社会開発調査部報告書

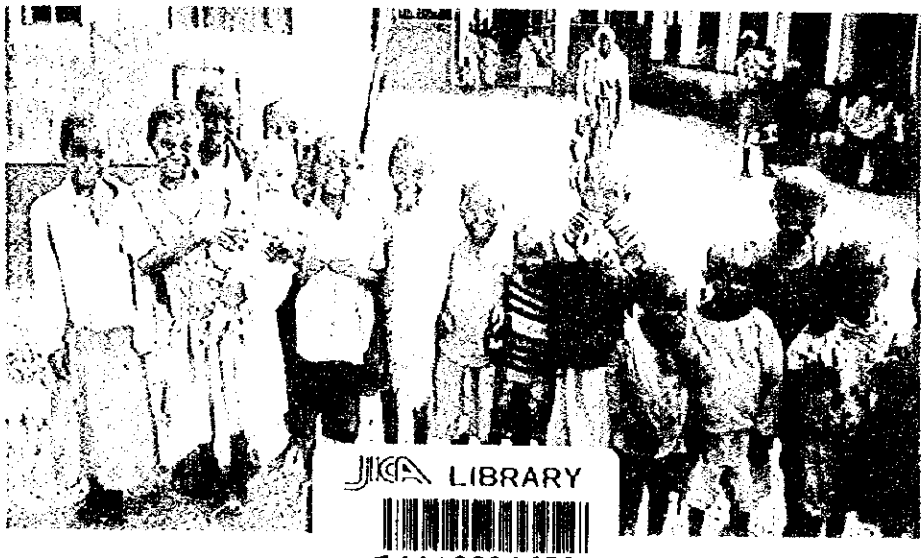
No. 52

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
THE MINISTRY OF HEALTH
THE GOVERNMENT OF THE REPUBLIC OF KENYA

The Study on Strengthening the District Health System in the Western Part of Kenya

Final Report

- Supporting Discussion 1 - District Health Service Delivery System



December 1998

Pacific Consultants International
IC Net Limited

1

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)
THE MINISTRY OF HEALTH
THE GOVERNMENT OF THE REPUBLIC OF KENYA

The Study on Strengthening the District Health System in the Western Part of Kenya

Final Report

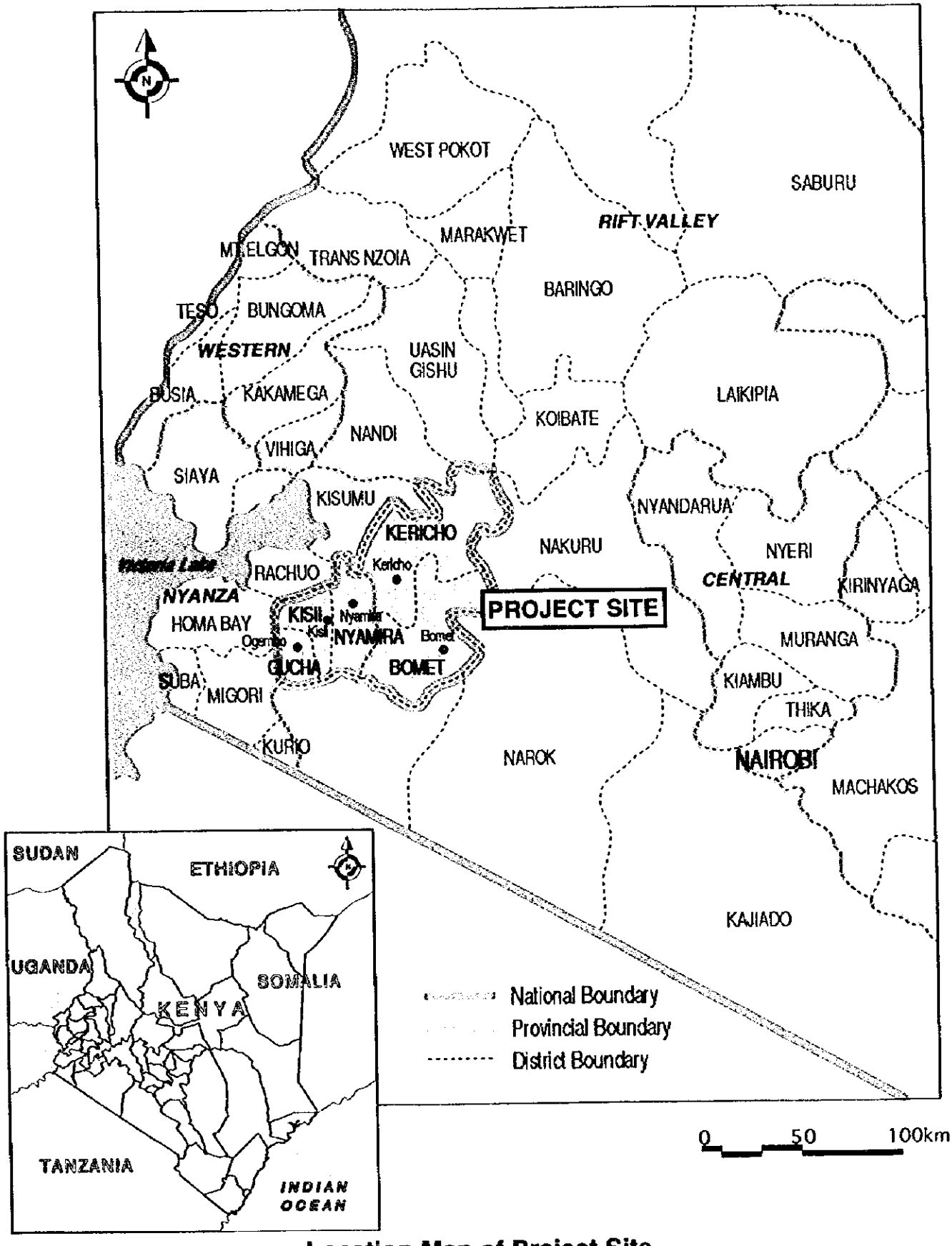
- Supporting Discussion 1 - District Health Service Delivery System

December 1998

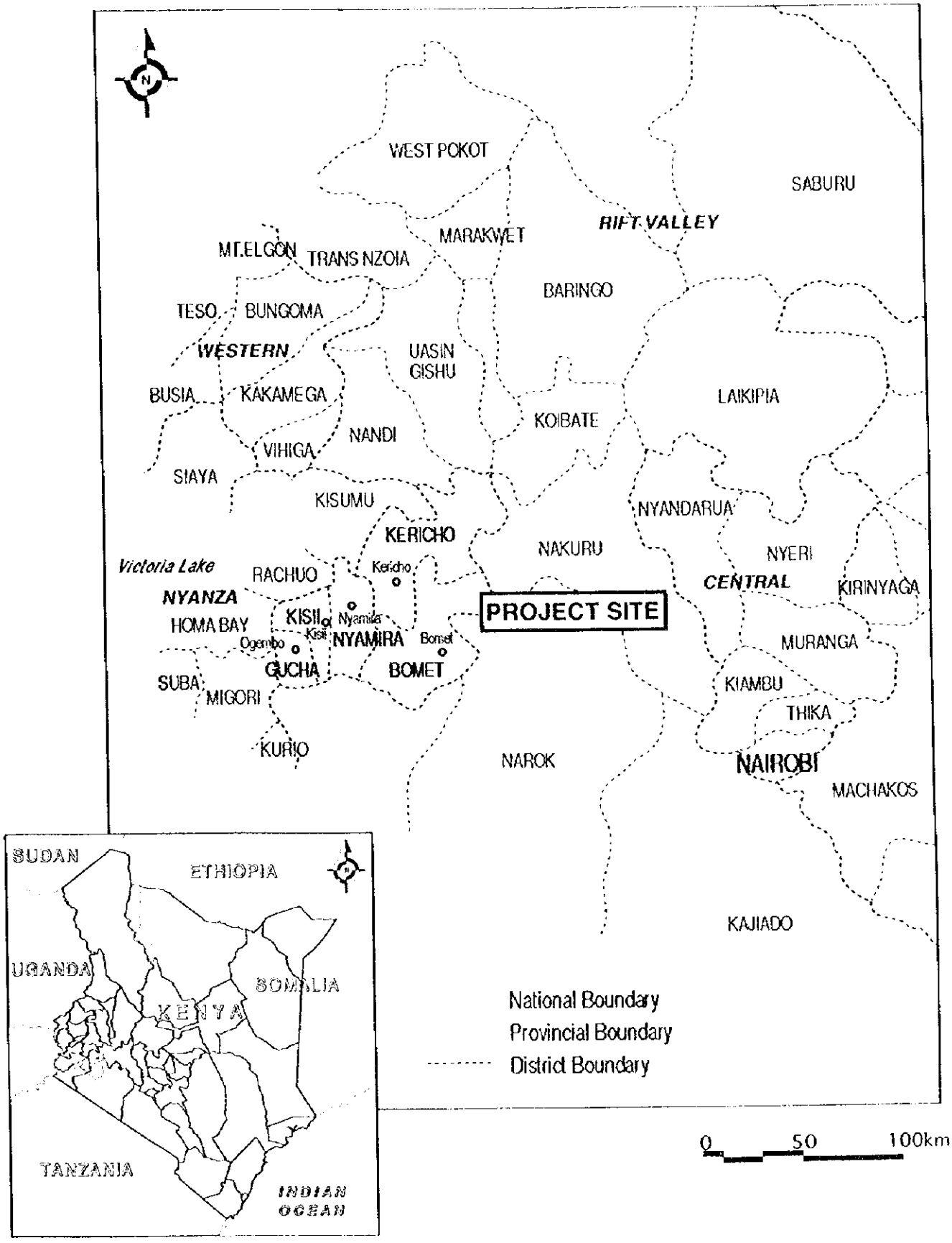
Pacific Consultants International
IC Net Limited

1

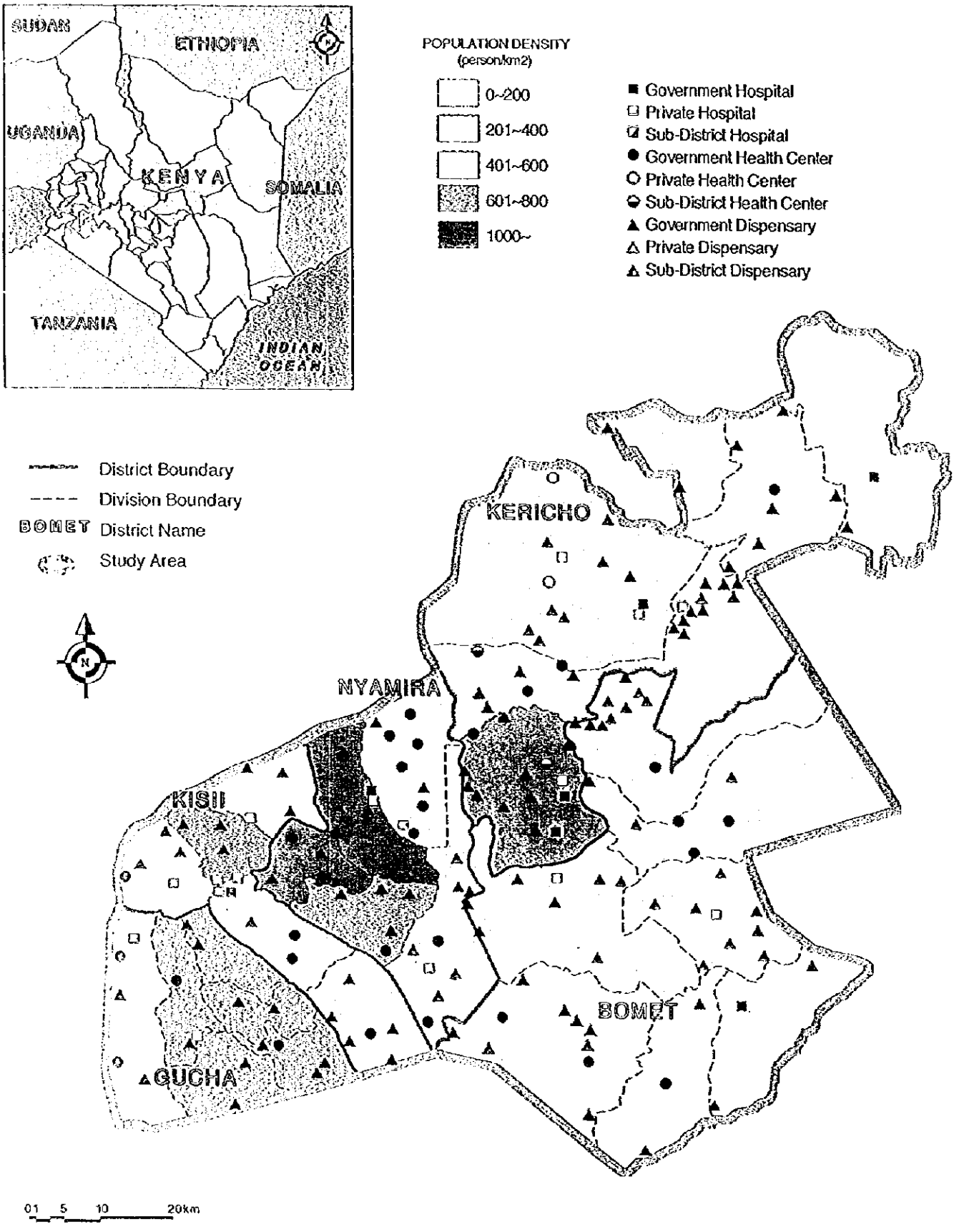
The exchange rates used in the Study are:
US$ 1.00 = 59.57 Kshs
US$ 1.00 = JY 139.60
(as of the end of August 1998)

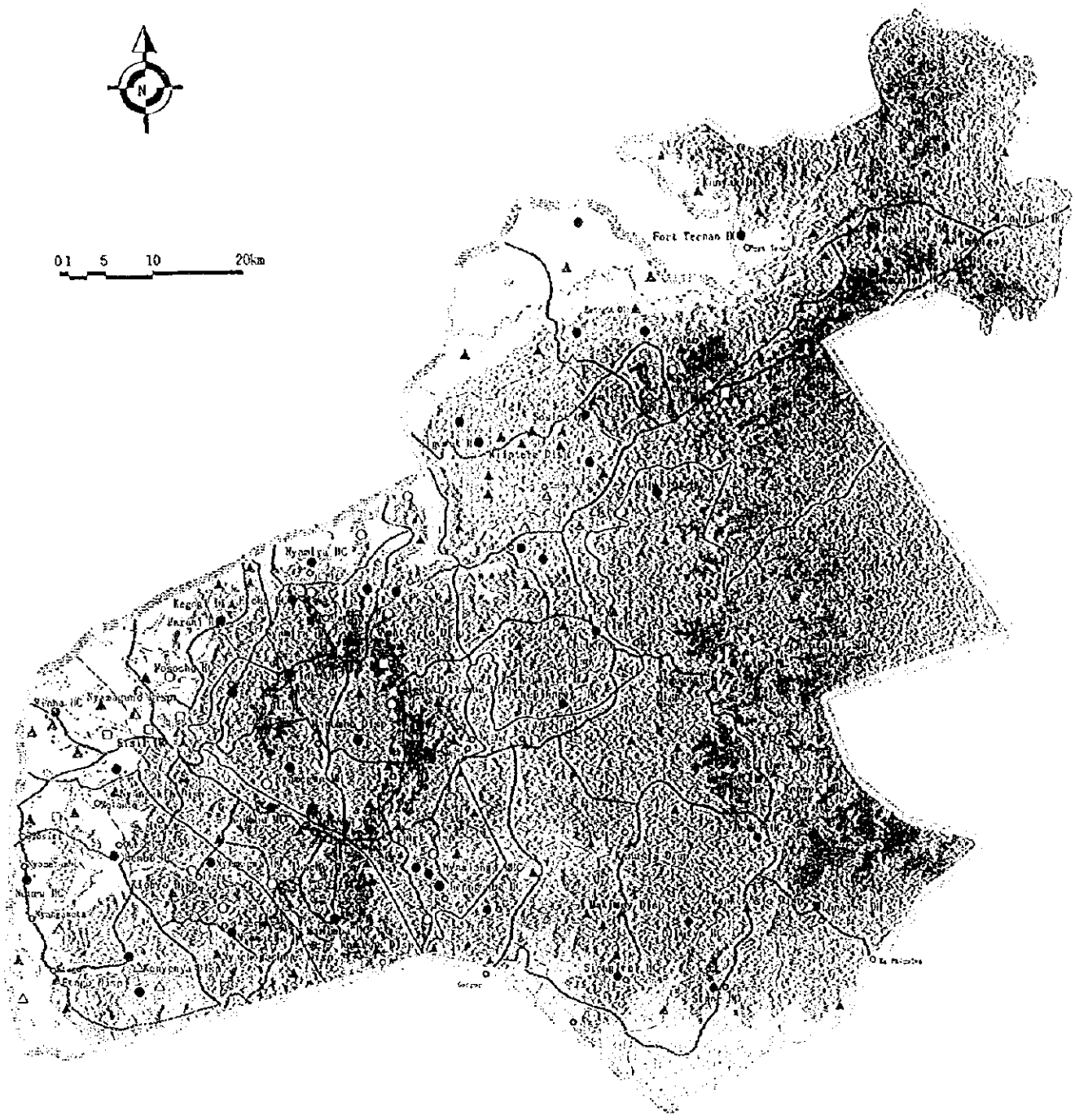


Location Map of Project Site



Location Map of Project Site


SUDAN
ETHIOPIA
UGANDA
KENYA
SOMALIA
TANZANIA
INDIAN OCEAN
POPULATION DENSITY
(person/km2)
0~200
201~400
401~600
601~800
1000~
Government Hospital
Private Hospital
Sub-District Hospital
Government Health Center
Private Health Center
Sub-District Health Center
Government Dispensary
Private Dispensary
Sub-District Dispensary
District Boundary
Division Boundary
BOMET District Name
Study Area
N
KERICHO
NYAMIRA
KISII
BOMET
GUCHA
01 5 10 20km



District Boundary

Division Boundary

contour

~5,000Ft (=1,520m)

5,000~5,500Ft (=1,680m)

5,500~6,000Ft (=1,820m)

6,000~6,500Ft (=1,980m)

6,500~7,000Ft (=2,140m)

7,000~8,000Ft (=2,440m)

8,000~

Government District Hospital

Private Hospital

Sub-District Hospital

Government Health Center

Private Health Center

Government Dispensary

Private Dispensary

Sub Dispensary

Distribution of Health Facilities in the Study Area

ABBREVIATION

AFD	African Development Bank
AIDS	Acquired Immunodeficiency Syndrome
AIE	Authority to Incur Expenditure
ALS	Average Length of Stay
ARI	Acute Respiratory Infection
BCG	Bacilli de Calmette-Guerin
BFA	Budget and Financial Analysis
CBD	Contraceptives
CBHC	Community-based Health Care
CBS	Consumers Baseline Survey
CDD	Control of Diarrhoea Disease
CIDA	Canadian International Development Agency
CO	Clinical Officer
CPM	Capital Project Management
CSM	Cerebrospinal Meningitis
DALY	Disability Adjusted Life Year
DANIDA	Denmark International Development Agency
DCEC	District Continuing Education Coordinator
DCO	District Clinical Officer
DDC	District Development Committee
DFID	Department for International Development
DH	District Hospital
DHEO	District Health Education Officer
DHIS	District Health Information Officer
DHMB	District Health Management Board
DHMT	District Health Management Team
DMOH	District Medical Office of Health
DMS	Director of Medical Service
DPHN	District Public Health Nurse
DPHO	District Public Health Officer
DPT	Diphteria-Pertussis-Tetanus Vaccine
DSP	Dispensary
DTB	Department Tender Board
ECN	Enrolled Community Nurse
EDF	European Development Fund
EDL	Essential Drug List
EDP	Essential Drug Program
EEC	European Economic Community
FIF	Facility Improvement Fund
FINNIDA	Association
FP	Family Planning
FY	Financial Year
GOK	Government of Kenya
GTZ	Deutsche Gesellschaft fur Technische Zusammenarbeit
HC	Health Center
HCF	Health Care Financing
HECAFIP	Health Care Financing Program
HEROS	Health Sector Reform Secretariat
HESSP	Health Sector Support Program
HFC	Rural Health Facility Committee
HIMS	Health Information Management System
HMUs	Hospital Maintenance Unit
HPTC	Hospital Pharmacy Therapeutics Committee
IEC	Information, Education and Communication
JICA	Japan International Cooperation Agency
IPD	In-Patient Department
KAP	Knowledge, Attitude and Practice
KDHS	Kenya Demographic Health Survey
KEDL	Kenya Essential Drugs List
KEMRI	Kenya Medical Research Institute
KHCFP	Kenya Health Care Financing Program
KEPI	Kenya Expanded Program on Immunisation
KHPF	Kenyatta Health Policy Framework
KHRP	Kenya Health Rehabilitation Project
KMA	Kenya Medical Association
KMTC	Kenya Medical Training College
KNDP	Kenya National Drug Policy
KNH	Kenyatta National Hospital
MCH / FP	Maternal Child Health and Family Planning
MESD	Medical Engineering Service Division
MIS	Management Information System
MLG	Ministry of Local Government
MoPW	Ministry of Public Works
MSCU	Medical Supplies Co-ordinating Unit
MTB	Medical Tender Board
NASCAP	National AIDS/STDs Control Program
NGO	Non-governmental Organization
NHIF	National Hospital Insurance Fund
NPA	Non Project Assistance
NPHL	National Public Health Laboratory
OPD	Out-Patient Department
OPV	Oral Polio Vaccine
ORS	Oral Rehydration Salts
ORT	Oral Rehydration Therapy
OTC	Over-the-counter Drug
PCM	Project Cycle Management
PHC	Primary Health Care
PHMT	Provincial Health Management Team
PHO(M)	Public Health Officer (Maintenance)
PHT(M)	Public Health Technician (Maintenance)
PIH	Pregnancy Induced Hypertension
PMIU	Unit
PMOHs	Provincial Medical Office of Health
POM	Prescription-Only Medicine
PTA	Pharmacy and Therapeutics Committee
PTPP	Part Time Private Practice
PVC	Voluntary Organizations
RHTC	Rural Health Training Centre
RHF	Rural Health Facilities
RTI	Reproductive Tract Infections
SAD	Stores and Distribution
SDH	Sub District Hospital
SDP	Service Delivery Points
SIDA	Swedish International Development Agency
STD	Sexually-Transmitted Disease
TBA	Traditional Birth Attendant
TEC	Technical Evaluation Committee
TFR	Total Fertility Rate
TOT	Training of Trainers
TT	Tetanus Toxoid
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children Fund
USAID	U.S.Agency for International Development
VHC	Village Health Committee
WHO	World Health Organization
WB	World Bank

TABLE OF CONTENTS

4. ESK STUDY ON HEALTH DEVELOPMENT IN THE STUDY AREA

5. ORGANISATION, MANAGEMENT AND INFORMATION SYSTEM

9. REFERRAL SYSTEM

10. LOGISTICS SYSTEM

Chapter 1

Introduction

1. INTRODUCTION

1.1 OBJECTIVES OF THE STUDY

The Objectives of the Study consist of the followings:

(1) To establish a master plan which strengthens the district health system in the Study Area and to formulate an action programme for priority projects/programmes as a result of the master plan, and

(2) To conduct technical transfer to the Kenyan counter personnel in the course of the Study, in terms of methodologies on: 1) surveys and analyses for strengthening of the health sector; 2) people's participation in the planning process; and 3) a PCM approach to identification of planning issues.

1.2 THE STUDY AREA AND TARGET

The Study Area is encompassed with five (5) Districts, namely, Kericho, Bomet, Nyamira, Kisii and Gucha. The catchment areas served by Kericho District Hospital, including part of Nandi, Uasin Gishu and Kisumu Districts, are also included in the Study Area.

As of January 1998, Nyamira, Kisii and Gucha were officially named North Kisii, Central Kisii and South Kisii respectively. However, in order to keep the consistency among the series of the study reports, old names were adopted in this report.

The area has a population of 3 million in 8,031 square kilometres of land. The master plan covers the time framework up to the year 2005.

1.3 THE STUDY SCHEDULE

The Study takes 14months from August 26, 1997 up to the end of December 1998, being divided into two phases:

- The 1st Year Study : for the Base-line Study and Formulation of a Master Plan: up to March 1998
- The 2nd Year Study: for Formation of Action Plans and Projects/ programme from June to December 1998.

1.4 STUDY WORKFLOW

The Study was conducted in accordance with the workflow as shown in Fig. 1.1

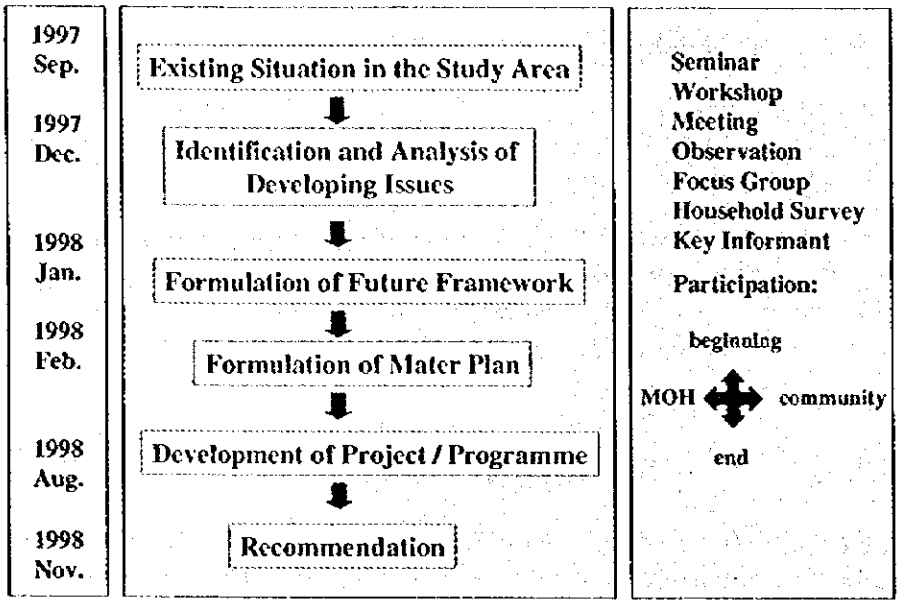


Fig. 1.1 Study Workflow

Through the process of the Study, participatory approach is encouraged as much as possible from the beginning to the end of the Study as well as from the Central Ministry of Health down to the communities in the Study Area.

The Study also applied a wide variety of approaches including direct observation, key informant interviews, focus group discussion and household survey.

The products from those surveys and dialogues are brought to formulate 10 strategies in the Mater Plan aiming at the 2 following objectives in the Study Area.

> To provide all the residents with universal access to minimum promotive and preventive health care as well as curative health service and upgrade the quality of the services.
>
> To strengthen linkages with other sectors to facilitate community development relating to health improvement.

Following the strategies in the Master Plan, then 5 project / programme packages were developed from 37 components of possible intervention with the criteria such as the

consistency with National Health Sector Reform, cost effectiveness, and important base for the future development.

1.5 PROPOSED PROJECT / PROGRAMME

The figure 2.1 shows the Composition of 5 Proposed Project Packages formulated through phase I Study, which are :

(1) Priority Disease Programme;
(2) District Hospital Rehabilitation Project;
(3) Rural Health System Improvement Project;
(4) Community-based P/PHC Project; and
(5) District Health Service Education Programme.

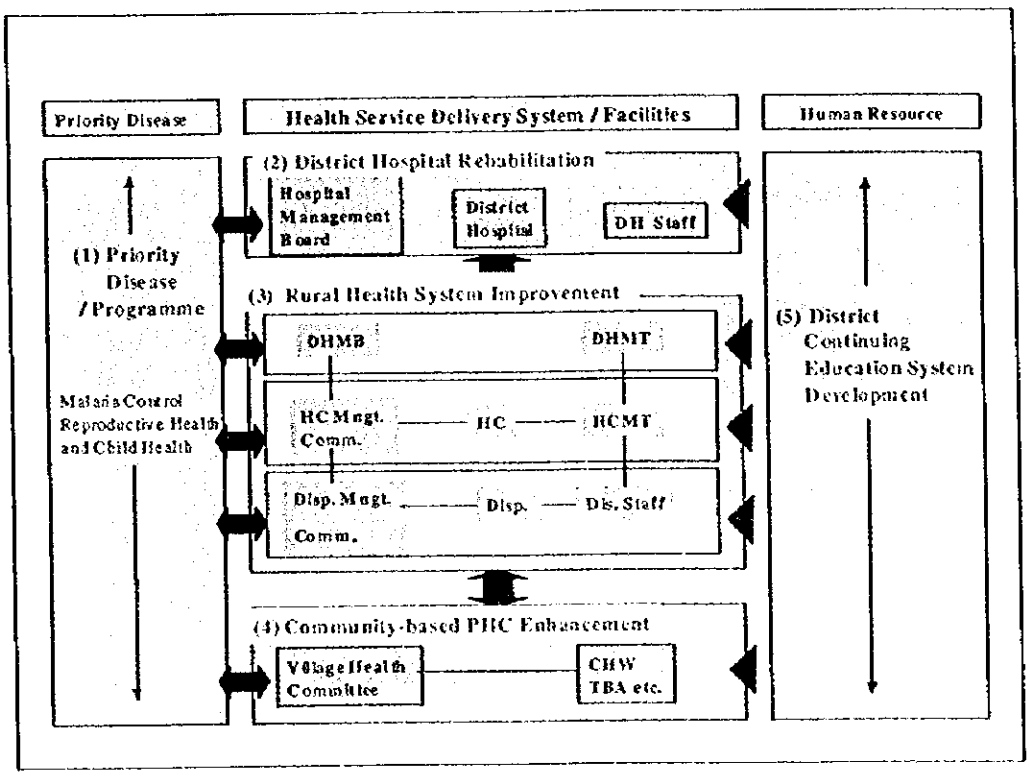


Fig. 1.2 Composition of Proposed Priority Project Package

1.6 SCOPE OF THE REPORT

The Study report consists of the following volumes:

(1) Summary Report

(2) Main Report

(3) District Health Service Delivery System (Supporting Discussion 1: Baseline)

(4) Priority Diseases and Proposed Project (Supporting Discussion2)

- Malaria Control Project
- Reproductive and Child Heath Project

(5) Facility-based Health Service and Proposed Projects (Supporting Discussion 3)

- Hospital Rehabilitation Project
- Rural Health System Improvement Project

(6) Community-based Development and Proposed Project (Supporting Discussion 4)

- Community-based Promotive and Preventive Health Care Project

(7) Human Resource and Proposed Project (Supporting Discussion 5)

- District Health Service Education Programme

This volume is to report **District Health Service Delivery System (Baseline).**

Chapter 2

Profile of the Study Area

2. PROFILE OF THE STUDY AREA

2.1 GENERAL PROFILE OF STUDY AREA

The Study Area covers part of Rift Valley Province and Nyanza Province with a land area of 7,200 square kilometres (1.25% of the total area of Kenya) that is mainly highland and mountainous located from 1,000 to 3,000 meters above sea level.

The Study Area has a highland sub-tropical climate with an annual rainfall that reaches 1,500-2,000 millimetre. It has a long rainy season between March and June and a short rainy season between October and December. The temperature ranges from 10 to 20 degrees Celsius.

The Study Area is densely populated (375 persons per square kilometre) with 2.7 million people (9.5% of the total Kenya population). Based on the 1989 population census, the average annual population growth rate between 1989 and 1997 is 3.05%, which is higher than the national average of 2.3%[1]. Because of the preference for larger family size among the ethnic groups and low prevalence of family planning, the population density in the Study Area is very high.

The average numbers of household members by district are as follows: Kisii (including Gucha) - 5.7; Nyamira – 5.7; Kericho – 5.6; Bomet – 5.9. All these are slightly larger than the average for Kenya that is 5.2 members.

Regarding the demographic structure, the age dependency ratios[2] are 104 in Kisii (including Gucha), 122 in Nyamira, 117 in Kericho and 114 in Bomet. On the other hand, the national average is only 107. The growing population, especially the high rate of dependency ratio particularly attributed to people aged under 15, would continue to exert pressure on a perpetually deficient social infrastructure such as schools and health facilities, and on a declining agricultural production.

Major economic activities are agriculture and livestock. The major cash crops grown area are tea, coffee and pyrethrum, and staple crops are maize and beans. The number of people engaged in agriculture is 80% of the total labour force. The proportions of agricultural income in Kisii and Bomet are 41.5% and 55.6%, respectively, which are much higher than the national average of 29.9%.

The statistics of monthly income vary with survey base and thus makes it difficult to discuss precisely. Per capita income of the Study Area, although varies widely among

[1] Based on the 1994- 2000 World Bank Projection
[2] (population of the age under 15 plus the population of the age above 65)/(population of the age between 14 to 64)

districts, falls between 50 and 60% of the national level. The average household income for all the districts, except Nyamira, is close to the national average.

Table 2.1 Per Capita Income and Average Household Income

District	Per Capita Income (above the age 15)* Kshs / month	Average Household Income ** Kshs / month
Kericho	916	10,367
Bomet	1,015	11,265
Nyamira	887	5,607
Kisii	1,342	10,074
Kenya	1,847	9,696

Source: * Welfare Monitoring Survey 1994, ** 1994 Welfare Measurement Survey

Further social and cultural characteristics of the Study Area are described in Chapter 12 and Chapter 14.

2.2 BOMET[3]

2.2.1 Natural Environment

Separated from the former Kericho district, Bomet district is recently established and is the seventeenth district in Rift Valley Province. The district occupies an area of 2,511 sq. km, comprising 8 divisions as shown in Table 2.2.

Table2.2 Area and Administrative Units of the District by Division

Divisions	Area in sq. km	No. of locations	No. of sub-location
Bomet Central	336.0	8	25
Chepalugu	161.0	3	13
Konoin	393.0	5	16
Kimulot	416.0	4	10
Longisa	291.0	6	19
Sigor	214.0	4	14
Siongirol	279.0	5	15
Sotik	421.0	7	29
Total	2,511.0	42	141

Source: District Surveyor, Bomet; District Commissioners office, Bomet, 1996

The landscape in Bomet District is characterised by an undulating topography with the northern part giving way to flatter terrain in the south. The district has an altitude ranging from 1,800 in the south to 3,000 meters in the north.

Rainfall in the district is well distributed through the year except for a short dry season in January and February. The wettest season is in April and May. Rainfall ranges from 1,000 mm to 1,400 mm.

[3] The description in this section is based on Bomet District Development Plan 1997-2001 (draft) and Bomet District Annual Workplan Financial Year 1997/98: District Health Profile, Objectives, Activities, Budget and Monitoring Indicators (draft).

The temperature in the district varies from 16° C to 24° C. The coldest months are usually between February and April, while the hot season starts from December to January.

2.2.2 Socio-Political Environment

Bomet district has eight divisions. In addition, the divisions have 42 locations and 142 sub-locations. It has three full constituencies: Bomet, Chepalungu, and Konoin. Buret, the fourth constituency, is partially in the district.

According to the census, the population of the district was 212,802 in 1969, 291,340 in 1979, and 437,492 in 1989. This represents an annual growth rate of about 2.7% between 1969 and 1979, and 4.1% between 1979 and 1989. Average population density was 167 persons per square kilometres in 1989 and is expected to rise to 257 in 2001.

Table 2.3 Population of Bomet District

	1969	1979	1989	1997 (estimate)
Bomet Central	Not available		75,394	100,604
Chepalugu			54,772	73,086
Konoin			55,907	74,601
Kimulot			44,931	59,956
Longisa			57,196	76,321
Sigor			41,821	55,805
Siongiroi			33,516	44,723
Sotik			73,955	98,688
Total Population	212,802	291,340	437,492	583,779

Source: Population census 1969, 1979 and 1989

2.2.3 Economic Environment

The main economic activity in the district is agriculture. The sector employs 80% of total labour force. The northern part of the district has large- and small-scale tea farms. The average monthly income in Bomet is shown in Table 2.4.

Table 2.4 Mean Monthly Income from Wages, Salaries, and Profits (Kshs)

INCOME FOR POPULATION AGED 10 AND ABOVE YEARS			INCOME FOR POPULATION AGED 15 AND ABOVE YEARS		
Male	Female	Total	Male	Female	Total
1,228.4	254.9	757.7	1,634.4	344.0	1,014.6

Source: Welfare Monitoring Survey II 1994 Basic Report (1996), Central Bureau of Statistics, Office of the Vice-President and Ministry of Planning and National Development

2.3 KERICHO[4]

2.3.1 Natural Environment

Kericho is one of the seventeen districts of Rift Valley Province. The area of the district is 2,515.0 sq. km, consisting of seven divisions, as shown in Table 2.5.

Table 2.5 Area and Administrative Units of Kericho District by Division

Division	Area in sq. km	No. of Location	No. of sub-location
Ainamoi	540.0	7	16
Bureti	174.0	3	9
Belgut	660.0	5	14
Chilchila	158.0	4	9
Kipkelion	321.5	4	11
Londiani	523.0	6	9
Roret	138.5	3	6
Total	2,515.0	32	74

Source: District Surveyor office, Kericho, 1996; District Personnel Office, Kericho, 1996

Like most parts of Bomet, Kericho also has an undulating topography. Its altitude ranges from 1,800 to 2,500 meters. The Kericho plateau is located in the centre of the district. The climate of the district is categorised as highland sub-tropical. While lower highland areas have moderate temperatures, low evaporation rates and high rainfall, upper highland areas have high temperatures, high evaporation, and low rainfall.

Rainfall in the district is well distributed except for the short dry season in January and February. The heaviest rainy season is April and May. The temperatures are between 16 to 20 degrees Celsius. While the coldest month is generally in July, the hottest is between December and February.

2.3.2 Socio-Political Environment

Kericho District is divided into 7 administrative divisions. They are further divided into 32 locations and 74 sub-locations. Table 2.5 shows the number of these administrative units.

According to the population census in the year 1979 and 1989, there were 337,345 and 463,444 residents, respectively (Table 3.8). The annual population growth during these ten years was 3.18% on the average. The population in 1997 was estimated using this average rate. It (the population growth rate) has declined from 3.71 to 3.18% due to more effective birth control resulted from availability of improved health services. Population density is expected to be 238 in 1997 and 270 in 2001.

[4] The description in this part is extracted from *Kericho District Development Plan 1997-2001* (Second draft).

Table 2.6 Kericho District Population

Division	1979	1989	1997 (estimate)
Ainamoi	Not available	115,784	149,325
Bureti		63,144	81,436
Belgut		126,836	163,579
Chilchila		27,488	35,451
Kipkelion		47,512	61,276
Londiani		49,293	63,572
Roret		33,387	43,059
Total Population	337,345	463,444	597,698

Source: Population census 1979, 1989

2.3.3 Economic Environment

Agriculture and livestock are the major economic activities in Kericho District. They employ 90% of the labour force. The main cash crops are pyrethrum, wheat, coffee, tea, and sugarcane, while staple crops are maize, beans, potatoes, millet, and sorghum. Livestock products in the district include milk, beef, eggs, meat, skin, and mutton. The average monthly income in 1994 is shown in Table 2.7.

Table 2.7 Mean Monthly Income from Wages, Salaries, and Profits (Kshs)

INCOME FOR POPULATION AGED 10 AND ABOVE			INCOME FOR POPULATION AGED 15 AND ABOVE		
Male	Female	Total	Male	Female	Total
857.3	510.4	680.4	1,174.0	676.1	915.9

Source: Welfare Monitoring Survey II 1994 Basic Report (1996), Central Bureau of Statistics, Office of the Vice-President and Ministry of Planning and National Development

2.4 KISII/GUCHA[5]

2.4.1 Natural Environment

Kisii and Gucha District are two of the ten districts in Nyanza Province. As Kisii was recently subdivided to form the Gucha district, the two districts share the majority of services. Total area of the districts is 1,302.1 sq. km.

[5] The information is from Kisii District Development Plan 1997-2001, Office of the Vice-President and Ministry of Planning and National Development

Table 2.8 Area and Administrative Units of the Kisii and Gucha Districts by Division

Division	Area (sq. km)	No. of locations	No. of sub-locations
Kisii District			
Keumbu	136.1	6	21
Suneka	126.1	5	15
Mosocho	97.5	6	12
Marani	125.0	6	13
Masaba	160.3	4	22
Gucha District			
Nyamarambe	208.2	6	21
Kenyenya	112.0	3	10
Ogembo	100.0	2	6
Nyacheki	81.0	3	7
Nyamache	78.0	3	12
Sameta	77.7	3	8
Total	1,302.1	47	147

Source: District Commissioner's Office, Kisii, 1996; District Commissioner's Office, Kisii, 1996

The districts are mostly hilly with several ridges in the eastern parts. Altitude ranges from less than 1,000 to 1,800 metres. The districts are located in highland equatorial climate. Though it has rainfall almost all throughout the year, two rainy seasons can be identified. While long rainy season continues from the end of March to May, the short rainy season lasts from October to November. The average rainfall reaches more than 1500 millimetre. The large amount of rainfall makes possible the production of cash crops (e.g. tea and coffee) and staple crops such as maize, beans, etc.

The high altitude of the districts contributes to an annual minimum temperature that is between 14° C to 18° C. On the other hand, due to its proximity to the Equator, the range of mean annual maximum temperatures is from 26° C to 30° C in the northern villages and 22° C to 26° C in the rest of the districts.

2.4.2 Socio-Political Environment

Kisii and Gucha Districts are divided into 11 divisions, 47 locations, and 147 sub-locations.

The 1989 population census reported that Kisii and Gucha districts have a combined population of 747,042 and an annual growth rate of 2.72%. The population is estimated to reach 925,945 in 1997 and 1,030,873 in 2001. The population density is 721 persons per square kilometre in Kisii and only 649 in Gucha.

Table 2.9 Population of Kisii District (including Gucha)

	1979	1989	1997 (estimate)
Kisii District			
Keumbu	Not available	91,983	114,012
Suneka		67,108	83,179
Mosocho		76,314	94,589
Marani		74,759	92,662
Masaba		84,744	105,039
Gucha District			
Nyamarambe	Not available	94,459	117,080
Kenyenya		68,034	84,327
Ogembo		60,319	74,764
Nyacheki		46,199	57,263
Nyamache		42,124	52,212
Sameta		40,999	50,818
Total		747,042	925,945

Source: District Statistics Office, Kisii 1996

2.4.3 Economic Environment

As in other districts in the Study Area, agriculture and livestock are the major economic activities that absorb 72.5% of the labour force in Kisii and Gucha districts. Most farmers farm cash crops as well as staple crops. Furthermore, the districts have soapstone and granite; the former is likely to contribute to the development of chalk industry while the latter can be used for interior decoration. The average monthly income in 1994 is shown in Table 2.10.

Table 2.10 Mean Monthly Income from Wages, Salaries and Profits (Kshs)

INCOME FOR POPULATION AGED 10 AND ABOVE			INCOME FOR POPULATION AGED 15 AND ABOVE		
Male	Female	Total	Male	Female	Total
857.3	510.4	680.4	1,174.0	676.1	915.9

Source: Welfare Monitoring Survey II 1994 Basic Report (1996), Central Bureau of Statistics, Office of the Vice-President and Ministry of Planning and National Development

2.5 NYAMIRA[6]

2.5.1 Natural Environment

Nyamira district is one of the ten districts in the Nyanza Province. It was created in 1989, carved out of the former Kisii District. Nyamira district has a land area of 861 square kilometre in the Gusii Highlands.

[6] The information is from *Nyamira District Development Plan 1997-2000*, Office of the Vice-President and Ministry of Planning and National Development

Table 2.11 Area and Administrative Units of the Nyamira District by Division

Division	Area (sq. km)	No. of Location	No. of sub-Location
Nyamira	180.0	7	19
Ekerenyo	215.0	4	17
Borabu	252.0	3	9
Manga	91.0	4	14
Rigoma	141.0	4	12
Total	879.0	22	71

Source: 1989 Population census; District Commissioner's Office - Nyamira, 1996

It is divided into two topographical zones. The northern part of Nyamira and Ekerenyo divisions consists of a lower area with an altitude that is between 1,500 and 1,800 metres. The other part of the district is covered with steep hill crests and deep valleys with an altitude of more than 1,800 metres.

The climate of the district is classified as typical highland with plentiful rainfall averaging about 2,000 millimetres throughout the year. The district has two rainy seasons: the long rainy season between March and June, and the short one between October and December.

The district does not experience extreme temperature variations largely due to its altitude. Average maximum temperature reaches 28.7 degree Celsius while the average minimum temperature is 10.1 degrees Celsius.

2.5.2 Socio-Political Environment

The district is divided into 5 administrative divisions, 22 locations and 71 sub-locations as shown in Table 2.12.

The 1997 population in Nyamira district is estimated to be about 587,942 based on an annual growth rate of 2.76% that was registered in the 1989 population census. The population density of 669 persons per square kilometre is one of the highest in Kenya.

Table 2.12 Nyamira District Population

	1989	1997 (estimate)
Nyamira	131,783	164,343
Ekerenyo	126,430	157,668
Borabu	52,031	64,887
Manga	65,966	81,922
Rigoma	95,521	119,122
Total	471,461	587,942

Source: 1989 population census

2.5.3 Economic Environment

Agriculture is the major economic activity in the district. Eighty percent of the labour forces are employed in this sector. The rest of the workforces are urban self-employed. Monthly income level is shown in the table below.

Table 2.13 Mean Monthly Income from Wages, Salaries and Profits (Kshs)

INCOME OF POPULATION AGED 10 AND ABOVE YEARS			INCOME OF POPULATION AGED 15 AND ABOVE YEARS		
Male	Female	Total	Male	Female	Total
857.3	510.4	680.4	1,174.0	676.1	915.9

Source: Welfare Monitoring Survey II 1994 Basic Report (1996), Central Bureau of Statistics, Office of the Vice-President and Ministry of Planning and National Development

Chapter 3

Health Sector Reform and Local Health Plan

3. HEALTH SECTOR REFORM AND LOCAL HEALTH PLAN

3.1 NATIONAL HEALTH SECTOR REFORM

3.1.1 Background

The MoH has the responsibility of promoting health to all Kenyans. It is the major provider of heath services although the missions[1], private[2] and voluntary organisations (PVO)[3] have also remained as indispensable actors. It principally organises health institutions at four levels, namely, national, provincial, district, and community. Through its 350 Hospitals, 500 Health Centres, and 2,950 Dispensaries[4], the MoH offers promotive, preventive, curative, rehabilitative, and palliative health services.

Despite a massive input on the health care delivery system since the country gained independence, the increasing population and newly emerging demand for heath care such as HIV/AIDS have been widely recognised to outstrip the ability of public providers.

To sustain the provision of health care delivery, the Government changed the patterns of investment from capital-intensive projects such as construction of curative care facilities to the provision of promotive and preventive health care. In other words, re-allocation and rational use of resources on prioritised diseases became inevitable.

3.1.2 Policy Framework for Reform

In 1994, the MoH declared the new direction for health development in its *Kenya's Health Policy Framework* (KHPF). This policy document, based on a comprehensive situational analysis of various factors, clearly states the policy goal for the year 2010 as:

> ***To promote and improve the health status of all Kenyans through the deliberate restructuring of the health sector to make all health services more effective, accessible and affordable.***

The policy paper outlines specific strategies, objectives, and priorities for essential preventive and curative services. Moreover, it strongly supports the decentralisation of management. It calls for a broader role for NGOs[5], municipalities, and the private sector.

---

[1] Religious organizations active in the provision of health services
[2] Groups and individuals that provide health services for profit-making
[3] Voluntary Organization
[4] WHO Kenya country health profile, 1996
[5] The term used here include Missions and Voluntary Organization

The strategic imperatives are:

1) to ensure the equitable allocation of Government resources to reduce disparities in health status;
2) to increase the cost-effectiveness and efficiency of resource allocation and use;
3) to continue population growth manegement;
4) to enhance the regulatory role of the Government in all aspects of health care provision;
5) to create an enabling environment for increased private sector and community involvement in health service provision and finance; and
6) to increase and diversify per capita financial flows to the health sector.

3.1.3 Policy on Decentralisation

In the KHPF, the MoH will continue to expand its central public policy-making functions and play a great regulatory role in all aspects of health care development and provision. On the other hand, responsibility and authority for the day-to-day operations of the health care delivery systems and services will be delegated to provincial and district health authorities. In other words, decentralisation of the health care system to districts (and even to health centres) in terms of planning, implementation, monitoring and, to lesser degree, decision-making and financial management has been clearly stated as a national policy.

Table 3.1 lists the broad functions and responsibilities of the Ministry of Health at the headquarters, provincial, district, and community levels.

Table 3.1 Function and Responsibilities at Each Level

Levels	The new functions and responsibilities
Headquarters	National health policy formulation and strategic planning, monitoring, provision of resources and management
Province	Coordinate, support, supervise and train their respective districts in focusing on quality assurance
District	Implementation of health reforms based on local conditions with emphasis on operational planning, management, and community mobilisation
Community (Health Centres/ Dispensaries)	Identifying priority health needs, planning, and implementing activities to meet those needs; resource acquisition, control and general management of health services

3.1.4 Management of Reforms

In coordination with representatives from the academic and donor communities, the MoH produced the Kenya's Health Policy Framework Implementation and Action Plan that clarified the objectives, indicators, and timeframe of the reform process. The Health Sector Reform Secretariat (HEROS) was formed as the unit with the responsibility to steer the Reform programme. The roles, functions, and responsibilities of HEROS are:

1) to provide advice and support to the central, provincial, and district levels;
2) to review and guide the prioritisation of reform measures;
3) to guide and advice the districts on development of funding proposals;
4) to monitor the implementation of the Plan of Action;
5) to prepare regular quarterly reports to the Ministerial Reform Committee and to the Permanent Secretary; and
6) to undertake any other assignments assigned by the Ministerial Committee.

The Ministerial Reform Committee (MRC) oversees the implementation of the Reform programme activities. The Permanent Secretary chairs it. Its membership comes from both the technical and administrative departments of the MoH. The Director of Medical Services is a member as well as representative of NGOs and private health care providers. The functions and responsibilities of the MRC include:

1) advising the Central Board of Health;
2) supervising the operations of the HEROS;
3) monitoring and evaluation health sector reform activity; and
4) developing policy guidelines on the implementation of the Reform.

The major issues the Committee has dealt with are:

1) the production of a framework and guidelines for annual district plans (to be implemented in 1998); and
2) the review and modification of the proposed structural and organisational changes at MoH headquarters.

3.2 HEALTH PLAN IN THE DISTRICTS (1997-2000)

The District Development Plan is prepared by each District Departmental Heads of various ministries under the co-ordination of the District Commissioner assisted by the members of the District Planning Unit. Then, drafts are discussed by members of the District Executive Committee and approved by the District Development Committee.

The following tables summarise the District Health Plans that were prepared as part of District Development Plans. Their consistencies with the KHPF were not considered in the preparation. Some of the plans are still in draft forms.

Table 3.2 Bomet Health Plan

BOMET HEALTH PLAN (District Development Plan 1997-2001): Draft	
District Specific Objectives	
	1. Increase the utilisation of all idle capacity in the district 2. Complete construction and put into use all the installed projects 3. Do renovation works in all Rural Health Facilities (RHF) 4. Open up 12 New RHF in underserved areas selected by DDC 5. Reduce mortality, morbidity and disability caused by childhood immunisable diseases 6. Expand the Environmental / Sanitation project
Review of the 1994-96 Plan	
Achievement	The total facilities increased from 36 to 44 in 1995. Outpatient department in Longisa District Hospital has opened. The number of health personnel has increased from 204 in 1993 to 275 in 1996. The number of immunisation delivery centres has increased from 14 in 1994 to 17 in 1996. A new vehicle for SIDA-assisted Environmental / Sanitation project New ambulance for Chebangang and Ndanai Health Centres Extension of health facilities (Lugumek, Kanusinand Kapkesosio) Supply of Essential Drugs became regular in late 1995 and 1996. Construction of 31 Ferro-cement water tank, 43 water jars, protection of 5 springs and 19 latrines Preventive maintenance of 16 RHF including training of 28 Public Health Technician
Problems	Longisa division does not have in-patient facility. Patients and providers are frustrated when drugs are not available. The ratio of health personal remains low. Incomplete infrastructure Actual immunisation coverage is yet to be established.
Priority Projects and Programmes for 1997-2000	
On-going projects	Completion of unfinished construction and provision of equipment in Longisa District Hospital Provision of equipment and completion of construction with 4 facilities (Koiwa, Lugumek, Kanusin, Kapkesosio) Water and Sanitation Project in Bomet Central Division will be expanded to Sigor, Longisa and eventually to the whole district. Preventive Maintenance of RHF will be extended to the all other facilities
New projects	Construction, upgrading and renovation of facilities and provision of equipment (Tegat, Bomet, Kitoben, Olokyin, Menet, Sotik, Sigor, Cheptalal) Malaria control in lower zones (Sigor, Siongoroi and Chebalungu) Primary Health Care Programme in all divisions with emphasis on disadvantaged area School Health Programme
Programme	KEPI Open 16 new immunisation service centres at proposed facilities (Olokyin, Chemaner, Lugumek, Kapkesossio, Chebunyo, Chepwostuiyet, Sotic, Simbi, Kanusin, Koiwa, Kenyaor, Segutiet, Kitoben, Merigi, Itare, Gorgor)

Table 3.3 Kericho Health Plan

KERICHO HEALTH PLAN (District Development Plan 1997-2001): Draft	
District Specific Objectives	
	N/A
Review of the 1994-96 Plan	
Achievement	N/A
Problems	N/A
Priority Projects and Programmes for the 1997-2000	
On-going projects	Water and Sanitation (Ainamoi Division and Chepseon Location in Kipkelion Division) Maintenance of all Rural Health Facilities in the district Primary health care activities Construction of eye ward and theatre at Kericho District Hospital
New projects	Provision of medical and non-medical equipment to all Hospitals, Health Centres and Dispensaries. Construction of casualty department in the Kericho District Hospital Renovation of MCH/FP at the Kericho District Hospital
Programme	N/A

Table 3.4 Nyamira Health Plan

NYAMIRA HEALTH PLAN (District Development Plan 1997-2001)	
District Specific Objectives	
	1. To increase ante-natal and post-natal clinic attendance from 65% to 75% 2. To intensify Family Planning activities in the districts 3. To reduce immunisable diseases through increase in vaccination coverage area
Review of the 1994-96 Plan	
Achievement	Nyangema Health Centre was partially completed through EEC funding of Kshs 5.7 million. Ogando Dispensary, Nyamusi Health Centre and Manga Health Centre were completed with Regional Development Fund of Ksh 1.8 million
Problems	N/A
Priority Projects and Programmes for the 1997-2000	
On-going projects	Construction or expansion of facilities; provision of transport and equipment (Keroka, Tinga, Chepngombe, Nyamusi H/C, Isoge, Ekerenyo, Esani, Ogando, and Nyamasi Dispensaries)
New projects	Construction of Muchenwa Health Centre in Rigoma Division
Programme	N/A

Table 3.5 Kisii and Gucha Health Plan

KISII AND GUCHA HEALTH PLAN (District Development Plan 1997-2001)	
District Specific Objectives	
	1. To strengthen institutional capacity to design, implement and evaluate STD interventions 2. To promote preventive measures in reducing the risk of STD spread 3. To enhance community-based provision of physical and psychological care, and develop strategies to mitigate socio-economic consequences of AIDS by encouraging community-based care of infected persons 4. To strengthen breast-feeding policy and improve nutritional status of children 5. To reduce morbidity and mortality of six immunisable diseases and raise immunisation coverage within the district 6. To increase the number of Service Delivery Points (SDPs) and train traditional birth attendants to ensure safe delivery practices 7. To improve sanitation, water quality and availability
Review of the 1994-96 Plan	
Achievement	Construction of Riana Health Centre, Eramba and Kenyenya Dispensaries were completed Rehabilitation of Matong and Boige Dispensaries and Nyamasi Health Centre were completed The six-body mortuary in Kisii District Hospital was rehabilitated
Problems	The newly-constructed Riana Health Centre, Eramba and Kenyenya Dispensaries still lack equipment and furniture. Construction of surgical contraceptive unit, MCH/FP unit, Dental /Dressing, injection unit, pharmacy and records offices in Kisii District Hospital have been suspended for several years.
Priority Projects and Programmes for the 1997-2001	
On-going projects	Construction of surgical contraceptive unit, MCH/FP unit, Dental /Dressing, injection unit, pharmacy and records offices in Kisii District Hospital. Completion of staff house, construction of maternity unit and provision of equipment in the following rural health facilities: Magena, Sosera, Nyaore, Eramba, Sieka, Kiogoro, Kenyenya, Kionyo, Nyansakia, Raganga, Riana, Etago, Moticho, and Gesabakwa.
New projects	Rehabilitation of Kisii District Hospital Upgrading of Health Centres to sub-district hospital (Keumbu, Gesusu, Nyamache, Ogembo, Nduru and Marani) Upgrading of Mission Health Centre to sub-district hospital Upgrading of Dispensaries to Health Centres (Nyacheki, Etago, Riotachi, Riana and Kenyenya) New construction of 26 Dispensaries (Nyansara, Nyansancha, Kiobegi, Chitago, Motonto, Muma, Mwata, Rioboera, Riyabo, Taracha, Mosando, Matunwa, Nyamemiso, Nyakononi, Mogweko, Geteri, Sugata, Nyagwekoa, Nyatike, Nyaguta, Nyagechenche, Gesabakwa, Kerera, Gakero, Kenyerere and Misesi) Construction of Maternity unit and provision of equipment (Ogango Dispensary) District-wide rehabilitation of RHF (Preventive Maintenance Implementation Unit)
Programme	STD/HIV/AIDS control project (Training and sensitising the communities)

3.3 PROJECTS SUPPORTED BY INTERNATIONAL DONORS

In the Study Area, there are three major health-related projects supported by international donors. Profiles of each project are summarised based on information provided by relevant donors.

3.3.1 Prevention Maintenance Project for Rural Health Facilities by DANIDA

Project Duration	Amount input for renovation	Activities; Target Area	Achievements
5 years: pilot (now the end of the pilot stage) 5 years: Phase 1	54 million DKK for the whole country Kericho: 2.2 million DKK Bomet: 2.1 million DKK Nyamira, Kisii, & Gucha: 2.1 million DKK * Training and administrative costs are not inclusive.	Renovation of Rural Health Facilities (RHF) Training of DPHOs, PHOs in preventive maintenance, district based programme , training of Trainers, filling gaps and divisional meetings Provision of Equipment: Tool kits for all Public Health Technicians, medical and non-medical equipment. Funds for the Government of Kenya for preventive maintenance	DPHOs have been trained Renovation of some RHFs Construction of extensions in RHFs Furniture for renovated facilities Tool kit for PHTs Purchase of non-medical equipment for some facilities

3.3.2 Environmental Health Programme by SIDA

Project Duration	Amount Input	Activities; Target Area	Achievements	Constraints
Kericho: started in 1989/90 Bomet: started in 1993/94	Average 2 million Ksh for each district Budget for Bomet: Water supply: 535,00 Kshs Sanitation: 117,000 Kshs Vector control: 45,000 Kshs Food hygiene and housing: 35,000 Kshs Community mobilisation: 140,000 Kshs Capacity building: 289,000 Kshs	Minor water supply Vector control Food hygiene and housing Community mobilisation and education including gender sensitisation Capacity building	Construction through demonstration, cost-sharing and replication of water jar, spring protection, hand dug well and VIP latrine Purchase of mosquito nets, chemicals and equipment Training of implementers in different technologies on hygiene education Improvement of food storage, "jiko" and housing	Delay of disbursement of fund Unstable market prices Socio-economic factors Cultural factors Geographical profile Weather conditions

3.3.3 Community-Based Distribution (CBD) of Reproductive Health Commodities by GTZ

Project Duration	Amount Input	Activities; Target Area	Achievements	Constraints
Gucha: Started in 1990/91	3 million Kshs for training of CBDs	Through distribution of contraceptives: Fertility change Maternal and child health Contraceptive knowledge Contraceptive practice Identification of Non-users	Trained 1,000 CBDs The use of contraceptives have resulted in reduction of population growth Have created awareness on contraceptives methods The use of condoms especially in the tea estates has greatly reduced the STD cases	Poor communication limits proper supervision Transfer of trained supervisors Dropout of some CBDs since they are not paid

Chapter 4

Desk Study on Health Development in the Study Area

4. DESK STUDY ON HEALTH DEVELOPMENT IN THE STUDY AREA

4.1 HEALTH STATUS

According to the *National Development Plan 1997-2001*, national life expectancy cose from 40 to 58 years between 1960 and 1994 and Infant Mortality Rate (IMR) decreased from 126 per 1,000 to 60 per 1,000 between 1962 and 1994.

On the contrary, *Kenya Demographic and Health Survey* (DHS) 1993 reported that there had not been much change in IMR over the decade with birth histories recorded from woman interviewees in the survey. Differences in the mortality by province were quite marked. IMR in Nyanza Province (128) was almost twice that of the second highest rate (Coast Province-68). It also reported that socio-economic differentials such as completion of basic education, urban-rural setting contribute to the reduction of IMR.

Table 4.1 shows the IMR of the entire nation, province and the districts in the Study Area. The IMR of the districts were drawn from the *District Development Plan 1994-1996 & District Development Plan 1997-2000* for the respective districts.

The reduction of IMR in the Study Area could parallel with the national trend over the past 30 years. However, identifying specific area or attribution risk of infant death as such low attainment of basic education has not put in practice at district level.

Table 4.1 Infant Mortality Rate (1,000 live births)

IMR for National / Provincial from 1993 KDHS			
National	69 (1978-82)	63 (1983-87)	62 (1988-93)
Nyanza		127.9 (1982-1993)*	
Rift Valley		44.8 (1982-1993)*	
IMR for the Study Area from District Development Plan			
Old Kericho[1]	86 (1982)	62 (1991)	42 (1992)
Old Ktsii[2]			62 (1989)

Source: Kenya Demographic and Health Survey 1993 for National and Provinces, District Development Plan 1994-96 for Districts

Note: KDHS survey used a ten-year period to calculate the mortality estimates in order to have a sufficient number of cases.

[1] The region used to comprise Kericho and Bomet
[2] The region used to comprise Kisii, Nyamira and Gucha

4.2 MATERNAL AND CHILD HEALTH

With the MOH, the Division of Primary Health Care functions as a planing, management, coordination and training unit for essential Maternal Child Care such as Kenyan Expanded Program for Immunization (KEPI), Acute Respiratory Infection (ARI), Control of Diarrhea Disease (CDD) and Family Planning (FP).

4.2.1 KEPI

Kenya expanded program on immunization (KEPI) had been launched in 1980 and introduced to the first district in 1981 and by 1986 all districts were covered. According to the 1993 KHDS, 78.7 percent[3] of Kenyan children aged 12-23 months were fully vaccinated and only 3 percent did not received any vaccinations (Table 4.2).

The vaccine coverage for the all districts except Nyamira was slightly better than the national average according to the 1994 National Immunization Coverage Survey.

The expansion of the Service Delivery Points (SDPs) has been emphasized to ensure immunization coverage among the children. In case of Bomet District, the district started with 18 SDPs and had progressed to 23 SDPs until 1993. There are mobile clinic services for immunization operated by Mission (Tenwek mission hospital)

With KEPI technical Committee, area targeted for policy activities are:

Vaccine Independence Initiative[4]
Immunization against Hepatitis B and Yellow Fever
Tetanus Toxoid (TT) schedule and TT card introduction
Open Vial Policy[5]

4.2.2 ARI and Diarrhea

Incident of past illness during the two weeks preceding the 1993 KDHS survey indicated that 18 percent of children under five had cough and rapid breathing (Acute Respiratory Infection), 41.8 percent had fever and 13.9 percent had diarrhea. With all indicators except ARI, Nyanza Province was ranked as one of the worst among the provinces.

[3] Another survey, 1994 Central Bureau of Statistics reported 76.1%
[4] Vaccine Independence Initiative: The Ministry of Finance and the Ministry of Health have agreed in principle on the desirability of Kenya financing a share of its vaccine needs. Kenya has been solely dependent on donors to provide all vaccines for routine immunization program.
[5] The Open Vial Policy uses a Vaccine Vial Monitor (VVM) from WHO in all vials of oral polio vaccine. The monitor appearance changes when the vial has had too much heat exposure and must be discarded.

Table 4.2 Immunization Coverage and Major Child Morbidity

National immunization coverage and major child morbidity from KDHS 1993				
	KEPI(Coverage of fully immunized %)	**ARI(%)***	**Fever (%)***	**Diarrhea (%)***
National	78.7	18	41.8	13.9
Nyanza	69.7	19.8	48.6	17.7
Rift Valley	75.9	21.4	39.3	11.8
District immunization coverage from 1994 National Immunization Coverage Survey				
Kericho /Bomet	86.3	N.A.		
Kisii/Gucha	81.1			
Nyamira	73.5			
National	76.7			

Source: Kenya Demographic and Health Survey 1993
Note: Percentage of children under five years who were ill during the two weeks preceding the KDHS

1994 Immunization Coverage Survey reported that 17 % of the children had an episode of diarrhea two weeks preceding the survey. Among those who had diarrhea, 86% per cent was given some fluid including use of Oral Dehydration Salts. (28%).

4.2.3 Nutrition

In Kenya, most mothers practice breast feeding though, the introduction of supplementary liquids and foods occur far too early. Still about 33 percent of children are classified as stunted by 1993 KDHS.

According to the Welfare Monitoring Survey 1994, 40.5% of sampled children in Kisii and 31.8% of sampled children in Nyamira were stunted.

Table 4.3 Percent Distribution of Target Children (6-60 months)[6]

	Height for Age		**Weight for Height**		**Weight for Age**	
	Below 3SD	**Below 2SD**	**Below 3SD**	**Below 2SD**	**Below 3SD**	**Below 2SD**
National	14.7	33.6	2.1	7.8	5.6	22.5
Nyanza	15.5	36.4	1.6	5.5	6.3	20.0
Rift Valley	14.3	32.4	2.3	8.2	6.0	24.6
Kisii	17.6	40.6	0.8	6.2	5.4	23.4
Nyamira	18.0	31.8	1.8	6.0	6.0	19.1
Kericho	17.8	39.3	1.9	2.8	5.6	17.7
Bomet	14.4	38.0	1.0	2.0	1.0	17.5

Source: Welfare Monitoring Survey 1994, Basic Report, Central Bureau of Statistics,

In 1994, Government produced *National Plan of Action for Nutrition* reflecting the International conference on Nutrition.

[6] According to the report, each index is expressed in terms of the number of Standard Divination (SD) units from the median of the U.S.National Center for Health Statistics, Center for Disease Control and WHO international reference population.

Table 4.2 Immunization Coverage and Major Child Morbidity

National immunization coverage and major child morbidity from KDHS 1993				
	KEPI(Coverage of fully immunized %)	ARI(%)*	Fever (%)*	Diarrhea (%)*
National	78.7	18	41.8	13.9
Nyanza	69.7	19.8	48.6	17.1
Rift Valley	75.9	21.4	39.3	11.8
District immunization coverage from 1994 National Immunization Coverage Survey				
Kericho /Bomet	86.3	N.A.		
Kisii/Gucha	81.1			
Nyamira	73.5			
National	76.7			

Source: Kenya Demographic and Health Survey 1993
Note: Percentage of children under five years who were ill during the two weeks preceding the KDHS

1994 Immunization Coverage Survey reported that 17 % of the children had an episode of diarrhea two weeks preceding the survey. Among those who had diarrhea, 86% per cent was given some fluid including use of Oral Dehydration Salts. (28%).

4.2.3 Nutrition

In Kenya, most mothers practice breast feeding though, the introduction of supplementary liquids and foods occur far too early. Still about 33 percent of children are classified as stunted by 1993 KDHS.

According to the Welfare Monitoring Survey 1994, 40.5% of sampled children in Kisii and 31.8% of sampled children in Nyamira were stunted.

Table 4.3 Percent Distribution of Target Children (6-60 months)[6]

	Height for Age		Weight for Height		Weight for Age	
	Below 3SD	Below 2SD	Below 3SD	Below 2SD	Below 3SD	Below 2SD
National	14.7	33.6	2.1	7.8	5.6	22.5
Nyanza	15.5	36.4	1.6	5.5	6.3	20.0
Rift Valley	14.3	32.4	2.3	8.2	6.0	24.6
Kisii	17.6	40.6	0.8	6.2	5.4	23.4
Nyamira	18.0	31.8	1.8	6.0	6.0	19.1
Kericho	17.8	39.3	1.9	2.8	5.6	17.7
Bomet	14.4	38.0	1.0	2.0	1.0	17.5

Source: Welfare Monitoring Survey 1994, Basic Report, Central Bureau of Statistics,

In 1994, Government produced *National Plan of Action for Nutrition* reflecting the International conference on Nutrition.

[6] According to the report, each index is expressed in terms of the number of Standard Divination (SD) units from the median of the U.S.National Center for Health Statistics, Center for Disease Control and WHO international reference population.

4.2.4 Access to Birth Delivery Services

While half of women live within 5 kilometers of a facility that provides antenatal care, 31.8 percent of them live within 5 kilometers of a facility that provides delivery service and only 28.6 percent of them can reach a facility that provides delivery service within half an hour. In Nyanza Province, only 20.5 percent of women live in communities within a half-hour traveling time to get a facility where delivery service is provided while 18 percent of the women still live in communities where they are obliged to travel more than 2 hours to access delivery service.

Table 4.4 Access to Delivery Service

	All Facilities		Nyanza		Rift Valley	
Km / Minutes	Distance (%)	Time (%)	Distance (%)	Time (%)	Distance (%)	Time (%)
<4 / <29	31.8	28.6	28.2	20.5	27.4	30.9
5-14 /30-119	42.4	53.2	49.1	61.1	36.9	52.4
15+ / 120+	21.5	13.9	21.7	18.0	32.1	13.0
Service not provided or Missing	4.3	4.3	1.0	0.5	3.6	3.6
Total	100	100	100	100	100	100

Source: Kenya Demographic and Health Survey 1993

4.2.5 Family Planning

The 1993 KDHS reported that 97 percent of women and men know some kind of family planning. However only one third of married women were using a contraceptive method. The contraceptive use varies greatly by province.

In the last 15 years, the TFR declined to 5.4 (1993 KDHS) through the increased use of contraceptives. This was one of the most dramatic drops in TFR ever recorded. Western, Rift Valley, Nyanza and Eastern provinces had Total Fertility Rate (TFR) above the national average while those in Nairobi and Central Provinces were lower. Use of modern method gradually increased. Kisii ranked higher prevalence of contraceptive use than those of Nyanza and national average did (Table 4.3).

Table 4.5 Use of Family Planning Methods

	1984 KCPS Modern (Traditional) %	1989 KDHS Modern (Traditional) %	1993 KDHS Modern (Traditional) %
National	17 (7.3)	26.9 (9.0)	38.2 (5.5)
Nyanza	N.A.	N.A.	23.8 (2.3)
Rift Valley	N.A.	N.A.	27.9 (6.9)
Kisii (old Kisii)	N.A.	N.A.	40.3 (2.4)

Source: Kenya Demographic and Health Survey 1993

A five-year *National Implementation Plan 1997-2000* (NIP) stated that its overall goal is to provide quality family planning services to all Kenyans desiring them, in order to make significant progress towards meeting the unmet need in family planning by the year 2000. To meet this goal the NIP has focused on three levels of FP service delivery system:

Community involvement;
Service delivery points; and
District level management.

Recently MOH has developed National Reproductive Health Strategy 1997-2010. The strategic paper adapted the concept of reproductive health including Family Planning Unmet Needs, Management of Sexual Transmitted Diseases, HIV/AIDS; Promotion of Adolescent and Youth Health; Management of Infertility; Gender Issues and Reproductive Health; Integration of Services and Quality of care etc.

4.2.6 STD/AIDS

Sexually Transmitted Diseases (STDs) are known to be widespread in Kenya. Since it is recongnized that the attribution risk to HIV/ AIDS is higher among STD patients, control of STD became one of major strategies against HIV infection. However, problems in diagnosis and in the classification and reporting system make it difficult to determine their prevalence.

4.2.7 HIV prevalence

The National AIDS Control Program (NACP, renamed the National AIDS and STD Control Program or NASCOP in 1994) estimated that about 1,100,000 adults and children were infected with HIV by the end of 1995. The number of HIV positive people is projected to increase to 1.8 million by the year 2000.

It is known that the reported AIDS cases only represent a piece of iceberg. Cases of HIV and AIDS often are unreported or diagnosed as diarrhea, malnutrition, etc.

Sentinel sites at antenatal clinics have shown that HIV prevalence rose from 3.1 per cent in 1990 to 7.5 per cent in 1995. Sentinel data from the STD clinic attendants have shown an increase from 31 per cent in the late 1980s to 44.7 per cent in 1991. Among the female sex workers, prevalence is to 87 per cent.

Kisii is one of 13 urban sentinel surveillance sites around the country. The prevalence of HIV positive percentage among the women in Kisii was classified under the lower prevalence group but the growth rate of Kisii between 1990 and 1995 went in higher group and still in rapid increase. . Kisumu and Nakuru were first and second highest prevalence in all sentinel sites. During the period between 1994 and 1995, rural sentinel sites have jumped up from 2 percent to 12.5 percent, which is really warning.

Table 4.6 HIV Positive among Pregnant Women

	1990 (%)	1993 (%)	Growth Rate (1990/1993)	Growth Rate (1993/1995)
Kisumu	19	27.3	1.05	1.37
Nakuru	9.9	27.2	2.22	1.23
Kisii (old Kisii)	1.6	4.3	1.56	1.72

Source: AIDS in Kenya 1995, National AIDS Control Program

The Central Government has been paying increased attention to the growing problem of AIDS. STD/AIDS is now listed as a major disease burden and has resulted in the revision of the policy paper on health. The 7th National Development Plan included a chapter on HIV/AIDS, and the 1994-1997 District Development Plans required all district administrators to include reports on the spreading and impact of HIV/AIDS.

In Kericho, the records indicate that in 1991 there were 178 patients in the District and 155 cases of reported HIV positive in 1992 at Kericho District Hospital, which indicated that the most affected age group was between 20-49.

The District Development Plan 1994-1997 described that AIDS in the Study Area is directly related to the cultural values, traditions and norms of the people either living or working in the district. Some of these practices include initiation rites and traditional surgical practices like circumcision. It is estimated only about 30% of male circumcision are professionally conducted within the medical service framework. The remaining percentage goes on unsupervised by medical personnel thus risking exposure to HIV infection.

Responding to the central policy, District AIDS Committee was formed in controlling this scourge by encouraging a multi-sectoral approach. The committees consist of the following people:

District Commissioner (Chairman)
Medical Officer of Health (Secretary)
District Social Development Officer
Cultural Officer
District Adult Education Officer
District Information Officer
District Agricultural Officer
District Education Officer
Mandeleo Ya Wanawake Organization
All District Officers
NGO Representatives
District Development Officer

4.2.8 Malaria

Malaria is the leading cause of morbidity and mortality in Kenya. In recent yeas, situation has deteriorated, and with the parasite resistance to available and affordable antimalarial drugs like chlorquine growing, malaria has become a major public health concern.

In 1994, malaria epidemics were reported in several parts of the country from May 1994. A total of twelve districts were affected ranging from semi-arid lands (Turkana, Narok) to highland areas (Nyamira, Kisii and Kericho), the remaining areas falling between the two types of climate. The worst hit area were Kisii, which reported between 300-500 deaths and Nyamira, 184 deaths. The epidemic was attributed to prolonged drought, followed by heavy rainfall increasing the relative density of *A. gambiae* and *A. funestus*.

Kenya National Five-Year Plan of Action for Malaria Control 1996-2000 focuses on the following strategies:

Case Management
Chemoprophylaxis in pregnancy
Personal protection
Selective vector control
Prevention and control of epidemics
Health Education

4.3 HEALTH SERVICE

4.3.1 Service and Facilities

In principal, District Hospitals provide special service such as surgical operation, psychiatric care and X-ray diagnosis that are not available at Rural Health Facilities (RHF). In RHF, services offered are outpatient curative service, delivery services (Health Center only), and preventive and promotive services such as family planning, KEPI, antenatal care, growth monitoring, nutrition counseling, HIV prevention counseling etc.

Table 4.7 shows the distribution of health facilities in 1993 and1996. 24 private clinics and 4 maternity nursing homes in Kisii and 2 maternity nursing homes in Nyamira were not included in the Table 4.7.

Table 4.7 Health Facilities

	1993				1996			
	Hospital (MOH/ NGOs)	Health Centers* (MOH/ NGOs)	Dispensaries (MOG/ NGOs)	Total	Hospital (MOG/ NGO)	Health Centers (MOG /NGO)	Dispensaries (MOG/ NGO)	Total
Bomet	2	12	19	33	1/2	8/1	31/1	44
Kericho	N.A.	15	30	N.A.	3/1	9/6	37/3	59
Nyamira	1	5/1	17/21	45	1	12/8	11/12	44
Kisii (Gucha)	1/1	8/4	23/9	46	1/4	7/4	23/9	48

Source: Annual Report 1995, Health Information System, MOH
*Note: Sub-Health Centers were put under the Health Centers

4.3.2 Utilization

Table 4.8 shows the rates of outpatient morbidity with selected diseases in the Study Area, compiled by Health Information System of MOH. The reporting rate varies with the facilities. However, the ranking of leading disease can be identified by the report. The pattern of the Study Area is quite similar to national outpatient morbidity.

Table 4.8 Outpatient Morbidity

	Bomet	Kericho	Nyamira	Kisii (Gucha)
Malaria	N.A.	72,738 (23%)	105,745 (26%)	213,696 (35%)
Respiratory Disease	N.A.	51,035 (16%)	56,536 (14%)	98,199 (16%)
Skin Disease	N.A.	19,67 (6%)	19,356 (5%)	34,798 (6%)
Intestinal worms	N.A.	10,131 (3%)	14,167 (4%)	20,529 (3%)
Diarrhea	N.A.	6,969 (2%)	11,141 (3%)	16,358 (3%)
Accident	N.A.	9,291 (3%)	13,369 (3%)	14,678 (2%)
Eye Infection	N.A.	5,959 (2%)	12,824 (3%)	9,744 (2%)
Others	N.A	136,373 (45%)	167,608 (42%)	204,234 (33%)
Total	N.A.	312,175 (100%)	400,746 (100%)	612,236 (100%)

Source: Annual Report 1995, Health Information System, MOH

Table 4.9 indicated the utilization of inpatient service in the hospitals of the Study Area. Length of stay (ALS) in the three public hospitals except Kisii District Hospital is shorter than the median among all public hospitals. Bed Occupancy Rate (%Occ.) of Kisii District Hospital is quite high among public hospitals.

Table 4.9 Inpatient Utilization

	Londiani sub-District Hospital	Kericho District Hospital*	Nyamira District Hospital	Kisii District Hospital
No. of Admissions	2,668	2,519	8,189	22,161
ALS	5	5	5	7
% Occ	70	39	54	112
National Average of ALS (N=65): 8.5, Median: 7, Mode:7, Max: 38, Minimum:38, Standard Deviation: 5.3				
National Average of % Occ. (N=64): 78.5, Median: 72.5, Mode:54, Max: 201, Minimum:16, Standard Deviation: 36.6				

Source: Produced from the data of Annual Report 1995, Health Information System, MOH
Note: Kericho Hospital reported HIS only 4 out of 12 months.

Chapter 5

Organisation, anagement and Information System

5. ORGANISATION, MANAGEMENT AND INFORMATION SYSTEM

5.1 BACKGROUND

The Ministry of Health (MoH) has had difficulties in providing all necessary health services under the current conditions where the demand for health care is increasing but the resources are constrained. A harsh economic climate coincided with the critical phase of the country's demographic transition brought the current imbalance between the demand for and supply of health services together with the situation which was aggravated by the emergence of HIV/ AIDS and other hitherto re-emerging health problems, including drug-resistant malaria.

Based on the above recognition, the Kenya Government's set the *Kenya's Health Policy Framework*, which outlines the Government's political will and commitment for the future of the health sector in Kenya.

Health Sector Reform, now being implemented by the MoH, stepped into the action plan of quantifiable targets, in consideration of available resources to distribute to the cost effective programmes, and to direct organisational efforts towards improving the health status of people in the country.

The initial emphasis was focused on the decentralisation, efficient management of available resources and the re-establishment of functional and financially sustainable health care delivery systems in the country.

For these reform initiatives to succeed, the Study focused on the implication of district health organisation, management and information system including the progress of Health Sector Reform. The other important components of health system, financing, human resource and logistics would be discussed in chapter 6, chapter 7 and chapter 10 respectively.

5.2 ISSUES ON THE STUDY

The issues addressed in this chapter are as follows:

1) direction and role of the districts within the framework of Health Sector Reform;
2) identification of major task and activities of district health organisation and facilities;

3) identification of existing planning and managerial capacities, including those in communication and transportation;
4) assessment of inter-relation between public sector and NGOs to increase the overall capacity of health services in the districts;
5) identification of community involvement in the districts with the end in view of assessing the feasibility of expanding community-based programmes;
6) assessment of health information system as an efficient and effective tool for planning, decision-making, implementing, monitoring, and evaluating health activities; and
7) identification of areas for building the capacities of health personnel in collecting, processing, analysing, and utilising health data.

5.3 PROGRESS ON POLICY IMPLEMENTATION

5.3.1 The Reform at Central Level

In 1994, the HSRF (Health Sector Reform) and its Implementation and Action Plan were formalised. The actual implementation of the plans gained momentum during the last quarter of 1996. At the MoH central office, the progress in implementation is described below.

- The review of its policies, functions, and organisation structure has been completed. A new organisation of the Ministry of Heath has been proposed but not implemented yet. The draft strategic plan was already completed.
- To improve the performance of the curative, preventive and promotive health services, the concept of Essential Health Package is under discussion. However, due to shortage of resources, a plan has not been made yet.
- In the area of co-ordination with NGOs and private providers, the NGO Co-ordinating Unit, which is under the Policy Planning Division, has developed a database for NGOs under the HESP: DANIDA project. Little is known about the type and quality of services provided by the private sector.
- In the area of financing, some pilot tests on contracting out for non-medical activities have been done with support of USAID. The NHIF has been reviewed.
- In the area of equitable facility distribution and improvement, the Planning, Maintenance, and Implementation Unit extended its services to all the RHF in the country.
- In the area of human resources, the Department of Human Resources Development has been created under the Director of Health Services. An advice was made regarding the appointment of a consultant who would be responsible for conducting need assessment and manpower analysis.
- The National Drug Policy has been formulated but not implemented yet.

5.3.2 Progress on Decentralisation

The Provincial Medical Office of Health (PMOH) has been involved in a series of reform processes. The MoH has made an application to the Directorate of Personnel Management (Office of the President) to authorise more staff for the PHMT. In addition, Provincial Hospital Management Boards have been established. The formation of Hospital Management Boards (HMBs) for district hospitals is in progress.

In day to day work, the PMOHs have set up statistical units with a computer set in their office in order to compile, process and use health and management information, which will be necessary to supervise and support the districts' plan. They also have developed a checklist for supervising district activities.

Compared with its counterpart at the provincial level, the District Medical Office of Health (DMOH) has been less involved in the process. Table 5.1 shows the status of implementation of decentralisation based on expected output mandated in the *Implementation and Action Plans for Reform.*

Table 5.1 Outputs of Implementation Plan and Progress

Expected Output	Progress
1. Policies, legislation and guidelines developed for decentralisation of management of government health systems	Members of DHMBs were appointed and Guideline for District Health Management Boards was released. Task force was appointed by MoH to review all Acts of the Republic related to decentralisation.
2. Effective decentralised management and financing systems in the health sector established	Discussion on-going
3. Roles and responsibilities of MoH, provinces, districts, and divisions defined and adopted.	Not yet adopted; financial and administrative management remain centralised
4. Provincial level strengthened to permit effective co-ordination of the district.	In the provinces, trained personnel and equipment were provided in order to strengthen the Health Information System. Workshop for Formulating Annual Workplan was held.
5. Roles of the DHMBs extended to permit them to oversee all health sector activities in the districts	No training was done for DHMBs.
6. District Health Management Teams strengthened	Workshop for Preparation of Annual Work Plan was held.
7. Hospital Management Boards established; functions of executive expenditure committees and hospital management teams were combined and consolidated	Established by name, but no guideline.
8. Roles of Rural Health Committees reviewed and strengthened	Not done
9. Quality/Standards of health services (drugs, supplies, equipment, manpower) at health centres and dispensaries improved	Essential Health Package is not yet defined
10. New community and outreach services created and existing ones improved	Not done
11. Decentralised provision of Health Services by NGO strengthened	Not done

5.3.3 Legal Framework

Major laws regulating the health sector were formulated prior to Kenya's independence. One of the functions of the Health Reform Secretariat is to review these laws and to recommend necessary changes. The following Acts are in the process of review by a taskforce:

1) Public Health Act, Cap. 242;
2) Radiation Protection Act, Cap. 243;
3) Pharmacy and Poisons Act, Cap. 244;
4) Dangerous Drugs Act, Cap. 245;
5) Malaria Prevention Act, Cap 246;
6) Mental Health Act, Cap. 248;
7) Medical Practitioners and Dentists Act, Cap. 253;
8) Nurses Act, Cap. 257;
9) Clinical Officers (Training, Registration and Licensing) Act, Cap. 260;
10) National Hospital Insurance Act, Cap. 255;
11) Food, Drugs and Chemical Substances Act, 254; and
12) Animal Diseases Act, Cap. 364.

5.4 HEALTH ORGANISATION AND MANAGEMENT

Figure 5.1 shows the current district health administration and management line among the organisation units. The Provincial Medical Officer (PMO), who chairs the Provincial Health Management Team (PHMT), takes supervisory role on District Health Management Teams as well as a advisor to District Health Management Boards within the province. The District Development Committee (DDC) oversees development in all sectors for the district. For the health sector, the District Health Management Board (DHMB) and the District Health Management Team (DHMT) are the major management organisation units at the district level. The DHMB is functioning as one of the subcommittees of the DDC. From the district management side, a district hospital is under District Medical Officer (DMO), but the organisational arrangement is still in discussion on the future autonomy of the district hospital and the dissociation of basic health care from mixed services. At the community level, Facility Improvement Committees (FIC) that are composed of residents of the catchment area of a health facility support Facility Management Team or the person in-charge.

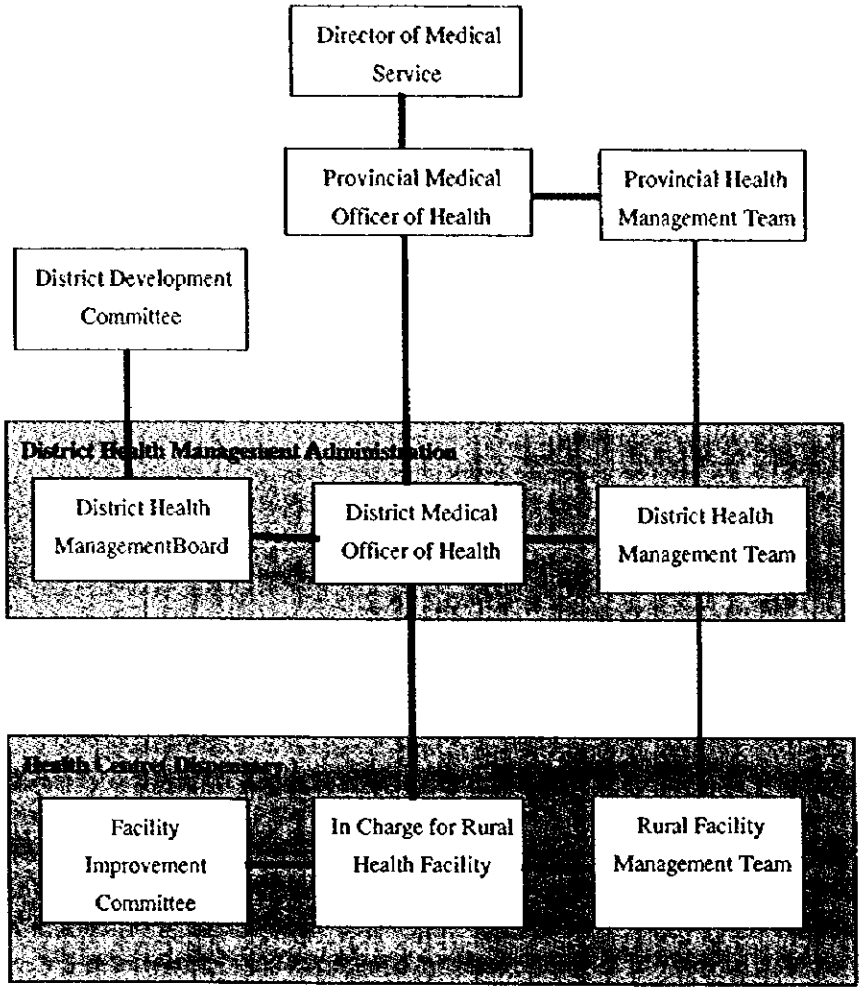


Figure 5.1 Organisational Chart

5.4.1 District Development Committee (DDC)

In every district, the DDC is the central body responsible for co-ordination of all development activities. The DDC must approve all project proposals from the local communities. In addition, it monitors the progress of implementation of all projects recommended for the district. The DDC also monitors the technical work of the Executive Committee.

The DDC' members meet quarterly. Membership is composed of all departmental heads, Members of Parliament, local authorities, regional authorities and representatives of parastatal agencies. The DDC has several subcommittees. One of the subcommittees of the DDC is the District Health Management Board (DHMB).

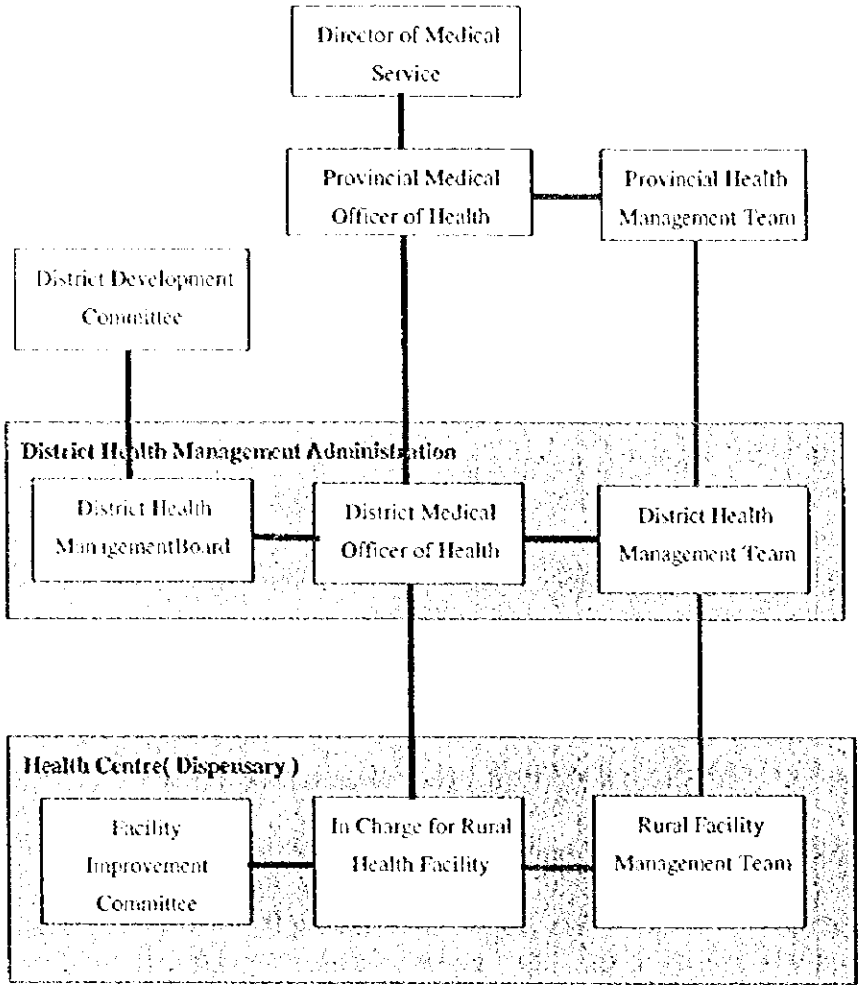


Figure 5.1 Organisational Chart

5.4.1 District Development Committee (DDC)

In every district, the DDC is the central body responsible for co-ordination of all development activities. The DDC must approve all project proposals from the local communities. In addition, it monitors the progress of implementation of all projects recommended for the district. The DDC also monitors the technical work of the Executive Committee.

The DDC' members meet quarterly. Membership is composed of all departmental heads, Members of Parliament, local authorities, regional authorities and representatives of parastatal agencies. The DDC has several subcommittees. One of the subcommittees of the DDC is the District Health Management Board (DHMB).

5.4.2 District Executive Committee

This is the technical arm of the DDC. Its functions including preparation of plans, management and implementation of projects. This committee also promotes inter-ministerial co-ordination of development activities within a district. the members meet monthly.

5.4.3 District Health Management Board (DHMB)

The DHMBs were established in 1991 to oversee all the health activities in the district. One of the main functions of the DHMB is the management of the Facility Improvement Funds (FIF). The District Medical Officer of Health (DMOH) serves as Secretary to the Board. Other members have a variety of backgrounds, e.g. private medical practitioners, businesspersons, and retired civil officers. Private health sector participation is limited to the selection of members from that sector. The Provincial Medical Officer of Health is a permanent advisor to the DHMB.

When the DHMT prepares long-term plans for the health services and development, representatives of the DHMB are required to participate. Any proposals prepared for submission to any local or external donor or any submissions to the DDC must be approved by the DHMB. The DHMT cannot incur any expenses from the Facility Improvement Fund until they are approved by the DHMB. In addition, the DHMB may receive complaints about personnel of the Ministry of Health from the public or even from the other members of the Board.

A recent report reviewing the policy and organisation of the Ministry of Health cites weaknesses in the capabilities of the DHMB. In some districts, members of the Board felt their role was well defined while in other districts members felt they were constrained. The roles and relationships between the DHMB, the DHMT, and the DMOH, now including HMBs, are not clearly defined. One clear example was cited in relation to district funds. While the DHMB has responsibility to oversee the utilisation of cost-sharing funds, it has no control over allocations from central Ministries.

Another example is the performance of health personnel in the district. The DHMB's responsibilities do not include the power to discipline officers. Some DHMBs stated that good performance entirely depends on the character of the DMOH and his team.

With the exception of Gucha, the other four districts had well-established DHMB. Gucha has forwarded the nominations to the MoH for approval. The district cannot transact any financial activities until the DHMB has been published in the official gazette.

Recent issues discussed by the DHMBs in the Study Area included FIF expenditures, quality of health services, problems related to the district hospital and PHC activities. Specific issues related to promotive, preventive and curative services were discussed during meetings of appropriate sub-committees.

5.4.4 District Health Management Team (DHMT)

DHMTs were established when the District Focus for Rural Development was initiated in 1982. The DMO is the Chairman of the DHMT. Other members of the DHMT include the District Public Health Nurse (DPHN), the District Clinical Officer (DCO), the District Public Health Officer (DPHO), the District Health Education Officer (DHEO), the Hospital Secretary, the Medical Superintendent, the Matron, the District Nutritionist, and the District Health Information Officer (DHIO). Any other department head may be nominated to the DHMT. For example, the District Vector Borne Disease Control Officer in Kisii is a member of the DHMT.

The main task of the DHMT is to plan, co-ordinate, and implement health activities in the district. Data collected by the district health information system is supposed to be utilised for planning the activities of the district. The DHMT is responsible for the preparation of the plans for the Facility Improvement Funds expenditures and for the proportion of these funds allocated for Primary Health Care. These plans must be approved by the DHMB.

Setting targets for expanding the coverage of PHC activities, monitoring achievements, providing support during epidemics, supervising curative services are supposed to be all functions of the DHMT. In addition, all peripheral health centres and dispensaries should be supervised by the DHMT on a regular basis to ensure delivery of quality services and to assess any pressing needs of the facilities. The health facilities prepare their annual budgets for assessment by the DHMT and, consequently, for presentation and approval by the DHMB.

All health facilities send monthly reports of their activities to the District Information Officer, who is a member of the DHMT, is supposed to prepare monthly, quarterly and annual reports.

5.4.5 Hospital Management and Administration

The hospital superintendent, who works as a medical doctor, is a chairperson of Hospital Management Team (HMT). Due to shortage of medical doctors, DMOs of Bomet and Nyamira also hold superintendent's post. The HMT consists of a matron, a hospital administration officer, and senior officers from each department. Hospital Management Board is now considering for future executive body for hospital management together with the position of hospital administration.

5.4.6 Management and Administration at Health Centres and Dispensaries

MoH has a list of all of the facilities, both public and private, in the country. There are major problems in the classification of health facilities. For example, a health centre is defined as a facility with beds, a clinical officer (or doctor) and a laboratory. The majority of government health centres follow this pattern although approximately 20 per cent do not. Facilities classified as "health centres" in non-public sectors rarely meet this definition. Less than 25 per cent of NGO/mission health centres have a doctor or clinical officer, and private facilities are staffed almost exclusively by nurses and subordinate staff. The average Gok health centre has 17 staff with an average of 10 beds and 6 nurses, while those managed by NGOs have an average of 18 beds and less than 3 nurses. Most private

"health centres" are staffed by one nurse and one support person so much so that they should be classified as dispensaries only.

Among the health centres visited by the Study Team, all in Kericho and Bomet, only one out of three health centres in Nyamira, and two health centres and one dispensary in Kisii offer laboratory services.

Health Centres

Gok health centres have public health technicians and other preventive and promotive personnel, including family health field educators and nutrition assistants.

Services offered at health centres should include the following:

1) outpatient curative services;
2) immunisation;
3) growth monitoring;
4) nutrition;
5) family planning;
6) health education;
7) antenatal care; and
8) normal deliveries.

In government facilities, a clinical officer is in charge of a health centre and an enrolled community nurse acts as his deputy. Most of the personnel at a health centre are enrolled community nurses (ECNs). Registered nurses are deployed in only a few health centres.

The Clinical Officer, with assistance from the ECNs is responsible for curative care but nurses perform the bulk of the clinical services at the facility, i.e. maternity, curative, preventive, and promotive services.

The enrolled nurses in some RHF also train and supervise community health workers (CHW), community-based distributors of contraceptives (CBDs) and/or traditional birth attendants (TBAs). The nurses receive clients referred by the community based workers and hold feedback and consultative meetings with them.

The public health technicians attached to the health centres assist with immunisations and growth monitoring in the morning before going out to the field.

Dispensaries

Dispensaries are staffed with ECNs and subordinate staff. The officer-in-charge is usually the senior enrolled community nurse. Public health technicians and the preventive/promotive personnel are assigned in 70-80 per cent of the dispensaries.

5.4.7 Community-Based Health Organisation

The term "Village Health Committees (VHC)" refers to a group of local people who take responsibility for health activities in a community. The characteristics and level of activities vary widely among villages. These groups are sometimes called, including but not limited to, "Facility Improvement Committees", "Village Development Committees", and "Health Development Committees". The name also vary according to the donor or organisational group (i.e. Mission or other NGO) that first assisted its establishment and the training of its members.

According to the *National Guidelines for the Implementation of PHC in Kenya (1986)*, the roles of a VHC are as follows: to identify and recognise priority problems relating to health; to decide on what needs to be done to overcome the problems; and to monitor and re-plan activities as necessary.

Since the introduction of official cost sharing in 1989, the awareness of the need for resource mobilisation on essential health services has been increasing in the community. All these led to the establishment of Facility Improvement Committees (FIC) that would solicit FIF at health centres and dispensaries.

FIC was well involved in resource mobilisation in terms of Harambee movement, collection and use of community fund or so-called "community kit" or "facility maintenance fund".

The health facility committee usually appoint a chairman, a secretary and a treasurer out of 5 -20 members consist of the community members and staffs from the health centres. The officer-in-charge of the health facility serves as the secretary of the FIC. The FIC meets regularly to discuss issues pertaining to the facility and health of the community in general. They discuss FIF budget (before forwarding it to DHMT for approval), and other issues, such as extra staff for the maintenance of the facility and grounds, extension of the facility, fencing the facility compound and erecting gates. Some of the FICs health centres have gone even further and received consent from the community to collect community fund.
It was found that at least 50% of health centre committee out of 16 visited heath centres introduced community fund, which is a fund on top of government's cost sharing. The charge varies by health centres but the committee usually impose 5-10ksh per person per month. The money was used or kept to expand MCH / Inpatient facility and employ subordinate staffs.

5.5 MANAGERIAL TOOLS AND CAPACITY

The Study Team interviewed the DHMT in each district and the officer-in-charge at each RHF. The interviews focused on issues which reflect the level of organisation and management of health services in facility, and the extent to which facility personnel had been involved in the health sector reform process.

5.5.1 Health Services in the Districts

In every district, except Gucha, there is a government district hospital that serves as the referral centre for the district. In addition, all districts have government health centres that offer preventive, curative and promotive services and have inpatient services for normal deliveries and acutely ill patients, most of whom are referred to the district hospital. Basic curative services are offered in all health facilities. But most cases, the availability of the service including preventive services depends upon the availability of staff, equipment, and supplies.

Gucha District, created in June 1997, still does not have a district hospital. The other four districts have hospitals but the fully operational ones are those only in Kericho, Kisii, and Nyamira. Bomet district hospital at Longisa offers only outpatient services. Kisii has consultants in the four major disciplines of medicine. The only medical specialist at Kericho District Hospital is a gynaecologist who is also Medical Superintendent. In Nyamira, there are two expatriate doctors and one local doctor, who is also the DMO. The two expatriates can not perform surgical procedures, and the DMO does all of the surgery. In his absence, all patients requiring surgery are referred to Kisii District Hospital. All the four hospitals visited offer outpatient services, i.e. general curative care, STD treatment, KEPI, MCH/FP, AIDS education etc.

All health centres (H/C) should be able to offer normal delivery services and have a few beds for observation of patients with acute problem. Of the 17 H/Cs visited by the Study Team, only 59% had facilities for general inpatient and 65% had facilities for normal deliveries. On an outpatient basis all the H/Cs offer curative, KEPI, FP, ante natal-and growth monitoring services. Fifteen (15) H/Cs manage STD and nine have special dehydration corners. AIDS education is given in 13 centres. The responsibility for home visits is shifting from the nurses to the nutrition field workers, PHTs, and the CHWs due to a shortage of trained nurses in the facilities.

5.5.2 Organisation

There were no organisation charts available from any of the DHMTs. Members of the DHMT at Kericho said they understood their roles although they did not have any written documents defining them. There were no job descriptions available for any DHMT members, and they were not aware if a description of their roles and responsibilities were available in writing from the MoH headquarters. In Kisii District, job descriptions were available for district hospital personnel. The DPHN has a list of her duties that was prepared at the district level.

None of the health centres or dispensaries visited had an organisational chart. However, in smaller facilities, where there were few staff and limited services, there was a document on leadership protocol.

5.5.3 Meetings

The DHMT in Bomet has been meeting on a monthly basis and has held four meetings since July 1997. In the same time period, Nyamira held three meetings, but Kericho had not had any. The DHMT for Gucha, formed in September, held one meeting already.

The Kisii DHMT had called a special meeting to disseminate information from the Health Sector Workshop that five of them had attended.

Two major subjects of discussion at all the DHMT meetings were transport and personnel. Gucha DHMT discussed issues peculiar to a new district such as its request for office space and personnel from the PMO's office. Bomet and Kericho DHMTs always start their meetings by receiving reports from various sections. Kisii recently launched the STD programme; at the last DHMT meeting, members discussed specific modalities for launching this programme. Nyamira and Bomet discussed expenditures using cost-sharing funds. In all the districts, the DHMT participates actively in drawing up the estimates and proposals for the expenditures on the cost sharing funds.

A general observation is that DHMT meetings were not regularly held in all the districts other than Bomet. No schedules were available for the meetings and rarely were any agenda circulated.

Of the 33 health facilities visited in the five districts, only 6 held staff meetings on a monthly basis, 8 had no meetings yet, and 9 held only one meeting during the fiscal year. The others conducted between one and three meetings since July 1997. Commonly discussed issues included staff discipline, commitment to duty, and punctuality.

5.5.4 Planning

Because of their attendance at a workshop organised by the HEROS group, Kisii and Bomet DHMT members had prepared a District Annual Workplan for 1997/8. The Annual District Workplan of Gucha was already forwarded to the Treasury for funding. Nyamira and Kericho have not prepared any plans. There are no annual plans available at health centres or dispensaries.

It was noted that the districts did not have a plan for continuing education. Training needs of the districts have not been assessed for a long time. Staff may be nominated to attend training/workshops/seminars from the MoH headquarters or from the province. An example is the recent workshop organised by HEROS where the province was requested to nominate staff from their districts.

Many of the donor-funded programmes have training components in specific areas, which may not conform to the general training needs of the district. In the facilities studied, only 25 per cent of the professional staff in the rural health facilities had attended any form of training during the past two years. Bomet has the highest number of staff who had attended some form of training (42%); only 2 per cent of the staff in Kisii received any training in the past two years.

5.5.5 Vertical Programmes

Vertical programmes are planned at the national level. District authorities have no control over the funding or the supplies procured for vertical programmes. All items are supplied to the facilities through the district stores. If there are any shortages at the central level, the districts will not have a budget for local procurement.

At the district level, different officials prepare workplans for their own sections. However, quantifiable targets have not been set or seem unrealistic. One example was the workplan for nutrition in which training in growth monitoring was planned for 5,230 community health workers and 144 growth monitoring centres were planned to be built in a period of eight months only.

When it comes to preventive activities, targets have not been established yet at the district level. Because of this, it will be difficult to assess the district achievements at the end of the year.

Bomet has plans for all vertical programmes, except for nutrition, but has targets for KEPI only. The DHMT plan to carry out a survey on STD morbidity in the district.

All of the RHF do not have an annual facility plan or a plan for the vertical programmes. The DHMTs in the five districts have not given any assistance to these health facilities in the formulation of plans.

In some areas, such as at Lemotit in Kericho District, the members of the VHC represent various villages and therefore know the village members very well. They agreed with the communities that waiving of fees at RHF will be done by the village representative before patients go to the facility for treatment. This has worked very well and has removed a burden from the staff in deciding who should be exempted from the user fees.

5.5.6 Support from the MoH and PHMT

The districts receive minimal support directly from the MoH headquarters or from the PHMT unless there is a specific outbreak of disease. Nyamira was a good example this year. It was selected to celebrate the World Mental Day and therefore received logistic support from the MoH. The PHMT assisted five members of the Kisii DHMT to attend the HEROS workshop. In Nyamira, the DPHN received assistance from the Provincial Public Health Officer to hold an update training in KEPI.

Table 5.2 is a matrix of responses to questions raised during focus group discussions held at each district whereas the following box is the summary record of group discussion in Kisii only.

Table 5.2 Matrix of Responses during Focus Group Discussions

	Bomet	Kericho	Nyamira	Kisii	Gucha
Health Policy					
Received Kenya Health Policy documents?	Received at the district	None	None	5 members have read	All members have read
Discussed about it?	A few members discussed	One nurse read	No	Yes	-
Organisation and Meetings					
Organisation chart is available?	Yes	None	None	None	Formative stage
Job description available?	None	None	None	Some written form	None
How often dose DHMT have a meeting?	Regularly	Not met last 4 months	Regularly	Regularly	Met in October
Planning					
Has district health work plan for 1997 prepared?	Yes	Not yet	No	Not compiled as single form	Yes, but not printed form
Support from PHMT and MoH headquarters for the preparation of plan?	None?	None?	HEROS workshop	HEROS workshop	-
Supervision					
When did DHMT visit RHF for supervision	-	Not as the Team	-	-	-
Availability of written supervision report?	-	No	-	-	-
Health Sector Co-ordination and co-operation					
KEPI and FP	Yes	Yes	Yes	Yes	Yes
Other collaboration	Personnel support to Tenwek Hospital. Mission uses Governme nt Facilities.	N/A.	Mission carry out-reach service	National Immunisat ion Day	Having trainee from NGOs to MoH Training course

Source: JICA Study Team, 1997

Focus Group Discussion at Kisii

DHMT members had been quite busy preparing their annual workplan. Several sections had their documents ready but the district had not yet compiled a district annual plan as a single document.

A few examples of the planned activities for different sections were discussed. The District Vector borne Disease Officer had planned to control malaria by making the impregnated bed nets available throughout the year, increasing the use of larvicidals and spraying stagnant waters. He did not have any baseline data and therefore had not set any reduction target. The DPHN had planned to increase KEPI coverage by providing the immunisation services effectively from the newly opened facilities.

The District Nutritionist had planned to increase growth monitoring by training 5,230 CHWs and establishing 144 new growth monitoring centres.
From these examples it became apparent that guidance was required to plan for achievable targets.

It is recommended that particular attention needs in the training to be paid on quantifying the tasks involved in realising the objectives.

Although activities had been planned for the vertical programmes, specific targets had not been set.
The DHMT did not receive any assistance from the PHMT or the MoH headquarters in the past two years for the formulation of their workplans. However the PHMT had assisted Kisii district to send five participants to the HEROS workshop. Those members who participated in this workshop definitely understood the importance of writing annual plans, setting targets and saw the need for understanding the" Kenya Health Policy Framework".

Although verbal communications with the MoH headquarters, occurred regularly DHMT members were disappointed with the written responses from the headquarters if they ever received any.
In the event of outbreaks for e.g. malaria outbreak, assistance was received directly from the headquarters and from the province as well.

5.5.7 Communication and Transportation

Transportation and communication facilities are essential in providing support, supervision, and development of RHF as well as community-based activities. However, they are hardly available in public health facilities. The means of communication between DMOH and RHF, often depends on chance visits. Supervisors who intend to visit a RHF are obliged to wait for a chance on a vehicle used for the delivery of drugs.

A test on the communication channel among units was conducted. Its objective was to determine the time required to deliver a questionnaire from the DMOH to RHF, and to return it to the DMOH. The results shown in Table 5.3 vary depending on availability of the person who would convey the message and the availability of public transportation ("matatu") to and from RHF. According to the test, only 25 (32%) out of 83 questionnaires were returned within 30 days.

Table 5.3 Tests on Communication Channel

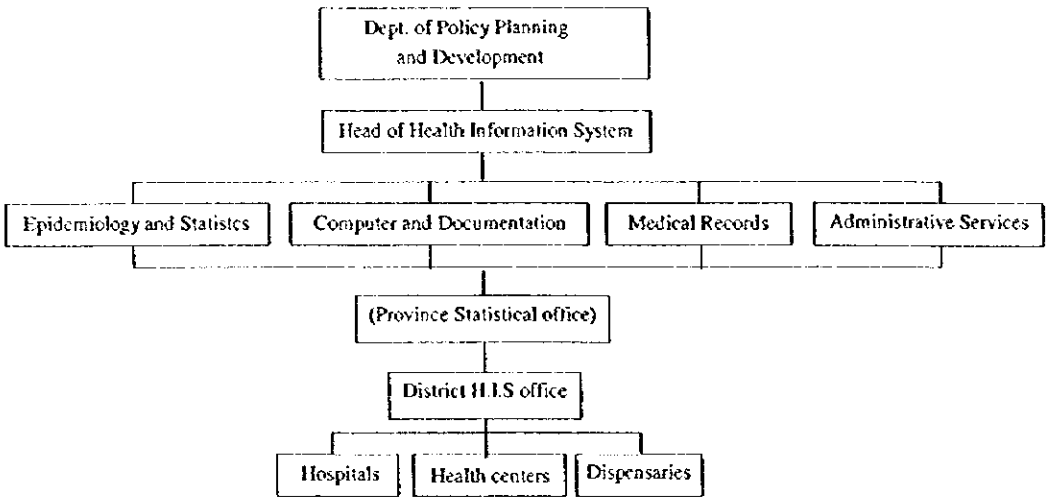
	Average Days from "Request" to Action of the Delivery	Average Days from Date of Delivery to Return	Total Days from "Request" to Return
Kericho	2	23	25
Bomet	3	13	16
Kisii	5	12	17
Nyamira	17	9	26
Gucha	6	8	14

Note: The request for filling a questionnaire was made through DMOH with ordinary instruction to Rural Health Facilities that are randomly selected. The method of delivery and completion days were assessed.

5.6 HEALTH INFORMATION AND MANAGEMENT SYSTEM

The current health information system was introduced to the whole country in 1976 after review of the previous one and pilot testing of a new system (AMREF 1994). A steering committee was established to make the curriculum for training medical records officers. In 1982, data collection forms were reviewed by a committee consisting of health professionals. The revised formats began to be used in 1984. When trained officers were transferred to district health offices in 1985, all data were expected to be processed not at the national level anymore.

The organisations responsible for the health information system are shown in Figure 5.2.



Source: Adapted from HMIS Evaluation Report 1993: Nyamira, AMREF

NB: This diagram refers to the organizations administering the information regarding outpatient, inpatient, workload, health facilities and CHANS

Figure 5.2 Organisational chart of health information system in Kenya

5.6.1 Function of the Headquarters

The headquarters receive health-related data from RHF and districts, enter them into the database systems, and analyse them in order to provide the baseline data for planning, management, and decision making of the organisations concerned at various levels. The

Medical Records Office receives the data submitted by districts and crosschecks data validity. The Computer and Documentation Office receives the data from Medical Records Office, enters them into its database systems, and passes them to the Epidemiology and Statistics Office, which analyses the compiled data. The following table summarises the type of database systems being used in the MoH. These database systems are used as stand-alone and not connected as a network. The data on health personnel, recurrent expenditure, cost-sharing, and KEPI are administered by different offices.

Table 5.4 Database Systems in the MoH

TYPE OF DATABASE	SOFTWARE	RESPONSIBLE OFFICE
Outpatient morbidity	Clarion (MS-DOS)	Health Information System Unit
Inpatient morbidity & mortality	Clarion (MS-DOS)	Health Information System Unit
Workload	Clarion (MS-DOS)	Health Information System Unit
Health facility	Clarion (MS-DOS)	Health Information System Unit
Personnel	dBASE 4	Personnel department
Recurrent expenditure	dBASE	Accounting department
Cost sharing	Fox Pro	Under-secretary
KEPI	CEIS	Central Management
CHANIS	Clarion	Health Information System Unit

Source: Interview with the officers at Computer and Documentation, MoH

The headquarters give feedback and disseminate information to assist in the health activities in the country. The Health Information System Unit publishes annual reports, which summarise the data regarding outpatient morbidity, inpatient morbidity and mortality, workload service statistics, immunisation services, and growth monitoring.

5.6.2 Function at the Provincial Level

The province is supposed to receive the data from all its districts. However, it was found that some provinces receive copies of the health-related reports from the districts while others do not. Because it is responsible for supervision and has recently established a statistical office with the computer equipment and statistical officer, the PMOH is expected to provide assistance to all its districts. However, feedback and support have been needed so far.

5.6.3 Function at the District Level

The district has medical record officers and health information personnel who are responsible for the collection, compilation, submission, and storage of the data from both governmental and non-governmental health facilities. Their office is usually located at district hospital and they administer the data of the district as a whole as well as that of the hospital. The original forms of the data collected in the district are submitted to the headquarters in Nairobi. In addition, one copy is sent to provinces and another copy is stored at their office.

The current number of district medical record officers in the Study Area is shown in Table 5.5.

Table 5.5 Number of Medical Record Officers

District	Number of Medical Record and Statistics Officer
Bomet	4 medical records officers
Gucha	HIS office is not set up yet (clerical officers engage in data recording and compilation).
Kericho	1 statistical officer, 1 medical records officer, 6 technicians
Kisii	5 medical records officers
Nyamira	5 medical records officers

Source: Interviews with medical records officer of Bomet, Gucha, Kericho, Kisii, and Nyamira

5.6.4 Function of RHF

Health facilities are the primary place for data collection and reporting. They record the data regarding outpatients, inpatients, and immunisation activities and so on. The data collected are also supposedly used at the facilities for planning, monitoring, and evaluating the health activities.

5.7 INTERSECTORAL COLLABORATION

The majority of government health facilities visited by the Study Team have one or more NGOs offering health services within their catchment areas. All of the facilities have village health committees associated. Funds collected by the VHC are used to purchase items in the health facility, e.g. paraffin and, expendable materials, and also to pay salary for the staff hired by the committee and working at the health facility.

Kericho district has a large network of health facilities run by a tea company called Brooke Bond Kenya Limited. All NGOs and the mission facilities receive their KEPI and FP supplies from the MoH. In Bomet, the MoH has posted a matron and three doctors to Tenwek Hospital, and Kaplong Hospital accepts medical students for their elective term. A pharmaceutical technician, an x-ray technician, a physiotherapist and more than ten nurses have been seconded to various mission hospitals in Kericho District. The MoH also invites staff from mission facilities for specific training like KEPI cold chain management, FP, and AIDS.

5.8 CONSTRAINTS AND PLANNING DIRECTION

5.8.1 National Level

A. Constraints

While the decentralisation of management to the district level has been part of MoH policy for more than a decade, few concrete measures have been introduced such as the creation of DHMBs and the transfer of control over cost-sharing revenue to local authorities.

The strong central control over key resources combined with the lack of effective information and management systems is a major constraint to the rapid implementation of reforms.

B. Planning Directions

Full implementation of decentralisation policy as a precondition to a more effective district health planning

Effective planning and management can be realised when the powers and authorities are transferred to district authorities. Otherwise, programme formulation will continue to depend heavily on an external decision-maker and source of resources. The Study Team intends to closely coordinate with the Health Reform Secretariat.

5.8.2 District Level

A. Constraints

- The MoH has limited institutional capacity and financial resources to provide the required level of in-service training on organisational development and management

- In most districts, the vehicles are more than ten years old that require expensive maintenance. Budget allocations from the MoH headquarters are rarely adequate to maintain these old vehicles which run on poorly-maintained roads. For example, in Bomet District, one facility has an ambulance with no funds for fuel while another one has more than sufficient budget for its limited number of vehicles.

- In general, the DHMTs in the Study Area have not established meeting schedules. They do not circulate agenda for meetings. The Bomet DHMT is the only one that holds monthly meetings.

- Few health centres and dispensaries hold regular staff meetings. In dispensaries where the ECN is the only professional staff, the need for formal meetings often does not arise.

- The VHC meetings are related to specific problems at facilities. In some dispensaries like Ibacho and Ramasha, the VHC chairperson, secretary or treasurer participate in the day-to-day running of the facility and contribute to making decisions that pertain to health services.

B. Planning Directions

- Strengthening of technical capacity of the District Health Management Team in planning, management and resource mobilisation

- Continuous technical training for DHMTs

- Development of manuals on district planning, monitoring, evaluation, and resource mobilisation

- Seminars for DHMT/DHMB members and facility managers on the modalities of conducting short, productive, and constructive meetings

- Strengthening the capacity to provide continuing education in management for DHMT staff, hospital administrators and related personnel

- Institutionalising the capacity within each district to provide basic management training for mid-level cadres

- Development of curricula and training materials for the continuing education courses

5.8.3 Planning at District and Local Levels

A. Constraints

- The information (e.g. up-to-date data on personnel and catchment areas) needed to produce district and facility workplans is often not available nor easily accessible.

- While the HEROS group produced a framework for district plans, few members of the DHMT and DHMB have the knowledge and skills to develop this document.

- The only two districts that have district annual plans are Bomet and Gucha. Most district plans produced during the past decade only deal with capital investments in facilities, vehicles and equipment. They are not based on epidemiology data of the district and do not include targets for services or other indicators.

- Vertical programmes have district action plans with estimated targets and implementation modules. However, all of the districts have no written plans for these programmes. While the MoH has on several occasions developed staffing norms for various categories of health facilities, neither these nor other guidelines are used in personnel planning. At the dispensaries and health centres, the in-charges do not prepare workplans and do not have targets for their curative or public health activities.

- The emphasis on district continuing education activities during the past 15 years has been on the operation of vertical, donor funded programmes such as FP, STD management and KEPI.

B. Planning Directions

- Introduction of appropriate local planning and management method

- Strengthening of capacities of priority health centres in planning, management of information, and in conduct of training

- Development of local planning and management skills that are adapted to local setting

- Inclusion of operations research techniques in training manuals

- Support for training courses related to the new HEROS planning framework.

- Enhancement of participation of CHWs, TBAs, and CBDs to improve the link between the community and health facilities

- Expansion of intersectoral collaboration with other departments so that the District Education officers would participate in the planning and dissemination of health-related information in schools

- Participation of mission, NGO and private providers in the district planning process

- Provision of and training in the use of equipment (e.g. computers and calculators) that would assist the DHMTs in the planning process; support for the production of accurate district and facility catchment area maps with data on the location of villages and transportation routes

5.8.4 Supervision and Monitoring

A. Constraints

- The monitoring and supervision of the organisation, delivery, and quality of health services in the district and at the facilities are weak. Supervisory visits to health facilities are infrequent and not performed systematically using guidelines or data collection instruments.

- While DHMBs are responsible for overseeing district health activities, supervision and monitoring by DHMTs are hardly implemented as required. During visits, neither a checklist is used for assessment nor a record is produced.

- Management tools (e.g. area map) and information about catchment area and women of childbearing age were not available at facilities. There is little quality assurance mechanism within the facilities and the quality of services has never been assessed by a third party.

- Furthermore, difficulties with integrating vertical programmes into a comprehensive district implementation plan persist.

B. Planning Direction

- Integration and further decentralisation to lower levels of responsibilities related to provision of support, supervision and monitoring

- Establishment of a network for cross-supervision and monitoring among RHF

- Institutionalisation of a process for quality assurance and development of a framework for supervision and monitoring

- Coordination of monitoring activities done by different ministries on common health and health-related programmes such as Family Planning, AIDS control and TB

5.8.5 Health Information and Management System

A. Problems

The review of the current health information system identified three fundamental issues.

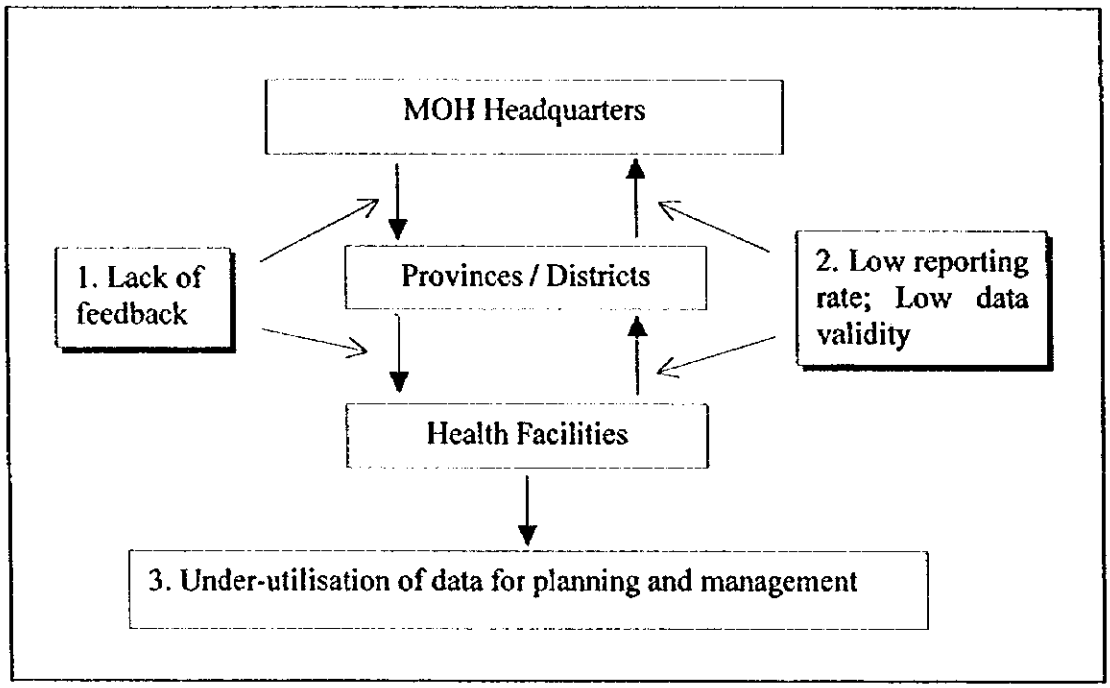


Figure 5.3. Problems Existing in Current Information System

Lack of analysis and feedback of the collected data

All personnel interviewed at the districts and RHF referred to an absence of feedback from the headquarters and districts as a major issue. It obviously reduces incentives of district and health facility level to collect and compile data timely and accurately. Another reason, as suggested by a medical records officer, is the distance between health facilities, the collection point, and the headquarters, the analysis point.

Though Health Information System Unit at the headquarters publishes annual reports, some of the health facilities have not received even these annual reports. Furthermore, the publication is often delayed. For example, the 1992 annual report was published on October 28, 1994. Regarding this issue, one officer at Health Information System Unit pointed out that the delay was due to limited budget for printing reports. This

indicates the situation that resources are devoted to collection of health-related data but accumulated data are left under-utilised and not used for planning and management of various levels to improve the quality of health services.

Low reporting rate and low data validity

The reporting rate of health-related data is generally low. It is observed that the districts have never received a complete set of data from all the health facilities for any one year. The Table 5.6 shows the average reporting rates of outpatient morbidity, which is requested to report to a district, medical record officer monthly. In case of Nyamira, only 7.5% of outpatient morbidity report were submitted to the district over the year. Regarding to the reporting rate from P-H/C to the districts, the situation is better than that of district average. Most P-H/Cs report regularly but one third of the P-H/Cs respond below 50% of reporting rate As a result, few of the data collected are utilised for planning and management at district level or at health facilities.

Table 5.6 Reporting rate of outpatient morbidity at the districts

	Kericho	Bomet	Nyamira	Kisii	Gucha
Number of Health Facilities	126	53	70	44	34
Number of Expected Reports in Year (No. facility x 12 months)	1512	636	840	528	408
Number of Actual Reports sent to District in the study year	336	308	63	199	178
Reporting Rate	22.2%	48.4%	7.5%	37.7%	43.6%
Inspection period	1995.1 - 1995.12	1997.1 - 1997.12	1997.7 - 1998.6	1997.1 - 1997.12	1997.7 - 1998.6

Source: District Medical Record Office / JICA Study Team

Even though reporting forms are filled, it is found that there are many errors and discrepancy in the filled forms. For example, one rural health facility reports more than 300 cases of accidents out of 600 cases. Some of facilities report that they dealt with 3-5 diseases (cases) per a single person and so on.

Under-utilisation of data for planning and management

The situations described above contribute to the under utilisation of the data for the improvement of health services and status. Collection and utilisation of the data regarding morbidity and mortality is vital to measure and quantify the seriousness of the diseases facing people in a particular place. Reliable data set makes it possible to rank them according to their significance. Although the data collected are compiled at districts and the headquarters, few are utilised for planning and management at district and RHF level.

B. Direct Causes and Contributory Factors

Under-utilisation of data, lack of feedback, low reporting rate and data validity are identified as the issues to be resolved in the previous section. Before going into the possible actions to be taken in the future, the five causes contributing to these issues are analysed .

Lack of skill in data collection and analysis

Although they have minimum qualification of a two-year training at the Medical Training College, district medical record officers and statistical officers normally do not benefit from an in-service training. The lack of staff trained in statistical analysis contributes to low data validity. With shortage in reporting forms, the low reporting rate is expected.

Shortage and inappropriateness of reporting forms

Almost all interviewees pointed out the shortage of reporting forms as a major constraint to timely reporting. Procurement of medical stationary including reporting forms used to be the responsibility of the MoH headquarters. However, due to the budget cut in recent years, MoH has been unable to deliver enough reporting forms to health facilities on time. Since October 1997, MoH has decentralised the responsibility of its procurement to the district level and allocated the budget for it. Regarding this change in policy, some district officers expressed their concerns on the possibility of insufficient budget allocation.

The data reporting forms have much room for revision and streamlining. For example, while outpatient tally sheet (MoH 701) classifies diseases into 36 types, the summary sheet of infectious diseases (MoH 712) uses 45 types that are written in different sequence. This case shows inappropriateness of reporting forms as well as heavy burden of workload on health staff and justifies the revision of reporting forms.

Lack of guidance in data collection and reporting

There is no comprehensive manual that details the procedures for data collection, processing, and analysis. The limited statistical skill of some staff at RHF further lowers the rate and validity of reports.

Insufficient budget allocation for recurrent expenditure

Except for salaries, budget for recurrent expenditure of the district medical records officer is not allocated. This seriously hampers the implementation of activities, such as supervision, training, and procurement of equipment, that are necessary to improve data collection and analysis at RHF. It was found in the field survey that the equipment for data collection and analysis was not available except for hand calculators in few districts.

Lack of integration of the existing database system in the headquarters

As indicated in Table 5.4, the headquarters of MoH has a variety of database systems that are not yet linked into a network. It is difficult to combine, retrieve, and utilise the information from different database systems. This lack of integration between database systems reduces the efficiency of data utilisation.

C. Planning Direction

Interventions on health information system need to be directed toward the following directions:

- development of a district health information management system;

- improvement of efficiency and effectiveness of the information system as a tool for planning, decision-making, implementing, monitoring, and evaluating health activities;
- enhancement of health personnel's understanding of the importance of data collection and analysis as well as their capacity in collecting, processing, analysing and utilising health data.

Assuming that the districts take more responsibility for health activities in a decentralised structure, it is recommended that the district health information management system be developed in conjunction with the existing system at the MoH headquarters.

Five specific recommendations are submitted for consideration.

Review and revision of the current information system and reporting forms

Before developing the information system, the current system needs to be reviewed and revised by officials concerned with district health activities. If the under-utilisation of the collected data, understaffing and financial constraint are considered, then it is worth reviewing the recording and reporting forms currently used. It would be cost-effective to determine the minimum information needs and streamline the reporting system. For example, the data on STDs are not classified into separate categories. They can be re-classified to distinguish HIV/AIDS data from others on the condition that health facilities have enough diagnostic capacity for these diseases.

Strengthening of analytical capability at district level through the development of a district database system

Based on the analysis of the needs for health data and the revised reporting forms, integrated database system should be developed to enhance efficiency and effectiveness of data analysis by using database software such as Microsoft Access.

The current database system is managed solely by the MoH headquarters and each database set is not well integrated, uses different database software, and administered by different offices. District health information management system is intended to utilise and manage the data based on an integrated database system, which enables those concerned to retrieve and combine the data from different data sets and to analyse the conditions regarding health status and health service effectively. To implement this task, it seems the most likely feasible option is to develop and test a system in one district then replicate it in other districts (Book Appendix 4).

It is worth referring to the role to be played by the province in this intervention. *Kenya's Health Policy Framework* (Ministry of Health 1994, p. 36) stresses the strengthening of the capability of provincial level health officials to supervise the districts. Provinces have recently set up their statistical offices with the computer equipment and statistical officers. If it provides the support the districts consider useful, it will definitely strengthen the institutional capability of districts in planning and management. The support from provinces is likely more efficient and effective than that from the headquarters because the distance between districts and the province is shorter than between districts and the headquarters. Therefore, strengthening the capability of provincial health authorities is recommended so that they in turn could provide useful support to district level.

Provision of medical stationary to rural health facilities

During the field survey, the Study Team was impressed by the hand-written graph, tables, and charts on the wall of several health facilities. The provision of simple formats for this purpose can greatly enhance the analytical work of RHF staff on health-related data and reduce their workload.

In addition, some district medical record officers expressed difficulty in filing reporting forms due to lack of space and stationery. They suggested the introduction of a filing system that is called the "unit system".

Establishment of sentinel surveillance in Study Area

Poor quality of data resulting from inability to diagnose major diseases is identified as one of the major constraints to a reliable health information system. To address this problem, prioritized diseases sentinel surveillance sites could be established in selected areas in the Study Area such as in priority health centres[1]. The sentinel sites could be provided with the diagnostic equipment as well as a continuing education programme to improve the skills of staff.

Training for RHF staff responsible for data collection and reporting

The focus of aforementioned interventions has been on improving the system for health information at various levels of the MoH hierarchy. However, aside from strengthening the system, human resource development is essential to make the improved system operational. As such, health personnel could be trained in collecting, processing, analysing and utilising health-related data as well as in understanding the importance of health data. This proposal would be in line with the vision of the ***Health Sector Policy Framework***, that is, to decentralise planning, management, resource mobilisation, control, and utilisation. In the future, health officials at the districts and RHF could take more responsibility for the management of their own health data.

[1] Refer to Chapter 11 for discussion on priority health centres