<ul style="list-style-type: none"> • Diarrhoea • Pneumonia (mild) • Conjunctivitis/Trachoma • Scabies • Minor Injuries • Worm Infestation • Constipation • Epigastric pain • TB-DOTS • Family Planning Services • Complicated malaria • Cerebral malaria • Diarrhoea with some dehydration • Severe dehydration • Fungal infection • Anaemia • Haemorrhoid • Oral thrush • Gonorrhoea • Syphilis • Mild hypertension • Mild dysentery • Moderate to severe dysentery • Typhoid fever • Cholera • Glaucoma • Cataract • Meningitis • Diabetes • Hernia • Schizophrenia-follow up • Depression • Epilepsy • Moderate hypertension

Table 8.4: Services offered at Hospitals

INTERNAL MEDICINE

MALE MEDICAL	FEMALE MEDICAL	PAEDIATRIC MEDICAL
Malaria	Malaria	Malaria
Hypertension	Diabetes	Pneumonia
CVA	Hypertension	Severe Anaemia
Diabetes	CCF	Neonatal Sepsis
PTB	Anaemia	Birth Asphyxia
Pneumonia	CVA	Low Birth Weight
Heart disorders	TB	Gastroenteritis
CCF	Pneumonia	Meningitis
Hepatoma	Renal Failure	Malnutrition
Anaemia	Gastroenteritis	

SURGICAL

MALE SURGICAL	FEMALE SURGICAL	PAEDIATRIC SURGICAL
Hernia	Goitre	RHL
Intestinal Obstruction	Appendicitis	Burns
Injury	Intestinal Obstruction	Injury Trauma
Appendicitis	Ca Breast	Head Injury
BPH	Haemorrhoids	Abscess
Head Injury	Umbilical Hernia	Fracture Femur
Duodenal Ulcer	Burns	Osteomyelitis
Haemorrhoid	Cellulitis	Fracture Tibia
Testicle	Injury	Cleft Palate
Circumcision	Abscess	Intestinal Obstruction

ORTHOPAEDAEDIC

- | |
|---------------------|
| • Fracture Femur |
| • Fracture Tibia |
| • Osteomyelitis |
| • Fracture Spine |
| • Fracture rib |
| • Ulcer of leg |
| • Fracture Humerus |
| • Fracture Pelvic |
| • Spinal Injury |
| • Fracture Clavicle |

GYNAECOLOGICAL

- | |
|------------------------|
| • Incomplete abortion |
| • Hyperemesis |
| • PID |
| • Molar pregnancy |
| • Malaria in pregnancy |

• Infertility
• Cancer Cervix
• Urinary Tract Fibroid
• Ovarian Cyst
• VVF

MATERNITY

• Normal delivery
• LSCS
• Assist Breech
• Vacuum
• Born Before Arrival

