

REPUBLIC OF RWANDA



**MINISTRY OF HEALTH
EXPANDED PROGRAM ON IMMUNIZATION**

MULTI-YEAR PLAN 2006-2010

DRAFT 2



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I. INTRODUCTION

I-1 Geopolitical Background Information

Rwanda is situated in central Africa, south of the Equator, between 1°4' and 2°51' latitude South and 28°53' longitude East. With a surface area of 26,338 square kilometers, it is bordered to the North by Uganda, to the South by Burundi, to the West by the Democratic Republic of Congo, and to the East by Tanzania. Lacking access to the sea, Rwanda is land-locked and is located, as the crow flies, 1200 km from the Indian Ocean and 2000 km from the Atlantic Ocean. Its topography is mountainous and the average altitude is 1700 meters.

In terms of climate, Rwanda enjoys a subtropical climate that is tempered by altitude. The mean temperature is approximately 18.5° C and the annual rainfall averages 1200 mm. The year is divided into two rainy seasons of unequal length that alternate with a short and long dry season.

Administratively, Rwanda is divided into four provinces plus the city of Kigali, 30 districts, and 360 health units. The smallest administrative unit is the cell.

I-2 Socio-demographic data

According to the report of the 2002 general census of the population and habitat (RGPH), the population of Rwanda at that time was 8,128,553 people. Taking into account a natural growth rate of 2.6%, the 2006 population is estimated to be 9,007,467 inhabitants.

The census data indicate that 52% of the population is female population and 48% of the population is male. There are approximately 91.5 men for every 100 women.

The majority of Rwandans live in rural settings (83.3%). In terms of urbanization, Rwanda has one of the least urbanized populations in Africa. However, the census figures show that the urban population has grown rapidly, increasing from 5.5% to 16.7% of the total population from 1991 to 2002.

I-3 Organization of health system

The health system in Rwanda is organized as a three-level pyramid consisting of the central, intermediate, and peripheral levels. The central level includes the directorates of the Ministry of Health and the national reference hospitals.

The peripheral level is represented by the health district, which includes an administration, a primary reference hospital, and health facilities that provide primary health care.

The central level, based in the capital, is essentially responsible for the development of health policy; it is also charged with responsibility for establishing the strategies and

guidelines that are provided to health services. Its role is also to conduct monitoring and evaluation of the health situation, as well as to coordinate resources at the national level.

The peripheral level is the operational unit represented by the district. It is comprised of an administration, a district hospital, and first level health facilities, particularly health centers. The district is responsible for managing all health problems for a well-defined population. With participation from the community, the district level plans, coordinates, and carries out health activities in its catchment area. Rwanda currently has 30 health districts and 360 health facilities.

At district level, decision-making is carried out in a collegial manner, by way of multiple committees. The management structures at district level include the district health committee, the hospital health committee, and the health committee of each health center. The composition, role, and authorities of these different committees are well defined.

In order to assure the best client care possible, a tiered referral system consisting of three levels is in place, based on required technical competences and rational utilization of resources.

I-4 Organization of EPI

The overall goal of the EPI is to contribute to the improved well-being of the Rwandan people through reduction of child morbidity and mortality due to vaccine-preventable diseases. Created in 1978, EPI in Rwanda became operational in 1980. It is comprised of three principal components: routine vaccination, supplemental immunization activities, and surveillance for target diseases.

Since 1996, EPI has had a functioning Interagency Coordinating Committee (ICC). This group includes senior officials from the Ministry of Health, representatives from different funding partners (WHO, UNICEF, Rotary International), and other parties interested in participating in this committee. The ICC remains open to new members who have interest in joining it. The EPI ICC is active and, above all, plays a technical and advocacy role in support of the program. ICC meetings are regularly held and their proceedings are approved through formal written minutes.

The EPI works in close collaboration with other divisions and programs of the Ministry of Health, as well as with health districts. The program also maintains partnerships with different ministries, seeking their engagement in social mobilization, especially for national or local vaccination campaigns. At the community level, the program supports a network of « animateurs de santé », whose assistance is increasingly relied upon, particularly in the areas of community sensitization and reduction of immunization drop-out rates.

Vaccination services are completely integrated into routine activities in health facilities. More than 90% of vaccinations are provided through fixed facilities. Routine immunization is intended to reach infants 0-11 months of age and pregnant women, during antenatal care visits, according to the following schedule :

Table 1: EPI vaccination schedule

Type of vaccine	Age at first dose	Minimum interval between 2 doses	Number of doses
BCG	Birth	-	1
OPV	Birth	4 weeks	4
DTP-hep B/Hib (pentavalent)	6 weeks	4 weeks	3
measles	9 months	-	1
Tetanus toxoid	1st contact with pregnant woman	- 4 weeks between TT ₁ et TT ₂ - 6 month between TT ₂ et TT ₃ - 1 year between TT ₃ et TT ₄ - 1 year between TT ₄ et TT ₅	5

Since January 2002, the vaccination schedule has been expanded to include pentavalent DTP-HepB/Hib vaccine. The outreach strategy has been revitalized in most health facilities, using financial support made possible through GAVI. Without doubt, these factors have contributed to the increases in coverage that have occurred since 2002.

It is intended that the present multi-year plan (2006-2010) will serve as a management tool for the activities of Rwanda's Expanded Program on Immunization. The preparation of this document has entailed conducting a situation analysis of EPI over the past three years; this serves as the basis for identifying the objectives, strategies, and priority activities in this plan, as well as for estimating the costs associated with implementation of the plan.

The priorities in the multi-year plan address the following main challenges :

- Increase and maintain routine vaccination coverage in all districts
- Reduce the drop-out rate in certain districts
- Resolve cold chain problems at the basic administrative and health center levels
- Improve surveillance for EPI target diseases
- Integrate vitamin A supplementation into routine vaccination
- Strengthen capacity of health personnel in EPI management.

II-SITUATION ANALYSIS OF EPI

II-1 Target diseases

Target diseases	Indicators	Year		
		2003	2004	2005
Poliomyélite	OPV 3 coverage	86%	89%	9(%)
	Non-polio AFP rate >2 per 100,000< 15 years of age (from 2005)	1.9	1.5	1.91
Measles	Measles coverage	81%	84%	90%
	Number of districts that have reported at least one suspected case	15/39 (38.46%)	18/40 (45%)	20/40 (50%)
	Mass campaign, target group	125%(9-59 months)		
		97%(6-15 years)		
Neonatal tetanus	TT2+ coverage	52%	52%	54%
	Number of districts that have reported at least 1 case per 1000 live births	00	00	00

II-2 Routine vaccination

	Indicators	Year		
		2003	2004	2005
Vaccination coverage				
	BCG	89%	86%	91%
	DTP1	88%	94%	95%
	DTP3	87%	89%	95%
	% districts>80% coverage DTP3	26/39(67%)	31/39(79,5%)	39/40(95%)
	DTP1-measles drop-out rate	9%	2%	5%
	DTP1-DTP3 drop-out rate	1%	5%	3%
	% districts with DTP1-DTP3 drop-out rate >10%	3/39(7,6%)	4/39(10,25%)	2/40(5%)
	% districts with DTP1-DTP3 drop-out rate <0	16/39(41%)	7 /39(18%)	6/40(15%)
	% districts with DTP1-measles drop-out rate > 10%	15/39(38,46%)	13/39(33%)	6/40(15%)
	% districts with DTP1-measles drop-out rate < 0	5/39(12,8%)	12/39(30,8%)	20/40(50%)
Surveillance of routine vaccination	% completeness of reporting	100%	100%	100%
	% timeliness of reporting			
Cold chain and logistics	% of districts with functioning cold chain equipment	100%	100%	100%
Immunization safety	% of districts with adequate supplies of AD syringes	100%	100%	100%
	% of districts using AD syringes	100%	100%	100%
Supply of vaccines and injection equipment	Stock-outs of vaccines	no	no	No
	Stock-outs of syringes	no	no	No
	Stock-outs of diluents	no	no	No
Communication/social mobilization	Existence of a plan	no	no	No
Integration with other health interventions	Integration			
Human resources	Number of vaccinators/100,000 population			
Program management	Number of supervision visits		1	1
	Number of coordination meetings held per year			
	Number of meetings held with district supervisors		1	1
Management of sharps waste	% of health facilities with functioning incinerator			
	% of health facilities with safety boxes	100	100	100
ICC	Number of meetings held per year		4	2

Health System Evaluations

	Strengths
1.	Political will to improve the health of the population of Rwanda.
2.	Strategic Health Sector Plan (2005-2009) which includes Millennium Development Goals.
3.	Existence of a network of public and accredited health facilities which cover the entire country and recently reorganized within the new decentralized structure.
4.	Improved financial accessibility to health services by the Rwandan people due to the Mutuelle de Sante.
5.	Implementation of the contracting approach to improve the performance of health services.
6.	Strong social mobilization and community involvement in health in general, but particularly in immunization.

Main challenges raised by the evaluations which have an effect on the quality of delivery of vaccination services

	Challenges
1.	Lack of human resources qualified and motivated, especially in rural areas where the majority of the population lives (83%).
2.	Lack of financial resources needed to ensure the logistics and maintenance of infrastructure and equipment (cold chain, energy, etc).
3.	Existence of many different health information systems that are not integrated (HIS, TRACnet, etc), not effective nor efficient.
4.	Inadequate coordination of programs/health activities in the context of the recently implemented administrative decentralization.

Main recommendations from the evaluations :

	Recommendations
1.	Implement specific strategies to develop the required human resources (training of supervisors, contracting approach, etc...)
2.	Further mobilize financial resources for health at the national level (increase the national budget allocated for health) as well as international sources, to strengthen the health sector.
3.	Implement a strategic plan to integrate and strengthen the health information system, to improve the monitoring and evaluation of activities.
4.	Strengthen coordination between the various actors and partners at different levels of the health sector.

Progress made in the implementation of the recommendations in the evaluations.

Recommendations	Progress
1. Implement specific strategies to	▪ Increase the salary level of personnel since 2006, with special bonuses for personnel in rural posts.

develop the required human resources (training of supervisors, contracting approach, etc...)	- Expand the contracting approach on a national scale since 2006 (until now only a pilot project), to strengthen motivation of personnel. - Develop a training curriculum for personnel in the health sector in districts (in collaboration with the German cooperation / InWent).
2. Further mobilize financial resources for health at the national level (increase the national budget allocated for health) as well as international sources, to strengthen the health sector.	- Substantial increase in the proportion of government budget allocated to the health sector (from 6.1% in 2004 to 10% in 2005) ; with the objective of reaching 15% in 2010. - Support from the Global Fund for the health sector (USD 33,945,080 between 2006 and 2010) - Support from PEPFAR for the fight against HIV/AIDS (USD 82,000,000 for the period of 2007-2007) - Improvement of the financial accessibility of health services by implementing mutuelles de sante (27% of the population were members in 2004, while 62% were members in 2006).
3. Implement a strategic plan to integrate and strengthen the health information system, to improve the monitoring and evaluation of activities.	Evaluation of the health information system already in place with recommendations relevant for integration.
4. Strengthen coordination between the various actors and partners at different levels of the health sector.	- Development of the MTEF which allows for the estimation of financing require by the priority health interventions within the structure of the Health Sector Strategic Plan. - Development of a Health Sector Coordination Group (HSCG) with several specific working groups which work on the following : contracting approach, mapping ; human resources ; mutuelle de sante ; family planning, immunization, etc...

III PRIORITIES AND OBJECTIVES OF EPI

The program will work to ensure that it maintains the high coverage and low wastage rates so far achieved. The expected trends in coverage and wastage are illustrated in the table below.

	Coverage Objectives					Wastage Objectives				
Type of Vaccine	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
Routine Immunization	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Traditional Vaccines										

BCG	92%	94%	95%	95%	95%	46%	44%	40%	40%	40%
TT - Pregnant women	70%	75%	80%	85%	90%	44%	36%	30%	25%	25%
Measles	90%	93%	95%	95%	95%	18%	16%	14%	14%	14%
OPV(1)	95%	95%	95%	95%	95%	16%	14%	13%	13%	13%
Measles 2nd Dose			80%	85%	90%			14%	14%	14%
Underused and New Vaccines										
DTP-Hep B-Hib(1)	96%	96%	96%	96%	96%	11%	8%	6%	6%	6%
Campaigns	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Measles	95%				95%	10%				10%

Further key objectives and priorities for the program are highlighted in the table below.

Priorities and points to improve	Objectives	Indicators	Goal	Order of priority
5 % of districts with DTP3 coverage <80%	100% of districts with DTP3 coverage >= 95%	95% of districts with DTP3 >= 95% in 2006 98% of districts with DTP3 coverage >= 95% by the end of 2007 100% of districts with DTP3 coverage >= 95% by the end of 2008 and maintained thereafter at this level	By 2010, all countries will have routine national coverage of 90% with at least 80% in each district	1
5% of districts with DTP1-DTP3 drop-out rate > 10 %	DTP1-DTP3 drop-out rate <= 5%	95% of districts with drop-out rate for DTP1-DTP3 <= 5% by the end of 2006 100% of districts with drop-out rate for DTP1-DTP3 <= 5% by the end of 2007 and maintained thereafter at this level		1
15% of districts with DTP1-DTP3 drop-out rate <0	DTP1-DTP3 drop-out rate <= 5%	10% of districts with DTP1-DTP3 drop-out rate < 0 by the end of 2006 5% of districts with DTP1-DTP3 drop-out rate <0 by the end of 2007 0% of districts with DTP1-DTP3 drop-out rate <0 by the end of 2008 and maintained thereafter at this level		1
Non-functional cold chain equipment	100% of districts and health facilities with functioning cold chain equipment	100 % of districts and health facilities have functioning cold chain equipment by the end of 2006 and maintained thereafter at this level		1
Silent districts for	100% of districts	90% of districts detect, report,		1

AFP, measles, and NNT surveillance	detect, report, and investigate all cases of AFP, all suspected cases of measles, and all cases of NNT	and investigate all cases of AFP, all suspected cases of measles, and all cases of NNT by the end of 2006 100% of districts detect, report, and investigate all cases of AFP, all suspected cases of measles, and all cases of NNT by the end of 2007 and maintained thereafter at this level		
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IV- STRATEGIES AND ACTIVITIES FOR DIFFERENT PROGRAM AREAS OF WORK

The program shall focus on strategies and activities relating to the following areas of work :

1. Vaccination service delivery
2. Advocacy, communication, and capacity-building
3. Surveillance for EPI target diseases
4. Vaccine supply, cold chain, and logistics management
5. Program management

The actual strategies and activities to be implemented for each of these program areas are highlighted in the table below.

IV-1 Vaccination service delivery

Objectives	Strategies	Priority activities
Certification of polio eradication by the end of 2007	Active surveillance for AFP	- Conduct supportive supervision to districts - Active surveillance for cases of AFP - Sensitize clinicians, traditional healers, and the community
	Integrated disease surveillance and response	- Strengthen integrated surveillance of diseases
95 % DTP3 coverage in all districts by the end of 2008	Implement Reaching Every District (RED) approach in all districts	- Implement the five components of RED in all districts - Improve the analysis and use of data at all levels - Organize workshops on microplanning with districts
At least 80% vaccination coverage for all antigens in all districts by the end of 2008	Implement RED approach in all districts	- Strengthen outreach services - Provide all health centers with motorbikes - Provide motivation to health workers and community health workers (animateurs de santé)
	Supplemental immunization activities	- Implement the 2006 plan of action for the mass measles campaign, integrating distribution of ITNs, vitamin A, and Mebendazole
	System to introduce 2 nd dose of measles into routine immunization	Develop plan, conduct advocacy, prepare proposal to GAVI

IV-2 Advocacy, communication, and capacity-building

Objectives	Strategies	Priority activities
Expand the Interagency Coordinating Committee (ICC)	) Strengthening of the ICC	Engage potential partners
95 % DTP3 coverage in all districts by the end of 2008	Strengthening of the ICC	- Integrate other child survival activities (IMCI) into the agenda of the ICC - Update terms of reference of CCI to address wider activities in child health - Promote broader participation in the ICC

Objectives	Strategies	Priority activities
At least 80% coverage for all antigens in all districts by the end of 2008	Involvement of NGOs and associations	Organize a meeting with NGOs and associations, including associations of community health workers, to discuss their participation in immunization activities.
	Implement 2006 plan of action for communication and social mobilization for EPI	Implement the 2006 plan of action for communication and social mobilization for EPI. Add steps for registering births and deaths into the plan.
Capacity building at all levels.	Training and development of BCC and reference materials	-Produce BCC materials for new vaccines. - Explore conducting training for joint interventions -Train 2 EPI personnel in epidemiologic surveillance - Train 2 central level EPI personnel in EPI program management - Arrange for the participation of two EPI health personnel in international meetings on immunization - Train district and health center level in EPI management

IV-3 Surveillance for EPI target diseases

Objectives	Strategies	Priority Activities
Certification of polio eradication by the end of 2007	Integrated disease surveillance and response	- Strengthen active surveillance in AFP, measles, and NNT in all districts - Establish a database on integrated surveillance of diseases - Convene monthly meetings with focal points for AFP, measles, and NNT surveillance
	Establish links between laboratories for different conditions (polio and measles)	-Strengthen collaboration between the laboratories for polio and measles
Reduce measles mortality by 95% by the end of 2007	Active surveillance for measles by way of integrated surveillance for vaccine-preventable diseases	- Strengthen active surveillance for AFP, measles, and NNT in all districts - Conduct monthly meetings for surveillance focal points for AFP, measles, and NNT - Develop district level emergency preparedness and prevention plans - Strengthen analysis and use of data at all levels - Train health facility managers in surveillance for AFP, measles, and NNT
Reduce measles morbidity by 90% by the end of 2007	- Routine vaccination - Mass campaign against measles -Integration of vitamin A supplementation into routine vaccination -Active surveillance for measles by way of integrated surveillance for vaccine-preventable diseases	- Supply all districts with vitamin A - Early detection and management of cases - Train district health personnel in epidemiologic surveillance, including AEFI -Strengthen active surveillance for AFP, measles, and NNT in all districts

Objectives	Strategies	Priority Activities
Maintain the accomplishment of neonatal tetanus (NNT) elimination during the timeframe of this plan and thereafter	- Active surveillance for NNT by way of integrated surveillance for vaccine-preventable diseases - Implement a plan for maintaining the elimination of NNT	- Strengthen active surveillance of AFP, measles, and NNT in all districts - Implement the plan for maintaining the elimination of NNT
Reduce Hib disease	Monitor surveillance data to determine progress	Conduct monthly surveillance meetings with University Hospital Center Kigali to review data
Improve early detection, reporting, and response to Adverse Events Following Immunization (AEFI)	Capacity-building for AEFI	- Train new district focal points in AEFI - Conduct regular monitoring of AEFI
Strengthen laboratory services for key vaccine-preventable diseases	Expand to additional labs (Butare) and improve functionality of laboratories	- Provide sufficient reagents - Improve capacity of lab workers - Provide computers to Butare lab

IV- 4 Vaccine supply, cold chain, and logistics management

Objectives	Strategies	Priority Activities
Assure that high quality vaccines and other supplies are available in sufficient quantity	Supply high quality vaccines, injection supplies, and growth monitoring cards	- Provide country with approved pentavalent (DTP-HepB/Hib) vaccine - Provide country with other vaccines of acceptable quality (BCG, OPV, measles, TT) - Provide country with injection supplies - Provide country with growth monitoring cards - Prepare long-term forecasts of vaccine needs
Assure the safety of injections	Provide only auto-disable (AD) syringes to all districts	- Implement the policy of providing AD syringes for all vaccines in all districts - Build one incinerator per health facility « per district »,
	Correct use of AD syringes in all districts	- Supportive supervision in vaccinating health facilities
Functional cold chain equipment in 100% of districts	Replace aging equipment Repair broken equipment Conduct preventive maintenance	- Replace 201 pieces of equipment (26 in districts, 175 in health facilities) - Equip 20 new health facilities per year - Provide preventive maintenance for cold chain - Provide spare parts and repair 21 broken fridges - Provide fuel for the cold chain (kerosene and gasoil)

IV-5 Program Management

Objectives	Strategies	Priority Activities
Strengthen human resources capacity	Review current staffing and adjust EPI Program to become an agency	- Conduct inventory of personnel and needs - Conduct meeting to review and advocate for additional staffing as needed
Use management tools on a regular basis	Routine periodic monitoring of districts and health facilities	- Supervise districts and health facilities - Train health workers in EPI management - Improve the management of data through continuing education, monitoring, and feedback to all levels

Objectives	Strategies	Priority Activities
Improve management and quality of data	Conduct Data Quality Self-Assessment (DQS) and follow up as needed	-Conduct TOT for data collectors -Implement DQS -Review findings and take actions as needed
Ensure good management of EPI	EPI coordination meetings	-Convene meetings of the Interagency Coordinating Committee -Convene meetings of the CNC -Convene meetings of the CNEP
	Capacity-building for EPI	- Evaluate EPI activities - Organize semi-annual evaluation workshops - Provide support for the development of district microplans - Provide incentives to national level EPI staff
	Supportive supervision	- Supervise districts and health facilities - Encourage and motivate health workers
	Feedback	- Produce a quarterly EPI bulletin - Reward the highest performing health facilities
	Strengthen operations of EPI unit	- Provide EPI office with office equipment and supplies - Carry out maintenance of computer equipment
Strengthen financial sustainability	Strengthen Government contribution in EPI, within the context of its overall macroeconomic framework	Continuous building of the awareness of all government agencies (Government and the Ministries concerned, provincial and district authorities) of the advantages of the EPI both in terms of health aspects per se and from the point of view of the economic effects.
	Secure the probable financing for the program	Secure potentially available funds
		Seek additional funds from EPI partners
Strengthen operations research	Analyses to improve efficiency, effectiveness, access, and use of services	-Conduct operations research on integrating other health interventions with immunization -Conduct OR to determine effective and efficient ways to reach populations -Conduct operations research on new technologies
Strengthen integration with other programs	Maintain existing links and explore integration with other health interventions	-Include vitamin A in 2006 measles campaign -Integrate vitamin A supplementation into routine vaccination -Support implementation of IMCI through routine vaccination -Monitor performance with integrated interventions -Collaborate with Integrated Disease Surveillance and Response and with emergency humanitarian activities to assure that required vaccines are available during emergencies

Indicators for monitoring by the program are illustrated below.

Area	Indicators	2006	2007	2008	2009	2010
Polio	OPV3 coverage	95	95	95	95	95
		2	2	2	2	2
	Non-polio AFP rated >2 per 100,000< 15 years (by 2005)					
Measles	Routine measles coverage	90	93	95	95	95
	Number of districts that report at least one suspected case	30	30	30	30	30
	Mass campaign coverage in target group	95				95
Neonatal tetanus	TT2+ coverage	70	75	80	85	90
	Number of districts reporting at least 1 case per 1000 live births	30	30	30	30	30
Vaccination coverage	BCG	92	94	95	95	95
	DTP1	96	96	96	96	96
	DTP3	95	95	95	95	95
	% of districts >80% DTP3 coverage	86	90	93	96	100
	DTP1-measles drop-out rate	10	8	6	4	4
	DTP1-DTP3 drop-out rate	5	4	3	2	2
	% of districts with DTP1-DTP3 drop-out rate >10%	5	5	5	3	0
	% of districts with DTP1-DTP3 drop-out rate <0	10	5	0	0	0
	% of districts with DTP1-measles drop-out rate >10%	20	15	10	10	10
	% of districts with DTP1-measles drop-out rate < 0	16	13	10	10	6
Surveillance of routine reporting	% Completeness of reports	90	95	98	100	100
	% Timeliness of reports	80	80	90	90	95
Cold chain and logistics	% of districts with functioning cold chain equipment	95	100	100	100	100
Injection safety	% of districts with sufficient supply of AD syringes	100	100	100	100	100
	% districts using AD syringes	100	100	100	100	100
Supply of vaccines and injection supplies	Stock-outs of vaccines	0	0	0	0	0
	Stock-outs of syringes	0	0	0	0	0
	Stock-outs of diluents	0	0	0	0	0
Communication/social mobilization	Existence of plan	100%	100%	100%	100%	100%
Integration with other health interventions	Integration	100%	100%	100%	100%	100%
Human resources	Number of vaccinators per 100,000 population	6	9	12	15	18
Program management	Number of supervisions conducted	4	4	4	4	4
	Number of coordination meetings held	4	4	4	4	4
	Number of meetings held with district supervisors	2	2	2	2	2
Sharps waste management	% of health facilities with functioning incinerator per districts ?	50	35	15	0	0
	% of health facilities with safety boxes	100	100	100	100	100
Interagency Coordinating Committee	Number of meetings held per year	4	4	4	4	4
Financial sustainability	Proportion of coming 5-year's total program costs secured (trend indicator)	37%	70%	75%	80%	88%
	Proportion of EPI routine costs funded through Govt own resources	29%	30%	35%	40%	45%
	Proportion of Govt funding to routine program costs, (minus pentavalent vaccine)	79%	85%	90%	90%	90%

V. TIMELINE OF ACTIVITIES (Based on Strategies and Activities in Section IV)

Area	Strategies	Priority Activities	2006	2007	2008	2009	2010
Vaccination service delivery	Active surveillance for AFP	-Conduct supportive supervision to districts - Active surveillance for cases of AFP -Sensitize clinicians, traditional healers, and the community	X X X	X X X	X X X	X X X	X X X
	Integrated disease surveillance and response	- Strengthen integrated surveillance of diseases	X	X	X	X	X
	Implement Reaching Every District (RED) approach in all districts	- Implement the five components of RED in all districts - Improve the analysis and use of data at all levels -Organize workshops on microplanning with districts - Strengthen outreach services - Provide all health centers with motorbikes -Provide motivation to health workers and community health workers (animateurs de santé)	X X X X X X	X X X X X X	X X X X X X	X X X X X X	X X X X X X
	Supplemental immunization activities	- Implement the 2006 plan of action for the mass measles campaign, integrating distribution of ITNs, vitamin A, and Mebendazole	X				X
	System to introduce 2 nd dose of measles into routine immunization	Develop plan, conduct advocacy, prepare proposal to GAVI		X			
Advocacy, communication, and capacity-building	Expand the Interagency Coordinating Committee (ICC)	Engage potential partners	X		X		
	Strengthening of the ICC	-Integrate other child survival activities into the agenda of the ICC - Update terms of reference of CCI to address wider activities in child health - Promote broader participation in the ICC	X	X X	X		X
	Involvement of NGOs and associations	Organize a meeting with NGOs and associations, including associations of community health workers, to discuss their participation in immunization activities.	X		X		X
	Implement 2006 plan of action for communication and social mobilization for EPI	Implement the 2006 plan of action for communication and social mobilization for EPI.	X				

Area	Strategies	Priority Activities	2006	2007	2008	2009	2010
	Development of BCC and reference materials	-Produce BCC materials for new vaccines.	X		X		
	Training	- Explore conducting training for joint interventions - Train 2 EPI personnel in epidemiologic surveillance - Train 2 central level EPI personnel in EPI program management - Arrange for the participation of two EPI health personnel in international meetings on immunization - Train district and health center level in EPI management	X X	 X X	 X	X X X	
Surveillance for EPI target diseases	Integrated disease surveillance and response	- Strengthen active surveillance in AFP, measles, and NNT in all districts	X	X	X	X	X
		- Establish a database on integrated surveillance of diseases	X	X	X	X	X
		- Convene monthly meetings with focal points for AFP, measles, and NNT surveillance	X	X	X	X	X
	Establish links between laboratories for different conditions (polio and measles)	-Strengthen collaboration between the laboratories for polio and measles	X	X	X	X	X
	Active surveillance for measles by way of integrated surveillance for vaccine-preventable diseases	- Strengthen active surveillance for AFP, measles, and NNT in all districts	X	X	X	X	X
		- Conduct monthly meetings for surveillance focal points for AFP, measles, and NNT	X	X	X	X	X
		- Develop district level emergency preparedness and prevention plans	X	X	X	X	X
		- Strengthen analysis and use of data at all levels	X	X	X	X	X
		- Train health facility managers in surveillance for AFP, measles, and NNT	X	X	X	X	X
	- Routine vaccination - Mass campaign against measles -Integration of vitamin A supplementation into routine vaccination -Active surveillance for measles by way of integrated surveillance for vaccine-preventable diseases	- Supply all districts with vitamin A	X	X	X	X	X
		- Early detection and management of cases	X	X	X	X	X
		- Train district health personnel in epidemiologic surveillance, including AEFI	X	X	X	X	X
		-Strengthen active surveillance for AFP, measles, and NNT in all districts	X	X	X	X	X
	Maintain the accomplishment of neonatal	Strengthen active surveillance of AFP, measles, and NNT in all	X	X	X	X	X

Area	Strategies	Priority Activities	2006	2007	2008	2009	2010
	tetanus (NNT) elimination during the timeframe of this plan and thereafter	districts - Implement the plan for maintaining the elimination of NNT	X	X	X	X	X
	Monitor surveillance data to determine progress	Conduct monthly surveillance meetings with CHU to review data	X	X	X	X	
	Capacity-building for Adverse Events Following Immunization (AEFI)	-Train new district focal points in AEFI - Conduct regular monitoring of AEFI	X X		X X		X X
	Expand to additional labs (Butare) and improve functionality of laboratories	- Provide sufficient reagents -Improve capacity of lab workers - Provide computers to Butare lab	X X X	X X X	X X X	X X X	X X X
Vaccine supply, cold chain, and logistics management	Supply high quality vaccines, injection supplies, and growth monitoring cards	- Provide country with approved pentavalent (DTP-HepB/Hib) vaccine	X	X	X	X	X
		- Provide country with other vaccines of acceptable quality (BCG, OPV, measles, TT)	X	X	X	X	X
		- Provide country with injection supplies	X	X	X	X	X
		- Provide country with growth monitoring cards	X	X	X	X	X
		- Prepare long-term forecasts of vaccine needs	X				X
	Provide only auto-disable (AD) syringes to all districts	- Implement the policy of providing AD syringes for all vaccines in all districts - Build one incinerator per district	X	X		X	
	Correct use of AD syringes in all districts	- Supportive supervision in vaccinating health facilities	X	X	X	X	X
	Replace aging equipment Repair broken equipment Conduct preventive maintenance	- Replace 201 pieces of equipment (26 in districts, 175 in health facilities) - Equip 20 new health facilities - Provide preventive maintenance for cold chain - Provide spare parts and repair 21 broken fridges - Provide fuel for the cold chain (kerosene and gasoil)	X X X X X				X X X X X
Program management	Review current staffing and adjust EPI Program to become an agency	-Conduct inventory of personnel and needs -Conduct meeting to review and advocate for additional staffing as needed		X X			

Area	Strategies	Priority Activities	2006	2007	2008	2009	2010
	Routine periodic monitoring of districts and health facilities	Supervise districts and health facilities - Train health workers in EPI management - Improve the management of data through continuing education, monitoring, and feedback to all levels	X X X	X X X	X X X	X X X	X X X
	Conduct Data Quality Self-Assessment (DQS) and follow up as needed	-Conduct TOT for data collectors -Implement DQS -Review findings and take actions as needed	X	X X	X X	X X	X X
	EPI coordination meetings	Convene meetings of the Interagency Coordinating Committee -Convene meetings of the CNC - Convene meetings of the CNEP	X X X	X X X	X X X	X X X	X X X
	Capacity-building for EPI	- Evaluate EPI activities - Organize semi-annual evaluation workshops - Provide support for the development of district microplans - Provide incentives to national level EPI staff	X X X X	X X X X	X X X X	X X X X	X X X X
	Supportive supervision	- Supervise districts and health facilities - Encourage and motivate health workers	X X	X X	X X	X X	X X
	Feedback	- Produce a quarterly EPI bulletin - Reward the highest performing health facilities	X X	X X	X X	X X	X X
	Strengthen operations of EPI unit	- Provide EPI office with office equipment and supplies - Carry out maintenance of computer equipment	X X	X X	X X	X X	X X
	Strengthen Government contribution in EPI, within the context of its overall macroeconomic framework	Continuous building of the awareness of all government agencies (Government and the Ministries concerned, provincial and district authorities) of the advantages of the EPI both in terms of health aspects per se and from the point of view of the economic effects.	X		X		X
	Secure the probable financing for the program	Secure potentially available funds	X	X	X	X	
		Seek additional funds from EPI partners	X		X		X

Area	Strategies	Priority Activities	2006	2007	2008	2009	2010
	Analyses to improve efficiency, effectiveness, access, and use of services	-Conduct operations research on integrating other health interventions with immunization -Conduct OR to determine effective and efficient ways to reach populations -Conduct operations 2 researchs per year on new technologies	X	X	X	X	X
	Maintain existing links and explore integration with other health interventions	-Include vitamin A in measles campaign -Integrate vitamin A supplementation into routine vaccination -Support implementation of IMCI through routine vaccination -Monitor performance with integrated interventions -Collaborate with Integrated Disease Surveillance and Response and with emergency humanitarian activities to assure that required vaccines are available during emergencies	X X X X		X X	X X	X

VI – Budget, financing and financing gaps for the Multi Year Plan

VI-1. Methodology and inputs into program costing

This section presents the budget, financing and financing gap analysis for the program, based on the expected activities to be carried out. The methodology is based on deriving costs of different program inputs (such as vehicles needed, or vaccines), and activities to be carried out (such as trainings, etc). information is collated in a pre-designed costing, financing and gap analysis tool for MYP, supplied by WHO.

The following is a brief summary of the information incorporated.

1. Health sector analysis

The country GDP is estimated at US\$ 250 per capita. The total health expenditure is estimated at US\$ 8 per capita, with the Government expenditure at 8% of this. The 1US= 556 FRW.

Regarding key demographic indicators, the last population census was carried out in 2002, where the population was 8,128,553 persons. The population growth rate was 2.6% up to 2005, and has reduced to 2.1% from 2006. The births represented 4.6% of the population, down to 4.1% in 2006. Women of child bearing age represent 22% of the population. The infant mortality was estimated at 107/1000 up to 2005, down to 86/1000 in 2006.

For the purposes of the costing of the vaccines, the procurement of vaccines from UNICEF, the GAVI Annual Progress Report and the WHO/UNICEF Joint Reporting Form, Rwanda does not use the 2002 Census projections. Rather, it uses the population denominators from the district census taken each year by the animateur de santé. These denominators are slightly lower than the projections from the 2002 Census. In addition, the birth rate and the infant mortality rate of 2005 is used. In this manner, the numbers from the cMYP costing correspond exactly to the procurement of vaccines by UNICEF, GAVI Annual Progress reports and the WHO/UNICEF Joint Reporting Form.

2. Vaccines and injection supplies costs

The country uses surviving infants for forecasting for all antigens, apart from BCG. The estimated number of surviving infants in 2006 is 341,426. Antigens used in the country, with the coverage and wastage targets for the period of the multi year plan, are already highlighted in section V. key cost related highlights include:

- The country intends to introduce a measles 2nd dose by the year 2007.
- Costs for respective doses of antigens, and supplies are based on UNICEF prices as per 2006.
- The country is carrying out a measles campaign in 2006, with another one planned for 2010. There are no other planned campaigns.

3. EPI personnel

The personnel for EPI at the national level are: EPI manager, Monitoring/Evaluation officer, Surveillance officer, Logistician, Cold chain officer, International vaccine officer,

Drivers, Cleaner, and Security guards. These all spend 100% of their time on EPI, and spend on average 2 days per month on supervision, apart from the cleaner and security guards.

At the district level, the District and Hospital health officer are estimated to spend 20% of their time on EPI, while the selected EPI focal point spends 40% of time on EPI.

At the health facilities, the health officer spends an estimated 20% of their time on EPI, while the selected EPI focal point spend 40% of their time. The community volunteers, the animateurs de sante, also spend 20% of their time on EPI related activities. These volunteers don't get a salary, as with all the other staff associated with EPI, but get allowances when they provide outreach activities.

As part of the overall reform process, the program is to get an additional driver, a Financial manager, Accountant, Social mobilization officer and a Data manager by the year 2007. No additional staff are planned to support the program at the district, and facility levels.

4. Vehicles and transport costs

Fuel price is US\$ 1.06, with the maintenance expenses estimated at 15% of the fuel expenses. Vehicles useful life is estimated at 5 years. The program uses 4WD vehicles, and motorcycles. The 4WD vehicles are used at the central level (100% for EPI) and district level (20% for EPI). Motorcycles are used at central (100% for EPI), district (20% for EPI) and facility (20% for EPI) levels.

There is 1 vehicle and 2 motorcycles at the central level for EPI. On the other hand, each district has on average 1 vehicle and 1 motorcycle. An additional motorcycle is planned for each district in 2007.

5. Cold chain equipment

The key cold chain equipment are cold rooms and freezers at central level, electric refrigerators at district level, and kerosene/electric refrigerators at facility level. A cold chain inventory was completed in 2005, which showed there were 4 cold rooms and 4 freezers at the central level with 2 generators, 60 electric refrigerators at the district level, and 293 kerosene/electric refrigerators at the facility level. Since then, the program has purchased 10 additional kerosene/electric refrigerators. The replacement plan for these is illustrated in the table below, and is based on replacing the aged ones.

Refrigerator type	Number to be replaced				
	2006	2007	2008	2009	2010
Electric	41	6	4	5	5
Kerosene/electric	151	21	11	52	7

In addition, 20 kerosene/electric refrigerator will be purchased per year for 20 new health centres, the program spends US\$ 85,000 annually on kerosene for the refrigerators.

6. Campaign operational costs

The 2006 measles campaign was carried out as a combined campaign, with ITN's, mebendazole, and Vitamin A. The cost of the measles operational costs is estimated at US\$ 0.91 per child. The high operational cost per child is due to the fact that the Ministry of Health's vehicle fleet was vastly reduced during the restructuring of the government in 2006, and therefore most vehicles needed for the campaign had to be leased.

7. Costs of activities

The table below illustrates the estimated costs of the different program activities to be carried out in the period of the multi year plan.

Program Activities and Other Recurrent Costs	2005	2006	2007	2008	2009	2010
	\$	\$	\$	\$	\$	\$
Social Mobilization, Advocacy, and Communication Activities						
Implementation of social mobilization plan	5,000	70,000	70,000	70,000	70,000	70,000
Training and Workshops						
Capacity building at national level(lab, surveillance, management)		18,000	18,000	18,000	18,000	18,000
Capacity building at district level		53,500	53,500	53,500	53,500	53,500
Participation in international meetings	16,000	16,000	16,000	16,000	16,000	16,000
Program Management						
Semi annual evaluation workshops	30,000	60,000	60,000	60,000	60,000	60,000
National level meetings	8,000	8,000	8,000	8,000	8,000	8,000
Equipment for office operations	8,000	8,000	8,000	8,000	8,000	8,000
District motivation in 5 best performing districts		4,000	4,000	4,000	4,000	4,000
Operations research		5,000	5,000	5,000	5,000	5,000
Other activities						
Financial sustainability activities						

The social mobilization plan was completed, and its costs for implementation estimated at US\$ 70,000 per year.

The program carries out semi annual evaluation workshops with districts, at which progress and challenges in EPI are reviewed. The program is also intending to provide motivation for the 5 best performing districts to boost performance.

8. Surveillance and monitoring costs

The costs related to surveillance and monitoring activities are highlighted below.

	Expenditure	Future Budget Needs				
Surveillance and Monitoring	2005	2006	2007	2008	2009	2010
	\$	\$	\$	\$	\$	\$

	Expenditure	Future Budget Needs				
Surveillance and Monitoring	2005	2006	2007	2008	2009	2010
	\$	\$	\$	\$	\$	\$
Detection and Notification						
Sensitization meetings	20,000	20,000	20,000	20,000	20,000	20,000
Monthly meetings with focal points	1,200	1,200	1,200	1,200	1,200	1,200
Active surveillance	3,280	3,280	3,280	3,280	3,280	3,280
District training	12,000	12,000	12,000	12,000	12,000	12,000
Case and outbreak verification and investigation						
Standard operating procedures						
Dispatch of specimens to the lab	15,000	15,000	15,000	15,000	15,000	15,000
Develop prevention and emergency plans for epidemic prevention		5,500				
Data Management						
Development of bulletin	7,500	7,500	7,500	7,500	7,500	7,500
Reinforce data analysis and use	10,000	10,000	10,000	10,000	10,000	10,000
Implement DQS in all districts		30,000	30,000	10,000	10,000	10,000
EPI review		70,000				
EPI survey					30,000	
Laboratory						
Specimen kits and carriers	4,000	4,000	4,000	4,000	4,000	4,000
Reagents	10,000	10,000	10,000	10,000	10,000	10,000
Data management (laptop per lab)			8,181			

9. Other equipment

The other equipment the program is spending on are incinerators, and office equipment. There is at present 1 functioning recommended incinerator, with the program planning to establish 36 over a 3 year period up to 2008. New office furniture was purchased for the central level in 2005, as were 4 computers, 1 printer and 2 laptops. The program has received 7 additional computers, 2 laptops 1 big and 1 small photocopiers, an LCD projector, and a camera in 2006. it also plans to procure assorted equipment for 5 new health facilities each year to ensure they are able to offer EPI services.

The program spends approximately US\$ 40 per month on maintaining the PEI offices, through rent, and other associated costs.

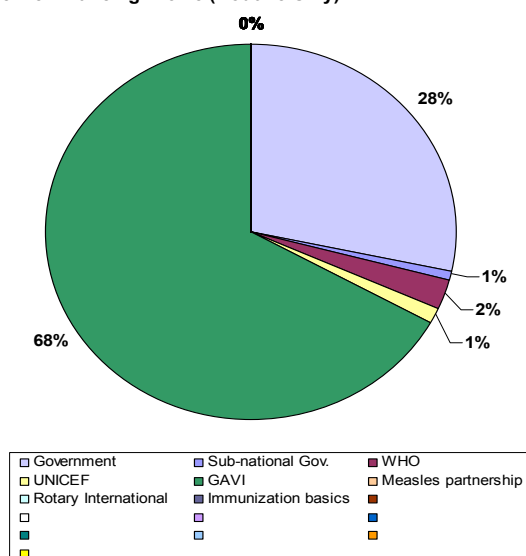
VI – 2. Program expenditure and financing

The total expenditure for the program in the year 2005 is illustrated below.

Cost Category	Total Expenditure	Government	Sub-national Gov.	WHO	UNICEF	GAVI
	US\$	US\$	US\$	US\$	US\$	US\$
Routine Recurrent Cost						
Vaccines (routine vaccines only)						
Traditional vaccines	362,389	362,389				
New and underused vaccines	4,780,601	478,060				4,302,541
Injection supplies	155,307	155,307				
Personnel						
Salaries of full-time NIP health workers (immunization specific)	52,416	52,416				
Per-diems for outreach vaccinators/mobile teams	302,400	302,400				
Per-diems for supervision and monitoring	27,120			27,120		
Transportation						
Fixed site and vaccine delivery	4,775	4,775				
Outreach activities	492					492
Maintenance and overhead						
Cold chain maintenance and overheads	141,429		49,429		92,000	
Maintenance of other capital equipment	2,842	2,842				
Building overheads (electricity, water...)	9,600	9,600				
Short-term training	16,000			16,000		
BCC/social mobilization	5,000			5,000		
Disease surveillance	82,980			82,980		
Programme management	46,000					46,000
Subtotal Recurrent Costs	5,989,349	1,367,788	49,429	131,100	92,000	4,349,032
Routine Capital Cost						
Vehicles	35,000	35,000				
Cold chain equipment	20,930			20,930		
Other capital equipment	4,658			2,700		1,958
Subtotal Capital Costs	60,588	35,000	-	23,630	-	1,958
Other Costs						
Shared personnel costs	414,720	414,720				
Shared transportation costs	26,330	26,330				
Subtotal Optional	441,050	441,050	-	-	-	-
GRAND TOTAL	6,490,988	1,843,839	49,429	154,730	92,000	4,350,990
Routine Services (Fixed and Outreach)	6,490,988	1,843,839	49,429	154,730	92,000	4,350,990
Supplemental Immunization Activities	-	-	-	-	-	-

The total program costs were over US\$ 6.5 million in 2005. Of these, the routine program costs were approximately US\$ 6 million, with just under US\$ 500,000 due to shared costs with other programs. Routine program costs were driven by the costs of the vaccines, particularly the pentavalent vaccine. The financing profile for the routine program is illustrated below.

Baseline Financing Profile (Routine Only)*



The GAVI was the main financer, funding over 68% of the program expenditure. Again, this is a reflection of the funding for the pentavalent vaccine., which it funded 90% and the Government 10%. It should be noted that the Government funding is also significant, at 29% of the total routine program costs.

VI – 3. Future Program costs

The program costs for the period of the MYP are illustrated in the table below.

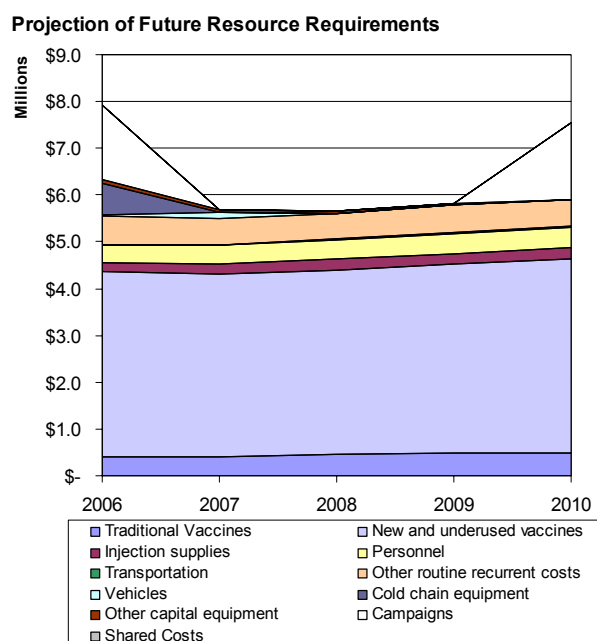
		Future Resource Requirements				
Cost Category		2006	2007	2008	2009	2010
Routine Recurrent Costs		US\$	US\$	US\$	US\$	US\$
Vaccines (routine vaccines only)		\$4,356,720	\$4,324,226	\$4,401,942	\$4,515,530	\$4,636,196
Traditional vaccines		\$395,148	\$96,026	\$461,206	\$476,275	\$495,960
New and underused vaccines		\$3,961,572	\$3,928,200	\$3,940,737	\$4,039,255	\$4,140,236
Injection supplies		\$184,922	\$194,232	\$228,434	\$239,120	\$250,199
Personnel		\$389,575	\$402,860	\$410,917	\$419,135	\$427,518
Salaries of full-time NIP health workers		\$53,464	\$56,531	\$57,662	\$58,815	\$59,991
Per-diem for outreach vaccinators/mobile teams		\$308,448	\$314,617	\$320,909	\$327,327	\$333,874
Per-diem for supervision and monitoring		\$27,662	\$31,711	\$32,346	\$32,993	\$33,652
Transportation		\$6,267	\$18,263	\$18,628	\$19,001	\$13,566
Fixed site and vaccine delivery		\$5,682	\$16,929	\$17,267	\$17,613	\$12,575
Outreach activities		\$585	\$1,334	\$1,361	\$1,388	\$991
Maintenance and overhead		\$184,197	\$190,440	\$196,727	\$201,309	\$202,858
Cold chain maintenance and overheads		\$166,807	\$170,532	\$174,207	\$178,028	\$181,933
Maintenance of other capital equipment		\$7,598	\$9,920	\$12,333	\$12,889	\$10,326
Building overheads (electricity, water...)		\$9,792	\$9,988	\$10,188	\$10,391	\$10,599
Short-term training		\$89,250	\$91,035	\$92,856	\$94,713	\$96,607
BCC/social mobilization		\$71,400	\$72,828	\$74,285	\$75,770	\$77,286
Disease surveillance		\$192,250	\$126,056	\$98,671	\$133,118	\$102,657
Programme management		\$86,700	\$88,434	\$90,203	\$92,007	\$93,847

Cost Category	Future Resource Requirements				
	2006	2007	2008	2009	2010
Subtotal Recurrent Costs	\$5,852,612	\$5,660,820	\$5,751,439	\$5,917,874	\$6,011,341
Routine Capital Cost					
Vehicles	\$4,080	\$118,606			
Cold chain equipment	\$685,500	\$8,496	\$5,236	\$13,714	\$5,542
Other capital equipment	\$93,987	\$43,411	\$44,279	\$6,197	\$6,321
Subtotal Capital Costs	\$452,465	\$212,527	\$71,963	\$128,150	\$26,725
Campaigns					
Measles	\$1,584,376				\$1,621,037
Vaccines and supplies	\$259,859				\$282,394
Other operational costs	\$1,289,846				\$1,338,642
Subtotal Campaign Costs	\$1,584,376				\$1,621,037
Other Costs					
Shared personnel costs	\$423,014	\$431,475	\$440,104	\$448,906	\$457,884
Shared transportation costs	\$26,857	\$27,394	\$27,942	\$28,501	\$29,071
Subtotal Optional	\$449,871	\$458,869	\$468,046	\$477,407	\$486,955
GRAND TOTAL	\$8,378,994	\$6,137,754	\$6,130,223	\$6,287,020	\$8,020,589
Routine (Fixed Delivery)	\$5,995,385	\$5,442,530	\$5,421,525	\$5,559,416	\$5,658,137
Routine (Outreach Activities)	\$799,233	\$695,223	\$708,699	\$727,605	\$741,415
Campaigns	\$1,584,376				\$1,621,037

We see the costs of the program rise to over US\$ 8.3 million in 2006, and reduce again for the period 2007 – 2009. This increase is largely driven by the measles campaigns in 2006 and the planned one in 2010. We again note that the pentavalent vaccine is the key cost driver for the program.

The introduction of the measles 2nd dose will not have a noticeable impact on the vaccine costs. Associated cost increases will relate more to the advocacy and start up costs associated with its introduction.

These future program costs are further illustrated below.



VI – 4. Financing for the program

Already secured financing for these program costs is very low, as shown in the following diagram.

Resource Requirements, Financing and Gaps	2006	2007	2008	2009	2010	2006 - 2010
Total Resource Requirements	\$7,9,29,123	\$5,678,885	\$5,662,177	\$5,809,613	\$7,533,633	\$32,613,432
Total Financing (Secured)	\$7,693,836	\$1,365,657	\$1,181,162	\$1,219,029	\$1,253,673	\$12,713,357
Government	\$1,640,754	\$1,076,446	\$1,181,162	\$1,219,029	\$1,253,673	\$6,371,065
Sub-national Gov.						
WHO	\$486,132	\$289,211				\$775,344
UNICEF	\$540,894					\$540,894
GAVI	\$4,776,385					\$4,776,385
PNLP						
USAID						
Funding Gap	\$235,287	\$4,313,228	\$4,481,015	\$4,590,585	\$6,279,690	\$19,900,075
% of Total Needs	3%	76%	79%	79%	83%	61%

The secured future financing is for:

1. Government financing for program areas it has always funded, such as traditional vaccines, salaried and other personnel costs
2. GAVI funding for pentavalent, per diems for field staff in 2006
3. WHO 2 year commitments up to 2007
4. UNICEF funding for kerosene in 2006 and funding for the measles campaign.

The financing gap represents over 60% of the total program costs for the period of the MYP, from 3% in 2006, up to over 80% by 2009/10. The gap is a representation of:

- Actual lack of funds for activities, and
- Perceived lack of funds due to difficulty in predicting available funds in the future (such as from WHO, UNICEF, GAVI, etc.)

However, a series of opportunities exist to mobilise additional funds for the program, and significantly reduce its financing gaps. These include:

- ii) GAVI bridge financing to support pentavalent vaccine purchase through the course of the MYP period,

- iii) Additional GAVI financing to the Immunization system, 2 years for the measles 2nd dose, and Health System Strengthening support, which need to be applied for
- iv) WHO funds for the additional biennia which will be available to the program,
- v) UNICEF additional funds to the program in coming years, which are still not known
- vi) Financing made available from additional partners, such as USAID to fund planned program activities and inputs

Availability of these funds will significantly reduce the financing gaps for the program, as illustrated below.

Resource Requirements, Financing and Gaps	2006	2007	2008	2009	2010	2006 - 2010
Total Resource Requirements	\$7,929,123	\$5,678,885	\$5,662,177	\$5,809,613	\$7,533,633	\$32,613,432
Total Financing (Secured)	\$7,693,836	\$1,365,657	\$1,181,162	\$1,219,029	\$1,243,673	\$12,713,357
Total Financing (Not Secured / Probable)	\$0	\$3,901,426	\$4,100,836	\$4,180,730	\$4,262,300	\$16,445,292
Government						
Sub-national Gov.						
WHO			\$237,846	\$238,493	\$239,152	\$715,491
UNICEF		\$85,000	\$85,000	\$85,000	\$85,000	\$340,000
GAVI		\$3,816,426	\$3,777,990	\$3,857,238	\$3,938,148	\$15,389,802
Measles partnership						
Rotary International						
USAID						
Other partners						
Funding Gap (secured and probable)	\$235,287	\$566,879	\$521,303	\$539,756	\$2,135,748	\$3,998,974
% of Total Needs	3%	10%	9%	9%	28%	12%

With inclusion of probable funds from GAVI, WHO and UNICEF, we see the financing gap reduce from over 60% to just over 10% for the period of the MYP. This gap is largely due to difficulty in knowing source of funding for future activities upfront, such as funding for the planned measles campaign in 2010.

As additional information becomes available from other partners, the funding gap will continue to reduce.

VI – 5. Financial sustainability strategies

Based on the above financing situation for the program, the financial sustainability focus will be on two key objectives:

- Strengthening Government contribution in EPI, within the context of its overall macroeconomic framework

- Secure the probable financing for the program

Respective strategies to be followed up and monitoring indicators are illustrated in the table below.

OBJECTIVES	STRATEGIES	ACTIONS
Objective 1: Strengthen Government contribution in EPI, within the context of its overall macroeconomic framework	➤ Strategy 1.1: Continuous building of the awareness of all government agencies (Government and the Ministries concerned, provincial and district authorities) of the advantages of the EPI both in terms of health aspects per se and from the point of view of the economic effects.	- Include health focal point, MoF, and Health Planning and budget sections in ICC and regularly attending.
		- Include discussions on immunization financing at each ICC
		- Develop a country summary on immunization financing
		- Provide information on immunization financing in EPI bulleting at least once/year .
Objective 2: Secure the probable financing for the program	➤ Strategy 2.1: Secure potentially available funds	- Annually update of costing and financing information for EPI activities
		- Initiate discussions with GAVI to secure additional financing for pentavalent through the bridge mechanisms
		- Develop proposal for GAVI Immunization system funding
	➤ Strategy 2.2: Seek additional funds from EPI partners	- Develop proposal for GAVI health systems support
		- Wide discussion of program MYP to ensure all partners aware of planned strategies, and financing situation for the program
		- Discussions with traditional EPI partners (Measles partnership, USAID, WHO, UNICEF, Rotary International etc) on areas for additional financing

Monitoring indicators for financial sustainability are elaborated below.

MONITORING INDICATORS	Value				
Indicator	2006	2007	2008	2009	2010
Proportion of coming 5-year's total program costs secured (trend indicator)	37%	70%	75%	80%	88%
Proportion of EPI routine costs funded through Govt own resources	29%	30%	35%	40%	45%
Proportion of Govt funding to routine program costs, (minus pentavalent vaccine)	79%	85%	90%	90%	90%