1. Introduction

1.1. Background of the Request for Technical Cooperation

The Government of Kenya (GOK) endorsed "The National Health Sector Strategic Plan (NHSSP) 1999-2004" and placed importance on the strengthening of its healthcare system and management functions, including the functions of cost sharing for medical expenses and the appropriate use of medicine and equipment. Despite these efforts, health conditions remain poor in Kenya due to poor social investments, particularly in the western part of the country. Malaria and HIV/AIDS are ranked as the most serious diseases. The District Hospitals and other health facilities are old, and their health services fall short of meeting the basic requirements.

In 1997-1998, the Japanese Government commissioned the Japan International Cooperation Agency (JICA) to conduct a development study and formulate a master plan for strengthening the district health system in the western part of Kenya, namely the Kisii, Nyamira and Gucha Districts in Nyanza Province and the Kericho and Bomet Districts in Rift Valley Province. In accordance with this master plan, 16 health centers in these five districts were completely rehabilitated (by the end of 2001). The GOK then requested that the Japanese Government implement a technical cooperation project to support these 16 rehabilitated health centers for the improvement of their management systems and services.

JICA dispatched the first preparatory study team in August 2004 and agreed with the GOK that the project should focus on two districts, namely, the Kisii District and Kericho District, instead of all 16 health centers spread throughout the original five Districts. In preparing for the 'Safe Motherhood Project,' the Kisii, Kericho and Kitui districts were originally considered as the target Project areas. As JICA and GOK continued with the consultation, however, it was decided that the Safe Motherhood Project be implemented in only the Kisii and Kericho Districts.

Consequently, the first preparatory study team proposed that the two technical cooperation projects be integrated as one comprehensive technical cooperation project aiming at a strengthened health service system in two districts with an emphasis on safe motherhood, mainly at the Health Centers, in consideration of the relevance, effectiveness, efficiency and sustainability of the project. The second preparatory study team was dispatched in November 2004 and agreed with the GOK on this plan. The process of reaching the current stage is described in figure 1.

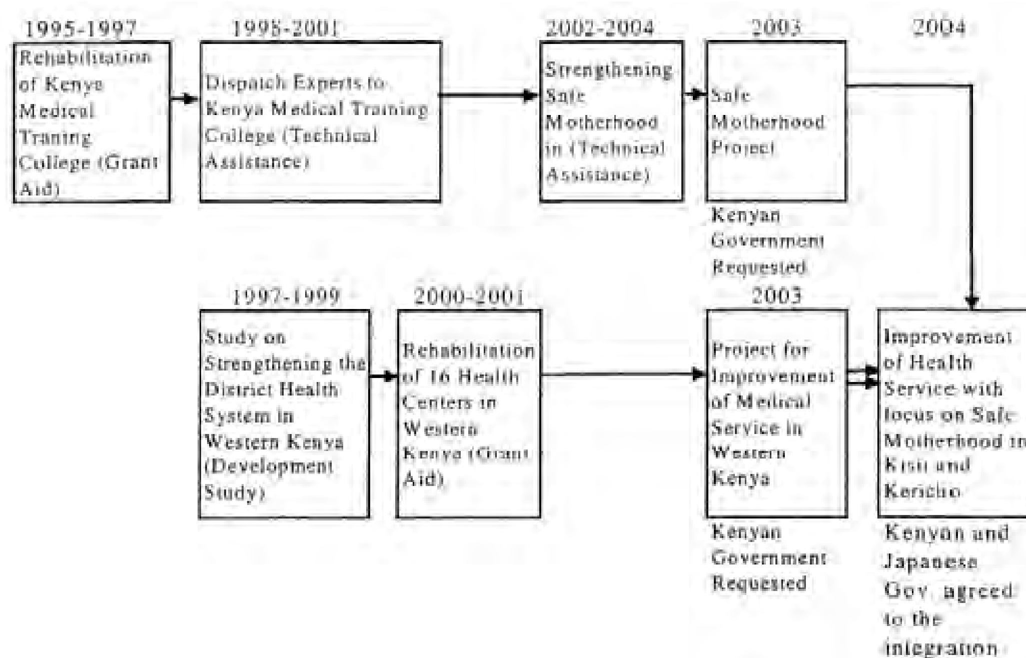


Figure 1 Process of Project Formulation

1.2. Objectives of the Project Document

The present Project Document is elaborated through collaboration and consultation among the staff of the related departments in the Ministry of Health (MOH), District Health Management Team (DHMT), JICA, and the two preparatory study teams, based on the draft Project Design Matrix (PDM) and Plan for Operation. They were drafted during the first and the second preparatory study missions in August and November 2004, respectively, based on the Project Cycle Management (PCM) workshop held on August 9-10.

The Project Document aims:

- to describe the socio-economic status, development policy, health sector issues, and district heath and safe motherhood issues in Kenya;
- to explain the rationale of the Project; and
- to provide a basis for implementing the Project throughout the project life cycle.

This Project Document consists of six Chapters. Following the introduction (Chapter 1), Chapter 2 provides background information for the design of the district health project with a focus on safe motherhood, including details on socio-economic factors, the current health status in Kenya, national health policies and strategies, and assistance from development partners. Chapter 3 presents an in-depth picture of the current district health and safe motherhood status and key priority areas.

Chapter 4 describes the Project with elaboration of the contents of the PDM. Chapter 5 illustrates the monitoring and evaluation plan for the Project. Lastly, Chapter 6 presents the result of an ex-ante evaluation of the project design in accordance with the five evaluation criteria.

2. Background Information

2.1. Political and Socio-economic Context

2.1.1. Political background

Jomo Kenyatta, the leader of the Kenya African National Union (KANU) and first president of Kenya, turned the country into a de facto single-party state. He was succeeded in 1978 by Daniel Arap Moi. Under domestic and foreign pressure, a multi-party system was introduced in 1991. President Moi was re-elected every five years, thus ensuring that the KANU party remain in power for most of the latter half of the 20th century, beginning from Kenya's independence in 1963.

The election of President Kibaki along with the National Rainbow Coalition (NARC) in 2002 has marked an important change in Kenya's political scene. For the first time since the independence, the opposition succeeded in removing the previous ruling party, KANU, from power. The NARC coalition approved one of its most important electoral promises, "Free Primary Education for All." Additionally, it has committed itself to fighting the prevailing system of corruption at all levels and to establish "Good Governance" criteria. The new government has nevertheless faced great challenges in consolidating power amongst its 14 constituent parties, and also in reconciling its electoral manifestos under the current difficult economic situation.

2.1.2. Socio-economic status

Socio-economic Indicators in Kenya are shown in table 1. The Kenyan economy is predominantly agricultural. The agriculture sector contributes 25% of the Gross Domestic Product (GDP). Coffee, tea, and horticulture are the main agricultural export commodities; in 2002, these three commodities jointly accounted for 53% of the total export earnings. The manufacturing sector contributes about 13% of the total GDP.

Poor economic growth has weakened the overall welfare of the Kenyan population and the ability of the public and private sectors to create jobs at a rate to match the rising labor force. About 56% of the population lives in poverty (Central Bureau of Statistics, 2003). The number of poor people is estimated to have risen from 11 million in 1990 to 17 million in 2001. The worsening living standard is reflected in rising child mortality, illiteracy, and unemployment. The HIV/AIDS pandemic has also had a devastating impact on all sectors of the economy through loss of human resources and

production and increased medical expense. Amidst these conditions, the GOK in 2003 launched its Economic Recovery Strategy for Wealth and Employment Creation, an initiative seeking to restore economic growth, generate employment opportunities, and reduce poverty levels (Ministry of Planning and National Development, 2003).

Table 1 Socio-economic Indicators in Kenya

	1999	2003
Total population (million)	29.4	31.9
GDP ($, billion)	10.6	13.8
GNI per capita – PPP $	360.0	390.0
Value added in agriculture (% of GDP)	23.4	16.6
Value added in industry (% of GDP)	17.9	19.1
Value added in services (% of GDP)	58.7	64.2
Total adult literacy rate (% of ages 15 and above)	81.3	84.3 (2002)
Life expectancy at birth (years)	47.7	44
Net primary enrolment/attendance (%)	64.9	72
Infant mortality rate (per 1,000 births)	77*	77*
Under-five mortality rate (per 1,000 births)	116*	115*

Source: World Development Indicators Database. World Bank, 2004.
* Kenya Demographic and Health Survey (KDHS) 2003. Central Bureau of Statistics of Kenya. 2004

2.2. The Health Sector in Kenya

2.2.1. National Health Policy and Priority Areas

The MOH is implementing its programs in line with a number of policy frameworks within a policy environment subject to both internal and external influences. "The Kenya Health Policy Framework (KHPF) 1994" and the NHSSP 1999-2004 shape the internal environment in which "the Interim Operational Plan (IOP) 2004-2005" is going to operate within the MOH. "The Economic Recovery Strategy," the "Public Expenditure Review," the "Poverty Reduction Strategy Paper," the "Global Fund to fight AIDS, TB, and Malaria," the "Millennium Development Goals (MDGs)," and other international and global initiatives influence the work of the MOH from outside.

According to the KHPF, the Ministry's vision is to create an enabling environment for the provision of sustainable quality healthcare that is acceptable, affordable, and accessible to all Kenyans and to promote and provide quality curative, preventive, promotive, and rehabilitative healthcare services.

The NHSSP provided the following specific strategies:

- Implement appropriate policy, structural, financial and organizational reforms to enhance efficient and productive service delivery.
- Reduce the burden of diseases, especially of malaria, HIV/AIDS/STI, TB, and other preventable diseases.
- Develop human and physical capacity.
- Establish cost-effective interventions.

- Expand coverage of health services and accessibility to vulnerable groups.
- Establish a viable and efficient decentralized system for providing quality health services throughout the country.

A key output of the NHSSP was the definition of a standard and basic package of health services to serve as a guide to health service providers, especially in the context of decentralization. The services contained in this package reflected the Ministry's objectives of increasing the accessibility and coverage of primary healthcare by focusing on common disease conditions which are preventable and treatable at primary care levels. The NHSSP identified the Malaria Program, Reproductive Health Program, HIV/AIDS/STI and TB Program, Integrated Management of Childhood Illness (IMCI), Kenya Expanded Program of Immunization (KEPI), and Environmental Health and Communicable Diseases, as key interventions to respond to the health situation in the country.

The IOP is the first annual program to bridge the work of the current NHSSP 1999-2004 and upcoming NHSSP 2005-2010, and to bring the plans together in the practical and simple format that the MOH intends to realize within in their time frames. The essential health package in IOP 2004-2005 is identical with that of the former NHSSP.

2.2.2. Health Finance Issues

The National Hospital Insurance Fund (NHIF) benefits a limited number of people, mainly within the public sector which it serves. Under the formal cost-sharing scheme, the majority of the population must pay user fees in order to access health services. The cost-sharing scheme has been successful in raising additional revenues for financing healthcare. User fee revenues are now estimated to reach one billion Kenyan shillings (Ksh) annually, forming an important source of discretionary spending by health facilities and bridging the shortfalls in funding for drugs, staff, and operational costs. Cost-sharing has been a lifeline, enabling many health facilities to continue providing care to surrounding populations without adequate funding from the central levels.

Yet the user fees program has also created access barriers, especially for the poor. The MOH has responded to the problem by limiting the user fees to be collected at dispensary and health center levels to 10 and 20Ksh, respectively, and a nationwide health insurance scheme, the National Social Health Insurance Fund (NSHIF), is expected to be introduced soon. Rural health facilities meanwhile need to seek alternative mechanisms for ensuring the prompt availability of drugs and commodities, as the funding gaps are increasingly difficult to cover through their cost-sharing revenues. The likely increase in demand may also necessitate a review of human resource

requirements, as well as an increased supply of commodities.

2.3. Japanese Assistance in the Health Sector

With respect to development assistance to the health sector in Kenya, the Government of Japan has had the JICA implement several Japanese Grant Aid schemes, Technical Cooperation Projects, and a Development Study. Tables 2 and 3 show Japanese Aid to the Kenyan Health Sector from 1995.

Table 2 Japanese Grant Aid to the Kenyan Health Sector 1995-2004

Period	Amount (mil US$*)	Main activities
1995–1997	17.8	Kenya Medical Training College Rehabilitation (Phase 1, 2) (Grant Aid)
1996, 1997	5.1	Polio Eradication (Phase 1, 2) (Grant Aid)
1997	2.3	Kenya Medical Research Institute Rehabilitation (Grant Aid)
1997, 1998	11.6	Coast Provincial General Hospital Rehabilitation (Phase 1, 2) (Grant Aid)
1999	5.3	Strengthen EPI system (Grant Aid)
2000, 2001	7.6	Rehabilitation of 16 health centers in western Kenya (Grant Aid)

*US$1=JPNYen104

Table 3 Japanese Technical Assistance and Development Study for the Kenyan Health Sector 1995-2004

1995-1998	Dispatch Experts to Population Education Promotion Project (Technical Cooperation)
1998-2004	Dispatch Experts to Kenya Medical Training College (Technical Cooperation)
1998-2000	Study on the Strengthening of the District Health System in Western Kenya (Development Study)
1995-2006	Dispatch Experts to the Kenya Medical Research Institute (Technical Cooperation)

2.4. Assistance of Development Partners in District Health and Reproductive Health

Various donors and international organizations are actively involved in Kenya. DANIDA, Sida, BTC (Belgium), and WB engage in District Health Management, while UNICEF, UNFPA and DFID focus on Safe Motherhood. The bulk of the support from donors comes in the form of technical assistance, capacity building, and procurement of equipment, supplies, and other logistics for health. Table 4 summarizes donor-supported activities in District Health and Reproductive Health.

Table 4 Donor Activities in District Health and Reproductive Health

Donor	Activities	Place
BTC	Revolving Drug Fund	Nyamira dist. in Nyanza Province
Bill and Melinda Gates Foundation	Skilled Care Initiative (Training of LDD, Community Mobilization)	Nyanza Province
DANIDA	Strengthening District Health Services and System Development	11 Districts in Coast and North Eastern Provinces
	Suppling Drug Commodities	KEMSA
DFID	Safe Motherhood Demonstration - Approaches to Improving Maternal Care	Kakamega, Vihiga, Bungoma and Lugari Districts in Western Province
	Safe Motherhood Know-how fund	
	Antenatal Care and Malaria in Pregnancy	19 Selected Districts
EC	Strengthening District Health Services and System Development	18 Districts in Eastern and Central Provinces
SIDA	Strengthening Decentralized health services delivery and management	6 pilot Districts in Western, Nyanza and Rift Valley Provinces
UNFPA	Strengthening Planning and Management Capacity in districts	
	Suppling FP commodities	
UNICEF	Health and Nutrition, RH Safe Motherhood by Institutional Support, Community Mobilization, Capacity Building of DHMTs, and Training of LSS	Coast, Nyanza and North Eastern Provinces
USAID	Reproductive Health, Counselling, ANC, PNC, EOC and FP	Coast, Western and Nyanza Provinces
	DELIVER; Strengthening Drug Supply	KEMSA
	PEPFAR; HIV/AIDS	
World Bank	DARE Project; Strengthening Planning and Management Capacity of DHMT, HIV/AIDS and	8 District in Coast, Western, Central, Eastern, Nyanza and Rift Valley

3. District Health and Reproductive Health in Kenya

3.1. District Health

3.1.1. Present Structure of Health Organization

Figure 2 shows the current health administration and management line among the organization units. The Provincial Medical Officer (PMO), who chairs the Provincial Health Management Team (PHMT), supervises the District Health Management Teams (DHMTs) and advises the District Health Management Boards (DHMBs) within the province. The District Development Committee (DDC) oversees development in all sectors for the district. The DHMB and DHMT are the major management organizational units for the health sector at the district level. The DHMB functions as one of the subcommittees of the DDC.

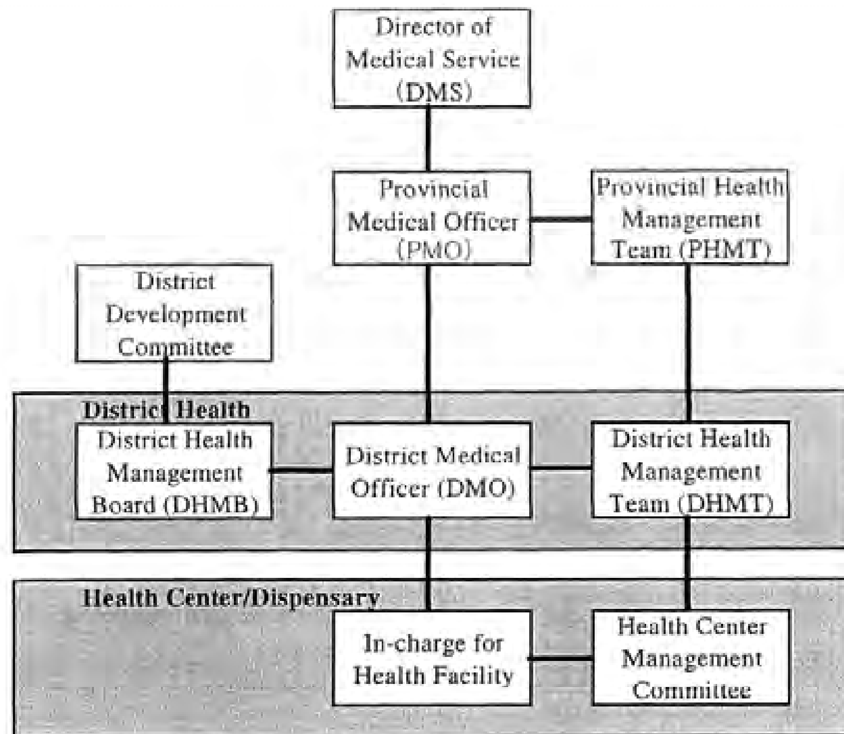


Figure 2 Organizational Chart

Source: Study on the Strengthening of the District Health System in Western Kenya, JICA, 1998.

3.1.2. District Health Management Team (DHMT)

The DHMT is chaired by the District Medical Officer (DMO). DHMT members under the chairperson include the District Public Health Nurse (DPHN), the District Public Health Officer (DPHO), the District Clinical Officer (DCO), the District Medical Laboratory Technologist, the District Pharmacist, the District AIDS/STD Clinical Officer (DASCO), the District Health Administration Officer (DHAO), the District Health Education Officer (DHEO), the District Nutrition Officer (DNO), the District Health Information Officer (DHIO) or Medical Record Officer, and the Medical Superintendent of the District Hospital (see figure 3). The district hospital is operated under the DMO from a district management perspective.

The main tasks of the DHMT are to plan, coordinate, and implement health activities in the district. These duties entail the direct supervision of health facilities, the monitoring of the annual district budget for health and the Facility Improvement Funds collected from eligible facilities, and the planning of the use of these funds allocated for primary healthcare.

Figure 3 Organization Tree for the District Health Management Team (DHMT)

3.1.3. District Health Management Board (DHMB)

The DHMB is an executive authority responsible for the administrative, financial, and personnel management of primary healthcare and rural health facilities. The DMO serves as Secretary to the Board. The other board members, appointees of the MOH, have a variety of backgrounds in district administration, business, private health, religion, and so on. One of the functions of the DHMB is to manage the Facility Improvement Funds. The DHMB is also responsible for overseeing the plans prepared by the DHMT for health services and development.

3.1.4. Health Center

Table 5 summarizes the definitions and categories of health centers in Kenya. Each public health center is headed by a clinical-officer-in-charge, with support from registered nurses (RNs) or enrolled community nurses (ECNs). The great majority of the clinical personnel at the health centers are ECNs, though RNs are deployed in a small number of HCs. Public health centers in general have public health technicians and other preventive and promotive personnel. All health facilities are in principle required to send monthly reports on their activities to the district, to be used by the DHIO to prepare monthly, quarterly, and annual reports. The health facilities are responsible for preparing annual budgets for assessment by the DHMT, and the DHMB approves the planned budgets.

The Health Center Management Committee (HCMC) of each health center is responsible for the administration and daily management of the facility. The HCMC is made up of representatives from the communities in the catchment of the health center, an officer-in-charge of the health center as the HCMC secretary, and a few senior staff. The HCMC meets regularly to discuss issues pertaining to the facility in general.

Table 5 Definition and Categorization of Health Center

	Type 1	Type 2	Rural Health Demonstration Centers*1
Service Provided	Basic curative OPD Environmental Health MCH/FP Immunization services Nutrition Maternity services Limited Oral Health Services (Mobile Services) Minor Surgery IPD on observation basis	Curative OPD Environmental Health MCH/FP (Integrated) Immunization services Nutrition Maternity services Oral Health Services Minor Surgery IPD on observation basis*2 CBR*3	Curative OPD Environmental Health MCH/FP (Integrated) Immunization services Nutrition, Maternity services Physical Medicine Oral Health Services Minor Surgery IPD on observation basis, CBR In-service training
Physical Facilities	Consultation and treatment rooms and equipment, Small laboratory, Minor surgery facilities, Staff Housing	Consultation & treatment rooms and equipment, Small laboratory, Minor surgery facilities, Mortuary, Pharmacy, Sterilization, Delivery, Kitchen & Laundry, Staff Housing	Consultation & treatment rooms and equipment, Small laboratory, Minor surgery facilities, Mortuary, Pharmacy Sterilization, Delivery, Kitchen/Dining Hall, Laundry Central Stores, Student hostels, Lecture rooms, Administration Block,Staff Housing
Catchment Pop.	Up to 50,000 - 70,000	50,000 – 100,000	50,000 - 100,000
No. of Beds	8 Maternity beds 4 Observation beds	13-24 beds	13-24 beds

*1: Including Training Health Centers and Rural Health Training Centers *2: 12-hour maximum length-of-stay before referral.
*3: Community-based Rehabilitation includes Physio/Occupational therapy.

3.1.5. Health Information System (HIS)

The district has a DHIO or a medical record officer responsible for collecting, compiling, submitting, and storing data from both governmental and non-governmental health facilities, including hospitals. This officer submits the data collected in the district in their original forms.

Health facilities are the primary place for producing, collecting, and reporting data. The monthly workload report and financial report are the main reports routinely issued from the health centers. The reporting rate of these records is generally high, but the data itself is prone to transcription and arithmetic errors due to the high volume and complexity of the information and limited capacity in

record-keeping. The reports forwarded tend to pile up at the District level or above with little feedback or commentary. The collected data is supposed to provide reference and guidance for the planning, monitoring, and evaluation of health activities at the facilities, but this is far from the reality.

3.1.6. Drug Management

The government logistics for the provision and management of medical commodities in Kenya involves a complex combination of parallel systems with a "Kit push system" for essential drugs and specific vertical programs such as family planning (FP) and TB, the latters usually being initiated by specific donor interests (Figure 4). At the central level, the MOH makes package purchases of drugs, whereupon the Kenya Medical Supply Agency (KEMSA) procures "kits" of drugs and commodities for each national/provincial/district hospital, health center, and dispensary and distributes the kits to KEMSA regional depots. At the regional level, drugs and commodities are distributed to each health facility through the PHMT and DHMT.

The Kisii District is served by the Kisumu depot and the Kericho District is served by the Nakuru depot. The health facilities in the Districts are served by District Stores in District Hospital premises. Common problems at the District level include lack of transportation in the Districts, irregular delivery from the central level to regional depots, chronic shortages of drugs and commodities, poorly planned distribution of the few pharmaceutical staff available, and discrepancies in the Kit contents from the actual requirements.

On the other hand, private and mission hospitals and several districts adopt demand-based procurement systems for drugs and commodities, so-called "pull systems," with support from private or non-profit procurement agencies such as Medicine for Essential Drug Supply (MEDS).

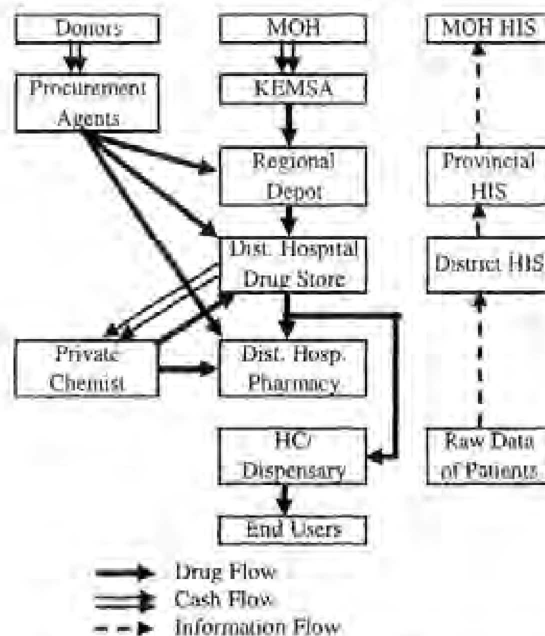


Figure 4 Government Logistic System for Drugs and Commodities

3.2. Current Status and Major Challenges in Reproductive Health

3.2.1. State of Maternal Health

Table 6 shows reproductive health indicators obtained from the Kenya Demographic and Health Survey (KDHS) in 1998 and 2003. Kenya clearly faces enormous challenges in reproductive health.

Table 6 Reproductive Health Indicators in Kenya

Indicator	1998	2003
Maternal Mortality ratio (per 100,000 live births)	590	414
Antenatal care coverage	92%	88%
Skilled birth attendance at delivery	44%	42%
Deliveries at home	57%	59%
Married women currently using any method of FP	39.0%	41%
Total fertility rate (per woman)	4.7	4.8
Received Tetanus toxoid vaccine (more than 2 doses)	51%	54%

Source: KDHS 2003, KDHS 1998. Central Bureau of Statistics of Kenya

The maternal mortality rate (MMR) per 100,000 live births in Kenya stood at an estimated 590 in 1998 and 414 in 2003. Yet these estimates have wide confidence intervals, and the reporting of the statistic on a national level probably masks wide differences, with much higher MMRs in some areas. Maternal death is the leading (27%) cause of death among women of reproductive age in Kenya. Though the total fertility rate (TFR) is still high, it has fallen from 8 in 1979 to 3.3 in urban and 5.4 in rural areas (average TFR 4.8). According calculations using these statistics, one in 35 Kenyan women faces a lifetime risk of maternal death. This is unacceptably high.

Adolescent pregnancy is common, with an estimated 20.9% of female teenagers bearing children. For women and adolescents who survive severe complications, maternal disability can have lifelong consequences. Infertility, uterine prolapse, and fistulae are reported to be common sequelae of poor post-abortion and delivery care. These conditions can render women unable to work and may even lead to their social exclusion.

The availability of basic reproductive health services is limited. Whilst most (92%) women attend antenatal care (ANC) at least once per pregnancy, less than half (44%) benefit from a skilled attendant at delivery. Data on the extent of 'met need' for essential obstetric care (EOC) is patchy, yet available data indicate that the vast majority of women in need are not receiving EOC, especially those in rural areas.

HIV prevalence among pregnant women varies by geographic location and urban/rural residence. According to the preliminary data from KDHS 2003, the average prevalence among women is 8.7%.Measures to prevent the mother-to-child transmission of HIV (PMTCT) have been initiated and are being offered at a number of sites.

3.2.2. Institutional Mechanism

The Division of reproductive Health (DRH) is responsible for setting policy directions for Safe Motherhood and all other aspects of maternal health, as well as guiding and supporting the implementation of reproductive health services in the public and private health sectors. The DRH currently comprises the Head, 4 Reproductive Health Program Managers, and 14 Reproductive Health Officers.

The DRH has spearheaded the formation of the Reproductive Health Advisory Board (RHAB) to help integrate and coordinate reproductive health activities in Kenya. The RHAB, chaired by the DMS, brings together the different interest groups in reproductive health for fostering partnerships and obtaining the perspectives of stakeholders on future reproductive health policies.

Reproductive health training teams have been formed at the provincial and district levels to enhance the coordinated, integrated delivery, of reproductive health service. These teams interact and work closely with the PHMT and DHMT in order to raise the profile of reproductive health issues.

3.2.3. National Reprodurtive Health strategy

Under the KHPF and NHSSP, the DRH has developed the "National Reproductive Health Strategic Plan (NRHSP) 1997-2010," a strategy specifically seeking to increase deliveries by skilled

attendants and the use of reproductive health and FP services. The DRH believes that it will be impossible to reduce maternal and neonatal mortality and morbidity without ensuring increased access and utilization of high-quality healthcare services.

The reproductive health program in the current IOP targets the following outputs:

- Supportive Services:
  (1) Leadership, coordination and advocacy on reproductive health strengthened;
  (2) Policy, standards and guidelines developed and used;
  (3) Staff trained in management and advocacy skills;
  (4) Quality of reproductive health /FP services improved;
  (5) Post-abortion care (PAC) improved.
- Service Delivery:
  (1) To increase the rate of women using ANC services from 82% to 85%;
  (2) To increase the rate of deliveries conducted by skilled health workers from 42% to 51%;
  (3) To increase the Contraceptive Prevalence Rate from 39% to 42%;
  (4) To increase the rate of condom use in the sexually active population from 17% to 32% for males and from 5% to 20% for females.

Table 7 Output and Indicators of the Reproductive Health program

Outputs	Indicators	Essential Program		District Averages	
		Baseline	Target	Baseline	Target
Maternal Neo-Natal health improved	% of pregnant women having at least 4 ANC visits	60	65	37	52
	% of deliveries conducted by skilled health worker	42%	51%	36	49
	% of obstetric complications treated in health facility	NA	NA	24	23*
	Direct obstetric death rate	15%	10%	26	6*
	% of low birth weight	NA	NA	6	4
Post-abortion care	% of abortion-related complications treated in health facilities	NA	NA	22	56*
Contraceptive use increased	Contraceptive Prevalence Rate	39	42	36	50*
	% of WRAs receiving FP services in health facilities	NA	NA	53	60
	% of sexually active males using condoms % of sexually active females using condoms	17% 5%	32% 20%	51	59*

*indicators: substantial differences between the National and District levels.

Source: Interim of Operation 2004-2005, MOH

3.3. Current Health Status and District Health Plan

3.3.1. Current Health Status in the Kisii and Kericho Districts

Table 8 outlines key demographic indicators for the Kisii and Kericho Districts. The population stands at an estimated 525,000 in Kisii and 548,000 in Kericho. Women of reproductive age (15-49) make up about 20% of the population. The TFR and IMR are 4.8 and 70.1 in Kisii and 5.4 and 62 in Kericho, respectively.

Malaria has the highest incidence of all diseases, followed by acute respiratory infection (ARI), skin diseases, and diarrhea. The leading causes of mortality are malaria, AIDS, AIDS-related diseases such as pneumonia and TB, injuries, measles, malnutrition, and diarrhea.

Table 8 Demographic Indicators in the Kisii and Kericho Districts

	Kisii	Kericho
Population	525,000	548,000
Density Persons/km2	757	222
Crude Birth Rate	42.8	43.2
Total Fertility Rate	4.8	5.4
% Births by Females aged 15-19 Years	11.9	12.9
Infant Mortality Rate (per 1,000 births)	70.1	62.1

Source: Reproductive Health Services in the Kitui, Kisii, Nyamira, and Kericho Districts in Kenya – A baseline survey with special emphasis on Safe Motherhood, JICA, 2004.

The Kisii District has 56 health facilities and Kericho has 103 (Table 9). Seventy percent of the households in these districts have access to health facilities. Some cultural beliefs still affect the health-seeking behavior of the populace.

Table 9 Health Facilities in the Kisii and Kericho Districts (GOK, Mission and Private)

Type of Facility	Kisii			Kericho		
	GOK	Mission	Private	GOK	Mission	Private
District Hospital	1*	0*	0*	1	0	0
Sub-District Hospital	3*	0*	0*	1	0	0
Other Hospital	0*	0*	8*	0	3	2
Health Center	6*	2*	0*	7	2	0
Dispensary	20*	5*	1*	44	40	0
Clinic	0*	0*	8*	0	0	0
Nursing/Maternity	0	0	2	0	0	3
Maternal Waiting Home	0	0	0	0	0	0
Total	30	7	19	53	45	5

Source: Reproductive Health Services in Kitui, Kisii, Nyamira, and Kericho Districts in Kenya – A baseline survey with special emphasis on Safe Motherhood., JICA. 2004.

*Kisii District Health Plan 2005 (Draft), MOH.

3.3.2. Districts Health Plan

The District Health Plan is prepared annually after the closing of the government fiscal year to offer a comprehensive program of development in the health sector. The plan seeks to articulate and prioritize strategic imperatives and intervention strategies within a manageable resource framework. A logical framework is used to link activities with performance indicators and resource requirements. In addition to offering opportunities for various stakeholders to participate more effectively in the implementation of health programs, the plan provides a sound basis for the planning, implementation, monitoring, and evaluation of the district's achievements upon the delivery of Essential Health Packages.

3.3.2.1. Kisii District

This section describes the reproductive health program available under "The Kisii District Health Plan 2004-2005 (draft)." Specifically, the program seeks to (i) increase the number of deliveries attended by skilled heath workers and (ii) increase the access to and use of contraceptives. The funds are provided by the GOK, DARE, UNICEF and Merlin. Training in Safe Motherhood will cover Emergency Obstetric Care (EmOC), Life-Saving Skill (LSS), PAC, and prevention of mother-to-child HIV transmission (PMTCT), among other items. Traditional Birth Attendants (TBAs) and communities will be sensitized on a range of reproductive health issues, including Female Genital Mutilation (FGM), condom use, and PMTCT.

3.3.2.2. Kericho District

"The Kericho District Health Plan 2004-2005 (draft)" provides a logframe for Reproductive Health to increase safe delivery practices and the accessibility and use of MCH/family planning (FP) among women of reproductive age. The outputs are improved health workers skills and community awareness on reproductive health. The activities for maternal and adolescent health include training of healthcare providers in EmOC, Manual Vacuum Aspiration and PAC procedures, syndromic management of STIs, outreach ANC and PNC services, TBA updates, and sensitization on safe delivery. Procurement of equipment, commodities and drugs by Districts is also planned.

3.3.3. Donor and NGO Activities in the Kisii and Kericho Districts

In Kericho, the Walter Reed Army Institute of Research (WRAIR) engages in technical assistance and research on PMTCT. World Vision and Merlin are both active in Kisii. The former provides TBA training and malaria control activity in communities, while the latter offers control programs against malaria, TB and HIV/AIDS with Voluntary Counseling and Testing (VCT).

4. Project Description

4.1. Rationale

The following section describes the rationale for the Project targeting improved maternal care at health centers and communities. Details on management support are also covered.

4.1.1. Rationale for the Project in general

1) Maternal Care

The high maternal mortality in Kenya underlines the urgent need to improve access to quality maternal care services for childbearing women. Improved access is crucial for ensuring the best possible health outcome for both mothers and their newborns. Efforts have been made to increase the number and competency of skilled birth attendants through training programs, but a lack of transportation, communication, and clear referral guidelines has weakened the referral system. As a result, institutional delivery care with skilled birth attendants remains uncommon.

2) Health Centers

Skilled care is inadequate at health centers, particularly those with a low utilization of delivery care. Most pregnant women receive ANC at least once, but only half of them receive the care four times. Underutilization of health centers for delivery care is reflected by overcrowding at District Hospitals and delays in timely and stable referrals. Health centers, which are expected to provide basic EOC, lag behind District Hospitals in skilled staff and appropriate equipment. The donor-supported

District health management projects have tended to focus on overall District management without placing high priority on the health centers themselves. District health management should nevertheless result in concrete service outcomes at the health centers and other entities at the primary care delivery level. Skilled care at the health centers is thus one of the key areas to be addressed.

3) Community

Skilled attendance and institutional delivery alone are not a credible strategy for reducing mortality in a population where most mothers deliver at home. Delays in the awareness of danger signs, delays in the decision to seek maternal care, and delays in reaching health facilities all lead to avoidable maternal deaths at the community level. Many of these deaths can be prevented by promoting community-based health activities and linkage with health centers.

4) Health Management

A functioning healthcare system is also a key factor in reducing maternal mortality. The health information systems, especially the systems for record-keeping at the health centers, are ineffective and underused in spite of the many staff-hours they require. Stock-outs of drugs and commodities are frequent due to irregular delivery and weak management. The managerial capacity at the health centers clearly needs to be enhanced if the communities are to be provided with effective and sustainable services.

4.1.2. Rationale for the Project in the Kisii and Kericho Districts

As explained in '1.1. Request for Technical Cooperation: A General Background,' the Kisii District in Nyanza Province and the Kericho District in Rift Valley Province have been selected as the target districts. Thirteen health centers are now operating in the project area, including 6 in Kisii and 7 in Kericho (13 total), as shown in Table 10.

The rate of skilled birth attendants is lower than the national average in both Kisii and Kericho, and few international agencies in these districts provide support for maternal care. As a result, the need for maternal care is especially high at the health center level.

Table 10 Health Centers in Kisii and Kericho with major personnel and delivery care

Name	Clinical Officer	Registered Nurse	Enrolled Nurse	Delivery care Average no./month for 2003 and 2004
Kisii District				
Marani (RHDC)	1	1	6	53
Ibeno	0	1	6	7
Ibacho	0	0	3	11
Kiogoro	1	0	5	0
Riana	1	1	4	10
Riotachi	1	0	2	0
Kericho District				
Sociot	0	0	4	14
Kipkelion	1	0	3	3
Fort Teman	1	0	2	2
Chepkemel	0	0	3	0
Sigowet Nyayo	0	1	6	10
Kabianga	1	0	2	0
Ainamoi	0	3	4	0

Source; JICA Reproductive Health Expert Study in July 2004 and the first Preparatory Study in August 2004

Situation analysis surveys conducted in these Districts over the last year by JICA have identified the following situations and problems at the health centers.

1) General Service with Human Resources and Finance

The inadequate quality of care at health centers is reflected in a low utilization rate (only 10-20 patients per day at some health centers). Just more than half of the health centers operate 24 hours a day. Many of the health centers are understaffed, especially in clinical staffing (Clinical Officers and RNs). Staff retention and recruitment are difficult. Revenues have decreased since July 2004 due to the limits imposed on cost-sharing, with the 20 Ksh. ceiling placed on the registration fee per patient. The number of patients has increased at some health centers and decreased at others.

2) Maternal Care

Maternal care service is often limited to ANC and family planning. The number of deliveries averages only five per month or less. Most health centers are without basic essential obstetric care functions. Postpartum Care (PPC) and PAC services are also inadequate. The quality of interaction

between staff and the clients is inadequate. Staff members often spend too little time communicating with clients, leaving the clients poorly informed about their health problems.

3) Referral System

One to 10 percent of cases seen at health centers are referred to District Hospitals. Most of the cases have severe malaria or obstetric complications, but it is difficult to assess the appropriateness of referral without clear referral guidelines, record-keeping, and reviews. The limited capabilities of the health centers in resolving health problems forces the patients to go directly to the District Hospitals without proper referrals.

4) HIS

Health centers are routinely required to manage multiple records and reports. The monthly workload report is the main routine report focused on service outputs. Record-keeping occupies too much of the staff time. The recorded information is often poorly transcribed and flawed with arithmetic errors due to the high volume and complexity of the information and limited record-keeping capacity. The reports forwarded tend to pile up at the District or higher levels with little feedback or update analyses.

5) Drug Management

District Hospitals take precedence in drug supply, leaving the health centers with only minimal supplies. Most of the health centers suffer frequent stock-outs (often more than 50% of the time) of consumables, medical supplies, and essential drugs, especially antibiotics, due to irregular deliveries of the Kits, mismatching with the requirements, inadequate quantification by inventory, and the needless prescription of drug treatments.The community pharmacies attached to the health centers were closed under the revised cost-sharing policy introduced in July 2004, and this has worsened the shortage. All of these problems reduce the effectiveness of clinical care at the health centers.

6) Training

Training has so far been held mainly for on-off vertical programs (i.e., malaria, EPI & PMTCT), but training programs on management and maternal care are inadequate and incomprehensive. Training often has a theoretical rather than practical orientation, with little consideration for the real functions staff is expected to perform at the health centers.

7) Infrastructure and equipment

Infrastructure and equipment are outdated. Water supply is not functioning at some of the health centers. Lack or damage of equipment such as autoclaves and laboratory materials prevails. Lack of

trained staff for proper maintenance aggravates these problems.

8) Community involvement

Health center involvement in community-based health is inadequate. The linkage between the health centers and community resource persons (CORPs) is weak and the outreach activities to the communities are limited. The HCMCs hold quarterly meetings for most of the health centers to discuss community funds and facility renovation.

9) DHMT supervision

The DHMT visits the health centers every month in its supervisory role, but its activities are generally limited to the inspection and collection of records. Problems with transportation sometimes limit the effectiveness of this supervisory and monitoring function.

Figure 5 summarizes the problems health centers are now facing with respect to maternal care and management. The Project will address these problems, at the very least.

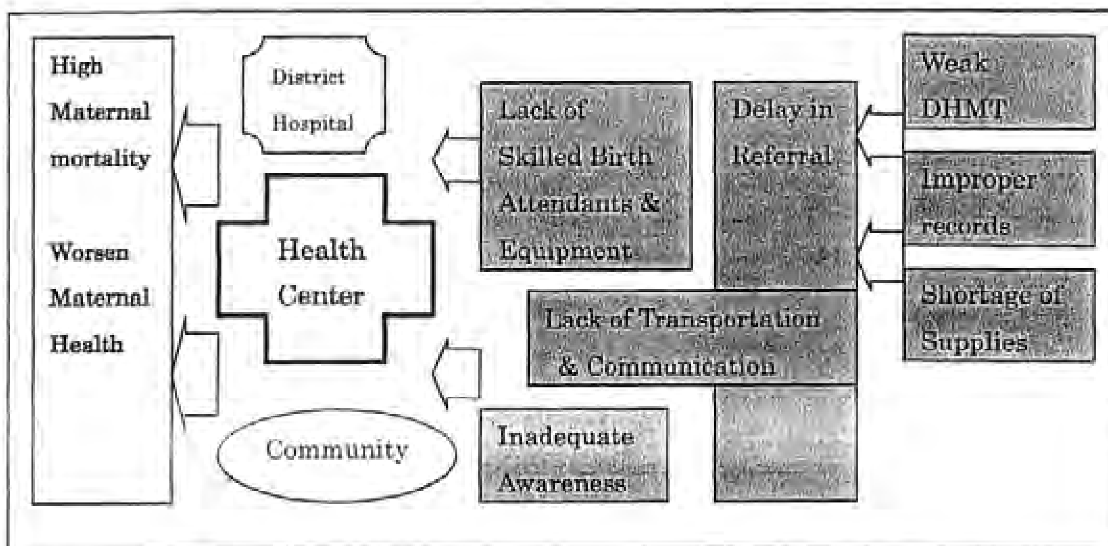


Figure 5 Problems to be Addressed Regarding Maternal Care

4.2. Project Design Process

The PCM workshop for designing the Project held on August 9-10, 2004 in Kericho formulated tentative Project Design Matrix both for health management and Safe Motherhood. In November 2004, when the second preparatory study team was dispatched, it was agreed that the separate projects originally requested for health management and Safe Motherhood should be merged into a single project, the "Project for the Improvement of Health Service with a focus on Safe Motherhood

in the Kisii and Kericho Districts." A series of discussions with the MOH and DHMTs in these Districts was held during the same period to refine the formulation of the Project.

4.3. Purpose and Overall Goal of the Project

The Project for the improvement of health service with a focus on Safe Motherhood will be implemented in the Kisii and Kericho Districts in Western Kenya for a three-year period starting from 2005. The purpose of the Project is to improve maternal care with a focus on health centers and communities.

The rate of skilled birth attendants in the Project area is one of the key indicators for this purpose, along with the delivery rates at the health centers. Data on these indicators will be derived from health facility records and estimates of the numbers of deliveries in the catchment of the health centers and in the Districts as a whole.

The Project will be directed towards the overall goal of improving the health of the people in these Districts, particularly the maternal condition of women of reproductive age. The beneficiaries of the Project will be the people in these two Districts, particularly women of reproductive age. Reduction of maternal mortality in the project area is one of the key indicators for this overall goal.

The main features of the Project concepts are as follows:

- The Project will focus on maternal healthcare at health centers with community involvement.
- A model health center will be defined to demonstrate what needs to be done to achieve the Project outputs.
- The principal Project approach will be the training of health center staff and DHMT members.
- Support to management will focus on basic record-keeping and drug management at the health centers
- The district Hospitals will be involved in the system approach for referral and training.

4.4. Project Outputs

The following six outputs are to be realized in two component areas, maternal care and management support, to achieve the Project purpose:

Component 1. Improved maternal care in the Project area.

1) Upgraded maternal care services (skills, equipment, and facility) at the health centers.
2) Improved maternal care (awareness and referral) at the community level.

Component 2. Improved management support in the health centers.

3) Referral system for maternal care is functioning between communities, health centers and District Hospital.
4) Fully functional and fully utilized HIS and record-keeping system in place for service and management at the HCs.
5) Improved management of drugs and medical supplies at the health centers.
6) Strengthened system for the supervisory support of the HCs by the District Health Management Teams (DHMTs).

These outputs are aligned into the achievement of the Project purpose to improve maternal care and the goal to reduce maternal mortality. The strengthening of the referral system and management at the health centers in Component 2 is expected to improve maternal care through the process shown in Figure 6.

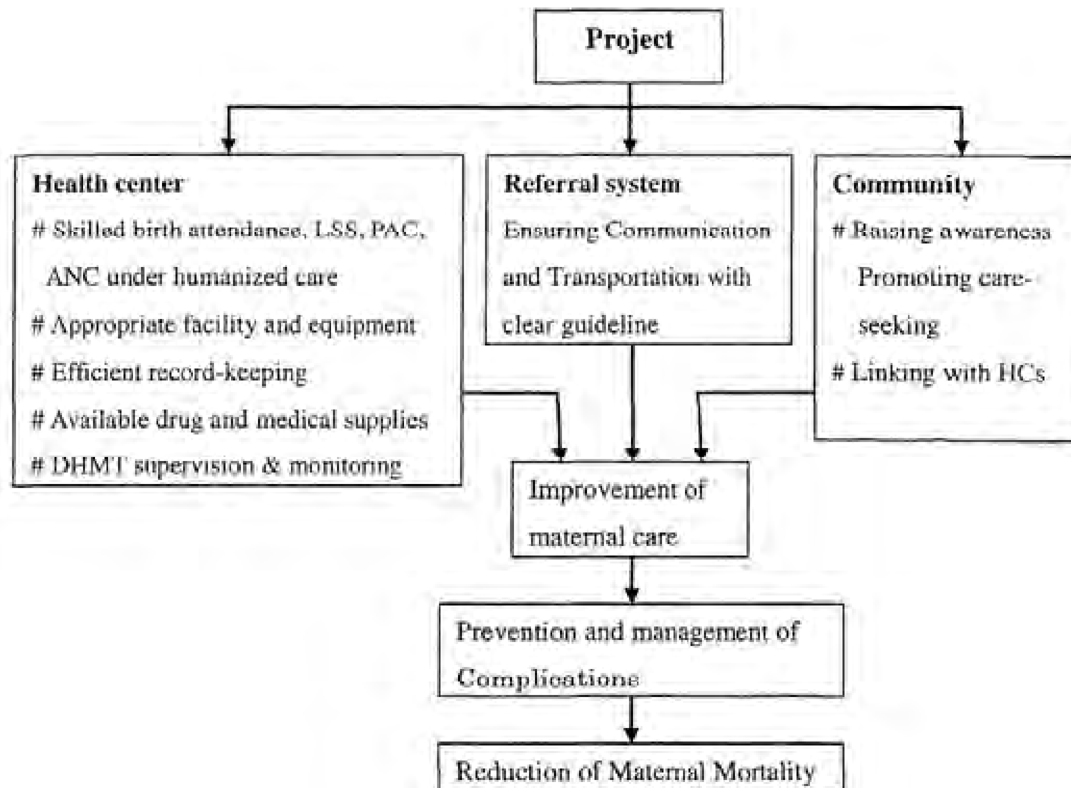


Figure 6 Project Outline

4.5. Project Strategy

The following strategies will be adopted in Project implementation:

1) within the defined technical scope of maternal care and management in the two Districts;
2) by focused interventions on health centers and communities;
3) starting along with the model health center and community in some of the activities;
4) following a phased and incremental process;
5) coherent with the health policy and in coordination with other agents,
6) building on existing local resources.

The Project will set improved maternal care as an entry point for a well functioning referral system and stable drug supply. This is expected not only to improve the healthcare services and health of the people, but also to encourage more active community involvement in the Project.

4.5.1. Scope of the Project

The Project will work at the District level, covering maternal care at the health centers and

communities, and management aspects at the health centers with system support for referral and DHMT supervision. This scope will emphasize improved maternal care and management at the primary care delivery point in the midst of health sector reform with decentralization of health management. As a scope of assistance, the Project will comprise technical assistance through consultative work by Japanese experts and equipment provision with minimum facility renovation.

4.5.2. Focus of the Project

The Project will focus on priority needs, levels, and aspects for efficient and feasible interventions instead of taking a comprehensive and systematic approach covering the overall reproductive and district health system including the District Hospitals.

The Project will begin by focusing on the health centers within the district health system, and extend its focus to community level. The focus in the Safe Motherhood component will be improved maternal care by skilled birth attendants rather than family planning and Prevention of Mother-To-Child HIV Transmission (PMTCT). This will include essential and emergency obstetric care (life-saving skill), PAC, ANC, and PPC, along with a friendly, client-centered approach with a priority on communication. For the management component, the Project will support drug management, HIS, and the referral system under the DHMT supervision of the Health centers.

The Project will avoid exclusive intervention towards maternal care and management solely at the health center level. For efficient and sustainable maternal service delivery, the District Hospitals are expected to participate in the strengthening of the referral system and to play a role in the training of health center staff in maternal care.

4.5.3. Model Approach

The Project will employ demonstrative approach by defining a model health center. This will serve the following objectives:

1) To demonstrate the gaps between the current status of the health center and the required status
2) To help all Project stakeholders adopt a common vision towards the achievement of the Project outputs and purpose.
3) To take the lead in achieving the outputs at other health centers

The functions of the model health center to develop the model include:

1) To develop and test guidelines for maternal care, community involvement, referral, HIS, drug management, and DHMT supervision
2) To implement standard operating procedures (SOP) and continuous quality improvement (CQI)

in the routine service with technical assistance

3) To provide on-the-job training with the other health center staff who will be working at the model health center to acquire and maintain practical skills
4) To pilot new approaches when necessary

One model health center will be selected from each District based on the requirements that the health centers will have to meet to achieve the outputs and purpose. The Project will define the requirement in consideration of the definitions and categorization of the health centers by the MOH (Table 5). These will serve as the criteria for selection of the model health center while demonstrating the gaps between its current status and the status required. Table 11 lists a set of requirements as an example. The Project will intervene to fill the gap and help the health centers upgrade to the required levels through leadership of the model health center (Figure 7).

Table 11 Example of Requirement for Model Health Center

Staffing	Clinical Officer-in-charge or Registered Nurse on routine duty
Service in general	24-hour service (including night-call), friendly care (Client satisfaction)
Maternal care	Providing Basic EmOC (LSS), Focused ANC x4, PAC, PPC, Friendly attitudes, 30 or more deliveries per month
Equipment & Facility	Delivery room with standard equipment and water supply
Referral	Communication and transportation with DH, Using Referral guideline
HIS	Concise record-keeping for required reports, usage of data
Drug	Essential drugs and consumables for maternal care always available Minimum stock-out of for other essential drugs (<20 % of the period)
Community involvement	Regular HCMC meetings, Strong linkage with CORPs (TBA, etc.)
Overall Management	Monitoring and supervision of the above activities

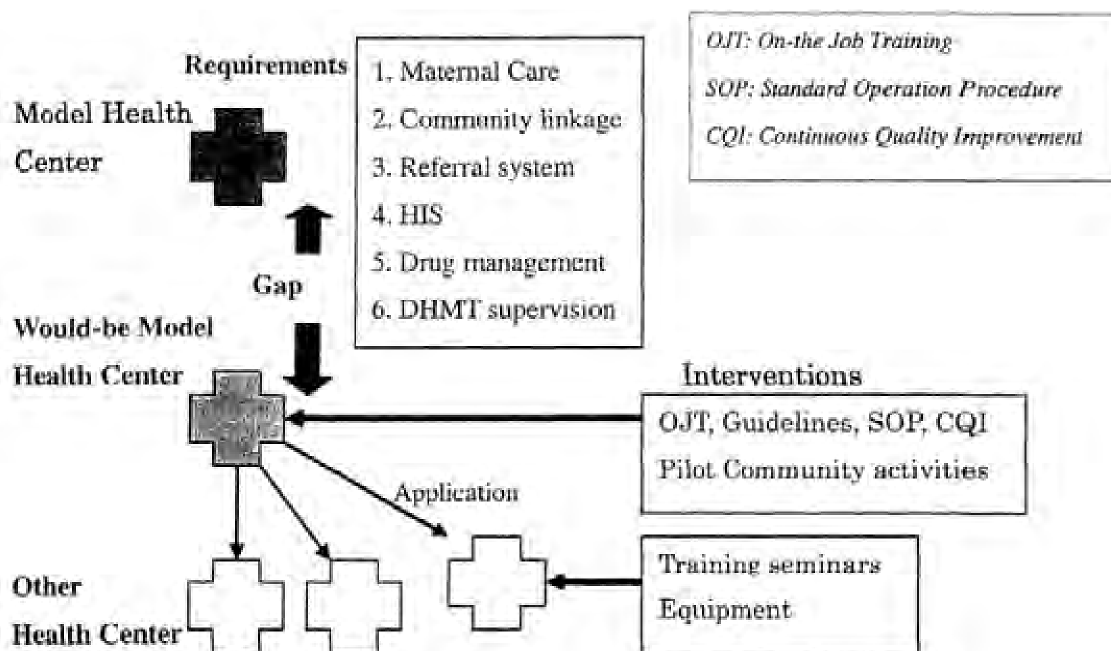


Figure 7 Schema of the Project Requirements, Model, and Interventions for the Health Centers

While training activities will cover all the health centers at the beginning, some of the Project activities such as development of guidelines will start with the model health centers and and then expand to cover other health centers. Figure 8 shows the work plan.

Project Calendar	1st Year				2nd				3rd Year			
	1	2	3	4	1	2	3	4	1	2	3	4
Baseline Survey for Situation Analysis												
Model HC												
Selection												
Development of Guidelines & Manuals												
OJT, SOP & CQI												
All HCs												
Training seminars												
Equipment provision								feedback				
Application of the Model to all HCs												

Figure 8 Work-Plan for Health Center Activity Sites

27

Activities for the SOP and CQI conducted at the model health centers will continue during the former half of the Project period. Later, after the mid-term evaluation, they will apply to other health centers. The scale-up strategy will include an analysis of successful factors for activities in the model health centers, a strengthening of DHMT initiatives, and mutual learning between the health centers.

4.5.4. Phased and incremental process

The Project will be implemented step-by-step. Activities during the Project implementation will be flexibly updated based on the results of the monitoring and evaluation. Training will be revised by feed-back from its outcomes. Activities for maternal care will stimulate management activities, which in turn will support maternal care. The capacity of supervision by the DHMT will be enhanced through actual supervision of maternal care, drug management, the referral system, and HIS with bottom-up monitoring.

4.5.5. Coherence and Coordination

The Project will work in coherence with the national policy on Reproductive Health and health sector reform, and in coordination with the MOH strategy to standardize maternal care, HIS, and the drug management system. This coherence will be important to avoid fragmentation and duplication.
The Project will collaborate with a range of national and international partner organizations, working towards a future sector-wide approach. To make maximum use of existing resources and experiences, the Project will draw lessons from and harmonize with the proceedingprojects for Safe Motherhood, District Health Management, drug management, and HIS, particularly with respect to methodologies, manual development procedures, seminars/workshops, consultants, trainers, and monitoring and evaluation functions, as shown in table 12. The Project will request the MOH to endorse and recommend manuals and trainers for use in the Project activities; for example, maternal care by the DRH and District Health Management by the HSRS.

Table 12 Candidate Agencies for Coordination with the Project

Sub-sectors	MOH	NGO, Contracting Agencies	Donors
Safe Motherhood Maternal care	DRH	FCI, Population Council JHPIEGO, Ipas, IPPF, FPAK, IntraHealth, etc.	UNPFA, UNICEF, WHO, WB, DfID, USAID, etc.
District Health Management	HSRS DHP	EA Crystal, etc.	Sida, DANIDA, WB, EC, etc.
Drug Management	KEMSA	John Snow Inc, MSH, etc.	DANIDA, USAID, BTC, etc.
HIS		ETC Crystal, etc.	WHO, Sida, etc.
Community		Merlin, AMREF, CAN-DO	

* ETC Crystal: Public health consulting group originally based in the Netherlands
* JHPIEGO: non-profit corporation affiliated with Johns Hopkins University
* Ipas: International Project Assistance Service mainly engaged in PAC
* IPPF: International Planned Parenthood Federation
* FPAK: Family Planning Association of Kenya, INTRAHEALTH
* IntraHealth: non-profit corporation affiliated with the University of North Carolina
* MSH: Management Science for Health, US non-profit corporation
* Merlin: British international humanitarian and health organization
* CAN-DO: Japanese non-profit organization for community development

Regional coordination with similar projects in other East African countries will also be pursued. There is currently a plan, for example, to visit the JICA Provincial Health Human Resources Project in Tanzania to share experiences on DHMT capacity building.

4.6. Activities

This section describes the activities to be implemented to achieve each of the above outputs. The details and schedule for each activity are illustrated in the Draft Plan of Operations (Annex 2), a preliminary estimate that will subsequently be revised in light of the actual implementation.

Outcome 1. Upgraded maternal care services in the HCs

1) To institute a training system for maternal care
   (1) To plan a training program based on training needs
   (2) To train health center staff for maternal care
   (3) To follow up the trained staff with on-the-job training and re-training
   (4) To conduct a Maternal Death Review (MDR)
2) To establish a system for facility renovation and the provision and maintenance of equipment.
   (1) To determine renovation and selecting equipment for maternal care based on a survey
   (2) To renovate the facility and providing and setting up the equipment
   (3) To develop manuals and conduct regular maintenance for equipment and facilities.

Outcome 2. Improved maternal care at the community level

1) To conduct community and household survey at candidate communities
2) To select a pilot community in each District
3) To identify CORPs and HCMC members in the community and formulating the work-plan
4) To train PHT and nurses at the nearby health center and develop educational messages (IEC) for awareness and referral during the training.
5) To train CORPs and HCMC members for community awareness and referral for maternal care
6) To support CORPs and the community in order to organize health learning groups, sessions, and a transportation system with community funds
7) To facilitate visits to other communities and peer learning as pilot community activities
8) To monitor the community health activities and formulating a model of best practices
9) To support and follow up the scale-up of activities to other areas in the Districts

Outcome 3. A systemized and functioning referral system

1) To assess the current referral system
2) To formulate a referral system improvement plan
3) To set up communication equipment at District Hospitals and health centers
4) To assist in securing transportation
5) To train health center staff in the guidelines
6) To conduct maintenance for communication and transportation

7) To conduct regular audits of referral cases and evaluate the effectiveness of the referral system

Outcome 4. Efficient functioning and use of HIS for monitoring and evaluation

1) To assess the current situation of the HIS at the health centers and District Hospitals
2) To formulate an HIS improvement plan
3) To train DMRIO for improvement plan for HIS
4) To train health center staff in record-keeping
5) To improve the quality of record-keeping at the District and HC levels.

Outcome 5. Improved management of drugs and medical supplies at the health centers

1) To survey the delivery, stocking, and prescription of medical supplies
2) To formulate a drug management improvement plan at the health centers
3) To introduce logbooks for inventory, store-keeping and prescription and train HC staff in order to use the logbooks
4) To train HC staff on the case management guidelines for the rational use of drugs
5) To maintain and strengthen the logistics system for drug delivery in coordination with HIS
6) To continuously improve the quality of drug management

Outcome 6. Strengthened capacity of the DHMTs in supervising the HCs

1) To assess the current DHMT supervision of the health centers
2) To formulate the DHMT's supervisory plan
3) To implement the DHMT's supervisory plan for the health centers
4) To monitor the DHMT's supervision of the health centers with a feedback system

Activities across the different outputs will make their ways along the common procedure: preparation, input, implementation along with appraisal of needs, monitoring and evaluation, as shown in Table 13.

Table 13 Common process of the Project

Preparation →		Inputs	Implementation →		Outputs
Survey →	Work-Plan →	Experts Equipment	Training →	Guidelines Follow-up	Improved Care and management
Appraisal			Monitoring		Evaluation

31

4.7. Approaches in activities

The Project will use a number of approaches at the activity level to achieve the outputs, from training for maternal care and management to the upgrading of health centers, community-level interventions, and system development and management. Activities across the different outputs have common approaches such as training and equipment provision (Table 14)

Components	Outputs	Approach		
		Training	Equipment, Facility	Institutionalization
1. Maternal Care	1. Maternal care at HC	Nurse-midwife at HC, LSS, Attitude	Maternal care equipment	Training system, Guideline
	2. Community Activity	PHT, CORPs, Women	IEC Materials	CORP team, Peer Group
	3. Referral System	HC & hospital staff in charge	Communication Transportation	Guideline Case review
2. Management support	4. HIS	HC staff in charge DMRIO	Record & Filing materials	Guideline Annual Reporting
	5. Drug Management	HC staff in charge D-Pharmacist	Record & Filing materials	Guideline
	6. DHMT Supervision	DHMT staff		Guideline

Table 14 Approaches by the Outputs

4.7.1. Training

Training is the main activity common to the different outputs. The training program will start with organization of the training program team and preparation of the work-plan in the DHMT. Training of maternal care will be planned in collaboration with the DRH and District RH teams. The work plan will include training needs assessment, identification of staff to be trained, training of local trainers, development of curricula, establishment of actual training procedures, and a mechanism to monitor and evaluate the training activities. The work-plan will also decide whether training courses will be conducted separately or together in the two Project Districts, according to the individual training activities to be implemented.

Training will begin with the training of the following core trainers from the two Districts: RH team members for maternal care, District medical record officers for HIS, District pharmacists for drug management.

These trainers are expected to become familiar with the training curricula and modules. Training courses for health center staff will follow. The materials necessary for maternal care, referral, HIS and drug management will be distributed during the training so that the staff can start using them straight away.

The following methods will be employed to enhance the efficiency and effectiveness of the training:

1) To conduct competency-based training (CBT)
2) To introduce practical, on-the-job and participatory training rather than sit-in seminars
3) To use of existing resources such as national reference guidelines and manuals (Table 15)
4) To coordinate with other organizations sharing information

Table 15 National References for Use of Training for Maternal Care

Standards for Maternal Care in Kenya. 2002.	National Joint Steering Committee for Maternal Health, Kenya.
Essential Obstetric Care Manual: For Health Service Providers in Kenya. 2002.	Ministry of Health (Division of Reproductive Health)
National Guidelines for Quality Obstetrics and Perinatal Care. 2002.	Ministry of Health (Division of Reproductive Health)
Clinical Audit for Effective Delivery of Maternal Care in Kenya. 2003.	Ministry of Health (Division of Reproductive Health)
A Manual on Prevention and Reduction of Maternal Morbidity and Mortality Rate. 2004.	A.W. Ongera, J. Omare, J.K. Nyabuga. KMTC Kisii and Kisii District Hospital
The National RH Training Plan 2002-2004. 2002.	Ministry of Health (Division of Reproductive Health)

Maternal health providers, mainly nurse-midwives at the health centers, will be trained in life-saving skills, essential and emergency obstetric care with referral, ANC, PAC, and PPC with a commitment to positive, friendly, and communicative client-centered care. To increase the effectiveness of the training, especially in maternal care, trained staff will be rotated to the model health center or District Hospital for updated training in specific skills (partographs, manual removal of placenta, manual vacuum aspiration (MVA), etc.).

Clinical officers or nursing officers in charge of the health centers and other staff responsible for record-keeping and drug management will receive relevant training in HIS, record-keeping, and drug management.

Monitoring and evaluation of the training will entail the testing of trainee comprehension through post-training tests and activities to improve the quality of care provided by the trained staff through self-evaluation, supervisory follow-up by trainers, and clients interviews. Monitoring will also use criterion-based audits which assess the care based on the criteria set by the national standard of obstetric care and adopted locally.

4.7.2. Facility renovation and equipment provision

The Project will upgrade the essential supplies, equipment, facilities, and medicines for essential obstetric care at the health centers in the two Districts. There are now 13 health centers in the target area, including four which have already received equipment and facility renovations by Japanese Grant Aid (the Marani health center in Kisii and the Sosiot, Kipkelion and Fort Teman health centers in Kericho).

The equipment provided under the Project will mainly serve to improve the maternal care at the health centers and the referral system (i.e., communication equipment). The facility renovations at the health centers will be limited to a minimal requirement for improvement of maternal care, such as the restoration of water supplies with water tanks.

A detailed plan for equipment provision and facility renovation will be formulated based on a survey to be implemented at the commencement of the Project. The dispensaries to be upgraded at the health centers will be considered. The contents of maternal care equipment are determined according to the national standard of reproductive health materials for health facilities defined by the DRH.

4.7.3. Community-based activities

The community activities of output 2 outlined in section 4.6 (page 27) are explained in greater detail here. In principle, the Project emphasizes outreach to the poorest households, the advancement of women's rights with a sense of participation among women, and the mobilization of local capacity.

This output will be achieved by raising people's awareness and improving the care-seeking behavior and referral from communities through support to Community Resource Persons (CORPs), including the TBAs, Village Health Committee members, and Community Health Workers, as well as the members of the HCMCs (figure 9). The CORPs (including the TBAs) will not be trained in delivery care, but rather in the referral of complicated cases, awareness-raising, and vital registration on maternal deaths and new births at the community level. The CORPs are expected to strengthen links between the community and health center and to facilitate the community efforts to develop health-promotion activities, especially among women's peer groups. The Project will also support

local authorities and NGOs/CBOs in mobilizing the community to develop mechanisms for transporting women to health facilities and organizing community funds.

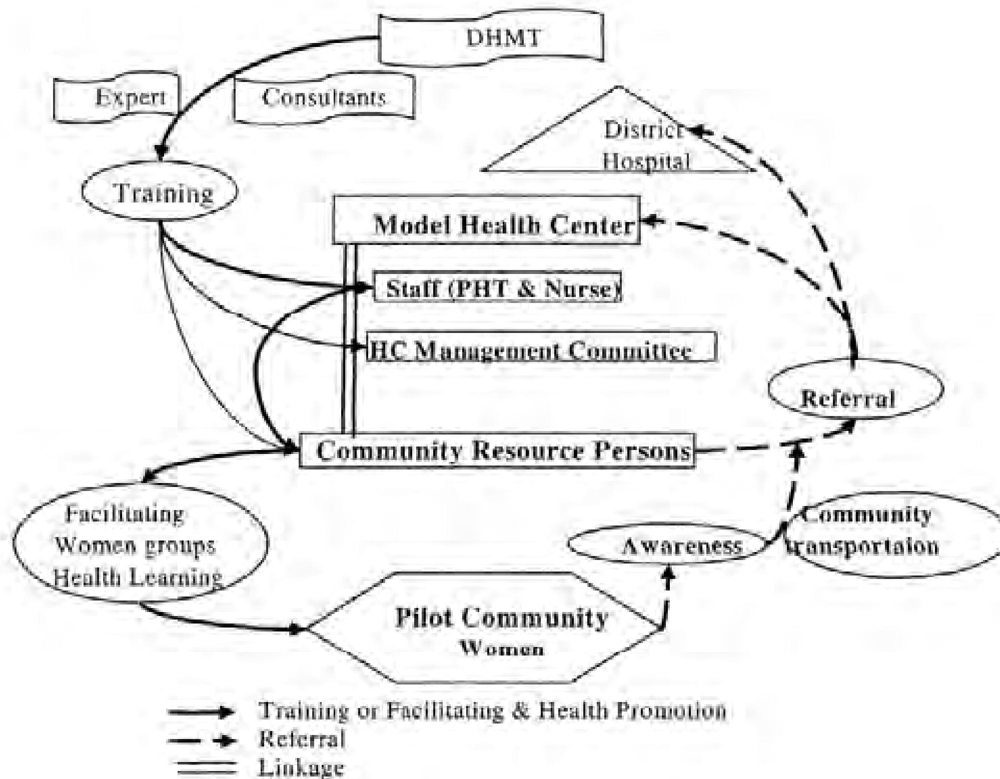


Figure 9 Outline of Community Activities

The District Health Education Officer and Public Health Officer in the DHMT will be responsible for the community activity along with the Public Health Technologists and Technicians (PHTs) at the health centers.

1) Selection of pilot community

One pilot community will be selected in each of the target Districts based on the selection criteria defined at the beginning of the Project. The sub-location may be the unit of the pilot community, based on the size of the population. Examples of the selection criteria are given in Annex 4.

The pilot community is most likely to be located nearby the model center.

2) Scaling-up of community activities

Community activities can be scaled up through local participation to develop community ownership of the process. The scale-up will require a flexible partnership balancing bottom-up local control by

communities with top-down support by local health officials and outside-in stimulation by experts. The Project will support CORPs and community members such as women themselves in making peer-learning visits to the pilot community and learning use participatory methods to set their own priorities and organize self-reliant actions. Figure 10 outlines a basic concept for scale-up.

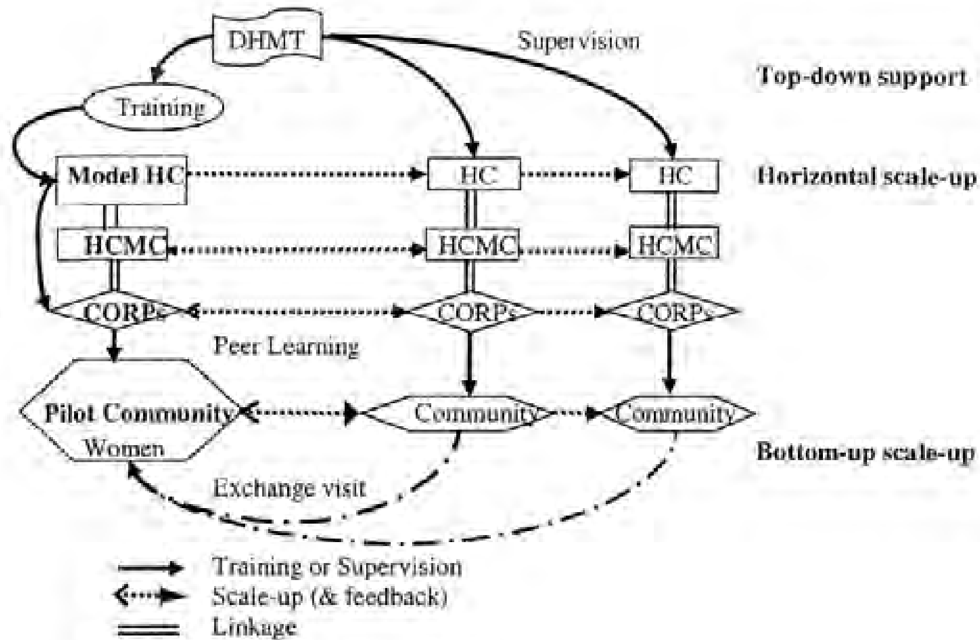


Figure 10 Concept for Scale-up of Community Activities

4.7.4. Sub-contracting

Implementation of some activities will be sub-contracted to other agents, including NGOs and local consultants. The activities to be contracted-out will include surveys on communities and drug management, and the training of trainers for drug management. A more detailed plan for sub-contracting will be determined at the beginning of the Project based on consultation with the Project stakeholders.

4.8. Implementation Structure

The main implementing organizations will be the DHMTs in the Kisii and Kericho Districts, the DRH, the Department of Preventive and Promotive Health Service, and the Ministry of Health. The Project target groups will include the DHMT, health center staff, and community members in the Kisii and Kericho Districts.

As illustrated in Figure 11, the Director of Medical Service (DMS) of the MOH will assume

responsibility for the overall management of the Project as a Project Director. The Head of the Department of Preventive and Promotive Health Services will assist the Project Director as a Project Manager and take charge of the coordination and procedures for the Project at the central level. The Head of the Division of Reproductive Health (DRH) will support the Project Manager as an Assistant Project Manager, with support from the Head of the Policy and Planning Division and Head of the Health Sector Reform Secretariat. One personnel from the DRH will act as a Project Coordinator.

For the effective and successful implementation of the Project, the following three Committees will be established. Members in each of the Committees from Kenya are described in Table 16.

1) Joint National Project Steering Committee

The Committee will meet quarterly and whenever necessity arises to undertake the following tasks:

(1) To formulate the annual work plan of the Project in line with the R/D;
(2) To review the overall progress of the Project and the achievements of the work plan;
(3) To review and exchange views on major issues arising from, or in connection with, technical cooperation;
(4) To discuss any issues mutually concluded to be necessary with respect to the Project.

2) National Technical Working Committee

This Working Committee will be organized to deal with all technical issues.

3) District Project Coordination Committee

The District Project Coordination Committee will be organized to discuss project activities on a monthly basis.

The schedule planned for the committee meetings is listed in the Table of Operation Plans (Annex 2).

Table 16 Implementing Structure

Joint National Project Steering Committee	
MOH:	PS, DPS, DMS, Head of DPPHS, Deputy Secretary of Development Head of DRH, Head of PPD, Head of HSRC, Head of DHMIS
MOF:	Treasurer
KEMSA:	Representative
Province:	PMOs in Nyanza and Rift Valley
District:	DMOs in Kisii and Kericho
Japan:	Resident Representative of JICA, Experts
Observer:	Representative of the Embassy of Japan Other Personnel invited by the Chairperson

National Technical Working Committee	
MOH:	Head of DPPHS, Head of DRH, Head of PPD, Head of HSRC Head of DHMIS
District:	DMOs in Kisii and Kericho
Japan:	Representative from JICA Office, Experts

District Project Coordination Committee	
District:	DMOs in Kisii and Kericho, DHMT member
HC:	Clinical officers in charge
Japan:	Experts

PPD: Policy and Pinning Division, HSRC: Health Sector Reform Secretariat

4.9. Inputs

Both the Japanese and Kenyan sides will take responsibility for providing the inputs required for achieving the project activities.

4.9.1. Japanese side

The Japanese side will offer four categories of inputs: Japanese experts, equipment provision and facility renovation, acceptance of trainees, and operational costs in Kenya (as specified below).

1) Experts (long and short-term, 4-5 persons/year)

  (1) Project Manager

  (2) Expert in Primary Health/ Health Management

  (3) Project Coordinator

  (4) Expert in Midwifery

  (5) Expert in Community-based health

2) Equipment Provision and Facility Renovation

Decision on equipment provision and facility renovation will be based on further surveys, including assessments of the condition of the equipment provided by Japanese Grant Aid.

(1) Equipment for Maternal care at the health centers
(2) Maternal care equipment for training use at Hospitals
(3) Training materials (AV equipment, curriculum production)
(4) Communication equipment (radio systems or cell phones)
(5) Equipment for Project operation (Vehicles, etc.)
(6) Facility renovation such as water supply facilities at the health centers

3) Training in Japan and third countries - Acceptance of trainees

(1) Midwifery
(2) District Health management
(3) Others

4) Project operational costs

The operational costs in Kenya will include the costs for training, contracting-out to other organizations, and employment of local consultants.

4.9.2. Kenyan side

The inputs from the Kenyan side are divided into assignment of counterparts to each Japanese expert, provision of facilities, and recurrent costs for items such as vehicle fuel and equipment maintenance. The Kenyan counterparts for the Project implementation in the field will comprise the DHMT members, the Reproductive Health Team (comprising of Obstetrician, Midwife etc.), and the Clinical Officers in charge of the health centers. These counterparts will be assigned to the relevant outputs and activities of the Project as shown in Counterpart Plan (Annex 3). The District Medical Officers (DMOs) in the Kisii and Kericho Districts are to be the principal counterparts to the Japanese experts.

The facilities to be provided by the Kenyan side will include facilities for the Project implementation and a Project office for the Japanese experts.

4.10. Assumptions

Assumptions are external factors which may significantly affect the progress and success of the project. By definition, they lay beyond the control of the project management.

Table 17 summarizes the assumptions at each level of the PDM. The key issues associated with the assumptions of the Project are related to: (i) possible national health policy changes, (ii) political and socio-economic conditions in the Project area or all over the country, (iii) retention of the trained personnel, and (iv) security issues.

Table 17 Assumptions for Project Implementation

	Assumptions
Project purpose	No significant changes of disease patterns, MOH policy, or MOH budget will take place. Economic and political conditions will be maintained. Security will be maintained.
Outputs	For all outputs: No significant changes of disease patterns MOH policy, or MOH budget will take place. Economic and political conditions will not deteriorate. Trained staff will be maintained. Output 2: Community conditions will remain stable. Output 3: Road and communication conditions will not deteriorate. Output 4: National standardization of HIS will not be changed. Output 5: Supplies from KEMSA will be maintained. Output 6: Decentralization policy will be maintained No significant change of DHMT members will take place.

Security problems, though not immense in the target rural areas, might become a major constraint against Project implementation. If the Japanese side judges the level of security to be inadequate, the Project might fail to meet the inputs or achieve the planned activities.

Due to an imbalance of incentives among the government institutions, NGOs, and international organizations, the MOH has faced difficulties in retaining competent staff over the cadres. It may become difficult to meet the Project outputs and purposes if the DHMT Officers and health center staff—especially the nurse-midwives and clinical officers who receive training through the Project—choose to depart their current jobs.

It will be necessary to regularly monitor the aforesaid factors throughout the implementation of the Project.

5. Monitoring and Evaluation Plan

5.1. Monitoring

The Project will set up a monitoring and evaluating mechanism with clearly defined indicators to ensure that it stays on track towards the achievement of its purpose. This will be accomplished through a process of internal monitoring entailing the continuous and systematic collection, analysis, and use of information for management control and decision-making—a process to become an integral part of day-to-day management of the Project. The PDM with the indicators (Annex 1) and plan of operation (Annex 2) provide the basis for the internal monitoring. Based on the monitoring of performance, the Project must provide progress reports with detailed information allowing assessment of the state of progress against the purpose, on a quarterly basis. At the inception of the Project, when the detailed activity plan is developed, the Project team will review and refine the indicators on the PDM. These indicators will be traced during the implementation period based on improved and simplified record-keeping and analysis.

Table 18 Indicators for maternal care

	Output Indicators	Outcome Indicators	Impact Indicators
Individual health centers	No. of Trained staff	Skilled birth attendance rate, ANC rate	
Health centers as a whole	% of health centers with Trained staff	% of health centers providing skilled care	
District as a whole	Total % of trained staff	Skilled birth attendance rate at District level	Maternal Mortality

As shown in the table 18, different level of the indicators, output, outcome and impact indicators will be used for monitoring and evaluation of the relevant level of the healthcare system. The outcome indicators will allow the Project to ensure that the trained personnel are able to make practical use of the skills they acquire in the training courses with expected results in improvement of maternal care. District-wide assessment for maternal care will be conducted with the use of the current UN process indictors for EOC shown in Table 19.

Given the serious underreporting of vital statistics and the unreliability of the service statistics used to measure the outputs and outcomes of the Project, monitoring and evaluation will be linked with the health information system (HIS), and the HIS itself will be strengthened with appropriate record-keeping at the health center level and data management at the District level. In addition the Project plans to conduct surveys on community health and drug management, a maternal death

review will be conducted to collect data on impact indicators such as maternal mortality.

Table 19 Indicators for maternal care used for monitoring and evaluation

Evaluation aspect	Indicators	Remarks
Utilization	ANC rate, Skilled birth attendance rate	Calculated based on health facility records and utilization survey in communities
Access	Access to EOC	Distribution of EOC facilities per population and Delivery rate at Health facilities
Needs	Rate for meeting needs for EOC	Proportion of women with maternal complications who receive treatment at EOC facilities
Function	Referral rate	Proportion of women with maternal complications who are referred to EOC facilities
Quality	C/S operation rate	Number of C/S operations per estimated number of deliveries.
	Case fatality rate	Death rate among women who receive treatment for complications
	Analysis of Maternal deaths	Maternal death review of the course of events from the onset of complications to death

5.2. Evaluation

Two external evaluations will take place in the course of project implementation: the mid-term evaluation and final evaluation. The mid-term evaluation will be performed in the middle of the project to review the progress of the Project towards the purpose stated in the PDM (currently scheduled to be take place around September 2006). Necessary adjustment of the project design will be undertaken based on the results of the mid-term evaluation to improve the project performance. The final evaluation, to take place four months before the project completion (presumably around December 2007), will document the resources used, results, and progress towards the objectives. The final evaluation will seek to extract lessons from the Project to be positively applied in the design of future projects.

The schedule for monitoring and evaluation is given in Operation Plan (Annex 2).

6. Ex-ante Evaluation

6.1. Relevance

According to WHO/UNFPA/UNICEF in 2000, the maternal mortality rate in Kenya reached 1,000 per 100,000 live births. Improved maternal health has been adopted as one of the top priorities under the MDGs. Nonetheless, Kenya and many other African countries have not been making progress in the reduction of maternal mortality.

In response to the MDG target—"Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio"—the GOK has set a goal in the NRHSP to reduce MMR to 170 per 100,000 child births by 2010. This calls for a focus on Safe Motherhood in Reproductive Health among the country's development plan.

In keeping with the international trend emphasizing improved delivery care through an increase of skilled birth attendants instead of TBAs, the MOH of Kenya also sets the skilled birth attendance rate as one of the key indicators in the IOP. As a comprehensive initiative to reduce maternal death by raising the skilled birth attendance rate, the Project is therefore relevant to the MOH policy.

Past experiences have clearly shown that improved maternal care with reduced maternal mortality requires not only training of health workers for skilled birth attendance, but also community involvement and a fully functioning healthcare system. It will be relevant for the Project to facilitate community awareness and behavior change and to strengthen referral, HIS, and drug management under DHMT supervision.

The requirements for adequate maternal care have not been met in the Kisii and Kericho Districts. The skilled birth attendance rate is lower than the national average in both districts, and international agencies offer little support for maternal care. The Project targets the health centers, where delivery care is inadequate and fails to meet the basic EmOC requirement. Reduced maternal mortality, on the other hand, will require comprehensive EmOC in the referral hospitals. Although the Project will not target the District Hospitals, the District Hospitals and Project will have to cooperate with each other.

6.2. Effectiveness

The Project will focus on improved maternal care at the health center level. The skilled birth attendance rate and the degree to which the needs are met for EmOC for maternal complications will be used as the indicators of the Project purpose. These indicators will be calculated by the number of

deliveries and complications at each health facility and the total number of deliveries estimated from crude birth rate in the Districts.

Management capacity building at health centers supported by the Project will increase the effectiveness of maternal care at the health centers and communities. A functioning referral system with good health information and sufficient drug supplies at the health centers will enable women with complications to be sent to appropriate facilities safely and promptly.

On the other hand, management capacity at health centers can be effectively enhanced by providing maternal healthcare. In this regard, integration of maternal care with management support will produce a synergic effect for the overall healthcare service at the health centers.

6.3.Efficiency

The efficiency of the Project will be enhanced by building upon available resource and learning lessons from the proceeding projects through coordination. A variety of donors and international and national organizations have been, and remain, actively involved in the health sector in Kenya.

Together with the MOH and international and national NGOs, they provide excellent experiences in District Health Management and Safe Motherhood with a variety of intervention models, best practices, and training manuals and materials. The Project will efficiently make the most of these available experiences and local resources such as experienced trainers and materials, while keeping to a minimum the Project inputs from Japan in terms of the dispatch of Japanese experts and the counterpart training activities in Japan.

Selective and focused approaches by the Project, mainly for maternal care at the health centers and communities, will increase the effectiveness of the Project for the short implementation period of three years.

6.4.Impact

The impact of the Project will be assessed against the achievement of the overall goals of improved health for the people of Kenya, especially the maternal health of women of reproductive age with a reduction of maternal mortality. Increasing skilled birth attendance for delivery care is expected to help improve maternal health and reduce maternal mortality.

The Project's achievement towards the overall goal will require connection with other aid schemes and coordination with other organizations as development aid programs. Maternal deaths occur not

only in communities, but also at District Hospitals, whose equipment and facilities are in poor condition. Renovations of the District Hospitals are currently being requested.
Malaria and HIV/AIDS seriously affect public health in these Districts. Though the Project does not tackle these diseases directly, it is expected to produce a positive impact by improving health management and service at the health centers, and through collaborations with the Japan Oversee Cooperation Volunteers (JOCVs), NGOs, and other donors.

Finally as wider impacts of the Project, the improvement in maternal health will mean fewer deaths and better lives for children, improved gender equality, empowerment of women, and stronger defenses against HIV-AIDS, malaria, and other diseases.

6.5. Sustainability

6.5.1. Systematic and Technical Aspect

The Project will make use of available training packages, standard equipment and materials for maternal care, and the format of the HIS provided by the MOH. The plan of operation for the Project will be formulated using indicators for monitoring and evaluation based on the current District Health Plan and the guidelines of the MOH. Such coherence with the policies of the MOH and District Health Plan will ensure the sustainability of maternal care and health management with Project support beyond after the completion of the Project. Community activities and their scaling-up in the Project will be sustained through training of CORPs, peer-learning among community people, and continuous support from the DHMTs.

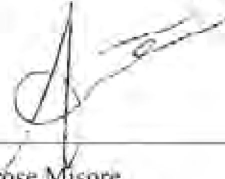
6.5.2. Financial aspects

The financial sustainability of the health centers has been impacted by the revisions of cost-sharing system in July 2004. Deliveries at some of the health centers have since been reported to decrease. It is important to secure financial resources at District, health center, and community levels. The Project will pay attention to the budgetary allocation from the GOK to District Health Offices and Reproductive Health. Equipment provision and facility renovation at the health centers will be limited to those with appropriate maintenance and recurrent costs to avoid financial burden on District Health Offices and health centers.

Minutes of Approval

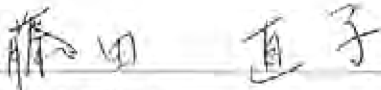
This Project Document was officially approved for use and circulation at the First Meeting of the Joint National Project Steering Committee on 28 April, 2005 at the Ministry of Health, Nairobi, the Republic of Kenya, witnessed by

Mr. Yoshiaki Kano,
Resident Representative
Kenya Office
Japan International Cooperation Agency (JICA)
JAPAN



Dr. Ambrose Misore
Head, Department of Preventive and
Promotive Health Service,
Ministry of Health
REPUBLIC OF KENYA

Countersigned by



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Annexes

Annex 1 Project Design Matrix

Annex 2. Tentative Plan of Operations for Project

Annex 3. Tentative Plan of Counterpart and Person in Charge

Annex 4. Example of the Selection Criteria of Pilot Community

Annex 1. Project Design Matrix

Project Name: Project for the Improvement of Health Service with a focus on Safe Motherhood in the Kisii and Kericho Districts

Project Period: March , of 2005 to 2008 (3 years)

Implementing Organizations: District Health Management Teams (DHMTs), Division of Reproductive Health (DRH), Department of Preventive and Promotive Health Service, Ministry of Health

Target Groups: DHMTs, Healthcare providers, HC administration staff, and communities in the Kisii and Kericho Districts.

Beneficiaries: People in the Kisii and Kericho Districts, particularly women of reproductive age.

Narrative Summary	Objectively Verifiable Indicators*[1]	Means of Verification	Important Assumptions
[Overall Goal] Health condition, particularly the maternal health, in the Kisii and Kericho Districts is improved.	Maternal mortality (rate) in the District Case fatality rate due to maternal complications Infant mortality rate and malaria fatality rate	Census(DHS), MDF, Health Statistics	
[Project Purpose] Maternal care in the Project area with a focus on health centers and communities is improved.	Skilled birth attendance rate in District Delivery rate and ANC rate at HCs Success rate in meeting the needs of women with maternal complications HC utilization rate and client satisfaction	Patient charts at hospitals and HCs, DHS, Health Statistics, Community Surveys, Exit Interviews	No significant changes in the pattern of disease, MOH policy, or economic or political conditions.
[Outputs] **Component 1. Maternal care in the Project area is improved.** 1. Maternal care services at the HCs are upgraded. *Services targeted by the Project: Focused ANC, Essential Obstetric Care, Emergency Obstetric Care (Life-saving skills), Post-Abortion Care and Postnatal Care with Client-friendly Care*	1. % of HCs providing skilled birth attendance (SBA) % of clinical staff meeting the definition of SBA 1-1. Completion of training work plan, No. of staff trained (in total and by HC), No. of follow-ups for training, No. of staff receiving the follow-ups, Evaluation of work performed by trained staff, Clients satisfaction with the quality of care 1-2 No. of HCs maintaining facility and equipment provided 1 and 2 years after installation No. of HC staff trained for maintenance	Training records, Reports by trainees Records on meetings Training records and reports Monitoring records Monitoring records Community survey Maintenance records	Recurrent costs are provided for Hospitals, HCs, and communities by the Kenyan side.
2. Maternal care at the community level is improved.	2. No. of CORPs trained, No. of CORPs attending ANCs &	Community survey	

	deliveries in pilot communities No. of Health learning sessions, No. of participants Changes in awareness and health behavior among people For scaling-up to other communities, No. of peer learning workshops & exchange visits No. of communities replicating activities	Patient charts at HCs and Hospitals Training record/report Community survey	
Component 2. Management support in the HCs is improved. 3. A referral system is arranged and functioning between communities, HCs and District Hospitals.	3. No. of proper referral cases of maternal complications Use of communication & transportation No. of training sessions for referral and No. of participants Use of the referral guideline No. of meetings for reviewing referral cases	Case review record Patient chart Hospital, HC)	
4. Health Information System (HIS) and record-keeping system in place at HCs is functioning and is utilized for service and management at the HCs?	4. No. of training sessions for HIS and trainees Redundancy of records and reporting Use of HIS for care and management at HCs Use of HIS for monitoring and evaluation	Community surveys Case review meetings Administration records at HCs Monitoring records. Training records/reports	
5. Management capability for drugs and medical supplies at the HCs are improved.	5. Stock-out of drugs and medical supplies Use of logbooks for inventory and prescription Frequency of drug delivery to HCs Rational use of medicines based on guidelines at HCs	Stock/inventory records Delivery records Logbooks Training records/reports Patient charts at HCs Prescription records	
6. District Health Management Teams(DHMTs)' system for their supportive supervision for HCs is strengthened.	6. No. of DHMT members supervising HCs Quality of supervision Quality assurance of HC management	DHMT reports DHMT meeting records HCC. HFMT meeting records	

(Activities)	(Inputs)	(Inputs)	
<u>Outcome1. Maternal care services in the HCs are upgraded.</u> A) To institute a training system for maternal care 1. Preparation 1) Organizing training team within DHMT 2) Reviewing information on training needs for HC staff 3) Establishing curricula 4) Selecting health staff to be trained 5) Formulating training work-plan 2. Implementation Training in maternal care for HC staff, including essential & emergency obstetric care (life-saving skill), ANC, PAC with client-centered care 3. Follow-up or Monitoring 1) Follow up for the trained staff with on-the-job training and re-training utilizing Critical Incidence Analysis*2 2) Conducting Maternal Death Review (MDR B) To establish a system for renovating facilities and providing equipment with their maintenance 1. Preparation 1) Investigating the current status of the facilities and equipment at each HC. 2) Determining the required renovation and selecting equipment for maternal care. 2. Implementation 1) Renovating facilities and providing equipment 2) Developing manuals for operation and maintenance 3. Following-up or Monitoring Conducting regular maintenance for equipment and facilities	Japanese side [Human resources] (Long-or short-term experts or consultants) 1. Chief Advisor or Technical Advisor 2. Project Manager 3. Project Coordinator 4. Midwifery 5. Community-based health [Provision of Equipment] 1. Equipment for Maternal care at HCs 2. Maternal care equipment for training at Hospitals 3. Learning materials necessary for training (AV equipment, curriculum production) 4. Communication equipment (radio system or cell phones) 5. Equipment for Project operation (Vehicles, etc.) [Facility Renovation] i.e., Water supply facility at HC Solar system for HC *Decisions on renovation and equipment provision will be made based on further surveys, including an assessment of the condition of equipment provided by Japanese Grand Aid.*	Kenyan side [Assignments of counterparts] Ministry of Health DRH Other relevant Department DHMT (Kisii and Kericho) PMO HC staff HFMT (HCC) [Accommodations] Salary for the staff Facilities Project Office Office secretaries Drivers Training sites Recurrent Costs for items such as vehicle fuel and equipment maintenance	1. Staff trained will be retained. 2. Community condition will be stable. 3. Road and communication conditions will not be deteriorated. 4. National standardization of HIS will not be averted. 5. Supplies from KEMSA will be maintained. 6. A decentralization policy will be maintained. No significant change of DHMT members.

Outcome 2.Maternal care at the community level is improved. 1. Preparation 1) Conducting community and household surveys at candidate communities 2) Selecting a pilot community in each District 3) Identifying CORPs*3 and HCMC*4 members in the community and formulating the work plan 2. Implementation 1) Training PHT and nurses at the nearby health center and developing IEC for awareness and referral 2) Training CORPs and HCMC members for community awareness and referral for maternal care 3) Supporting CORPs and the community to organize health learning groups and a transportation system with community funds 3. Following-up or Monitoring 1) Facilitating visits by other communities and peer learning as pilot community activities. 2) Monitoring the community health activities and formulating models for best practices. 3) Supporting and followingup for the scale-up of activities in other areas in Districts	[Counterpart training] Training in Japan and/or third countries, Acceptance of trainees 1. Midwifery 2. District Health management 3. Others. [Project Operational Cost] 1. Training 2. Employment of local consultants (including sub-contracting) 3. Others		

Outcome 3. Referral system is systemized and functioning. 1. Preparation 1) Assessing the current referral system 2) Formulate a referral system improvement plan a) Formulating a communication and transporation plan for referral at District Hospitals and HCs. b) Formulating referral guidelines for the HCs and District hospitals 2. Implementation 1) Setting up communication equipment at District Hospitals and HCs 2) Assisting in securing transportation by repairing existing vehicles or providing new vehicles at DHs 3) Training HC staff in the guidelines 3. Followingup and Monitoring 1) Conducting maintenance for communication and transportation 2) Conducting regular audits of referral cases			
Outcome 4. HIS for monitoring and evaluation aiming at improved HC services and management. 1. Preparation 1) Assessing the current status of the HIS at the HCs and District Hospitals 2) Formulating a HIS improvement plan at the HCs 2. Implementation 1) Training District MRIO*[3] for improvement plan for HIS 2) Training HC staff in record-keeping 3. Following up and Monitoring Continuously improving the quality of record-keeping at the District and HC levels			

Outcome 5. Provision, storage, management, and prescription of drugs and medical supplies at the HCs are improved. 1. Preparation 1) Surveying drugs and medical supplies with a focus on the adequacy of provision (delivery), stock, and prescription 2) Formulating a drug management improvement plan at the HCs 2. Implementation 1) Introducing logbooks for inventory, store-keeping, and prescription; training HC staff to use the logbooks 2) Training HC staff on the case management guidelines at the HCs to ensure the rational use of drugs 3) Maintaining and strengthening the logistics system for drug delivery in coordination with HIS 3. Following up and Monitoring Continuously improving the quality of drug management.			
Outcome 6. Strengthened capacity of the DHMTs in supervising the HCs. 1. Preparation 1) Assessing the DHMTs' current system for supervising the HCs 2) Formulating their plan for HC supervision 2. Implementation Implementing the supervisory plan 3. Following up and Monitoring Monitoring the DHMTs' supervision of the HCs with feedback			

*1: The objectively verifiable indicators used for the purposes and outputs are accorded to those established in the District Plan. Otherwise, efforts will be made to determine important indicators such as the Maternal Mortality (rate) in the area by baseline surveys. The adequacy of indicators should be reviewed and revised when the PDM is revised.

*2: Critical Incidence Analysis: To assess the effects of training by examining records on the management of cases handled by the trainees after the training.

*3: CORPs include community leaders, traditional birth attendants (TBAs), and community health workers (CHWs).

*4: The Health Center Management Committee (HCMC) is a community-based committee responsible for management of the HCs. *5: MRIO: Medical Record and Information Officer

Annex 2. Tentative Plan of Operations for Project for Improvement of Health Servi[illegible]n Safe Motherhood in Kericho and Kisii Districts As of April 2005

			2005: 3 4 5 6 7 8 9 10 11 12 / 2006: 1 2 3 4 5 6 7 8 9 10 11 12 / 2007: 1 2 3 4 5 6 7 8 9 10 11 12 / 2008: 1 2 3
Experts			
	Chief Advisor		
	Primary Health/Health Management		
	Project Coordinator		
	Midwife		
	Community Health		
Local Consultants			
	Community Health Survey		
	Community Health Local Consultant	35	
	Referral system Local Consultant	20	
	Drug Management Survey		
	HIS Local Consultant	20	
	Drug Management Local Consultant	20	
	DHMT Supervision Local Consultant	17	
Output 0. Project site Assessment			
Output 1. Maternal care services in the HCs are upgraded			
A)	To institute training system for maternal care		
1.	Preparation		
1)	Organizing training team within DHMT		
2)	Reviewing information on training needs for HC staff		
3)	Establishing curricula		
4)	Selecting health staff to be trained		
5)	Formulating training work-plan		
2.	Implementation		
	Implementing trainings of maternal care for HC staff including essential & emergency obstetric care(life-saving skill), ANC, PAC with client-centered care		
3.	Following-up or Monitoring		
1)	Following up the trained staff with on-the-job training and re-training utilizing Critical Incidence Analysis		
2)	Conducting Maternal Death Review(MDR)		
B)	To establish system for facility renovation and equipment provision for maternal care with their operation and maintenance		
1.	Preparation		
1)	Conducting facility and equipment survey for maternal care at HCs		
2)	Determining renovation and selecting equipment based on the survey		
2.	Implementation		
1)	Implementing facility renovation and providing and setting up the equipment		
2)	Developing manual for rational use and maintenance of equipment and facilities		
3.	Following-up or Monitoring		
	Conducting regular maintenance for rational use and management of facilities		
OP2. Maternal care in community level is improved			
1.	Preparation		
1)	Conducting community and household survey at candidate communities		
2)	Selecting a pilot community each of District		
3)	Identifying CORPs and HCMC members in the community and formulating the work-plan		
2.	Implementation		
1)	Training HC staff (PHT and nurse) at the nearby health center and developing educational messages (IEC) for awareness and referral during the training course		
2)	Training CORPs and HCMC members for community awareness and referral for maternal care		
3)	Supporting CORPs and community to organize community health learning groups and activities, and to organize community transportation system with community fund		
3.	Following-up or Monitoring		
1)	Facilitating other communities' visits and peer learning to the pilot community activities		
2)	Monitoring the community health activities and formulating the model of best practice		
3)	Supporting and following up scaling up of activities to other areas in Districts		

No.	Activity
OP3. Referral system is functioning between communities, HCs and District Hospital	
1.	*Preparation*
1)	Assessing the current referral system
2)	Formulate referral system improvement plan
a)	Formulating communication and transportation plan for referral at District Hospitals and HCs
b)	Formulating guidelines for referrals for HC and hospital staff
2.	*Implementation*
1)	Setting up communication equipment at District Hospitals and HCs
2)	Assisting in securing transportation by either repair of the existing vehicle or providing a new vehicle at DHs
3)	Training HC staff for the guidelines
3.	*Following-up or Monitoring*
1)	Conducting maintenance for communication and transportation
2)	Conducting regular audit of referral cases for evaluation of the effectiveness of referral system
OP4. Health Information System (HIS) or record-keeping at HCs is functioning and is utilized for their service and management	
1.	*Preparation*
1)	Assessing the current situation of HIS at HCs and District level
2)	Formulating HIS improvement plan at HCs
2.	*Implementation*
1)	Training DHMT MRDO for improvement plan for HIS
2)	Training HC staff for of record-keeping
3.	*Following-up or Monitoring*
	Conducting continuous quality improvement of record-keeping both at District and HC level for use of HIS for monitoring of HC services and management
OP5. Provision, storage management and prescription of drugs and medical supplies at HCs are improved	
1.	*Preparation*
1)	Conducting survey of drugs and medical supplies in terms of provision(delivery), stock and prescription
2)	Formulating drug management improvement plan at HCs
2.	*Implementation*
1)	Introducing logbooks for inventory, store-keeping and prescription and training HC staff for use of the logbooks
2)	Training HC staff on the case management guidelines for rational use of drugs
3)	Maintaining and strengthening logistics system for drug delivery from District store to HCs
3.	*Following-up or Monitoring*
	Conducting continuous quality improvement for drug management.
OP6. District Health Management Team capacity for their support and supervision for HCs is strengthened	
1.	*Preparation*
1)	Assessing the current DHMT DHMT's supervision to HCs
2)	Formulating DHMT's supervisory plan for HCs
2.	*Implementation*
	Implementing the DHMT's supervisory plan for HCs
3.	*Following-up or Monitoring*
	Monitoring DHMT's supervision to HCs with feedback system
Project Committee	
	Joint National Project Steering Committee
	National Technical Working Committee
	District Project Coordination Committee
Monitoring & Evaluation	
	Monitoring
	Evaluation
	Training abroad
Administration	
	Set-up of Project Office
	Commencing Accounting
	Employment of Local Staff

Annex 3. Tentative Plan of Counterpart and Person in Charge -Project for Improvement of Health Service with a focus on Safe Motherhood in Kericho and Kisii Districts

		Person in charge	
		Kericho	Kisii
Output 1. Improved maternal care in the Project area.		DMOH, DRHT, DRH	DRH, DMOH, DRHT
A)	**To institute training system for maternal care**	DMOH, DRHT, DRH	DMOH, DRHT, DRH
1.	***Preparation***		
1)	Organizing training team within DHMT	DPHN, DRHT	DPHN, DRHT
2)	Reviewing information on training needs for HC staff	DPHN, DRHT	DPHN, DRHT
3)	Establishing curricula	DPHN, DRHT, DRH	DPHN, DRHT, DRH
4)	Selecting health staff to be trained	DPHN, DRHT	DPHN, DRHT
5)	Formulating training work-plan	DPHN, DRHT	DPHN, DRHT
2.	***Implementation***		
	Training in maternal care for HC staff, including essential & emergency obstetric care (life-saving skill), ANC, PAC with client-centered care	DPHN, DRHT, DRH	DPHN, DRHT, DCOinC, DRH
3.	***Following-up or Monitoring***		
1)	Following up the trained staff with on-the-job training and re-training utilizing Critical Incidence Analysis	DPHN, DRHT, DRH	DPHN, DRHT, DCOinC, DRH
2)	Conducting Maternal Death Review (MDR)	DRHT, DMRIO, DRH	DRHT, DMRIO, DRH
·)	**To establish a system for facility renovation and the provision and maintenance of equipment**	DMOH, DRHT, H.Med.Eng, DRH	DMOH, DRHT, H.Med Eng, DRH
1.	***Preparation***		
	Determining renovation and selecting equipment for maternal care based on a facility and equipment survey	DMOH, DRHT, H.Med.Eng, DRH	DMOH, DRHT, H.Med.Eng, DRH
2.	***Implementation***		
1)	Implementing facility renovation and providing and setting up the equipment	DMOH, DRHT, H.Med.Eng, DRH	DMOH, DRHT, H.Med.Eng, DRH
2)	Developing a manual for the rational use and maintenance of equipment and facilities	DMOH, DRHT, H.Med.Eng, DRH	DMOH, DRHT, H.Med.Eng, DRH
3.	***Following-up or Monitoring***		
	Conducting regular maintenance for the rational use and management of facilities	DMOH, DRHT, H.Med.Eng, DRH	DMOH, DRHT, H.Med.Eng, DRH
Output 2. Improved maternal care at the community level		DMOH, DRH	DMOH, DRH
1.	***Preparation***		
1)	Conducting community and household surveys at candidate communities	DHEO, DPHO, DCOinC, DRH	DPHN, DPHO, DCOinC, DRH
2)	Selecting a pilot community in each District	DMOH	DMOH
3)	Identifying CORPs and HCMC members in the community and formulating the work-plan	DHEO, DPHO, DCOinC	DPHN, DPHO, DCOinC
2.	***Implementation***		
1)	Training HC staff (PHT and nurse) at the nearby health center and developing educational messages (IEC) for awareness and referral during the training course.	DHEO, DPHO, DCOinC	DPHN, DPHO, DCOinC
2)	Training CORPs and HCMC members for community awareness and referral for maternal care	DHEO, DPHO, DCOinC	DPHN, DPHO, DCOinC
3)	Supporting CORPs and the community to organize health learning groups and sessions to organize a transportation system with community funds	DHEO, DPHO, DCOinC	DPHN, DPHO, DCOinC
3.	***Following-up or Monitoring***		
1)	Facilitating visits to other communities and peer learning as pilot community activities.	DHEO, DPHO, DCOinC	DPHN, DPHO, DCOinC
2)	Monitoring the community health activities and formulating a model of best practices.	DHEO, DPHO, DCOinC	DPHN, DPHO, DCOinC
3)	Supporting and following up the scale-up of activities to other areas in the Districts	DHEO, DPHO, DCOinC	DPHN, DPHO, DCOinC

Output 3. A systemized and functioning referral system		DMOH, Med. Sup., DRH	DMOH, Med. Sup., DRH
1.	***Preparation***		
1)	Assessing the current referral system	DCOinC, DHAO, DRHT	DCOinC, DHAO, DPHN, DRHT
2)	Formulate a referral system improvement plan	DCOinC, DHAO, DRHT	DCOinC, DHAO, DPHN, DRHT
a)	Formulating a communication and transportation plan for referral at District Hospitals and HCs.	DCOinC, DHAO	DCOinC, DHAO, DPHN
b)	Formulating guidelines for referrals for HC and hospital staff	Med. Sup., DRHT, DRH	Med. Sup., DRHT, DRH
2.	***Implementation***		
1)	Setting up communication equipment at District Hospitals and HCs	DCOinC, DHAO, H.Med. Eng.	DCOinC, DHAO, DPHN, H.Med. Eng.
2)	Assisting in securing transportation by either repairing the existing vehicles or providing new vehicles at the DHs	DHAO, H.Med. Eng.	DHAO, H.Med. Eng.
3)	Training HC staff for the guidelines	DRHT, DRH	DRHT, DRH
3.	***Following-up or Monitoring***		
1)	Conducting maintenance for communication and transportation	DCOinC, DHAO, H.Med. Eng.	DCOinC, DHAO, DPHN, H.Med. Eng.
2)	Conducting regular audits of referral cases to evaluate the effectiveness of the referral system	Med. Sup., DRHT, DRH	Med. Sup., DRHT, DRH
Output 4. Efficient functioning and use of HIS for monitoring and evaluation		DMOH	DMOH
1.	***Preparation***		
1)	Assessing the current situation of HIS at the HCs and District level	DCOinC, DMRIO	DCOinC, DMRIO
2)	Formulating an HIS improvement plan at the HCs	DCOinC, DMRIO	DCOinC, DMRIO
	Implementation		
1)	Training DHMT MRIO for improvement plan for HIS	DCOinC, DMRIO	DCOinC, DMRIO
2)	Training HC staff in record-keeping	DCOinC, DMRIO	DCOinC, DMRIO
3.	***Following-up or Monitoring***		
	Continuously improving the quality of record-keeping at the District and HC levels for use of the HIS for monitoring services and management at the HCs.	DCOinC, DMRIO	DCOinC, DMRIO
Output 5. Improved management of drugs and medical supplies at the HCs		DMOH	DMOH
1.	***Preparation***		
1)	Surveying the delivery, stocking, and prescription of medical supplies	DPharm	DPharm, DCOinC, DASCO, Phar.Tech.
2)	Formulating a drug management improvement plan at the HCs	DPharm	DPharm, DCOinC, DASCO, Phar.Tech.
2.	***Implementation***		
1)	Introducing logbooks for inventory, store-keeping and prescription: training HC staff to use the logbooks	DPharm	DPharm, Pharm.Tech.
2)	Training HC staff on the case management guidelines for the rational use of drugs	DPharm	DPharm, Pharm.Tech.
3)	Maintaining and strengthening the logistics system for drug delivery in coordination with HIS	DPharm	DPharm, Pharm.Tech.
	Following-up or Monitoring		
	Continuous improving the quality of drug management	DPharm	DPharm, DCOinC, DASCO, Pharm.Tech.
Output 6. Strengthened capacity of the DHMTs in supervising and supporting the HCs		DMOH	DMOH
1.	***Preparation***		
1)	Assessing the current DHMT supervision of the HCs	All DHMT members	All DHMT members
2)	Formulating the DHMT's supervisory plan for the HCs	All DHMT members	All DHMT members
2.	***Implementation***		
	Implementing the DHMT's supervisory plan for the HCs	All DHMT members	All DHMT members
3.	***Following-up or Monitoring***		
	Monitoring the DHMT's supervision of the HCs with a feedback system	All DHMT members	All DHMT members

Med. Sup.: Medical Superintendent
DRH: Division of Reproductive Health
DASCO: District AIDS/STI Coordinating Officer
H.Med.Eng.: Head of Medical Engineering at DHp.
DHEO: District Health Education Officer
DMRIO: District Medical Record & Information Officer
Phar. Tech.: Pharmaceutical Technologist

DMOH: District Medical Office of Health
Dpharm: District Pharmacist
DPHO: District Public Health Officer
DPHN: District Public Health Nurse
DHAO: District Health Administrative Officer
DCOinC: District Clinical Officer in charge

Annex 4. Example of the Selection Criteria of Pilot Community

Unit as sub-location

1. First Screening - Geographic and other conditions

List the sub-locations eligible for the following conditions.

Accessibility

The sub-location is located within 2 hours from the city center via a passable road.

The sub-location is located within 45 minutes' walking distance from the model health center.

Other organizations are not conducting similar locations in the sub-location.

The DO Office in the area of the sub-location keeps good registration records on births and deaths.

2. Second Screening – Condition of Community Health Activities

The Sub-locations selected in the first screening are screened by the following criteria.

The HFMC or VHC have gender-balance, monthly committee's meetings, or community pharmacy (Bamako Initiatives pharmacy)

Regular contacts between Public Health Technologists or Technicians and Community-based Organizations (i.e., VHC) take place.

The number and activities of the Community Resource Persons (CORPs) have been identified.

The community has community-based activities planned under a District Health Annual Plan.

3. Final determination - Community mobilization

Community and Chiefs are willing to participate in Project community activities.

Community Resource Persons (CORPs) are active and willing to participate in the Project community activities.