

UNION OF THE COMOROS

Unity – Solidarity – Development

Ministry of Health, Solidarity and

Promotion of Gender



جمهورية القمر المتحدة

وحدة - تضامن - تنمية

وزارة الصحة والتضامن ومشاركة المرأة

**NATIONAL HEALTH
DEVELOPMENT PLAN
2010-2014**

April 2010

Abbreviations and Acronyms

ACT	Artemisinin-Combination Therapies
AFD	French Development Agency
ASCOBEF	Comorian Association of Family Welfare
BCG	Bacillus Calmette-Guerin
IDB	Islamic Development Bank
CA	Board of directors
CARITAS	Network for Catholic Charities
BCC	Behavior change communication
CDAG	Voluntary Testing Center
NH	National Hospital
RH	Regional Hospital
CID	Clinical Infectious Diseases
NHC	National Health Committee
IOC	Indian Ocean Commission
ANC	Antenatal Consultation
DHS	District Health Center
MSC	Medical and Surgical Center
MHC	Military Health Center
NTCH	National Technical Committee on Health
FAM	Financial and Administrative Manager
SPHSD	Studies, Planning and Health Statistics Director
DHD	General Health Division
NHD	National Health Division
DTP	Diphtheria-Tetanus-Pertussis
DTP HepB	Diphtheria-Tetanus-Pertussis-Hepatitis B
DHS	Demographic and Health Survey
EFL	Education for Family Life
FEMES	Artemisinin-based mass treatment
GF	Global Fund
AMTSL	Active Management of Labor and Childbirth Preparation
GAVI	Global Alliance for Vaccines and Immunization -
GPS	Geographical Positioning System
HMN	Health Metrics Network
AHT	Arterial Hypertension
IEC	Information-Education-Communication
GHI	General Health Inspection
ARI	Acute Respiratory Infections
STI	Sexually Transmitted Infection
NLPH	National Laboratory of Public Health
MCV	Measles Coverage Vaccine
DD	Diarrheal Diseases
EGD	Essential Generic Drug

LLITN	Long Lasting Insecticide-Treated Nets
MIS	Multiple Indicator Survey
NICT	New information and communication technologies
MDT	Millennium Development Targets
WHO	World Health Organization
NGO	Non-Governmental Organization
UN	United Nations
UNAIDS	United Nations for AIDS
ORSEC	Relief Organization
PASCO	Project to support the Comoros health sector
ISCI	Integrated Support of Childhood Illness
EPI	Expanded Program of Immunization
GDP	Gross Domestic Product
PID	Indoor residual spraying
MPA	Minimum package of activity
INPC	Independent National Pharmacy of Comoros
NHDP	National Health Development Plan
NPHRD	National Plan for Human Resource Development
NPFAM	National Program of fight against malaria
NHP	National Health Policy
CMYO	Comprehensive multi-year plan
NDP	National drug policy
HIPP	Heavily Indebted Poor Countries
PS	Health Post
PMCT	Prevention of Mother to Child Transmission
PWHIV	People with Human Immunodeficiency Virus
GCPH	General census of population and housing
EMS	Emergency Medical Services/Paramedics
CPRS	Growth Strategy and Poverty Reduction
AIDS	Acquired immune deficiency syndrome
IDSR	Integrated disease surveillance and responses
NHIS	National health information system
OCNE	Obstetrical care neonatal emergencies
SP	Sulfadoxine-Pyrimethamine
RH	Reproductive Health
ORS	Oral Rehydration Salts
MP	Mass Processing
SFOC	State's Financial Operations Chart
PIT	Presumptive intermittent treatment
TPM +	Smear-positive pulmonary tuberculosis
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Fund for Children
USA	United States of America
RVV	Rota Virus Vaccine
VAT	TT Tetanus toxoid
HIV	Human immunodeficiency virus

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PREFACE

For the effective implementation of the National Health Policy (NHP) in an effective and fruitful partnership, the Government of the Union of the Comoros, through the Ministry of Health, Solidarity and the Promotion of Kind, launched and completed the process of developing the National Health Development Plan, Perspective 2010-2014 (NHDP 2010-2014). This NHDP takes into account all of the country's health development priorities as it was developed with the effective involvement of all players.

From the analysis of the situation until the finalization of the plan document, through retreats by small groups of experts, workshops and individual consultations, buoyant reflections helped identify and analyze real health problems of the Comorian population and define ways to resolve them.

Although the estimated resources for the implementation of this plan seem gigantic, but with national solidarity, social cohesion, good governance and effective international partnership, there is hope. To this end, our country is currently at a crucial stage of its development. With its eligibility for the HIPC Initiative and all perspectives that are emerging in the context of international cooperation, the time is right to launch ambitious initiatives for the well being of the Comorian population.

This plan will be implemented with the involvement of all players including the beneficiary populations. Aid coordination and actions to be taken in the field will be carried out effectively and efficiently. The instruments to this end are already in place. The National Health Comity and the National Technical Health Comity are implemented within this context.

Supported efforts will be undertaken in order to implement the new health card, while of course consulting populations, island authorities and local authorities.

Administrative services will be strengthened through the effective implementation of new organizational structures and improved working and living conditions.

The Government shall spare no effort to lead the implementation of this plan to its completion by ensuring that all targets are achieved and their impact on population health is fairly shared.

**The Minister of Health, Solidarity
And Promotion of Kind**

Dr. Sounhadj ATTOUMANE

I. BRIEF SUMMARY OF THE NHDP

The Union of Comoros has a Growth and Poverty Reduction Strategy document, for which the Core Strategy No. 4 consists in improving the population's health state. It also has a National Health Policy that defined the following guidelines for the health sector's development. These are:

- (i) development of health services including building and planning infrastructure, funding and monitoring capacity (Strengthening of the technical facilities, decentralization, cost recovery, training and retraining of staff, planning/programming/monitoring and evaluation of activities, health information system and research etc.).
- (ii) development of strategies and actions specific to the various health programs for the reduction of morbidity and mortality related to communicable and non communicable diseases, (3) the promotion and protection of health (Information, Education and Communication, Environment and health, health communication, healthy behaviors etc.) and (4) development of the pharmaceutical sector.

This National Health Development Plan gives concrete implementation of the priorities and strategic directions of the PRSP and the NHP. Apart from the introduction and conclusion, it is organized into seven main parts covering:

- (i) situation analysis;
- (ii) vision and strategic directions;
- (iii) objectives and priority actions for health development;
- (iv) estimating costs;
- (v) financing plan;
- (vi) implementation plan;
- (vii) monitoring and evaluation plan.

In each of these parts and as per the NHP, three priority components were addressed. These are:

- (i) the fight against disease including health promotion;
- (ii) improving reproductive health and child survival;
- (iii) development of the health system.

1. Situation analysis:

Fight against the disease component:

Epidemiologically, the diseases of highest concern are malaria, HIV/AIDS and STIs, tuberculosis and leprosy and non-communicable diseases such as malnutrition, cancer, cardiovascular diseases. Some areas of intervention in relation to the fight against the disease have also been included in this component. These are: epidemiological monitoring, disaster-related health emergency management, hygiene and sanitation of behaviors and manners that are harmful to health.

The major challenges in this component are related to the reduction of morbidity and mortality related to communicable and non-communicable diseases.

Reproductive health and child survival component:

The sub-component of reproductive health includes safe pregnancy, reproductive health of adolescents, family planning, genital cancer and sexually transmitted infections and HIV/AIDS. The priority issues identified are related to maternal mortality rate, which is 380 per 100,000 births. Its fundamental determinants being childbirth unassisted by qualified personnel, the abandonment of contraceptive methods and genital cancers.

As for the component in child survival, it includes IMCI, Nutrition and School Health. The main problem to be addressed here is the child mortality rate, which is 113 per 1000 according to RGPH 2003. Within this context, neonatal mortality is particularly monitored. Its main determinants are prematurity, ARIs, fetal distress, asphyxia and other unidentified causes. Low immunization coverage and malnutrition are major causes of child mortality.

Development of the health system component:

This component includes institutional organization, health infrastructure, hospital reform, pharmaceutical system, human resources, health information system, health research and financing system. Dysfunction of the health system destroys practically all the efforts in the fight against disease and the improvement of mother and child's health. Indeed, the poor performance of the health sector is mainly due to the lack of activity coordination and monitoring, aging infrastructure, insufficient drug supply, inadequate management of available human resources, lack of reliable health information, lack of innovation through research and insufficient financial resources.

2. Vision and Strategic Directions:

The vision is: *"Through a transparent and effective partnership with all health players including the beneficiaries, the government of the Comoros is working towards giving its population equal access to quality health service."*

The strategic directions adopted to improve the health of populations relate to the Comorian national capacity in: (1) as part of the fight against the disease: the elimination of certain diseases such as malaria, lymphatic filariasis and leprosy, polio eradication, tuberculosis control, and prevention of all diseases targeted by immunization and other diseases related to the unhealthy environment or the behavior of individuals, (2) in the context of improving mother and child's health: promoting reproductive health, strengthening the immunization of children aged 0 to 11 months and pregnant women, fight against malnutrition, development of integrated management of child development and school health, (3) in the context of health system development: institutional strengthening for better coordination and monitoring of health programs, improved health facilities, strengthening of pharmaceutical industry and laboratories, improving the performance of human resources, production and use of reliable health information, the promotion of health research, improving the financial accessibility of health services and the mobilization of additional funding for the implementation of health programs.

3. The main objectives and actions are:

- Reducing morbidity and mortality of communicable and non-communicable diseases through (1) elimination of malaria, (2) controlling the spread of HIV/AIDS (3) reducing the prevalence of tuber and leprosy (4) reducing the prevalence of non-communicable diseases (5) strengthening epidemiological monitoring, (6) promotion of hygiene and sanitation (7) disaster-related prevention and emergency response and health promotion.
- Reducing maternal mortality and child mortality through the development of reproductive health, immunization, the fight against malnutrition, breastfeeding promotion and improvement of maternal care of the newborn.
- Improvement of health system performance through the provision of quality services by: (1) strengthening the institutions for better coordination, monitoring and evaluation of programs, (2) renovating and equipping the existing infrastructure and building new infrastructure and equipment, (3) hospital reform, (4) strengthening the pharmaceutical system including laboratories and blood safety, (5) development of human resources (6) strengthening the health information system, (7) promoting research and knowledge management; and (8) improving the affordability of health services and increasing funding for health programs.

1. Coordination, monitoring and evaluation context

Coordination of the implementation will be carried out through existing coordination structures but they will be strengthened. Those are the National Health Committee (NHC) chaired by the Minister of Health, is the supreme body for counseling and decision-making and the National Technical Committee of Health (NTCH), chaired by the Secretary General of the Ministry of Health, it ensures the technical monitoring of the programs' implementation and reports to the NHC.

These structures work in harmony with sectorial governance structures in place as part of Growth Strategy and Poverty Reduction (GSPR).

A monitoring and evaluation context was developed for the Plan. It states for each component and objective, the starting indicators and the targets to reach. Development activities of SIS's sub-component will ensure the availability of data for calculating these indicators.

2. Costs and financing of NHDP

The total cost of the plan is estimated at about 81.8 billion Comorian Francs or \$ 232.5 million U.S.D. for which approximately 16% of funding is available through cooperation agreements signed between the Union of Comoros and its development partners. This funding is acquired from the traditional partners of the countries that are the state of the Comoros, WHO, UNICEF, UNFPA, AFD (PASCO), Global Fund for AIDS, Tuberculosis and Malaria, UNAIDS and the IDB.

The Conference promoting the investment for the development of the Comoros, which was held in Doha in March 2010, is a valuable opportunity to bridge this plan's financing gap.

II. INTRODUCTION

Health system reform was undertaken in the Comoros in 1994 with the development of the National Health Development Plan (NHDP) Perspective 2010. This plan focuses on strengthening health districts, effective decentralization in activities management, supply of essential drugs and cost recovery.

The General Health States held in November 2001 allowed to take stock of the implementation of this reform and highlighted the failure of the health system due to, among others, the continuing conflict of jurisdiction between the island and the Union's government, the small contribution to the functioning of the state health facilities, inadequate use of existing human resources, weak capacity to mobilize resources to support the reform process and inadequate coordination and monitoring of stakeholders in the health sector.

Pursuant to resolutions of the General of Health States, the government of the Comoros had then proceeded to develop a National Health Policy (NHP) from 2005 to 2015, a National Plan for Human Resources Development 2001-2010 and a National Pharmaceutical Policy.

Besides these documents, a Strategy for Growth and Poverty Reduction (GSPR) developed in 2005 and revised in 2009 reserved a special place in the health development sector holding it as one of the strategic priorities in the fight against poverty.

Meanwhile, the country embarked on a profound political change that led to the establishment of democratically elected institutions during 2001 and 2002. The political reform gives considerable autonomy to the islands. It then becomes an absolute necessity to provide the country with appropriate instruments of implementation of the new NHP. These instruments must contribute not only to ensure health for all, but also to consolidate national reconciliation while preserving community empowerment in the initiation and implementation of development activities, which are the primary beneficiaries.

Due to the very logic nature of the health development process, the implementation of the NHP can be effective if an appropriate NHDP is developed and implemented. This NHDP fills that hole that was a serious handicap in the development efforts of the health sector for 5 years, or since the adoption of the current NHP.

The process of preparing the NHDP 2010-2014 has been organized to involve all stakeholders. Thus under the motto of the National Health Committee (NHC) and National Technical Committee of Health (NTHC), it was coordinated on behalf of the Ministry of Health, the Research, Planning and Health Statistics Department (DEPSS) in close collaboration with the National Health Department (NHD). Technical Working Groups composed of programs Directors and Heads including those of the autonomous islands and all development partners of the health sector in Comoros were established.

Technical work was organized in the form of retreats for small groups of experts and expanded workshops.

The NHDP 2010-2014 resulting from this process is as follows:

- A general context that summarizes the geographic, demographic and socio-economic development;
- A situation analysis which examines the health problems and the challenges faced;
- Vision and strategic directions appropriate to deal with the identified health problems;
- The objectives and the actions to be undertaken in order to achieve them;
- NHDP's logical context in a chart which includes the objectives, the action to be undertaken and the costs;
- The financing plan that determines the financial resources available and those to be mobilized;
- The monitoring and evaluation context with a focus on the monitoring and evaluation indicators for the plan's implementation.

III. OVERALL CONTEXT

Name of country	Union of Comoros
Population (2008)	652,202 people
Life expectancy at birth	65.5 years
GDP (2007) *	166.4 billion KMF
Number of regions (autonomous islands)	3
Number of prefectures	15
Number of Health Regions	3
Number of health districts	17

***GDP (2007)**: estimated from data contained in the Central Bank of Comoros' Economy Memo (April 2008)

3.1 . Location

The Comoros, a volcanic archipelago located at the northern entrance of the Mozambique Channel between Madagascar and East Africa, covers an area of 2237 km². They consist of four islands: Grande Comore, Anjouan, Moheli and Mayotte, which is still under French administration. The area of the three independent islands is of 1861 km², respectively 1148 km² (Grande Comore), 290 km² (Moheli) and 424 km² (Anjouan) and 374 square kilometers (Mayotte).

The country is rich in natural diversity. Its tropical climate is characterized by two main seasons: a hot rainy season between November and March-April, marked by heavy rains and cyclones, named "kashkasi". For the rest of the year, the archipelago experiences a cool, dry weather characterized by North to Northwest monsoon winds named "Kusi" with temperatures ranging between 24 and 27 ° C.

3.2 . Demographic data

According to the 2008 projection of General Census of Population and Housing (RGPH, 2003) the population of the three independent islands amounts to 652 202 inhabitants spread as follows: Moheli has 42 220 inhabitants, Anjouan has 276 254 inhabitants and Grande Comore has 333 728 inhabitants, with an average density of 335 inhabitants per square km. This population is very young, as the proportion of young people under 20 years amounts to 57.4%. Women of childbearing age represent 22.3% of the total population.

Moreover, the population's average age is 24.1 years. Such an age structure presents enormous challenges for the country, especially to support the education, health, nutrition, vocational training, employment, recreation, etc. of youth. The dependency ratio (children under 15 years and seniors over 64 years compared to the population aged 15-64) is 198.5% with a significant difference between areas, urban 169.3% and rural 210.6%. These figures are very high if one takes into account the low gross activity ratio of the Comorian population, estimated at 25.3%. Moreover, this population remains largely rural at over 68%, which challenges the effective deployment of health resources.

According to RGPH 2003, the gross birth rate and the total fertility rate stood respectively at 35.6 per thousand (33 per thousand in urban areas and 36.7 per thousand in rural areas) and to 150.8 per thousand (128.1 per thousand in urban areas and 161 per thousand in rural areas). The total fertility rate was equal to 5.3 children per woman. This fertility is higher in rural areas (5.6 children per woman) than in urban areas (4.5 children per woman).

3.3 Socio-cultural data

In the Comoros, social organization is deeply rooted in tradition and very hierarchical. The individuals blend into the community and can only assert themselves through the mechanisms imposed by this community; the family remains the bedrock of society's organization and functioning. Perceived and experienced in its broadest sense, the concept of family includes four levels, conjugal family, extended family, lineage and clan. Marriage establishes the supremacy of the family. It is the means by which it extends and strengthens. In fact, it is through marriage that the individual accesses the social hierarchies.

On the religious level, almost all of the Comorian population is Muslim. Islam in The Comoros is well structured with the beliefs and social practices related to custom and tradition. Thus the notables who acquire their status following the Great Marriage are the main leaders of the decision-making at Community level.

The Koranic school is the Comorian children's first contact with the education system; it teaches the basic principles of Islam and socio-cultural values while it initiates reading of the Koran and Arabic writing. The school plays a fundamental role in shaping the personality of the young Comorian and it could also be used as a gateway to the health system, particularly through communication activities for behavior change.

Under the academic year 2006/2007, the school population in all public and private schools, from preschool to higher level of formal education, is estimated at 151.335 students, an increase of 0.9% compared to 2003. The gross enrollment rate has decreased by about 6.7 points between 2003 and 2007 (94.8% in 2007 against 101.5 in 2003) at national level. The following chart provides a breakdown of enrollments per level.

3.4 Economic situation

According to the Global Report on Human Development 2007/2008, the Union of Comoros is a country with a medium human development index and is ranked 134th out of 177 countries. However, the country is seriously handicapped in its development because of its insularity, its territorial discontinuity, its small size in area and population and its political instability.

The country's GDP rose from 159 million Comorian Francs in 2006 to 175 million in 2008 (Annual Report of the Central Bank of the Comoros, 2008). The activity sectors that contribute most to the GDP are agriculture, fisheries and forests by 39.3% and trade, hotels and restaurants by 30.9%. The inflation rate rose from 3.4% in 2006 to 4.8% in 2008. The coverage of imports by exports has deteriorated significantly, from 10% in 2007 to 4% in 2008.

Agriculture, mainly for subsistence and of low productivity, accounts for 40% to 44% of the GDP on average and employs 70% of the workforce. The country's exports are based on three crops (ylang-ylang, vanilla and cloves), and they depend heavily on their rates on the international market and technological progress in synthetic product substitution. Since 2004, the country is facing very unfavorable conditions for vanilla with an impact on exports and production estimated at 50 tons in 2008 against 76 in 2007, down from an average of 120 tons in 2005.

The fishing industry employs 6% of the population, contributing up to 12% of GDP and 5% of foreign currency earnings through exports. With an annual capacity estimated at 33,000 tons, only 64% is currently exploited.

Road infrastructure undeniably contributes to the economic growth and to poverty reduction by facilitating the movement of goods and people, and promoting the creation of new economic activities.

The national and regional road network totals up to 849 km in the Comoros, including 665 km of paved roads and 184 km of dirt roads and tracks. It is distributed as follows: Njazidja 58.3% (495 km), Nzwani 33.2% (256 km) and Moili 11.5% (98 km).

3.5 Institutional Structure

After a long period of political and institutional uncertainty interspersed with coups and after a separatist crisis in 2007, the Comoros adopted a constitution in 2001. The Constitution, that gives the islands a large degree of autonomy, enshrined the country's name to "Union of the Comoros".

Globally, the executive power was vested in a President of the Comoros native to one of three islands, assisted by two Vice-Presidents from the other two islands, elected by single round direct universal suffrage for four years and according to the principle of rotation between the islands. The legislature was part of a unicameral parliament composed of members, some elected by direct universal suffrage and some designated by the islands Assemblies.

At the island level, executive power was vested in the President of the island elected for five years by direct universal uninominal suffrage with two rounds. Legislative power was vested in the Island Assembly; its members are elected by direct universal suffrage.

This complex institutional architecture has led multi-jurisdictional recurring disputes between the executive power of the islands and that of the Union. These conflicts took a very serious turn in 2007, when following the failed election of Ndzuwani's executive head, the outgoing president declared himself re-elected and confiscated the power. This action sent the country into a period of high political-institutional turbulence. It took an intervention by the Comorian army backed by African Union forces on the island of Nzwani to bring it with the other two islands.

Subsequently, the 2001 constitution was revised and approved by referendum in May 2009. The new constitution limits the powers devolved to islanders who are now headed by governors. At Union level, the principle of rotating presidency between the islands is maintained, but the President is elected for five years with three vice presidents, one from each island.

3.6 . The country's policy documents for health development

The key documents that guide the development of health sector are: the Strategy for Growth and Poverty Reduction (GSPR) and the National Health Policy (NHP).

The GSPR, developed in 2005 and revised in 2009, was chosen as the Core Strategy No. 4 in improving the health of the population. To this effect, there are four main programs:

- The fight against malaria and other priority diseases;
- The integrated development of the sexual and reproductive health;
- The fight against HIV/AIDS and sexually transmitted infections;
- Strengthening the effectiveness and efficiency of the health system in all its components.

As for the NHP, it was adopted in 2005. It builds on the GSPR of 2005 and provides the broad guidelines of the health system, and it has the support of the players in the health sector of the Comoros. It draws on global initiatives, including the Alma Ata Declaration (1977), the Bamako Initiative (1988) and the Millennium Development Objectives (MDGs). Its purpose is to ensure better health for all Comorians through the availability and accessibility of good quality health services in 2015.

To this effect, the following specific objectives were identified:

- Reduce the maternal mortality rate from 517 to 250 deaths per 100,000 births;
- Reduce the child mortality rate from 74 ‰ to 40 ‰;
- Reduce the infant mortality rate from 59 ‰ to 35 ‰;
- Reduce by 50% the morbidity and mortality rate related to communicable diseases;
- Reduce the chronic malnutrition rate from 25.4% to 10% in children 0-5 years;

- Reduce the incidence of regular sexually transmitted infections (STIs) by 50% and slow the progression of HIV/AIDS;
- Reduce the annual risk of tuberculosis infection from 60 to 30 per 100,000 inhabitants;
- Reduce the incidence of diarrheal diseases from 18.3% to 9%;
- Eliminate leprosy, filariasis and maternal and neonatal tetanus;
- Eradicate polio

It should be noted that these objectives had not considered emergencies and non-communicable diseases, which are, however, priorities in the Comoros, even if the strategic directions covered them.

To implement these objectives, the following four strategic directions were identified by the NHP:

- Development of health services including building infrastructure and capacity planning, funding and monitoring. (Strengthening of the technical sector, decentralization, cost recovery, staff training and retraining, activities planning/programming/monitoring and evaluation, health information system and research etc.)
- Development of strategies and specific actions for different health programs in order to reduce the morbidity and mortality related to communicable and non-communicable diseases;
- Health promotion and protection (IEC, environment and health, health communication, health behaviors etc.).
- Pharmaceutical sector development.

The NHP also contains its implementation context in which it clarifies the roles of different levels of the health pyramid. It also gives guidelines for the redefinition of the health card.

IV. SANITARY CONDITIONS ANALYSIS:

4.1 Fight against diseases

The epidemiological situation of the Union of Comoros is dominated by malaria, diarrheal diseases (DD), intestinal parasites, respiratory infections (ARI). These conditions are the cause of significant morbidity and high mortality especially among children under 5 and pregnant women. HIV/AIDS and other sexually transmitted infections are also a major concern despite their relatively low prevalence.

Other diseases like tuberculosis, leprosy, neonatal tetanus, polio and filariasis affect the population and are the source of a significant number of fatalities and disabilities.

Also, non-communicable diseases including malnutrition, cancer, diabetes mellitus, cardiovascular diseases and high blood pressure progress at an alarming rate.

4.1.1 Malaria

Malaria is the leading cause for morbidity and mortality in the country. It is the main reason for consultation and hospitalization in health facilities. Indeed, the proportion of patients who consulted for malaria consists of 45% of children below age 5 and 8% of pregnant women.

The National Program against Malaria (NMCP) is the coordinating body, it has a monitoring and management structure at all levels of the pyramid. It has received various forms of support from development partners. It received considerable financial support from the Global Fund as part of Round 2, allowing a better management of cases, a stronger vector control and greater awareness.

The recently approved Round 8 will continue the efforts towards the elimination of malaria. To this end, the island of Moheli has enjoyed the support of Chinese cooperation, since November 2007, of a specific pest control intervention by mass treatment with artemisinin (FEMES). It's this; which has significantly reduced the prevalence of malaria in this island to less than 1%.

The main factors that explain the malaria situation in the Comoros are: the low individual and collective protection, insufficient care of sick and weak technical capacity of staff.

The challenges to face in order to address the identified priority issues are:

- routing the country to the pre elimination phase (less than 5 parasite carriers out of 100 people);
- reducing the mortality rate associated with malaria to 0%;
- the establishment of a coordination and monitoring and evaluation mechanism, allowing a good flow of information and a complementarity of interventions.

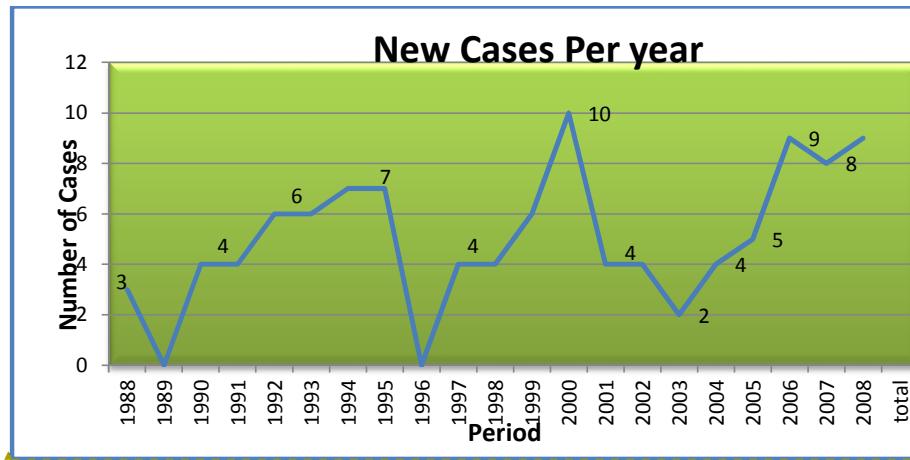
4.1.2 STI and HIV/AIDS

In the Comoros, the HIV prevalence rate is estimated at less than 0.025% (Seroprevalence survey by Sherbrooke 2003). While this rate may be considered low, an explosion is possible and must be prevented from now since the latest studies show little knowledge of the transmission modes of HIV and the appropriate preventive methods, as well as a low utilization of condoms during unsafe sex.

Thus, the tendency of some risk factors justifies the concern over the evolution of HIV. These risk factors are: the low rate of condom use estimated at 27%, the low detection rate (8%), the high prevalence of STIs (4.6%).

Through the data collected in hospitals, based on surveys and testing at the PNLS, one hundred and six (106) people were listed as infected with HIV from 1988 to 2008, out of which 55.7% are aged between 19 to 34 years, out of which 66.1% are female. Among the other infected people, 7.5% are aged from 0-14 years and 15.1% aged from 15 to 24 years. The number of recorded deaths is 40 people or 38% of cases. The active list holds 17 patients, indicating that 49 infected people have lost contact.

Yearly evolution ¹ of new cases:



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The challenges are:

- Improved knowledge of the problem and prevention measures;
- Population's change in behavior towards risky practices;
- The elimination of PLWHA stigmatization.

4.1.3 Leprosy and tuberculosis

Leprosy is endemic to the Comoros with a prevalence of 4 per 10,000 inhabitants. It should be noted that 90% of cases are detected in the island of Ndzuani where the prevalence rate is around 11.8 per 10,000 inhabitants.

As for tuberculosis, it is considered a shameful disease, its prevalence is estimated at 45 cases per 100 000 inhabitants. We can expect an increase in cases with the advent of the AIDS pandemic. The healing rate for tuberculosis is 94%.

The challenge is:

- Early detection and treatment of all cases of leprosy and tuberculosis.

4.1.4 Lymphatic filariasis:

The four campaigns of mass treatment against lymphatic filariasis, which began in July 2001, gave encouraging results. Indeed, the microfilaraemia rate that was at 11% before the mass treatment campaigns has dropped to less than 1% in 2006. There remained the organization of a single additional campaign to conduct the assessment for the certification of disease elimination. Unfortunately, due to funding constraints this objective hasn't been achieved yet.

The major challenge remains:

- the organization of the fifth round of mass treatment that should result in the elimination of filariasis as a public health problem.

¹ Annual Activity Report of the NACP, 2008

4.1.5 Non communicable diseases:

Malnutrition, cancer, cardiovascular diseases, diabetes, eye diseases, oral diseases, mental illness and those related to the consumption of harmful products (tobacco, alcohol, drugs ... etc.), constitute real health problems in the Comoros, although reliable data is not available at this time to assess more accurately the extent of some of them. According to existing data, the situation is as follows:

- The proportion² of underweight children is 13.8%, of those with growth failure 27.8% and of those with an energy deficiency 6.4%.
- Comprehensive studies³ conducted in 2003 showed a prevalence of blindness between 0.6% and 0.8% with the main cause being cataract blindness.
- According to a retrospective survey conducted by the Comorian Union Against Cancer, 495 cancer cases were observed in 28 physicians practicing in the Comoros for the period from 1995 to 2008. Genital cancers are the most numerous at 46%, followed by digestive and urological cancers at respectively 15% and 13%.

Priority issues related to non-communicable diseases are:

- The lack of database on non-communicable diseases;
- The relentless rise of non-communicable diseases: diabetes, hypertension, oral health, kidney failure, eye diseases etc.

The challenges are:

- The constitution of evidence on non-communicable diseases;
- Population's change in behavior towards risky practices;
- Support of people with chronic non-communicable diseases

4.1.6 Epidemiological surveillance:

The Ministry of Health features a national unity of epidemiological surveillance that enjoys a technical and financial support from development partners (UN system, IOC, African Union). This unit is represented in the islands by focal points that interact with the District Health Center's international teams. However, the monitored disease notification system does not work properly, particularly because of the lack of supervision and low worker motivation. The country has a plan for Integrated Disease Surveillance and Responses (IDSR).

The challenge is:

- Strengthening the epidemiological surveillance system in all its components is the challenge.

4.1.7 Disaster Management

There is a national preparation structure and response to emergencies under the Ministry of Defense. Under the aegis of this structure, a national plan for disaster prevention and response that takes into account the needs of all sectors including health. However, the health sector does not yet have a contingency plan to effectively contribute to disaster preparation and response.

The challenge is:

- Allocating the health sector an operational contingency plan.

4.1.8 Health and Environment:

Hygiene and environmental sanitation and other environmental factors are fundamental determinants of most health problems (parasitic, viral, diarrheal, respiratory, etc.).

² Evaluation report on the nutritional status of children under 5 years, UNICEF, 2008.

³ National Program of fight against blindness

The water quality:

In 2004 in the Union of the Comoros, 85% of the population had⁴ regular access to improved water. The most widely used water sources are tap water or fountain water at 30.6% and rainwater collected in cisterns at 24.2%. All these water points do not provide drinking water because the water tanks and much of the water supply is not treated. Indeed, only 13% of the population has access to drinking water. This proportion of the population resides in Grande Comore and especially in the capital and its surrounding. Indeed, on Grande Comore, the majority of the population consumes stored and untreated water from uncovered tanks. At the two other islands (Anjouan and Moheli), the population has access to untreated water.

The environmental sanitation:

- The collection and treatment system of hospital waste does not work well despite the recent equipment in incinerators of most hospitals.
- For the management of excreta, about 94% of households⁵ use traditional inadequate and inefficient latrines, which can lead to various infections.
- With regard to personal hygiene, only 39.8% of the population is familiar with the four critical moments of hand washing.
- For solid waste management, they are packed in plastic bags or old buckets and dumped in uncontrolled landfills.

Food Safety:

A survey⁶ conducted on the practice of food safety in markets reveals that over 40% of sales environments are in the open air, over 73% of soils in sales areas are not washed and 60% of managers do not disinfect their media sales.

Other environmental factors such as atmosphere pollution, climate change, disasters and chemicals management have a negative impact on health. The Union of Comoros is highly vulnerable to some of these factors, including natural (the Karthala Volkan and cyclones) and chemical (risks of hydrocarbon spill) disasters.

The challenges are:

- Promoting water hygiene;
- Promoting environmental health.
- Promoting food safety

4.1.9 The health promotion

"The health promotion ... refers to actions that focus on lifestyle and other social, economic, environmental and personal factors that contribute to health." It helps control and develop a better health of the community through integrated activities that facilitate social and community participation.

This way, it maximizes the impact of health programs through disease prevention, reduction of risk factors associated with specific diseases, the practice of health-friendly lifestyles and the increased use of the available health services.

However, it is the poor relation of health interventions in the Comoros. Indeed, the country has neither policies nor skilled human resources in this area at a time when the social, economic and environmental factors and individual behavior are the fundamental determinants of the population's health status.

⁴ National Strategy on Health and Environment of the Comoros, 2009.

⁵ National Strategy on Health and Environment of the Comoros, 2009.

⁶ A survey by the Ministry of Health in collaboration with WHO on the assessment of knowledge and practices regarding the safety of foods sold in public places and markets

The main challenge is:

Strengthening of national capacities for the formulation and implementation of policies and health promotion programs for the reduction of morbidity and mortality from communicable and non-communicable diseases.

4.2 Reproductive health and child survival

Low levels of supply and demand for quality services in the field of family and reproductive health are main determinants in high fertility (5.1 children per woman) and maternal mortality (380 per 100,000 births) and child mortality (74 per 1000) registered in the Comoros.

4.2.1 Reproductive Health

The reproductive health includes the following components: (i) Safe pregnancy, (ii) Reproductive health of adolescents / youth, (iii) Family Planning (iv) Genital cancers, (v) STI/HIV/AIDS.

The current situation is:

- Maternal mortality rate amounts to 380 per 100 000 births (RGPH2003)
- The rate of births attended by a qualified staff amounts to 80% (Survey on neo natal tetanus elimination in 2009)
- The rate of births in hospitals amounts to 75% (Survey on neo natal tetanus elimination in 2009)
- 95% of health facilities provide at least three modern contraceptive methods;
- On average, 40% of pregnant women who went for their first ANC do not return for the second ANC;
- The 17 district health centers offer emergency basic obstetric care and five hospitals (the CHN, and the 2 CHR 2 CMC) provide comprehensive emergency obstetric care
- A wide range of contraceptive methods is available.
- Genital cancers are the leading cause of cancer-related mortality.

The priority issues are:

- High rate of maternal mortality (380/100 000 live births);
- High dropout rate of contraceptives, estimated at 24%;
- High prevalence of genital cancers
- Low contraceptive prevalence

The identified challenges are:

- Political and religious authorities and parents' commitment in creating an appropriate context in supporting adolescents' sexual and reproductive health;
- Communities' involvement (individuals, families, etc.) in maternity health activities;
- Mobilizing additional resources;
- Improving the quality of services in health facilities;

4.2.2 Child survival

This component includes IMCI, EPI, nutrition and school health. Interventions related to these components contribute substantially to reducing child mortality. The neonatal ⁷ mortality rate amounts to 10%. Its main determinants are prematurity by 29%, ARIs and other infections 29%, fetal distress 21%, asphyxia 14% and other unidentified causes 7%. As for ⁸ infant and child mortality rates, they are respectively 59 and 71 per 1,000 and are mainly related to malaria, ARIs, malnutrition and diarrheas.

⁷ Report on the survey validation for the elimination of neonatal tetanus in the Comoros, Ministry of Health, November 2009.

⁸ RGPH, 2003

Vaccine coverage⁹ in 2009 for the different antigens was respectively 80% for BCG, 89% for DTP1, 83% for DTP3, 79% for measles and 34% for TT2 +while GIVS (Global Immunization and Vaccine Strategy) recommends a rate of 90% for all antigens.

Out of the 17 health districts of the country, only 7 have DTP3 coverage greater than or equal to 90%, 4 have MCV1 coverage greater than or equal to 80% and 5 have MCV1 coverage greater than or equal to 90%. The least affluent island is Grande Comore where DTP3 coverage is only 79% while it is 92% in Moheli and 87% in Anjouan.

Malnutrition is a major concern for public health in the Comoros. There is a lack of protein in pregnant and lactating women and in children under 5 years. According to the evaluation report of the nutritional status of children less than 5 years and mortality in Comoros, UNICEF, December 2009, the prevalence of acute moderate malnutrition and acute severe malnutrition were 7.1% and 1.6% in Anjouan, 2.4% and 0.9% in Grande Comore and 4% and 3% in Moheli.

4.3 Health system

According to WHO (WHA2000), the health system includes all organizations, institutions and resources that produce actions for which the primary purpose is to promote health. Policies and appropriate development plans, the application of adequate rules and procedures, good management/organization of health services and a proper monitoring/evaluation system determine its development. The elements to consider in this component are the institutional, infrastructure, hospital reform, the pharmaceutical and laboratories system, human resources, the health information system, research and knowledge management and health financing system.

4.3.1 Institutional reform

The health sector's institutional mechanism in the Comoros is composed of structures at central level, island level and health district level.

At the central level, the structures of the Ministry of Health include the Minister's Office, the General Secretariat (including the Administration and Finance and the Directorate of Studies, Planning and Health Statistics), General Inspectorate of Health and National Department of Health (including the Directorate of Health Care Institutions Public and Private, the Directorate for the Fight against Disease, the Directorate for the Fight against AIDS, the Directorate of Family Health and Child and the Department of Health Promotion Health) and independent establishments of a public nature which are the National Autonomous Pharmacy of Comoros, National Hospital Center.

There are also national programs established to fight priority diseases. These are: National Program against Malaria, National Program against Tuberculosis and Leprosy, National Program against Blindness, National Program against filariasis, the Expanded Program on Immunization, all attached to the Directorate of Fight against illness.

The level coordinating bodies are:

- The National Health Committee, chaired by the Minister of Health, is the supreme policy and decision making governing body;
- The National Technical Committee for Health chaired by the Secretary General, is the technical body which is responsible for monitoring and technical coordination of health programs
- The Inter Agency Coordinating Committee chaired by an elected member, is responsible for monitoring and coordinating immunization activities
- The National Committee for the Fight against AIDS, chaired by the President of the Republic, its mission is to coordinate and direct interventions against AIDS.

⁹ EPI Report, 2009

At island or regional level:

There is the Commissioner responsible for Health (SG, IGS and DAF) and the Directorate General of Health (with program managers). The Regional Hospital is the only autonomous administrative structure at this level. Each island is covered by a CHR except the island of Ngazidja where the reference is provided by the CHN. The CHR is under the direct supervision of the Ministry of Health of the Union of Comoros.

At health district level:

Institutions involved are the District Health Centers and Health Posts. Officially, DHC management is entrusted to the Managing Associations and are administered by a Board of Directors and the health district's technical team. As for health posts, they belong to the community and are administered by the affected populations and the health team.

In general:

This institutional arrangement is characterized by chronic dysfunction both at central and island level. The source bottlenecks of this dysfunction are: organic contexts that are not compatible, low management capacity of administrators, poor physical working conditions, failure to respect the hierarchy and the non-compliance to rules and legislation.

At the health district level, the main problems are:

(1) non-compliance of DHC operation with their status, malfunction of the management bodies and inadequate organic contexts. Indeed, the 1994 reform has not been implemented so effectively because of insufficient DHC supervision by the state, leaving the latter solely in the hands of the people. Thus, Management Authorities' compliance with the regulatory texts and sustainability of their operations were not effective, (2) in most cases the managers do not exist and Associations Boards are not functional. This fact is attributable to the non-mastery of the health sector's reform by the populations and low supervision of the latter by the competent administrative authorities and (3) the non-adequacy of organic contexts and low motivation of qualified human resource as well as the limitation of their competencies in management.

The challenges to be addressed are:**At a global level:**

(1) providing the health sector with organic frameworks tailored to the needs and effectively implemented, (2) strengthening the technical capacities (competence of human resources in management and administration, physical working conditions including a consequent budget for health administration operation) (3) establishing respect for authority at all levels of government, (4) establishing a system of motivation (punishment/reward, retention policy) for health administration officials, strengthening the structures responsible for human and financial resources management (health inspection, the Administration and Finance Department) and (5) the use of new information and communication technologies (Internet-Health) to improve the performance of health services.

At district level:

(1) the appropriation of statutory texts and legislation governing the DHC by stakeholders (administrators, people, etc.), (2) the establishment of functional management bodies at DHC level and (3) the staffing of DHC in suitable organic and operational framework.

4.3.2 The Health Infrastructure in 2009:

In terms of health infrastructure, the Union of Comoros has a National Reference Hospital (NHR) in the capital of the country, two Regional Hospital Centers (RHC), one in Anjouan and one in Moheli, 17 District Health Centers (DHC), including 7 on Grande Comore, 7 in Anjouan and 3 in Moheli. Among these DHCs, there are two that are Medico-Surgical Centers (MSC) one in Anjouan and one in Grande Comore, and three urban medical centers (UMC), one in each island, 52 health posts out of which 26 in Grande Comore, 19 in Anjouan and 7 in Moheli, with a further 3 military medical services, 4 CARITAS health centers and 15 medical offices and clinics.

Geographical access to a health care facility within 5 km is estimated at 45% on Grande Comore, 74% in Anjouan and 69% in Moheli with a national average of 63%. The entire Comorian population has access to organized health care within 15 km. However, this accessibility is only theoretical given the poor quality of roads and the narrowness of the rugged terrain.

Visit rates at health facilities are very low. They are at 14.7%, 20.21% and 8.92% respectively in Grande Comore, Anjouan and Moheli with a national average of 10.25%.

The average bed occupancy is estimated 20% to 60% with wide variations between seasons and Health Centers.

Chart No. 02: Location of health infrastructure on 31/12/2009

Health regions	Health Facilities								
	Hospitals		District Health Centers			PS	Other		
	NH	RH	MS C	CMU	DH S		MHC	CARITAS	Clinics
Grande Comore	1		1	1	5	26	1	2	12
Anjouan		1	1	1	5	19	1	1	3
Moheli		1		1	2	7	1	1	
TOTAL	1	2	2	3	12	52	3	4	15
Status	Public							Charitable	Private

Priority issues identified in infrastructure are:

- The mismatch with the standards and their outdated state and attributable under equipment, among other things, weak enforcement of regulations and lack of investment and maintenance policy;
- The chaotic implementation due to non-compliance with the health card due to insufficient monitoring on the part of political and administrative authorities and rivalries between communities. This problem is much worse in the private sector where no standard implantation exists.

The challenges in this area are:

- Strengthening of existing health facilities to the required standards;
- Extending coverage of health infrastructure in accordance with the health card;
- Strengthening cooperation and collaboration between public and private sectors;
- Strengthening capacity of regulatory authorities and professional organizations;
- Strengthening infrastructure and equipment maintenance capacity.

4.3.3 Hospital Reform:

In the Comoros, the hospital reform is governed by Decree No. 94-53/PR for the organization and functioning of Public Institutions, and Health Decree No. 06-170/PR applying certain provisions of the Organic Act No. 05-003/AU and amending the application of Article 9 of the Constitution in 2001.

These texts give hospitals a public administrative status. They should therefore benefit from a range of administrative and financial management with appropriate management structures.

As noted above in the sub-component on infrastructure, the Union of Comoros has a national referral hospital (NHR) in the capital Moroni in the Grande Comore Island and a regional hospital (RH) in each of the other two islands. These hospitals are meant to ensure respectively the tertiary and secondary reference to district health facilities. However, they lack the adequate technical facilities and human resources to properly fulfill these missions. Also, their complementarity with health facilities at lower levels is far from effective. Indeed, they also provide first contact and reference care, and they thereby become competitors of the levels they are supposed to support.

The problems identified in the field of hospital reform relate to:

- The inadequacy of Hospitals institutional framework. Indeed, confusions and contradictions were noted in the texts governing the functioning of hospitals. Thereby, these texts are not even applied;

- The non-functionality of the Hospitals Management result from the lack of application of the texts that are mostly disregarded by the administrators who run hospitals;
- The low visits to Hospitals, particularly due to poor quality and high cost of services.
- Poor organization of the reference and cross-reference system

The challenges are:

- Revising existing regulations to make hospitals more operational;
- Establishing and strengthening hospitals management bodies according to their status;
- The development and implementation of real settlement plans for each of the hospitals taking into account their role as reference hospitals.

4.3.4 The pharmaceutical and laboratory system:

The Union of Comoros has a National Pharmaceutical Policy (NPP) since 2004. However, this policy's plan of implementation is still being developed.

Coordination of the pharmaceutical sector is provided by the Directorate of Public and private institutions within the National Directorate of Health and the supply of essential drugs by the National Autonomous Pharmacy of Comoros (NAPC).

Sale of drugs to the public is provided by 17 pharmacies, including 3 under the NAPC and 15 from the private sector and 59 from private repositories. All health facilities have a medication sales depot.

The National Hospital (NH) and Regional Hospital Centers (RHC) of the islands are equipped with laboratories and blood banks.

Decree 01-130/CE dated 27 December 2001 establishing a National Blood Transfusion Center was adopted but so far this center hasn't been established.

In human resources, the country has only 18 pharmacists, two biologists and 72 laboratory technicians.

Priority issues identified are:

- Drugs are frequently out of stock (56%);
- The opening of pharmaceutical anarchic structures and illicit sale of drugs;
- Irrational use of medicines;
- Doubtful quality of drugs;
- The low capacity for coordination and monitoring of the sector;
- The non-inclusion of traditional medicines in the pharmaceutical system;
- Almost all blood donations are within the family;
- Weak management and storage capacity of blood;
- The low technical capacity of existing laboratories;
- The lack of national public health laboratory and National Blood Transfusion Center;

The challenges are:

- Availability and accessibility of quality medicines at all levels;
- The establishment of inspection and control mechanisms effective against the opening of anarchic pharmaceuticals structures and the illegal sale of drugs;
- Correct drug dispensing and use;
- The establishment of an effective drugs control and quality assurance system;
- the promotion of traditional medicine and pharmacopoeia;
- the establishment of a functional National Blood Transfusion Center;
- promotion of voluntary blood donation;
- The establishment of human, material and financial resources necessary for the proper functioning of laboratories;

- The promotion of biomedical research for, among others, an actual diagnosis of the disease;
- The establishment of a functional laboratories network;

4.3.5 Human Resources:

The Union of Comoros has a National Human Resource Development Plan (PNDRH) covering the period from 2001 to 2010. A new 2010-2014 resource development plan has been developed.

In terms of human resources availability, according to the census conducted in 2009, staff/population ratios are, respectively, nearly 2 doctors (GPs 1.1 and 0.7 specialists), almost 4 state nurses, 3 midwives, 0.3 pharmacists, 0.3 dentists, 1.1 laboratory technicians, etc. per 10,000 inhabitants.

For basic training, the country has a National Health School linked to the University of Comoros. This school only trains for now intermediate health officers (midwives and state nurses). Its yearly capacity is 35 to 40 new enrollments.

Chart No. 03: Evolution of health staff from 2005 to 2009.

Categories	2007	2009	Change in % 2007-2009	Ratio Per/10.000 capita in 2009
Physicians (excluding foreign technical assistance)	111	121	8	1.8
Pharmacists	17	18	6	0.3
Dentists	19	21	10.53	0.3
Graduate State Nurses	189	252	33.33	3.8
Graduate State Midwives	168	199	18	3
Laboratory Technicians	72	100	39	1.5

The main priority issues are:

- Misallocation of human resources with the concentration of the latter in large urban centers in particular because of (1) the lack of incentive to work in the periphery, (2) the profitability of the private consultations in major urban centers and (3) assignment of personnel based on political considerations;
- The lack of qualified human resources mainly due to (1) the limitation of recruitment and the mismatch between existing budget items and organic frameworks, (2) the low capacity of the National School of Public Health, (3) the lack of training institution for senior health officials and (4) the brain drain staffs;
- The low productivity of staff related to lack of motivation due, including (1) lack of career planning, (2) the late payment of wages, (3) the inadequacy of the framework and (4) demotivation and disaffection among staff.

The challenges are:

- The promotion of health workforce planning in relation to the needs of the health sector;
- Creation of various categories of required personnel by the optimal use of opportunities within and outside the country;
- rational distribution of health personnel across the country as needed;
- Motivation and retention of health workers at workstations.

4.3.6 Health Information System (HIS)

Despite the existence of a Master Plan for the HIS in the Comoros since 2004, the problem of producing statistical data remains. A plan for integrated disease surveillance (IDSR) was developed in 2004 and is under implementation.

An evaluation of the HIS was performed in 2007 with support from Health Metrics Network (HMN) and a National Development Plan of the Health Information System (NDPHIS) is developed.

In terms of resources, a single person equipped with a computer and a desk, is in charge of the HIS at central level. At island level, five people work on the HIS, 3 in Njazidja, and 1 respectively in Mwali and Nzwani.

Priority issues identified are:

- The inadequacy of the HIS's institutional framework for better coordination, an adequate control and effective integration of interventions. This problem is due mainly to low technical capacity of the structures responsible for the HIS, particularly in terms of technical skills and equipment;
- Inadequate indicators, particularly in regard to criteria for quality, comprehensiveness, the inclusion of the MDGs. For this purpose, the definition of health indicators identified in the Master Plan of the HIS has not adequately addressed the needs of all partners and programs (no harmonization /indicators integration) particularly due to the low intra-and inter-sectoral cooperation;
- The non-availability and accessibility of reliable statistics particularly due to the lack of motivation (reward/punishment) of those responsible for the HIS at different levels, lack of monitoring and supervision to ensure the availability and quality of data, the absence of mechanisms to collect data on national health accounts and malfunction of the civil registration system.
- The limited capacity of data management related to the lack of qualified human resources and lack of archiving system of health information;
- The low dissemination and utilization capacity of related data, mainly the failure to present data and poor coordination and collaboration of stakeholders.

The challenges are:

- The establishment of an appropriate institutional framework for the management of HIS;
- Strengthening the technical capacity of institutions responsible for management of the HIS at all levels;
- Defining a list of indicators that meet the quality criteria taking into account all players' needs;
- Strengthening collaboration within and between sectors;
- Development of all HIS subsystems including National Health Accounts and records;
- Use of New Information and Communication Technologies (NICT) in the health sector.

4.3.7 Research and Knowledge Management

Other than specific isolated activities that are undertaken under the aegis of the development partners, research remains the poor in the Comoros health system. The establishment of a National Research during the evaluation of research institutions conducted in 2008 could have been the starting point for the design and implementation of a research strategy, unfortunately, it wasn't.

In this context the Union of Comoros has a lot to do because of the total lack of an organized health research system related to the absence of functional institution responsible for research and low competence of the health research human resources.

The challenge is the promotion of health research in all its components (research policy, institutional organization, improvement of research skills).

4.3.8 Funding for health :

Faced with the strong budget constraint in the Union of Comoros, the share of public spending on health in the State budget decreased from 8.6% in 1998 to about 4% in 2008, constituting a withdrawal of the State that is relatively disturbing. This share of the health budget in the State budget is far below that of most African countries, and of course the Abuja targets (by 15%).

Furthermore, the external financing of health is difficult to estimate due to lack of current consolidated data. In the State budget, the PIP indicates the funding from some donors, but this list only takes into account support from UN Agencies, the IMF, and some projects funded by bilateral and multilateral cooperation (especially French, Japanese, and Chinese). Private donors (especially from the Gulf) and NGOs (for example related to the diaspora) do not appear in these figures.

Table n°04: Evolution of planned public expenditure for operation in billions of KMF (TOFE & BE reports)

Title	2006			2007			2008		
	National	Health	% BS/BN	National	Health	% B S/BN	National	Health	% BS/BN
Staff remuneration	4,325	0,495	3,8%	4,584	0,425	2,9%	5,276	0,347	2,5%
Goods and services	3,406	0,023	0,2%	3,642	0,013	0,1%	4,588	0,012	0,1%
Transfers	0,871	0,113	0,9%	1,275	0,129	0,9%	1,032	0,151	1,1%
Provisions of services	0,592		0,0%	0,3		0,0%	0,17		0,0%
Public debt	3,707		0,0%	4,378		0,0%	2,911		0,0%
Contribution to international bodies	0,2		0,0%	0,25		0,0%	0,165		0,0%
Total expenditure	13,101	0,631	4,8%	14,429	0,567	3,9%	14,142	0,51	3,6%

This table underlines that the share of the health budget in the national budget respectively accounted for 4.8%, 3.9%, and 3.6% in 2006, 2007, and 2008. This decrease is particularly worrying, considering that these figures are still very far from that which was recommended by the Summit of Heads of State in Abuja, that is to say, investing 15% of the national budget in the population's health.

The below table underlines the very low level of the external financing for health in the global external funding the country received. It increased from 6.7% in 2005 to 7.4% in 2006. Prospects that were planned for 2007 and 2008 still remained at lower levels, respectively 4.1% and 6.8%.

Table n°05: Evolution of health expenditure financed by foreign assistance in millions of KMF (TOFE & BE reports)

Title	Performance		Projection	
	2005	2006	2007	2008
Public expenditure financed by foreign assistance	9 921,30	8 742,50	25 356,70	28 808,00
Share of the health expenditure financed by foreign assistance	662,1	644	1 048,30	1 959,40
Share in % of health expenditure/FE	6,7%	7,4%	4,1%	6,8%

Issues identified as priorities:

- Low share of the State budget spent on health;
- Lack of policy for promoting alternative financing mechanisms ;
- Inadequate management of community participation ;

- Limited number of partners to finance the heavy investments in the health sector ;
- Inadequate coordination of health development aid.

Challenges to be faced:

- Increase of State contribution for health financing in line with the Abuja Declaration
- Universal financial accessibility to health through promotion of alternative financing mechanisms;
- Mobilization of more external financing for the health sector, particularly for heavy investments.

V. VISION AND STRATEGIC GUIDELINES

5.1 Vision

Through a transparent and effective partnership with all health actors, the government of the Union of the Comoros works to ensure that the population has access to quality health service in an equitable manner.

Achieving this vision requires a certain number of conditions, namely: the existence of an institutional framework ensuring the equitable and efficient management of resources, a stable sociopolitical context favorable to development, an adequate mobilization of resources, health services which are geographically and financially accessible, increased community participation, and a strengthening of capacity in all areas.

It will inevitably led to a control of morbidity and mortality related to communicable and non-communicable diseases, to appropriate support for mothers and children to effectively reduce maternal and child mortality and achieve the Millennium Development Objectives(MDGs).

To be realized, this vision relies on health development strategies that must be structured around the values and principles of solidarity, equity, ethics, quality, relevance, transparency, and good governance.

5.2 Strategic guidelines

The strategic guidelines are defined according to the problems and challenges raised in the analysis of the situation. Those will guide the setting of objectives and the determination of actions to achieve them. They are featured by component and subcomponent.

5.2.1 Fight against disease

5.2.1.1 Fight against malaria

In order to eradicate malaria, the Union of the Comoros must develop strategies aiming at lowering the rate of parasite carriers among the population to lower than 5 per 100 by 2014.

The strategic guidelines adopted, besides the extension of mass treatment in all the country in order to eradicate the disease:

- Prevention through widespread use of long-term insecticide treated nets (LLINs),
- Targeted use of indoor residual spraying (IRS) of insecticide,
- Intermittent Preventive Treatment (IPT) for pregnant women,
- Treatment of malaria cases by the Artemisinin-based Combination Therapy (ACT).

5.2.1.2 Fight against HIV/AIDS

The maintenance of HIV prevalence at lower than 0.025% through a scaling of prevention activities constitutes the general objective for the fight against HIV/AIDS.

Strategic guidelines adopted:

- Strengthening of the prevention and management of cases;

- Strengthening of the epidemiological surveillance of target populations;
- Strengthening the program's management and monitoring;
- Advocating the mobilization of extra financial resources.

5.2.1.3 Tuberculosis and leprosy:

To reduce by half the actual prevalence rate of tuberculosis and leprosy by 2014, it will be necessary to develop those strategies:

- Intensification of screening;
- Strengthening of support;
- Mobilization of extra financial resources to other partners;
- Strengthening of the management capacities of the Fight Program against Tuberculosis and Leprosy.

5.2.1.4 Lymphatic filariasis:

In continuation of the process that started in 2001, organizing a campaign for extra mass treatment against filariasis is the most appropriate way of eradicating the disease in the Union of the Comoros.

5.2.1.5 Non-communicable diseases :

In the context of the fight against communicable diseases, the first preoccupation is to collect reliable figures on these diseases through operational research or surveys and then to support appropriate interventions aiming at minimizing their impact on population health.

5.2.1.6 Epidemiological surveillance and response:

So as to control the epidemic's apparition and to ensure the appropriate response, if any, the strategic guideline chosen is the strengthening of the technical abilities at all levels of the health system through training, regular supportive supervision, and motivation of health agents.

5.2.1.7 Disaster management:

Strategic guidelines of the field:

- Mobilization of all the partners from the health and nutrition cluster for preparation and response;
- Development of response and rehabilitation activities through providing of essential drugs as well as laboratory equipment and reagents;
- Strengthening of capacities for coordination and logistic support for an effective response to the needs of public health.

5.2.1.8 Health and environment

The strategic guidelines in this area consist in: (1) the strengthening of the capacities linked to environmental health of the technical services of the Ministry of Health, of Environment, and the other ministries; (2) the strengthening of the partnership for the implementation of multi-sectorial interventions in the fields of improvement in the quality of water for consumption, environmental sanitation, food safety, and hygiene at home, school, and the workplace.

5.2.1.9 Health promotion

The aim here will be to strengthen the technical capacities in order to promote actions impacting lifestyles and other social, economic, environmental, and individual factors that contribute to health. Education, Information, and Communication across all traditional and modern channels strongly contribute to this promotion.

5.2.2 Reproductive health and child survival

5.2.2.1 Reproductive health

To find appropriate solutions to problems identified during the situation analysis, various points have been identified, including:

- Strengthening of awareness campaigns for parents and young people to adopt behavior favorable to sexual health;
- Creating and strengthening of welcoming facilities for young people: «Amis des Jeunes» (“Friends of Young People”);
- Strengthening of accessibility and availability of quality and emergency obstetric care services in health facilities;
- Strengthening the referral and counter-referral system in the health district trainings ;
- Advocating an increase of the resources in the structures in charge of maternal health;
- Strengthening the partnership with the community;
- Strengthening the management of deliveries by skilled staff;
- Developing distribution points for contraceptives;
- Integrating the SR and fight against HIV;
- Involving men in the Family Planning programs;
- Strengthening of advocacy to ensure the security of SR products including contraceptives;
- Strengthening the capacities of health staff and health facilities at all levels for genital cancer screenings.

5.2.2.2 Child survival

This component includes the EPI, ICCD, nutrition, and school health. The interventions related to these components essentially contribute to reduce child mortality.

The defined strategic guidelines are based on the following points:

- Increasing the access to and use of vaccine services at all levels;
- Defining a strategic framework for fighting against malnutrition including a Communication Plan for Behavior Change (CPBC);
- Caring for malnourished people through health and community trainings
- Strengthening the capacities of participants in the ICCD;
- Developing the ICCD at the community level;
- Introducing extracurricular activities for family life education in primary and secondary schools;
- Promoting hygiene at school.

5.2.3 Strengthening of the health system

5.2.3.1 Institutional reform :

At the level of health administration, professional categories adapted to the needs and realities of the country will be developed and implemented. These must be strictly established in accordance with the tasks assigned to different administrative structures and with the human resources whose qualifications are relevant to these missions.

At the level of health facilities, and in order to bring the health services even closer to the population and improve their quality, and considering the small size of health districts—and the islands themselves—the health map is revised in order to group health districts into health areas covering a critical mass of people. Thus, the Ngazidja and Nzuani islands will be organized into three health areas and that of Moheli in a single one. This reorganization will enable a more efficient use of available human and material resources within a framework of sharing and solidarity.

Technical standards have also been adopted to define the Minimum Activities Packages (MAP) that are required to be made available at different levels of the health pyramid and the resources in terms of premises, equipment, and staff for their implementation. Thus, at the top of the pyramid, the National Reference Hospital (NRH) will provide health services while the Regional Hospital Centers (RHCs) and Surgical Medical Centers (SMCs) will provide secondary-level health services and the District Health Centers some primary-level health services.

Strategic guidelines for implementing this institutional reform:

- Strengthening the administration's technical and management abilities through redefinition of the functions and the effective implementation of human, material, and financial resources to ensure their effective and efficient accomplishment;
- Strengthening the technical and management abilities of the Health District Centers for the effective implementation of governance bodies and technical facilities in accordance with the established technical standards.
- Developing the partnership in order to mobilize all the actors around health development, mainly through the current coordination bodies (NHC, TSSC, etc.)

5.2.3.2 Development of health infrastructures

Infrastructures (premises and equipment) are the necessary support for implementing appropriate health services. Strategic guidelines adopted to ensure this support:

- Strengthening current infrastructures to adapt them to technical health standards;
- Building new infrastructures in accordance with health map and technical health standards;
- Implementing an efficient and perennial maintenance policy.

5.2.3.3 Hospital reform

Hospitals are an important link in the health system for patient care, though supporting the lower levels of the health pyramid. Thus, for the populations' well-being, the resolution AFR/RC53/9 rev.1 of the WHO Regional Committee in 2003 asked member States to strengthen the role of hospitals in national health systems.

Strategic guidelines adopted:

- Implementing an appropriate institutional framework for the proper operation of hospitals;
- Introducing effective and revitalized governance bodies for hospitals;
- Improving the quality of service and healthcare inside hospitals
- Organizing the referral and counter-referral system to structure the hospital's relations with the other levels of the health pyramid.

5.2.3.4 Laboratory and pharmaceutical system

Availability and good use of medicines and other medical products constitute one of the most important factors in the health of populations. For that reason, the pharmaceutical laboratory system must be included in the nation's health development priorities.

Strategic guidelines retained from the pharmaceutical laboratory system:

- Strengthening the capacities of supplying and managing medicines at all levels;
- Strengthening efficient inspection and monitoring mechanisms;
- Promoting rational use of medicines;
- Strengthening the technical capacities for controlling the quality of drugs;
- Promoting traditional medicine and quality pharmacopeia;
- Strengthening the coordination and monitoring system;
- Promoting transfusion safety;
- Strengthening the technical capacities of laboratories at all levels.

5.2.3.5 Human resources

Considering the analysis of the situation and the role human resources play in health development, we have in this field adopted the following strategic guidelines:

- Strengthening the national capacities for an adequate plan of human resources;
- Promoting the production and development of skills according to needs;
- Strengthening the national abilities for a good management of human resources.

5.2.3.6 Health Information System (HIS)

Considering the issues listed above, the HIS will necessarily be conducted via:

- Strengthening the legal and institutional framework;
- Defining and harmonizing health indicators that meet the needs of monitoring, assessment, and required technical criteria;
- Strengthening the technical capacities for producing reliable data and its appropriate dissemination, proper care, archiving, and efficient use for planning and decision-making.

5.2.3.7 Research and knowledge management:

As the neglected stepchild of the health system, the promotion of research can only be realized through its institutionalization and the strengthening of the technical capacities in this area at all levels.

5.2.3.8 Health funding

As the lifeblood of any venture, special care must be accorded to the financing. In order to achieve this, the most appropriate way is through developing and establishing a funding strategy in favor of health at all levels. This strategy must take into account the State's contribution, external funds, and the most appropriate alternative forms of funding.

VI. GOALS AND PRIORITY INTERVENTIONS

6.1 Fight against disease

6.1.1 Malaria

General objectives:

Eradicating malaria in the Union of the Comoros by making the rate of parasite carriers among the population lower than 5 per 100 by 2014.

Specific objectives:

- Ensuring 100% of the population has access to LLINs;
- Ensuring 100% of households has access to IRS;
- Ensuring 100% of pregnant women has access to ITP;
- Ensuring 100% of the population is mass treated;
- Ensuring 100% of malaria cases receive proper care.

Actions to be undertaken:

- Organizing campaigns for mass treatment in the two other islands of the archipelago, as was done in Moheli Island;
- Make 1 million LLINs, 150,000 doses of SP, and insecticides available;
- Distributing long-term insecticide-treated nets (LLINs) through massive campaigns in communities and by the PNC;
- Organizing 2 cycles of indoor residual spraying (IRS) per year;
- Make the ACTs available in health facilities;
- Organizing activities for the prevention of malaria during pregnancy in the DHCs and health posts;
- Revising, producing, and distributing 1,000 guides of malaria management every 3 years;
- Training/retraining 800 agents every 2 years on dealing with cases;
- Organizing campaigns for population awareness in the fight against malaria (IRS, LLIN use);
- Monitoring the chemical resistance of insecticides.

6.1.2 HIV/AIDS

General objective:

Maintaining the HIV prevalence at less than 0.025% through a range of prevention activities.

Specific objectives:

- Increasing the rate of use of condom use from 22% to 50% in risky sex situations;
- Strengthening the promotion of universal precautions;
- Ensuring correct care for 100% of STI cases;
- Increasing the voluntary screening rate from 8% to 25%;
- Ensuring the PMTCT to pregnant women in all PNC facilities;
- Ensuring care for 100% of PLWHA.

Actions to be undertaken:

- Implementing a social marketing strategy for condoms;
- Ensuring the availability of condoms;
- Training and retraining workers who distribute condoms in communication techniques and stock management;
- Providing condoms to target populations;
- Training providers for care of STIs according to a symptomatic approach;
- Providing guides of STI care to providers;

- Generalizing systematic screening for syphilis in pregnant women in health district centers;
- Providing STI kits to public and community health facilities;
- Providing STI and HIV reagents for health facilities;
- Training service providers in screening and counseling (CDAG and PMTCT);
- Organizing movable screenings in the 3 islands;
- Providing the screening centers with small equipment, including awareness aids and portable labs;
- Training for referent agents (doctors and midwives);
- Make the ARV kits available in the reference centers for caring for AES;
- Advocating for the creation of a Solidarity Fund for fight against HIV/AIDS;
- Developing the standard guides about the universal precautions.

6.1.3 Leprosy and tuberculosis:

General objectives:

- Reducing the prevalence rate of tuberculosis from 45 to 30 per 100,000;
- Reducing the prevalence rate of leprosy from 4 to 1 case per 10,000.

Specific objectives:

- Increasing the screening rate for PTB+ (smear-positive pulmonary tuberculosis) from 75% to 100% ;
- Maintaining the cure rate for tuberculosis superior to 90%.
- Increasing the screening rate for leprosy from xx to yy %
- Maintaining the cure rate for leprosy at a minimum of xx%

Actions to be undertaken:

- Strengthening the screenings (active search) for tuberculosis in families;
- Training health staff and community health workers on screening for patients with tuberculosis;
- Ensuring the support of tuberculosis cases;
- Actively searching for patients with tuberculosis who are reluctant to be treated;
- Ensuring quality control of slides for a better diagnosis of tuberculosis;
- Organizing studies of medicine-resistant tuberculosis.
- Organizing small leprosy-screening campaigns in Anjouan;
- Strengthening early screening of leprosy cases at the community level;
- Training the service providers on the care of leprosy cases;
- Making medicines available for treating leprosy.

6.1.4 Lymphatic filariasis:

General objective:

- Eradicating lymphatic filariasis as an issue of public health in the Union of the Comoros.

Specific objectives:

- Ensuring treatment for 100% of Comorians;
- Ensuring the certification of filariasis eradication.

Actions to be undertaken:

- Strengthening public awareness about lymphatic filariasis;
- Assessing the national plan for the eradication of lymphatic filariasis;
- Planning and realizing the 5th CT within the 17 execution units;
- Organizing a survey to evaluate the prevalence of filarial antibodies;
- Organizing the integrated vector control in agreement with the NMCP;
- Treating the cases of lymphatic filariasis;

- Developing and spreading the CT report;
- Supervising the activities of filariasis eradication;
- Collecting and analyzing data from sentinel sites.

6.1.5 Non-communicable diseases:

General objective:

- Reducing the prevalence rate of non-communicable diseases.

Specific objectives:

- Reducing the prevalence rate of high blood pressure;
- Reducing the prevalence rate of diabetes;
- Reducing the prevalence rate of blindness from 0.8% to 0.1%;
- Reducing the prevalence rate of oral infections;
- Reducing the prevalence rate of diseases linked to use of harmful products (alcohol, tobacco, drugs, etc.).

Actions to be undertaken:

- Organizing early systematic screenings for cases of high blood pressure and diabetes;
- Training service providers on the proper treatment of HBP and diabetes;
- Gathering people suffering from diabetes in solidarity associations;
- Training providers on early detection of eye diseases;
- Organizing early systematic screening and care for eye diseases;
- Early diagnosing of and caring for dental problems in schools;
- Gathering people suffering from behaviors harmful to health in solidarity associations;
- Ensuring support of mentally ill patient in hospitals.

6.1.6 Epidemiological surveillance and response:

General objective:

- Detecting and responding early to epidemics.

Specific objectives:

- Ensuring 100% complete and timely reporting of cases of diseases with epidemic potential;
- Ensuring an effective response to epidemics.

Actions to be undertaken:

- Revitalizing the centers for epidemiological surveillance;
- Providing tools for the collection and analysis of data to surveillance facilities and units;
- Ensuring sanitary control at the borders;
- Setting aside drugs, equipment, and response logistics;
- Setting up an active surveillance and response system at all levels, including the community level.

6.1.7 Health and environment:

General objective:

- Promoting a healthy environment favorable to the health and well-being of Comorians.

Specific objectives:

- Reducing incidence rates of diseases caused by unhealthy food and water;

- Ensuring a good management of hospital waste;
- Strengthening the abilities of the services in charge of hygiene and sanitation.

Actions to be undertaken:

- Equipping the hygiene and sanitation service with water testing kits;
- Ensuring sanitary controls in markets, restaurants, and public places;
- Promoting initiatives for clean cities;
- Promoting hygiene at schools;
- Equipping health facilities with sorting and removal of hospital waste equipments;
- Training people in charge of the managing of hospital waste in the sorting and removal of waste;
- Building/renovating incinerators in the health facilities;
- Maintaining incinerators;
- Providing the hygiene services with motorcycles;
- Ensuring the maintenance and operation of the motorcycles;
- Ensuring the training of the persons in charge of hygiene and sanitation.

6.1.8 Disaster management:

General objective:

- Preparing health sector to provide health services to save lives and ease the suffering and disabilities of people affected by crises.

Specific objectives:

To be prepared to:

- Provide reliable and regular information on the health and nutritional statuses during crises, for the planning of responses as well as the rehabilitation through regular evaluation (including rapid assessment);
- Providing emergency and reference care for injured people during crises (malaria, ARIs, malnutrition, chronic diseases, and also providing a range of care for emergency reproductive health).

Actions to be undertaken:

- Developing contingency plans for health sector;
- Developing contingency plans for hospitals;
- Developing an rescue plan (ORSEC) linked to food safety and environment in each of the three islands of the Union of the Comoros;
- Training staff in quick evaluation in crisis situations;
- Setting up an equipped SAMU ((Emergency medical assistance service) facility on each island;
- Setting aside stocks of products and laboratory pharmaceutical equipment (solute, infusers, catheter, doxycycline, gloves, HTH chlorine, picot beds, portable tanks, mask, ear muffs, condoms, vaccines, vitamin A, SRO, therapeutic milk, etc.).

6.1.9 Health promotion:

General objective:

- Promoting behaviors favorable to health in order to minimize the impact of health problems on the well-being of populations.

Specific objectives:

Encouraging people to:

- know the methods of prevention for communicable and non-communicable diseases;

- adopt behaviors favorable to sexual reproductive health;
- adopt behaviors favorable to infant hygiene, diet, and nutrition;
- adopt behaviors favorable to development and maintenance of a healthy environment.

Actions to be undertaken:

- Developing an integrated strategic plan for health communication;
- Organizing IEC/CCC campaigns on health problems;
- Producing IEC/CCC supports;
- Improving the communication techniques of health agents;
- Reinforcing the scripted audiovisual services;
- Implementing a network of community workers;
- Training/retraining 400 community health agents on communication techniques;
- Making clergy committees operational;
- Organizing advocacy meetings with employer and trade union representatives.

6.2 Reproductive health and child survival:

6.2.1 Reproductive health:

General objective:

- Reducing the maternal mortality rate from 380 to 130 per 100,000 live births.

Specific objectives:

- Increasing the proportion of young people who know how to prevent unwanted pregnancies and STIs from 32% (2009 health survey for teens) to 70%;
- Increasing from 75% to 85% the proportion of births taking place in health facilities;
- Increasing the rates of PNC1 and PNC3 respectively from 73 % to 90 % and 52% to 85%, respectively;
- Increasing the C-section rate from 3.4% to 5%;
- Increasing the contraceptive prevalence among women of reproductive age from 13% to 20%;
- Ensuring early screening of and support for at least 80% of cases of genital cancers.

Actions to be undertaken:

- Implementing a network of peer educators at the community level;
- Developing information activities, education, and communication for behavior change in collaboration with NGOs;
- Creating and strengthening welcoming frameworks for young people “Amis des Jeunes” (“Friends of Youth”)
- Inserting the EVF modules in the secondary cycle training curriculum;
- Training service providers in technology and logistics for Family Planning;
- Ensuring safety of contraceptive products including condoms (distribution and storage);
- Inserting family planning modules in the School of Medicine and Public Health (SMPH) curricula;
- Checking standards and protocol support in SR;
- Training health staff for SONU and monitoring of pregnancy;
- Training staff on pregnancy monitoring and screening of high risk pregnancies (AMTSL: Active Management of Labor and Childbirth Preparation);
- Making drug kits available in health centers for deliveries;
- Providing referral hospitals with drug kits for obstetric emergencies;
- Establishing a system of reference and counter reference for SONU;
- Providing the PNC services with medicines and reagents for the free assessment;
- Advocating for the authorities to establish mechanisms for the subsidy of C-sections;

- Strengthening staff capacity in refocused NPC;
- Providing referral hospitals and SMCs with means of early screening and treatment of genital cancers;
- Training service providers on screening and treatment of genital cancers;
- Organizing campaigns for screening cervical cancer;
- Conducting a study on the prevalence and factors of genital cancers;
- Developing protocols for management of cases of genital cancers.

6.2.2 Child survival:

General objective:

- Reducing the child mortality rate from 71 to 50 per 1,000 live births;
- Reducing the neonatal mortality rate from 33 to 15 per 1,000 live births.

Specific objectives:

- Increasing and maintaining the vaccine coverage at 90% for all the antigens and in all the districts;
- Reducing the rate of underweight from 25% to 10%;
- Reducing the rate of moderate acute malnutrition by 7.1% in Anjouan, 2.4% in Grande Comore, 4% in Moheli, and 2% in all the islands;
- Reducing the rate of severe acute malnutrition by 1.6% in Anjouan, 0.9% in Grande Comore, 3% in Moheli, and 0.5% in all the islands;
- Increasing the rate of exclusive maternal breastfeeding from 28% to 65%;
- Ensuring the support for at least 80% of newborns against asphyxia, prematurity, and neonatal infections.

Actions to be undertaken:

- Developing and implementing a National EPI Policy including injection safety, cold chain, and EPI management;
- Ensuring the supply in routine and campaign vaccines and vaccination equipment;
- Ensuring the active search at all levels for patients lost to follow-up;
- Developing a plan for the rehabilitation and maintenance of the cold chain stock (solar fridges);
- Providing budgeted and updated micro-plans;
- Implementing RED approach according to the micro-plans;
- Training staff and students of the PMSC on the MLM;
- Developing a policy and national plan for fighting against malnutrition;
- Ensuring the nutritional surveillance of children under the age of five in all the districts;
- Training health agents on the integrated support for malnutrition;
- Training community workers on screening and monitoring of malnutrition care at the community level;
- Developing and implementing the communication tools on the malnutrition causes;
- Ensuring de-worming and micronutrient supplementation, in collaboration with the EPI;
- Conducting a survey on the nutritional status of children <5 years old and on mortality;
- Adapting the modules for the Baby-Friendly Hospital Initiative;
- Training staff and students on maternal breastfeeding and the Baby-Friendly Hospital Initiative;
- Updating the legal framework on the marketing of breast milk substitutes;
- Passing the law on the legal framework of exclusive breastfeeding;
- Conducting awareness-raising activities to promote maternal breastfeeding;
- Training the midwives and other staff on the care of asphyxia, prematurity, and/or infections;
- Training service providers in ICCD on a regular basis;
- Ensuring IPT for pregnant women;

- Providing the equipment and support necessary for care in accordance with the ICCD;
- Developing the strategy of school health;
- Organizing medical examination at schools;
- Organizing screening at schools;
- Training community agents for population awareness about newborn health;
- Implementing an active research system for neonatal deaths in hospitals and communities.

6.3 Health System:

6.3.1 Institutional reform:

General objective:

- Improving the performance of the Health System.

Specific objectives:

- Implementing an effective and efficient administrative system for managing the health sector;
- Ensuring the functional ability of health districts so that they can truly meet the population's needs;
- Ensuring the efficient coordination of health programs.

Actions to be undertaken:

- Adopting and popularizing technical standards of health and the health map;
- Revising and applying in a transparent way organic frameworks for health administration adapted to the needs;
- Training and/or retraining the health administration officials in management and administration;
- Building and/or renovating and equipping the administration services in accordance with established standards;
- Ensuring the maintenance of administrative buildings;
- Ensuring the maintenance of administrative furniture and equipment;
- Establishing and enforcing measures of appreciation and punishment/reward for staff;
- Developing/revising and popularizing regulatory texts governing the operation of health administration;
- Strengthening the management capacity at the DHC (revitalization of the Executive Boards, team training for DHC management, etc.);
- Mobilizing and sensitizing all the actors involved in the development of health sector around the health sector reform;
- Developing the strategic plans for priority programs;
- Developing and implementing a plan for coordination and appropriate monitoring at all levels (Monitoring and Evaluation Meetings, Annual Reviews);
- Designing an integrated supervision plan adapted to all the levels;
- Strengthening the coordination committees of the health sector, including health programs.

6.3.2 Facilities:

General objective:

- Improving the population's access to health facilities that meet standards.

Specific objectives:

- Increasing the coverage in health facilities in accordance with standards to 80%;
- Encouraging at least 50% of private facilities to meet standards.

Actions to be undertaken:

- Developing and implementing a national policy for maintaining health facilities;
- Rehabilitating the NHC facilities;
- Rehabilitating the Hombo and Fomboni RHC;
- Building a RHC in Ngazidja;
- Rehabilitating the Domoni and Mitsamiouli CMCs;
- Changing the DHCs of Foubouni, Nyoumachoua, and Pomoni in CMC;
- Rehabilitating the 12 DHCs;
- Rehabilitating PHs;
- Establishing 14 new health posts;
- Equipping the Five Reference Hospitals (NHC, RHC, CHR, CMC);
- Equipping the 12 DHCs;
- Equipping the health posts;
- Ensuring the maintenance of facilities;
- Developing the technical standards for setting up private facilities;
- Adopting the technical standards and the health map;
- Popularizing the statutory texts and raising awareness among players;
- Organizing inspection and monitoring missions.

6.3.3 Hospital reform:**General objective:**

- Improving the performance of hospital facilities.

Specific objectives:

- Providing 100% of hospitals with management bodies according to their institutional status before the end of 2010;
- Providing 100% of hospitals with facility plans taking into account all their development needs.

Actions to be undertaken:

- Revising regulatory and legislative texts governing hospitals;
- Implementing and energizing the hospital governance bodies;
- Training members of the governance bodies about the hospital reform and management;
- Instituting a determination system of CA members (attendance fees, medical care, etc.);
- Developing and implementing a 5-year facility project for each hospital;
- Setting up a telemedicine program inside the RHC and the NHC.

6.3.4 Pharmaceutical and Laboratory System:**General objective:**

- Improving the performance of the Pharmaceutical and Laboratory System.

Specific objectives:

- Reducing the rate of out-of-stock drugs from 56% to 0% by 2014;
- Ensuring compliance with the regulation of the pharmaceutical sector;
- Ensuring proper prescribing and dispensing of medicines at all levels;
- Ensuring drug monitoring;
- Ensuring needs in safe blood;
- Increasing from 50% to 75% the confirmation rate of diagnosis of diseases in laboratory.

Actions to be undertaken:

- Increasing the management and storage capacities of the NAPC;
- Organizing the control of importation of medicines through collaboration between the sectors concerned (Ministry of Economy, Customs, Health, Interior);
- Strengthening the capacity of the NAPC for local production of a limited range of pharmaceutical products;
- Strengthening the working capital of the NAPC;
- Developing a policy of traditional pharmacopoeia and medicine;
- Providing the DHC with working capital for medicines;
- Developing and implementing regulatory texts governing the pharmaceutical sector;
- Organizing the fight against illegal sales of medicines;
- Developing and applying a national policy for medicine price;
- Conducting a feasibility study of a registration system and quality control of medicines;
- Developing and implementing a legislation for the exemption from taxes and duties of all pharmaceutical products listed on the National List of MEGs;
- Developing an appropriate therapeutic guide;
- Training the prescribing physicians about the rational use of medicines;
- Implementing a functional drug-monitoring system;
- Building and equipping the National Blood Transfusion Center (NBTC);
- Promoting voluntary blood donation;
- Implementing a blood bank in each island;
- Ensuring the regular supplying of the NTCs with reagents for HIV screening, hepatitis, syphilis, and with blood units;
- Building and equipping a National Public Health Laboratory (NPHL);
- Implementing a national network of functional laboratories.

6.3.5 Human Resources:**General objective:**

- Ensuring availability and performance of skilled human resources at all levels in accordance with the established standards.

Specific objectives:

- Ensuring the planning of health staff in connection with the population's health needs;
- Producing the different categories of staff required by the optimal use of domestic and foreign opportunities;
- Establishing a system of staff motivation and retention.

Actions to be undertaken:

- Developing the National Human Resources Development Plan and Policy
- Organizing a review of the National Human Resources Development Plan (NHRDP) in 2012;
- Providing qualified staff according to standards for health facilities;
- Developing a consensual plan for initial and continuous training of the sector's staff;
- Strengthening partnership between the internal and external actors for health managers;
- Developing the skills of the health sector agents;
- Developing and implementing a plan for the career management of health staff;
- Developing and implementing a policy of employee motivation and retention;
- Ensuring prevention and management of professional risks.

6.3.6 Health Information System:**General objective:**

- Improving the availability and use of factual data for taking a decision.

Specific objectives:

- Improving the coordination, steering, and integration of the HIS interventions;
- Ensuring the availability of reliable data according to the CIM and GPS system for planning, managing, and decision-making;
- Ensuring the spreading, dissemination, and use of data.

Actions to be undertaken:

- Defining relevant indicators for the management, monitoring, and evaluation of programs; Setting up at the health sector level an appropriate system for data management and archiving;
- Developing and popularizing the IHS regulations;
- Implementing a framework for inter- and intra-sectoral collaboration including the civil registration system;
- Developing harmonized tools of collection, use, and analysis of data;
- Training staff in the collection, compilation, and use of data and use of ICT;
- Providing structures in charge of the IHS with ICT equipment;
- Training HIS managers in data management and archiving;
- Training staff in charge of IHS in dissemination techniques;
- Training national officers for data use;
- Creating a website at the Ministry of Health;
- Developing and implementing a national strategy for e-health.

6.3.7 Research and Knowledge Management:**General objective:**

- Promoting health research for developing the health sector.

Specific objectives:

- Developing an institutional framework for promoting research;
- Strengthening the national capacities for health research.

Actions to be undertaken:

- Developing a policy and a research plan;
- Reconstituting and getting the National Committee for Research up and running;
- Setting up and getting the Ethic Committee up and running;
- Training managers in research methodology;
- Strengthening the capacities for health research in the Comoros University;
- Developing partnership actions with research institutions.

6.3.8 Health Funding:**General objectives:**

- Ensuring in a sustainable manner adequate funding for the development of the health sector;
- Improving the financial accessibility of the population to health services.

Specific objectives:

- Increasing the share of financing for the health sector to at least 10% of the State budget by 2014;
- Developing alternative forms of financing;

Actions to be undertaken:

- Developing and implementing a strategy of resources mobilization for developing the health sector;
- Advocating to the competent authorities a progressive increase of the health budget in the national budget;
- Implementing an appropriate preparation and promotion of the health budget;
- Writing and submitting proposals to the Global Fund (GF) to finance various programs;
- Ensuring effective coordination of assistance for developing health;
- Strengthening the system of complementary health insurances through the establishment of an institutional framework and a mechanism for supervising the development of complementary health insurances;
- Setting up a mandatory health insurance for workers;
- Assessing the feasibility of mandatory health insurance;
- Organizing a study on the implementation of a solidarity fund to care for the poor;
- Setting up a solidarity fund to care for the poor.

VII. THE PLAN'S LOGICAL FRAMEWORK

For the implementation of the different interventions according to the strategic guidelines, the following objectives and criteria have been retained:

- Accomplishment period of the interventions;
- Component by intervention level: Fight Against Disease, and Reproductive Health and Child Survival;
- Fields of interventions : (i) Fight Against Disease : Malaria, HIV/AIDS, tuberculosis and leprosy, non-communicable diseases, epidemiological surveillance, hygiene and sanitation, disaster and health promotion; (ii) Reproductive Health and Child Survival: Reproductive health, genital cancer and child survival, and (iv) Health System: institutional reform, hospital reform, facilities, pharmaceutical system, human Resources, health information system, research and knowledge management, and funding.

The timing of interventions depends on the following principles: (i) Immediate actions are specifically related to basic relevant actions which are useful to start the reform process. They will take place in the course of 2010–2011, (ii) other short, medium, and long-term interventions strengthen and complement the results previously obtained. Their implementation will extend until 2014. The table below gives the overview summary of costs compared to the detailed tables below the interventions of each component.

VIII.NHDP Cost:

Components	Planned costs in thousands of Comorian francs						%
	2010	2011	2012	2013	2014	TOTALS	
Fight against disease							
Malaria	970 115	3 405 946	3 275 715	2 793 192	2 809 107	13 254 075	
HIV/AIDS	543 430	451 760	273 595	259 628	303 831	1 832 244	
Leprosy and tuberculosis	5 607	48 550	15 502	5 871	4 076	79 605	
Non-communicable diseases	1 984	73 362	10 840	19 501	3 086	108 773	
Filariasis	14 432	49 632	19 360	13 376	10 560	107 360	
Epidemiological surveillance	40 540	32 734	30 500	30 500	32 734	167 007	
Health and environment	49 140	112 759	69 778	42 718	91 177	365 571	
Disaster management	40 584	46 000	61 000	33 484	31 000	212 067	
Health promotion	72 414	77 314	60 214	60 214	70 214	340 370	
Subtotal/Fight against diseases	1 738 246	4 298 056	3 816 504	3 258 484	3 355 784	16 467 073	20%
Reproductive health and child survival							
Reproductive health	320 341	298 956	313 563	279 878	286 666	1 499 404	
Child survival	198 477	129 242	124 588	171 448	130 988	754 744	
Subtotal/Reproductive health and child survival	518 818	428 198	438 151	451 326	417 654	2 254 148	3%
Health System							
Institutional reform	117 005	111 625	3 367 165	205 675	201 075	4 002 545	
Facilities	174 245	2 522 926	7 016 240	16 958 432	8 784 308	35 456 151	
Hospital reform	118 830	147 480	128 080	106 480	109 830	610 700	
Pharmaceutical System	11 074	253 974	918 254	173 354	46 654	1 403 310	
Human Resources	3 694 689	3 990 989	4 639 295	4 154 640	4 300 443	20 780 056	
Health Information System	265 219	66 310	57 830	33 990	119 277	542 626	
Research and knowledge management	15 900	26 600	24 000	15 900	15 900	98 300	
Funding	15 000	25 000	56 900	58 800	70 000	225 700	
Subtotal/Health System	4 411 962	7 144 904	16 207 764	21 707 271	13 647 488	63 119 389	77%
OVERALL TOTAL	6 669 026	11 871 158	20 462 419	25 417 081	17 420 926	81 840 610	

IX. FUNDING PLAN IN THOUSANDS OF COMORIAN FRANCS

Sub-components	2010		2011		2012		2013		2014		2010-2014		
	Obtained	Objective	Obtained	Objective	Obtained	Objective	Obtained	Objective	Obtained	Objective	Required	Obtained	Objective
Fight against the disease													
Malaria	587 426	382 689	892 481	2 513 465	1 189 902	2 085 813	1 578 592	1 214 601	726 769	2 082 337	13 254 075	4 975 170	8 278 905
HIV/AIDS	214 792	328 638	406 657	45 103	256 546	17 048	136 126	123 501	180 060	123 771	1 832 244	1 194 182	638 062
Leprosy and tuberculosis	4 632	975	6 632	41 918	0	15 502	0	5 871	0	4 076	79 605	11 264	68 341
Non-communicable diseases	1 672	312	23 672	49 690	0	10 840	0	19 501	0	3 086	108 773	25 344	83 429
Filariasis	11 120	3 312	31 120	18 512	0	19 360	0	13 376	0	10 560	107 360	42 240	65 120
Epidemiological surveillance	19 536	21 004	19 536	13 198	0	30 500	0	30 500	0	32 734	167 007	39 072	127 935
Disaster management	39 301	9 839	33 501	79 257	25 518	44 260	0	42 718	0	91 177	365 571	98 321	267 250
Hygiene and sanitation	36 344	4 240	89 320	23 439	54 682	6 318	0	33 484	0	31 000	212 067	180 346	31 721
Health promotion	11 264	61 150	11 264	66 050	0	60 214	0	60 214	0	70 214	340 370	22 528	317 842
Subtotal for fight against disease	926 087	812 158	1 514 183	2 850 632	1 526 649	2 289 855	1 714 718	1 543 766	906 829	2 448 954	16 467 073	6 588 466	9 878 607
Reproductive Health and Child Survival													
Reproductive health	249 162	71 179	239 162	59 794	228 545	85 018	0	279 878	0	286 666	1 499 404	716 868	782 536
Child survival	94 744	103 733	178 744	-49 502	154 883	-30 295	50 000	121 448	0	130 988	754 744	478 371	276 373
Sub-total RH/CS	343 906	174 912	417 906	10 293	383 428	54 723	50 000	401 326	0	417 654	2 254 148	1 195 239	1 058 909
Health System													
Institutional Reform	53 310	63 695	102 188	9 438	770 212	2 596 953	118 598	87 077	120 951	80 124	4 002 545	1 165 258	2 837 287
Infrastructure	150 851	23 394	848 002	1 674 924	329 584	6 686 656	109 861	16 848 571	0	8 784 308	35 456 151	1 438 298	34 017 853
Hospital Reform	64 752	54 078	4 752	142 728	0	128 080	0	106 480	0	109 830	610 700	69 504	541 196
Pharmaceutical and laboratory system	10 340	734	108 425	145 549	29 460	888 794	0	173 354	0	46 654	1 403 310	148 225	1 255 085
Human Resources	1 002 728	2 691 961	453 926	3 537 063	468 358	4 170 938	429 920	3 724 720	0	4 300 443	20 780 056	2 354 931	18 425 125
Health information system	48 561	216 658	36 408	29 902	11 931	45 899	21 047	12 943	12 667	106 610	542 626	130 616	412 011
Research and knowledge management	2 816	13 084	2 816	23 784	0	24 000	0	15 900	0	15 900	98 300	5 632	92 668
Health Funding	5 743	9 257	7 099	17 901	11 988	44 912	3 602	55 198	4 280	65 720	225 700	32 712	192 988
Subtotal HS	1 339 102	3 072 861	1 563 616	5 581 288	1 621 533	14 586 231	683 028	21 024 244	137 898	13 509 590	63 119 389	5 345 176	57 774 213
OVERALL TOTAL	2 609 094	4 059 931	3 495 704	8 442 213	3 531 610	16 930 809	2 447 745	22 969 336	1 044 727	16 376 198	81 840 610	13 128 881	68 711 729

X. MONITORING AND EVALUATION

The monitoring and evaluation device is an essential part of the NHDP. It is intended to monitor and measure changes in indicators against targets during and after the period of implementation of the sector plan. In particular, the system allows for taking appropriate action in relation to problems encountered in the implementation and achievement of objectives.

Some key indicators are defined to track the performance of the sector at national, regional, and peripheral levels. The main sources of monitoring and evaluation data are collected from the health information system, the surveillances of sentinel sites, research reports, and supervision, and finally, national surveys (DHS-MIS, STIs, etc.).

The performance monitoring will be done every year by the Ministry of Health, under the responsibility of the Directorate of Research, Planning, and Health Statistics, and in collaboration with the National Board of Health as part of mid-term and annual health sector reviews with various development partners. Annual meetings will be held within regions and districts to measure their respective performances in the implementation of the NHDP. A mid-term review is planned in the course of 2012.

The various selected process indicators are rational tools for monitoring, managing, and evaluating the NHDP. For this purpose, the evolution of these indicators during the implementation of the NHDP must be harmonized.

The NHDP is a dynamic instrument for the implementation of the PNS. Updates will be progressively made during periodic reviews.

The various indicators include: (i) some indicators of impact or outcome related to the Millennium Development Objectives and the PRSP and the NHP objectives, and (ii) some process indicators needed to monitor the progress report of activities in a periodical way. Unfortunately, for a large number of indicators, baseline data is not yet available or is too ancient. The HIS development and investigations will allow the collection of the necessary information to set it.

For a better empowerment in the context of monitoring and evaluation, players at all levels will establish appropriate action plans and annual reports in connection with their respective roles.

Component 1 : Fight against disease

Fields	Indicators			Sources		Frequency					In-charge
	Name	Base	Target	Basic data	Monitoring data	A1	A2	A3	A4	A5	
Malaria	Prevalence rate of malaria		5					5	5	5	
	Rate of malaria mortality in %		15					15	15	15	
	Rate of parasite carriers among the population in %		0				30	20	10	0	
	Rate for insecticide-treated mosquito net coverage in %		100								
	Rate of household IRS coverage in %		100								
	Rate of women TPI coverage in %	60	100			70	80	90	100	100	
HIV/AIDS	Prevalence rate of HIV/AIDS in %	0,025	0,025			0,025	0,025	0,025	0,025	0,025	
	Rate of condom use for unsafe sex in %	27	50			30	35	40	45	50	
	Prevalence rate of STIs in %	4,6	1			4,2	3,8	3	2	1	
	Voluntary screening rate in %	8	50			10	15	20	30	50	
	Screening rate among pregnant women in %										
	Rate of HPV HIV care in %	100	100			100	100	100	100	100	
Leprosy	Prevalence rate of leprosy in %	4	1			4	4	3	2	1	PNLT
	Rate of leprosy screening in %										PNLT
	Percentage of treated cases	100	100			100	100	100	100	100	PNLT
Tuberculosis	Rate of cured tuberculosis	94	100			94	95	100	100	100	
	Prevalence rate of tuberculosis per hundred thousand	45	30			45	45	40	35	30	PNLT
	Percentage of detected cases	75	100		Yearly report	75	85				PNLT
	Percentage of treated tuberculosis cases	100	100		Yearly report	100	100	100	100	100	PNLT

Fields	Indicators			Sources		Frequency					In-charge
	Name	Base	Target	Basic data	Monitoring data	A1	A2	A3	A4	A5	
Non-communicable disease	Incidence rate for high blood pressure in %										
	Prevalence rate for diabetes in %										
	Prevalence rate for blindness in %	0,8	0,1			0,8	0,7	0,3	0,2	0,1	
	Prevalence rate of bucco-dental infections										
	Prevalence rate of diseases linked to use of products harmful for health										
Epidemiological surveillance	Percentage of the promptness and completeness in reporting cases of diseases with epidemic potential	0	100			50	100	100	100	100	
	Number of functional sites for epidemiological surveillance	0	17			17	17	17	17	17	
Hygiene and sanitation	Incidence rates of diseases due to poor water hygiene and food (MD, ARI, cholera)										
	Percentage of health facilities having a functional management system	0	100			25	50	75	95	100	
Disaster Management											

Component 2 : Reproductive Health and Child Survival

Fields	Monitoring indicators			Sources		Frequency					In-charge
	Name	Base	Target	Basic data	Monitoring data	A1	A2	A3	A4	A5	
Reproductive health	Rate of maternal mortality for hundred thousand live births	381	250		Survey, RGPH	350	320	300	275	250	DSF
	Number of new cases of detected genital cancers	xx	xx		Survey, routine data (EDR)						DSF
	Proportion of young people using prevention methods against unwanted pregnancies	32%			Survey						DSF
	Proportion of people using prevention methods against STIs	32%			Survey						DSF
	Birth rate in a health facility	75%	85%		EDR	78%	80%	82%	83%	85%	DSF
	Caesarean rate	3%	5%		EDR	3%	3.5%	4.0%	4.5%	5.0%	DSF
	Coverage rate for PCN1	73%	90%		EDR	73%	75%	80%	85%	90%	DSF
	Coverage rate for PCN3	52%	85%		EDR	52%	60%	65%	70%	85%	DSF
	Contraceptive prevalence rate	13%	20%		EDR	13%	15%	17%	18%	20%	DSF
	Screening rate for genital cancers		60%		Survey					60%	DSF

Fields	Monitoring indicators			Sources		Frequency					In-charge
	Name	Base	Target	Basic date	Monitoring data	A1	A2	A3	A4	A5	
Child survival	Child mortality rate	72%	50%		Survey	72%				50%	DSF
	Neonatal mortality rate	33%	15%		Survey, routine data (EDR)	33%	32%	28%	25%	15%	DSF
	National vaccine coverage via DTC-HepB3 (%)	75%	93%		EDR	75%	80%	85%	90%	93%	CNPEV
	Vaccine coverage among pregnant women via VAT2+ (at least 2 doses of tetanus toxoid) (%)	45.70%	65%		EDR	46%	50%	55%	60%	65%	CNPEV
	Rate of severe acute malnutrition		1%		EDR					1%	DSF
	Rate of moderate acute malnutrition	25.40	15		EDR	25%	25%	20%	15%	15%	DSF
	Underweight rate	25%	15%		EDR	25%	22%	19%	17%	15%	DSF
	Rate of exclusive maternal breastfeeding	28%	65%		Survey	28%	33%	44%	55%	65%	DSF
	Rate of mortality due to newborn asphyxia	23%	12%		EDR	23%	19%	17%	15%	12%	DSF
	Rate of mortality due to newborn infections	36%	15%		EDR	36%	30%	26%	20%	15%	DSF
Proportion of schoolchildren living with intestinal worms	80%	10%		Campaigns,	80%	60%	40%	20%	10%	DSF	

Component 3 : Health System

Fields	Monitoring indicators			Sources		Frequency					In-charge
	Name	Base	Target	Basic data	Monitoring data	A1	A2	A3	A4	A5	
Institutional Reform	Percentage of administrative structures working in good conditions	0	60	Estimation	Evaluation	20	30	50	55	60	DEPSS
	Percentage of functional HDCs	0	100	RED 2007	Evaluation	20	30	50	90	100	
	Attendance rate of health districts	19	30	RED 2007	Statistical reports	19	19	25	30	30	
	Implementing rate of health programs in %	60	90			70	80	90	90	90	
Health infrastructure	Rate of health facility coverage (within 8 miles) in %	63	100			63	63	70	85	100	
	Proportion of private health facilities responding to standards in %	0	80			10	20	40	60	80	
	Average occupancy rate of beds in health facilities	20	60			20	30	40	50	60	
Health infrastructure	Percentage of hospitals having functional governance bodies	0	100			100	100	100	100	100	
	Implementing rate of establishment plans for hospitals	0	100			0	50	100	100	100	
Pharmaceutical system	Rate of out-of-stock medicines	56	15			56	45	35	25	15	
	Proportion of private facilities following established regulations	0	80			10	20	40	60	80	
	Rate of trained prescribing physicians	0	100			0	50	100	100	100	
	Percentage of qualified distributors	0	100			0	50	100	100	100	
	Percentage of volunteer blood donors	10	50			10	15	25	35	50	
	Confirmation rate of disease diagnostic	50	75			50	50	65	75	75	

Fields	Monitoring indicators			Sources		Frequency					In-charge
	Name	Base	Target	Basic data	Monitoring data	A1	A2	A3	A4	A5	
Human Resources	Percentage of doctors per ten thousand inhabitants	2	4			2	2	3	3	4	
	Percentage of nurses per ten thousand inhabitants	4	5			4	4	5	5	5	
	Rate of midwives per ten thousand inhabitants	3	3			3	3	3	3	3	
	Proportion of health districts having enough qualified staff according to standards	20	100		Evaluation reports	20	20	50	80	100	
Health Information System	Rate of speed for transmitting statistical reports in %	55	90			55	65	75	80	90	
	Rate of completeness for transmitting statistical reports in %	55	90			55	65	75	80	90	
	Percentage of health institutions properly equipped with TIC	0	50			0	10	20	30	50	
	Achievement rate for planned surveys in %	0	100			30	50	70	80	100	

XI. CONCLUSION

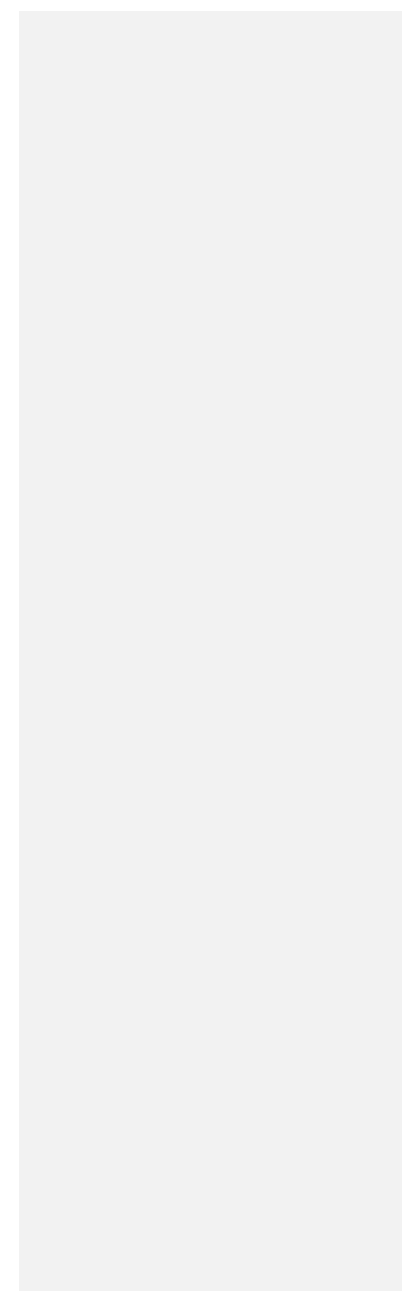
The NHDP is the preferred instrument for implementing NHP. This is the NHP's operational materialization through objectives and specific interventions for improving the health of Comorians. Its financing plan specifies the financial resources which are necessary for implementing it, while distinguishing between those available and those which must be mobilized. However, sustained efforts must be made for not only the use of available resources but also for mobilizing the financing gap.

It comes with a monitoring evaluation which specifies the starting level of indicators and targets and how these should be assessed. The development activities of the Health Information System adopted by the NHDP must contribute to supplying data to feed this monitoring and evaluation framework.

As for the coordination of its implementation, it will be ensured through the correct functioning of the existing coordination structures, in particular the NHC and the TSSC. In addition, some specific actions are planned to ensure a coordination of development assistance for the health sector. So the capacity of the different levels of administrative implementation institutions will be strengthened to improve the efficiency of the health system. To do this, special attention should be paid to the design and implementing of organic frameworks reflecting the workload of these institutions.

The beneficiary populations and all other players of health development will be mobilized and empowered so that every role is played effectively and efficiently.

ATTACHMENT I: DETAILED COSTS



1.1 NHDP Detailed Costs

General Objective: Eradicating malaria in the Union of the Comoros by making the rate of parasite carriers among the population lower than 5 per 100 by 2014.

Fields	Specific objectives	Interventions	Period					TOTAL
			2010	2011	2012	2013	2014	
MALARIA	Ensure 100% LLIN coverage of the population	Make 1 million LLINs available	564 282 180	36 247 411	39 005 366	737 722 709	46 491 245	1 423 748 911
		Distribute LLINs through mass campaigns	42 821 220	-	-	8 471 256	-	51 292 476
		Campaigns of awareness of the population on the fight against malaria (for LLIN use)	12 729 516	-	-	12 201 108	-	24 930 624
		Management fees: Storage, distribution to the islands, admin expenses (9%)	169 284 408	10 874 184	16 118 412	304 861 896	19 212 600	520 351 500
	Ensure 100% household coverage in IRS	Campaigns of awareness of the population on the fight against malaria (IRS)	4 986 125	4 986 125	4 986 125	4 986 125	4 986 125	24 930 624
		Purchase the insecticides, equipment, and logistics for the IRS	23 054 136	20 583 312	23 893 488	24 682 164	25 492 980	117 706 080
		Organize 2 cycles of indoor residual spraying (IRS) per year	-	11 645 640	11 074 920	11 291 400	11 507 880	45 519 840
		Management fees: storage, supplying to islands and administrative fees (9%)	7 164 996	7 286 520	8 840 748	9 379 488	9 687 480	42 359 232
	Ensure 100 % TPI coverage of pregnant women	Purchases of 150,000 doses of SP	15 000 000	-	-	-	-	15 000 000
		Organize activities for prevention of malaria during pregnancy in the CSD and formative position of health (training SF + Supervision + TPI management tool)	1 904 532	1 904 532	1 151 772	1 151 772	1 151 772	7 264 380
	Ensure the mass treatment of 100% of the population	Organize mass treatment (unit cost of treatment Adl and Enf + training + supervisor + expenses for travel between islands)	-	10 208 598 572	-	-	-	10 208 598 572
	Ensure correct support for 100% of the cases of malaria	Make available the anti-malarial treatments (quinine + ACT) + supply charge	124 385 472	93 262 044	170 642 328	178 442 496	175 518 540	742 250 880
		Review, produce, and distribute 1,000 flyers on the care of malaria every 3 years	4 500 000	-	-	-	4 500 000	9 000 000
Training/retraining 800 workers on the care for cases every 2 years		-	10 556 000	-	-	10 556 000	21 112 000	
Subtotal			970 112 585	10 405 944 340	275 713 159	1 293 190 414	309 104 622	13 254 065 120

General objective: Keeping HIV prevalence lower than 0.025% through a scale of prevention activities

Fields	Specific objectives	Interventions	Period					TOTAL
			2010	2011	2012	2013	2014	
HIV/AIDS	Strengthening the system of epidemiological surveillance for target populations	The technical skills of staff in strengthening the technical capacities of staff for epidemiological surveillance	5 111 310	3 200 338	3 200 338	3 200 338	3 200 338	17 912 662
		Ensuring advice tests	7 257 471	7 257 471	2 694 117	2 694 117	2 694 117	22 597 293
		Training the service providers for counseling and screening (CDAG)	2 799 480	3 103 536	3 103 536	3 103 536	3 103 536	15 213 624
		Organizing movable screenings in the 3 islands	2 890 000	2 890 000	2 890 000	2 890 000	2 890 000	14 450 000
	Increasing the rate of condom use from 22% to 50% for unsafe sex	Ensuring availability and social marketing for condoms	21 524 949	8 419 177	5 172 685	6 648 631	6 648 631	48 414 073
		Insuring awareness of target populations through community liaisons and schools	152 529 150	142 827 972	22 126 424	17 375 017	17 375 017	352 233 580
	Strengthening promotion of universal precautions	Ensuring production and spreading of mediums on awareness of STIs and HIV/AIDS						-
		Producing and broadcasting theater plays on the topic and STIs/HIV/AIDS (one per island)	26 847 389	35 390 789	29 793 389	29 793 389	29 793 389	151 618 345
	Ensuring proper care for 100% of STIs and PLHIV cases	Ensuring diagnosis and treating of STIs	13 547 181	29 865 075	6 775 800	4 853 535	4 263 353	59 304 944
		Ensuring awareness through MASS MEDIA	2 415 720	2 415 720	2 327 340	2 327 340	2 327 340	11 813 460
		Ensuring ARV treating and medical and psychosocial monitoring	10 895 781	15 971 248	9 918 200	15 288 267	14 248 820	66 322 316
		Creating a Solidarity Fund for the fight against HIV/AIDS	100 000 000	100 000 000	100 000 000	100 000 000	100 000 000	500 000 000
		Training of referral agents (doctors and midwives)	5 122 212	393 600		2 614 980		8 130 792
		Biological monitoring for PLHIV in the NHCs and RHCs.	738 000	1 107 000	1 180 800	1 180 800	1 180 800	5 387 400
	Ensuring the ICCD for pregnant women in all the PNC services	Generalizing systematic screening for syphilis among pregnant women in the district health centers	1 056 816	1 056 816	897 408	897 408	897 408	4 805 856
		Training service providers for counseling and screening (ICCD)	2 308 500	2 308 500				4 617 000
	Strengthening the technical capacities for managing the program of fight against HIV/AIDS	Implementing a system for managing, monitoring, and evaluating the program	99 449 104	39 881 475	45 385 585	42 041 875	42 041 875	268 799 914
		Ensuring the involvement of civil society in the implementation of the program	11 429 498	6 124 734	14 526 235	6 124 734	6 124 734	44 329 935
		Strengthening the health information system	30 469 496	16 191 707	7 232 921	3 736 510	47 167 915	104 798 549
		Strengthening the management capacity of other partners involved in the	47 038 291	33 355 103	16 369 940	14 857 169	19 873 716	131 494 219

	implementation of the program						
Subtotal		543 430 348	451 760 261	273 594 718	259 627 646	303 830 989	1 832 243 962

General Objective: Reducing the tuberculosis prevalence rate from 45 to 30 per 100 000

Fields	Specific objectives	Interventions	Period					TOTAL
			2010	2011	2012	2013	2014	
TUBERCULOSIS	Increasing the screening rate for PTB+ (smear-positive pulmonary tuberculosis) from 75% to 100%	Strengthening screenings (active research) in families	1 278 000	1 278 000	1 278 000	1 278 000	1 278 000	6 390 000
		Training health staff and health community agents on disease screening	2 181 075			2 445 100		4 626 175
		Ensuring the control of slides quality		40 892 000				
	Keeping the cure rate for tuberculosis superior to 90%	Ensuring care		650 000			650 000	1 300 000
		Actively pursue patients reticent to be treated and follow-up on ex-patients at their homes	1 620 000	1 620 000	1 620 000	1 620 000	1 620 000	8 100 000
		Organizing studies on anti-tuberculosis-resistant drugs			12 075 648			12 075 648
Subtotal			5 079 075	44 440 000	14 973 648	5 343 100	3 548 000	73 383 823

General Objective : Reducing prevalence rate for leprosy from 4 to 1 case per 10 000

Fields	Specific objectives	Interventions	Period					TOTAL
			2 010	2 011	2 012	2 013	2 014	
LEPROSY	Increasing the screening rate for leprosy between xx and yy %	Organizing small screening campaigns in Anjouan	528 000	528 000	528 000	528 000	528 000	2 640 000
		Strengthening the early screening of cases at the Community level		1 710 500				1 710 500
	Keeping the cure rate for leprosy at least at xx%	Training service providers on caring for cases of leprosy		1 871 000				1 871 000
		Making medicines available						
Subtotal			528 000	4 109 500	528 000	528 000	528 000	

General Objective: Eradicating lymphatic filariasis, a problem for public health in the Union of the Comoros

Fields	Specific objectives	Interventions	Period					TOTAL
			2010	2011	2012	2013	2014	
FILARIASIS	Ensuring treatment for 100% of Comorians	Strengthening the population awareness on lymphatic filariasis ;	3 520 000	1 408 000	1 408 000	1 408 000	1 408 000	9 152 000
		Evaluating the National Plan for eradicating lymphatic filariasis	3 520 000			2 816 000		6 336 000
		Planning and realizing the 5 th TDM in the 17 execution units		28 160 000				28 160 000
		Organizing integrated anti-vector fight in collaboration with NMCP		10 560 000	3 520 000	1 760 000	1 760 000	17 600 000
		Treating cases of lymphatic filariasis	2 816 000	2 816 000	2 816 000	2 816 000	2 816 000	14 080 000
	Ensuring the certification of filariasis eradication	Developing and spreading the TDM report		2 112 000				2 112 000
		Organizing an evaluation survey for prevalence of filarial antibodies			7 040 000			7 040 000
		Managing the activities of filariasis eradication	1 056 000	1 056 000	1 056 000	1 056 000	1 056 000	5 280 000
		Collecting and analyzing the data from sentinel sites	3 520 000	3 520 000	3 520 000	3 520 000	3 520 000	17 600 000
Subtotal			14 432 000	49 632 000	19 360 000	13 376 000	10 560 000	107 360 000

General Objective: Reducing the prevalence rate of non-communicable diseases

Fields	Specific objectives	Interventions	Period					TOTAL
			2010	2011	2012	2013	2014	
NON-COMMUNICABLE DISEASES	Reducing incidence rate for high blood pressure	Organizing systematic early screening of pressure cases		4 194 000		4 194 000		8 388 000
		Training service providers on correct care of HBP		2 233 500		2 233 500		4 467 000
	Reducing prevalence rate for diabetes	Organizing systematic early screenings in case of diabetes	1 984 000	1 984 000	1 984 000	1 984 000	1 984 000	9 920 000
		Training service providers on correct care of diabetes		2 233 500		2 233 500		4 467 000
		Gathering people suffering from diabetes in solidarity associations		500 000				500 000
	Reducing prevalence rate for blindness from 0.8% to 0.1%	Training service providers on early screening of eye diseases		1 871 000				1 871 000
		Organizing campaigns for early blindness screening		1 102 000			1 102 000	2 204 000
	Reducing the prevalence rate of dental disorders	Diagnosing and caring for early dental disorders in schools		35 601 849				35 601 849
	Reducing the prevalence rate of diseases linked to use of products harmful to health (alcohol, tobacco, drugs, etc.)	Gathering people suffering from behaviors harmful for health in solidarity associations		500 000				500 000
		Ensuring care of mentally ill patients in hospitals		13 142 500	8 856 000	8 856 000		30 854 500
Opening of a psychiatry service at NHC (rehabilitation + furniture + beds)			10 000 000				10 000 000	
Subtotal			1 984 000	73 362 349	10 840 000	19 501 000	3 086 000	108 773 349

General Objective: Detection and early response to epidemics

Fields	Specific objectives	Interventions	Period					TOTAL
			2010	2011	2012	2013	2014	
EPIDEMIOLOGICAL SURVEILLANCE	Ensuring 100% completeness and timeliness of the reporting of cases of diseases with epidemic potential;	Revitalizing the site of epidemiological surveillance	500 000	2 733 500	500 000	500 000	2 733 500	6 967 000
		Providing the monitoring structures and units with tools for collecting and analyzing data	500 000	500 000	500 000	500 000	500 000	2 500 000
	Ensuring an efficient response to epidemics	Ensuring health control at the borders	11 040 000	1 000 000	1 000 000	1 000 000	1 000 000	15 040 000
		Providing medicines, equipment, and response logistics	26 500 000	26 500 000	26 500 000	26 500 000	26 500 000	132 500 000
		Implementing a system of active surveillance and response at the community level	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	10 000 000
	Subtotal			40 540 000	32 733 500	30 500 000	30 500 000	32 733 500

General Objective: Health and environment

Fields	Specific objectives	Interventions	Period					TOTAL
			2010	2011	2012	2013	2014	
HYGIENE AND SANITATION	Reducing incidence rates of diseases caused by unhealthy food and water	Equipping the hygiene and sanitation services with water testing kits	20 000 000		10 000 000	10 000 000		40 000 000
		Ensuring health controls in the markets, restaurants, and public places	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	25 000 000
		Promoting initiatives for clean towns	15 000 000	15 000 000	15 000 000	15 000 000	15 000 000	75 000 000
		Promoting hygiene at school	5 000 000	10 000 000	10 000 000	10 000 000	10 000 000	45 000 000
	Ensuring good management of hospital waste	Equipping health facilities with materials for sorting and removing hospital waste		36 425 000			36 425 000	72 850 000
		Training staff in charge of management of hospital waste in sorting and removing waste		2 233 500			2 233 500	4 467 000
		Building/renovating incinerators in health facilities		43 560 000	21 780 000		14 520 000	79 860 000
		Maintaining the incinerators			2 178 000	2 178 000	2 178 000	6 534 000
	Strengthening the capacities of services in charge of hygiene and sanitation	Providing the hygiene services with motorcycles	3 600 000					3 600 000
		Ensuring the maintenance and operating of motorcycles	540 000	540 000	540 000	540 000	540 000	2 700 000
		Ensuring the training of the people in charge of hygiene and sanitation			5 280 000		5 280 000	10 560 000
	Total		49 140 000	112 758 500	69 778 000	42 718 000	91 176 500	365 571 000

General Objective: Foresee and adequately respond to the health consequences of disasters

Fields	Specific objectives	Interventions	Period					TOTAL
			2010	2011	2012	2013	2014	
EMERGENCIES AND DISASTERS	Providing reliable and regular information on the health and nutritional status during crises, for response planning as well as rehabilitation through regular evaluation (including rapid assessment)	Developing the contingency plan for the health sector	7 100 000					7 100 000
		Ensuring the implementation of the sectional plan			2 016 500	2 016 500	2 016 500	6 049 500
		Developing contingency plans for hospitals	6 983 500					6 983 500
		Ensuring the implementation of contingency plans for hospitals			6 000 000	6 000 000	6 000 000	18 000 000
	Providing emergency and reference care for taking care of injured people during crises (malaria, IRAs, malnutrition, chronic diseases, and also providing a range of care for emergency reproductive health)	Developing a rescue plan (ORSEC) linked to food safety and environment in each of the three islands of the Union of the Comoros		20 500 000				20 500 000
		Training staff to make quick evaluations in a crisis situation		10 500 000	2 483 500	1 467 000		14 450 500
		Implementing a equipped SAMU facility in each island (medical ambulances)		15 000 000	15 000 000	15 000 000		45 000 000
		Implementing an equipped SAMU (Emergency medical assistance service) facility on each island			9 000 000	9 000 000	9 000 000	27 000 000
	Providing stocks of products and laboratory pharmaceutical equipment (solute, infusers, catheter, doxycycline, gloves, HTH chlorine, picot bed, portable tanks, mask, earmuffs, condoms, vaccines, vitamin A, SRO, therapeutic milk, etc.)	26 500 000		26 500 000		13 983 500	66 983 500	
Subtotal			40 583 500	46 000 000	61 000 000	33 483 500	31 000 000	212 067 000

General Objective: Reducing the maternal mortality rate from 380 to 130 per 100,000 live births

Field	Specific objectives	Activities	Period					Total cost
			2010	2011	2012	2013	2014	
Reproductive health	Increasing the proportion of Young people who know how to prevent unwanted pregnancies and STIs from xx to yy %.	Implementing a network of peer educators at the Community level	5 238 000	540 000	5 238 000	540 000	540 000	12 096 000
		Developing information activities, education, and communication for behavior change in collaboration with NGOs	2 000 000	2 000 000	2 000 000	2 000 000	2 000 000	10 000 000
		Creating and strengthening welcoming frameworks for young people "Amis des Jeunes" ("Friends of Youth")		8 000 000	4 500 000	4 000 000		16 500 000
		Inserting the EVF modules in the training curricula of the secondary cycle	3 000 000	3 263 000	12 050 000	11 950 000		30 263 000
	Increasing the contraceptive prevalence among women of reproductive age from 13% to 20%	Training service providers in technology and logistics for Family Planning;	8 400 000			8 000 000		16 400 000
		Ensuring safety on contraceptive products including condoms (distribution and storage)	34 280 000	28 000 000	28 000 000	2 800 000	28 000 000	121 080 000
		Inserting the modules of family planning in the curricula of the School of Medicine and Public Health (SMPH)	1 500 000					1 500 000
	Increasing from 75% to 85% the proportion of births taking place in health facilities	Checking standards and protocol support in SR	5 650 000	6 325 000				11 975 000
		Training health staff for SONU and monitoring of pregnancy		4 386 000		4 386 000		8 772 000
		Training staff on pregnancy monitoring and screening of high-risk pregnancies (AMTSL: Active Management of Labor and Childbirth Preparation)	3 685 500		3 700 000			7 385 500
		Making health kits available for drug delivery;	182 000 000	185 640 000	189 352 800	193 139 856	197 002 653	947 135 309
		Providing referral hospitals with drug kits for obstetric emergencies;	39 000 000	39 780 000	40 575 600	41 387 112	42 214 854	202 957 566
	Increasing the Caesarean section rate from 3.4 to 5%;	Establishing a system of reference and counter-reference of SONUs	3 400 000	400 000				3 800 000
		Advocating with the authorities to establish mechanisms for the subsidizing of caesareans						-
	Increasing the rates of PNC1 and PNC 3 from 73 % to 90 % and from 52%to 85%, respectively;	Providing the PNC services with medicines and reagents for free assessment	11 000 000	11 220 000	11 444 400	11 673 288	11 906 754	57 244 442
		Strengthening staff capacity for refocused NPC	3 685 500		3 700 000			7 385 500
		Organizing counseling and screenings for HIV among pregnant women						-
Subtotal			302 839 000	289 554 000	300 560 800	279 876 256	281 664 261	1 454 494 317

General objective: Reducing the mortality rate linked to genital cancers

Field	Specific objectives	Activities	Period					Total cost
			2010	2011	2012	2013	2014	
Reproductive health	Ensuring the early screening and of at least 80% of cases of genital cancers	Providing referral hospitals and SMCs with means of early screening and treatment of genital cancers (equipment and consumable)	8 000 000		5 000 000		5 000 000	18 000 000
		Realizing a study on the prevalence and factors of genital cancers;		8 000 000				8 000 000
		Training service providers on screening and treatment of genital cancers	2 000 000		2 000 000			4 000 000
		Organizing screening campaigns for cervical cancer	6 000 000		6 000 000			12 000 000
		Developing protocols for management of cases of genital cancers	1 500 000	1 400 000	0	0	0	2 900 000
Subtotal			17 500 000	9 400 000	13 000 000	0	5 000 000	44 900 000
Total for SR			320 339 000	298 954 000	313 560 800	279 876 256	286 664 261	1 499 394 317

General Objective: Reducing child mortality from 71 to 50 per 1000

Field	Specific objectives	Activities	Period					Total cost
			2010	2011	2012	2013	2014	
Child Survival	Increasing and maintaining the vaccine coverage at 90% for all the antigens and in all the districts	Developing and implementing a National EPI Policy including injection safety, cold chain, and EPI management;	3 181 550					3 181 550
		Ensuring the supply of vaccines and routine as well as campaign vaccination equipment	74 625 408	73 254 051	75 000 000	75 000 000	75 000 000	372 879 459
		Strengthen the active search at all levels of patients lost to follow-up	1 224 000	1 224 000	1 224 000	1 224 000	1 224 000	6 120 000
		Developing a plan for the rehabilitation and maintenance of the cold chain stock (solar fridges)	1 395 500					1 395 500
		Developing a communication plan for EPI (promoting health)						0
		Providing districts with budgeted and updated micro-plans	5 265 000	5 265 000	5 265 000	5 265 000	5 265 000	26 325 000
		Implementing RED approach according to the micro-plans	12 250 200	12 250 200	12 250 200	12 250 200	12 250 200	61 251 000
		Training staff and students of the PMSC on the MLM	2 728 500					2 728 500
			2 728 500					2 728 500
	Reducing the rate of underweight from 25% to 10% Reducing the rate of severe acute malnutrition from xx and yy to 1%, and to less than 10%., respectively	Developing a policy and national plan for fighting against malnutrition	2 728 500					2 728 500
		Ensuring the nutritional surveillance of children under the age of five in all the districts	11 817 000	11 817 000	11 817 000	11 817 000	11 817 000	59 085 000
		Training health agents on the integrated support for malnutrition	3 159 000	3 159 000	3 159 000	3 159 000	3 159 000	15 795 000
		Training community workers on screening and monitoring of malnutrition care at the community level	3 159 000	3 159 000	3 159 000	3 159 000	3 159 000	15 795 000
		Developing and implementing communication tools on the malnutrition causes	3 510 000					3 510 000
		Ensuring de-worming and micronutrient supplementation in collaboration with the EPI	1 053 000	1 053 000	1 053 000	1 053 000	1 053 000	5 265 000
		Conducting a survey on the nutritional status of children <5 years and of mortality		3 000 000			3 000 000	6 000 000
		Subtotal	126 096 658	114 181 251	112 927 200	112 927 200	115 927 200	582 059 509

General Objective: Reducing child mortality rate from 71 to 50 per 1000 (cont'd)

Field	Specific objectives	Activities	Period					Total cost
			2010	2011	2012	2013	2014	
Child Survival (cont'd)	Increasing rate of exclusive maternal breastfeeding between 28% and 65%	Adapting the modules for the Baby-Friendly Hospital Initiative	2 106 000					2 106 000
		Training staff and students on maternal breastfeeding and the Baby-Friendly Hospital Initiative	3 159 000	3 159 000	3 159 000	3 159 000	3 159 000	15 795 000
		Updating the legal framework on the marketing of breast milk substitutes	1 500 000					1 500 000
		Passing the law on the legal framework on exclusive breastfeeding	1 053 000					1 053 000
	At least 80% of newborns are cared in case of asphyxia, prematurity and neonatal infections	Training midwives and other staff on care in cases of asphyxia, prematurity, and/or infections	43 860 000			43 860 000		87 720 000
		Training service providers in ICCD on a regular basis	3 000 000			3 000 000		6 000 000
		Ensuring the IPT in pregnant women	702 000	702 000	702 000	702 000	702 000	3 510 000
		Implementing a system of active research into neonatal death in hospitals and communities		3 400 000			3 400 000	6 800 000
		Training community agents for population awareness about newborn health	3 000 000					3 000 000
		Providing the equipment and supports necessary for care in accordance with the ICCD	3 500 000					3 500 000
	Reducing the proportion of schoolchildren living with intestinal worms from 80% to 10%	Developing strategy for school health	2 700 000					2 700 000
		Organizing medical examinations at school	7 200 000	7 200 000	7 200 000	7 200 000	7 200 000	36 000 000
		Organizing screening at school	600 000	600 000	600 000	600 000	600 000	3 000 000
Subtotal			72 380 000	15 061 000	11 661 000	58 521 000	15 061 000	172 684 000
General subtotal for child survival			198 476 658	129 242 251	124 588 200	171 448 200	130 988 200	754 743 509

General Objective: Improving performance of health system

Fields	Specific objectives	Interventions	Cost in KMF					
			2010	2011	2012	2013	2014	Total
Institutional Reform	Implementing an effective and efficient administrative system for managing the health sector.	Adopting and popularizing technical standards of health and health map	10 000 000					10 000 000
		Revising and applying in a transparent way organic frameworks and health administration adapted to the needs	9 000 000				2 100 000	11 100 000
		Training and/or retraining health administration officials in management and administration	7 600 000	7 600 000	13 500 000			28 700 000
		Retraining those responsible for health administration in management and administration				1 800 000	1 800 000	3 600 000
		Building and/or renovating and equipping the administration services in accordance with the established standards	50 000 000		3 250 000 000			3 300 000 000
		Rehabilitating administrative services in accordance with established standards		9 800 000	19 600 000			29 400 000
		Equipping administration services in accordance with established standards		34 500 000	34 500 000			69 000 000
		Ensuring maintenance of administrative buildings			490 000	166 470 000	166 470 000	333 430 000
		Ensuring maintenance of administrative furniture and equipment			3 450 000	6 900 000	6 900 000	17 250 000
		Establishing and enforcing measures of appreciation and punishment / reward for staff		8 100 000				8 100 000
		Developing/revising and popularizing regulatory texts governing the operation of health administration		6 000 000				6 000 000
	Subtotal	76 600 000	66 000 000	3 321 540 000	175 170 000	177 270 000	3 816 580 000	

General Objective: Improving performance of health system (cont'd)

Fields	Specific objectives	Interventions	Cost in KMF					Total
			2010	2011	2012	2013	2014	
Institutional Reform (cont'd)	Ensuring operation of health districts so that they can actually meet people's needs	Strengthening management capacity at the DHC (revitalization of the Executive Boards, team training for DHC management, etc.)	2 875 000	15 120 000	15 120 000			33 115 000
		Mobilizing and sensitizing all the actors involved in the development of health sector around the health sector reform		3 475 075	3 475 075	3 475 075	3 475 075	13 900 300
	Ensuring efficient coordination of health programs	Designing a coordination monitoring plan adapted to all the levels	5 250 000					5 250 000
		Developing strategic plans for priority programs	6 700 000	6 700 000	6 700 000	6 700 000		26 800 000
		•Developing and implementing a plan for coordination and appropriate monitoring at all levels (Monitoring and Evaluation Meetings, Annual Reviews);	7 600 000	7 600 000	7 600 000	7 600 000	7 600 000	38 000 000
		Designing an integrated supervision plan adapted to all the levels	5 250 000					5 250 000
		Organizing integrated supervision at all the levels	3 130 000	3 130 000	3 130 000	3 130 000	3 130 000	15 650 000
		Strengthening the coordination committees of health sector including health programs.	9 600 000	9 600 000	9 600 000	9 600 000	9 600 000	48 000 000
	Subtotal		40 405 000	45 625 075	45 625 075	30 505 075	23 805 075	185 965 300
	General subtotal for RI			117 005 000	111 625 075	3 367 165 075	205 675 075	201 075 075

General Objective: Improving the population's access to health facilities that meet standards.

Fields	Specific objectives	Interventions	KMF Costs						
			2010	2011	2012	2013	2014	Total	
Facilities	Increasing the coverage of health facilities that meet standards to 80%	Developing and implementing a national policy for maintaining health infrastructures;		5 250 000					5 250 000
		Rehabilitating facilities of the El-Maarouf NHC		1 268 700 000		4 831 300 000			6 100 000 000
		Rehabilitating the Hombo and Fomboni RHC	81 000 000	97 500 000	5 021 500 000				5 200 000 000
		Building a RHC in Ngazidja				5 200 000 000			5 200 000 000
		Rehabilitating the Domoni and Mitsamiouli SMCs	92 000 000		108 000 000				200 000 000
		Changing the Foumbouni, Nyomachoua, and Pomoni HDCs into SMCs			108 020 000	1 937 643 000	3 954 337 000		6 000 000 000
		Rehabilitating 12 HDCs			244 518 000	244 518 000			489 036 000
		Rehabilitating 52 HPs			64 812 000	810 150 000	810 150 000		1 685 112 000
		Building 14 new health posts			170 000 000	170 000 000	255 000 000		595 000 000
		Equipping the Five Referral Hospitals (NHC, RHC and SMC)		162 500 000	321 114 000	2 786 545 292	2 786 545 292		6 056 704 584
		Equipping the 12 HDCs		504 725 382	504 725 382	504 725 382	504 725 382		2 018 901 528
		Equipping health posts		50 472 538	50 472 538	50 472 538	50 472 538		201 890 153
	Ensuring infrastructure maintenance		421 833 053	421 833 053	421 833 053	421 833 053		1 687 332 213	
	Bringing at least 50% of private facilities to meet standards	Developing technical standards for setting up private structures		5 250 000					5 250 000
		Popularizing regulatory texts and raising awareness of agents		5 450 000					5 450 000
Organizing tasks of control and inspection		1 245 000	1 245 000	1 245 000	1 245 000	1 245 000		6 225 000	
Subtotal			174 245 000	2 522 925 974	7 016 239 974	16 958 432 266	8 784 308 266	35 456 151 478	

General Objective: To improve the performance of Hospital establishments

Fields	Specific objectives	Interventions	Period					KMF Costs
			2010	2011	2012	2013	2014	
Hospital Reform	Providing 100% of hospitals with management bodies according to their institutional status before the end of 2010	Revising regulatory and legislative texts governing hospitals	6 000 000					6 000 000
		Implementing and energizing governance bodies in hospitals	5 000 000	5 000 000			2 000 000	12 000 000
		Training members of the governance bodies about the hospital reform and management	1 350 000		1 350 000		1 350 000	4 050 000
		Instituting a determination system of CA members (attendance fees, medical care, etc.)	6 480 000	6 480 000	6 480 000	6 480 000	6 480 000	32 400 000
	Providing 100% of hospitals with facility plans taking into account all their development needs	Developing and implementing a 5-year facility project for each hospital		11 000 000	20 250 000			31 250 000
		Setting up a telemedicine program inside the RHC and the NHC.		25 000 000				25 000 000
		Supporting hospital operation	100 000 000	100 000 000	100 000 000	100 000 000	100 000 000	500 000 000
Subtotal			118 830 000	147 480 000	128 080 000	106 480 000	109 830 000	610 700 000

General Objective: Improving the performance of the Pharmaceutical and Laboratory System

Fields	Specific objectives	Interventions	KMF Costs					Total
			2010	2011	2012	2013	2014	
Pharmaceutical and Laboratory System	Increasing the availability rate of essential medicines between 56% and 100%	Increasing the capacity of management and storage of the NAPC		75 000 000				75 000 000
		Organizing the control of importation of medicines through collaboration between the sectors concerned (Ministries of the Economy, Customs, Health, Interior)	400 000	400 000	400 000	400 000	400 000	2 000 000
		Strengthening the capacity of the NAPC for local production of a limited range of pharmaceutical products			39 280 000	39 280 000	39 280 000	117 840 000
		Strengthening the working capital of the NAPC		150 000 000	100 000 000	100 000 000		350 000 000
		Developing a policy of traditional pharmacopoeia and medicine			1 000 000	8 100 000		9 100 000
		Providing the DHC with working capital for medicines		10 000 000	10 000 000	14 000 000		34 000 000
	Ensuring compliance with the regulation of pharmaceutical sector;	Developing and implementing regulatory texts governing the pharmaceutical sector	1 000 000	5 000 000				6 000 000
		Organizing the fight against illegal sales of medicines	880 000	880 000	880 000	880 000	880 000	4 400 000
		Developing and applying a national policy for medicine price		1 000 000	5 000 000			6 000 000
		Conducting a feasibility study of a registration system and quality control of medicines			3 100 000			3 100 000
		Developing and implementing a legislation for the exemption from taxes and taxes of all pharmaceutical products listed on the National List of MEGs		1 000 000	5 000 000			6 000 000
	Ensuring proper prescribing and dispensing of medicines at all levels;	Developing an appropriate therapeutic guide		1 000 000		1 000 000		2 000 000
		Training the prescribing physicians about the rational use of medicines		7 200 000		7 200 000		14 400 000
	Ensuring drug monitoring	Implementing a functional drug-monitoring system	2 700 000					2 700 000
		Implementing the National Pharmacovigilance Committee	450 000	450 000	450 000	450 000	450 000	2 250 000
		Training providers on drug monitoring	3 600 000		3 600 000		3 600 000	10 800 000
	Ensuring the satisfaction of needs for safe blood;	Building and equipping the National Blood Transfusion Center (NBTC)			357 500 000			357 500 000
		Promoting voluntary blood donation	1 500 000	1 500 000	1 500 000	1 500 000	1 500 000	7 500 000
	Increasing the confirmation rate of diagnosis of diseases in laboratory from 50% to 75%.	Building and equipping a National Public Health Laboratory (NPHL)			390 000 000			390 000 000
		Implementing a national network of operational laboratories	540000	540000	540000	540000	540000	2 700 000
Sub-total			11 070 000	253 970 000	918 250 000	173 350 000	46 650 000	1 403 290 000

General Objective: Ensuring availability and performance of skilled human resources at all levels in accordance with the established standards

Fields	Specific objectives	Interventions	KMF Costs					
			2010	2011	2012	2013	2014	Total
Human Resources for Health	Ensuring the planning of health staff in connection with the population's health needs	Developing the policy and the National Development Plan for human resources	22 750 000					22 750 000
		Organizing a magazine of the NHRDP in 2012					8 000 000	8 000 000
		Providing health facilities with qualified staff according to standards	2 455 792 241	2 681 516 721	3 327 672 090	3 212 925 072	3 572 786 981	15 250 693 105
	Producing the different categories of staff required for the optimal use of domestic and foreign opportunities	Developing a consensual plan for initial and continuous training of the sector staff		2 700 000				2 700 000
		Strengthening partnership between internal and external actors for health managers		16 250 000		16 250 000		32 500 000
		Developing skills of health sector agents	847 777 916	882 494 440	806 672 252	443 526 007	183 738 275	3 164 208 889
	Establishing a system of motivation and retention of the staff	Developing and implementing a plan for career management of health staff			5 800 000			5 800 000
		Developing and implementing a policy of motivation and retaining for employees at posts		5 800 000				5 800 000
		Ensuring prevention and management of professional risks	368 368 836	402 227 508	499 150 813	481 938 761	535 918 047	2 287 603 966
	Subtotal		3 694 688 993	3 990 988 668	4 639 295 155	4 154 639 840	4 300 443 303	20 780 055 959

General Objective: Improving availability and use of factual data for taking a decision

Fields	Specific Objectives	Interventions	KMF Costs					
			2010	2011	2012	2013	2014	Total
Health Information System	Improving the coordination, steering, and integration of HIS interventions	Implementing a legislative and institutional framework adapted to HIS	11 375 000	-	-	-	-	11 375 000
		Strengthen inter- and intra-sectional collaboration including the civil registration system	-	2 860 000	2 860 000	2 860 000	2 860 000	11 440 000
	The technical capacity for the production and the use of the data	Improve the technical capabilities of the collection, management, and presentation of data resources	55 683 000	11 100 000	20 940 000	2 100 000	2 100 000	91 923 000
		Produce and disseminate statistical data at all levels	4 080 000	4 880 000	2 880 000	2 880 000	2 880 000	12 720 000
		Promote the culture of the use of the data for planning and decision-making	4 360 000	4 360 000	4 360 000	4 360 000	4 360 000	21 800 000
		Strengthen collaboration and exchanges between the Ministry of Health bodies responsible for the SIS of the Small Island Developing States (SIDS) of AFRO	7 500 000	2 750 000	150 000	150 000	150 000	10 700 000
		Identify essential indicators that meet explicit criteria including unity, sustainability, representativeness, feasibility, and accessibility	18 824 000	1 500 000	1 500 000	1 500 000	1 500 000	24 824 000
	Ensure the integration of all the SIS Subsystem for the system's improved effectiveness and efficiency	Develop and regularly update national health accounts with the support of an international consultant	3 372 000	21 240 000	2 640 000	2 640 000	17 640 000	47 532 000
		Carry out periodic surveys (EDS, LCA, IST, ITNS)						-
		<i>EDS</i>	-	20 000 000	-	-	-	20 000 000
		<i>ECV</i>	-	-	15 000 000	-	-	15 000 000
		<i>Survey for STI</i>	-	-	-	15 000 000	-	15 000 000
		<i>MIS</i>	124 025 328	-	-	-	82 786 872	206 812 200
		<i>STEPWISE</i>	21 000 000	-	-	-	-	21 000 000
	Implement a system of inventory accounting in the management of health services	15 000 000	2 500 000	7 500 000	2 500 000	5 000 000	32 500 000	
Subtotal			265 219 328	66 310 000	57 830 000	33 990 000	119 276 872	542 626 200

General Objective: Promoting health research to develop the health sector

Fields	Specific objectives	Interventions	KMF Costs					Total
			2010	2011	2012	2013	2014	
Research and knowledge management	Developing an institutional framework for promoting research	Developing and implementing a policy and research plan		3 100 000	2 700 000			5 800 000
		Reconstituting and getting the National Committee for Research up and running	450 000	450 000	450 000	450 000	450 000	2 250 000
		Implementing and getting the Ethic Committee up and running	450 000	450 000	450 000	450 000	450 000	2 250 000
	Strengthening national capacities for health research	Training managers for research methodology		7 600 000	5 400 000			13 000 000
		Developing partnership actions with research institutions	5 000 000	5 000 000	5 000 000	5 000 000	5 000 000	25 000 000
		Funding health research at the Comoros University	10 000 000	10 000 000	10 000 000	10 000 000	10 000 000	50 000 000
Subtotal			15 900 000	26 600 000	24 000 000	15 900 000	15 900 000	98 300 000

General Objective 1: Ensuring in a sustainable manner the adequate funding for the development of the health sector

Fields	Specific objectives	Interventions	KMF Costs					Total
			2010	2011	2012	2013	2014	
Funding health	Increase the share of funding of the health sector to 15% of the State budget	Developing and implementing a strategy consisting in mobilizing resources for developing the health sector	3 100 000	5 000 000				8 100 000
		Advocating to the competent authorities a progressive increase from the health budget in the national budget	400 000	400 000	400 000	400 000	400 000	2 000 000
		Implementing an appropriate preparation and promotion for the health budget	3 000 000	3 000 000	3 000 000	3 000 000	3 000 000	15 000 000
		Writing and submitting proposals to the Global Fund (GF) to finance various programs	8 100 000				16 200 000	24 300 000
		Ensuring the coordination of assistance for health development in an efficient way	400 000	400 000	400 000	400 000	400 000	2 000 000
			15 000 000	8 800 000	3 800 000	3 800 000	20 000 000	51 400 000
General Objective 2: Improving the financial accessibility of people to health services								
Funding health	Developing the forms of alternative funding	Strengthening the system of complementary health insurances through the establishment of an institutional framework and a mechanism for supervising the development of complementary health insurances		8 100 000				8 100 000
		Setting up a mandatory health insurance for workers			3 100 000	5 000 000		8 100 000
		Evaluating the feasibility of mandatory health insurance						-
		Organizing a survey on the implementation of a solidarity fund for supporting deprived people		8 100 000				8 100 000
		Constituting a Solidarity Fund for support of deprived people			50 000 000	50 000 000	50 000 000	150 000 000
	Subtotal		-	16 200 000	53 100 000	55 000 000	50 000 000	174 300 000
GENERAL TOTAL FOR FUNDING			15 000 000	25 000 000	56 900 000	58 800 000	70 000 000	225 700 000

ATTACHMENT II: AVAILABLE FUNDS

1.2 Financing available in thousands of Comorian francs (KMF) per partner and per year

YEAR 2010

Components	Sub-components	Financing sources									TOTAL
		GOVERNMENT	WHO	UNFPA	UNICEF	UNAIDS	FM	PASCO	GAVI	IDB	
Fight against the disease	Malaria	20 000	11 968	0	0	0	555 458	0	0	0	587 426
	HIV/AIDS	20 000	7 744	6 153	0	51 040	129 855	0	0	0	214 792
	Leprosy and tuberculosis	0	4 632	0	0	0	0	0	0	0	4 632
	Non-communicable diseases	0	1 672	0	0	0	0	0	0	0	1 672
	Filariasis	0	11 120	0	0	0	0	0	0	0	11 120
	Epidemiological surveillance	0	19 536	0	0	0	0	0	0	0	19 536
	Disaster management	5 800	6 160	0	27 341	0	0	0	0	0	39 301
	Hygiene and sanitation	0	9 856	0	26 488	0	0	0	0	0	36 344
	Health promotion	0	11 264	0	0	0	0	0	0	0	11 264
	Sub-total of FD (fight against disease)	45 800	83 952	6 153	53 829	51 040	685 313	0	0	0	926 087
Reproductive Health and child survival	Reproductive Health	0	14 080	216 672	18 410	0	0	0	0	0	249 162
	Child survival	20 000	20 664	0	54 080	0	0	0	0	0	94 744
	Subtotal of RH/CS	20 000	34 744	216 672	72 490	0	0	0	0	0	343 906
Health care system	Institutional reform	7 650	4 048	0	0	0	342	40 214	0	1 056	53 310
	Infrastructure	0	0	0	0	0	0	150 851	0	0	150 851
	Hospital reform	60 000	4 752	0	0	0	0	0	0	0	64 752
	Pharmaceutical systems and laboratories	0	6 600	0	0	0	0	3 740	0	0	10 340
	Human resources	372 663	15 488	0	0	0	5 836	608 742	0	0	1 002 728
	Health information system	0	9 416	0	0	0	20 704	18 442	0	0	48 561
	Research and knowledge management	0	2 816	0	0	0	0	0	0	0	2 816
	Health financing	0	4 400	0	0	0	1 343	0	0	0	5 743
	Subtotal of HSC	440 313	47 520	0	0	0	28 225	821 988	0	1 056	1 339 102
TOTAL 2010	506 113	166 216	222 825	126 319	51 040	713 538	821 988	0	1 056	2 609 094	

19% 6% 9% 5% 2% 27% 32% 0% 0% 100%

YEAR 2011

Components	Sub-components	Financing sources									TOTAL
		GOVERNMENT	WHO	UNFPA	UNICEF		FM	PASCO	GAVI	IDB	
Fight against the disease	Malaria	20 000	11 968	0	0	0	880 513	0	0	0	892 481
	HIV/AIDS	20 000	7 744	6 000	0	38 368	354 545	0	0	0	406 657
	Leprosy and tuberculosis	0	6 632	0	0	0	0	0	0	0	6 632
	Non-communicable diseases	0	23 672	0	0	0	0	0	0	0	23 672
	Filariasis	0	31 120	0	0	0	0	0	0	0	31 120
	Epidemiological surveillance	0	19 536	0	0	0	0	0	0	0	19 536
	Disaster management	5 800	6 160	0	27 341	0	0	0	0	0	33 501
	Hygiene and sanitation	0	9 856	0	79 464	0	0	0	0	0	89 320
	Health promotion	0	11 264	0	0	0	0	0	0	0	11 264
	Sub-total of FD	45 800	127 952	6 000	106 805	38 368	1 235 058	0	0	0	1 514 183
Reproductive Health and child survival	Reproductive Health	0	14 080	206 672	18 410	0	0	0	0	0	239 162
	Child survival	20 000	54 664	0	124 080	0	0	0	0	0	178 744
	Subtotal of RH/CS	20 000	68 744	206 672	142 490	0	0	0	0	0	417 906
Health care system	Institutional reform	7 650	4 048	0	0	0	16 079	81 356	0	704	102 188
	Infrastructure	0	0	0	0	0	23 666	605 392	0	218 944	848 002
	Hospital reform	60 000	4 752	0	0	0	0	0	0	0	4 752
	Pharmaceutical systems and laboratories	0	6 600	0	0	0	0	101 825	0	0	108 425
	Human resources	372 663	15 488	0	0	0	4 787	433 651	0	0	453 926
	Health information system	0	9 416	0	0	0	21 100	5 892	0	0	36 408
	Research and knowledge management	0	2 816	0	0	0	0	0	0	0	2 816
	Health financing	0	4 400	0	0	0	2 699	0	0	0	7 099
	Subtotal of HSC	440 313	47 520	0	0	0	68 331	1 228 117	0	219 648	1 563 616
TOTAL 2011	506 113	244 216	212 672	249 295	38 368	1 303 389	1 228 117	0	219 648	3 495 704	

14% 7% 6% 7% 1% 37% 35% 0% 6% 100%

YEAR 2012

Components	Sub-components	Financing sources									TOTAL
		GOVERNMENT	WHO	UNFPA	UNICEF		FM	PASCO	GAVI	IDB	
Fight against the disease	Malaria	20 000	0	0	0	0	1 189 902	0	0	0	1 189 902
	HIV/AIDS	20 000	0	6 000	0	0	250 546	0	0	0	256 546
	Leprosy and tuberculosis	0	0	0	0	0	0	0	0	0	0
	Non-communicable diseases	0	0	0	0	0	0	0	0	0	0
	Filaria	0	0	0	0	0	0	0	0	0	0
	Epidemiological surveillance	0	0	0	0	0	0	0	0	0	0
	Disaster management	5 800	0	0	25 518	0	0	0	0	0	25 518
	Hygiene and sanitation	0	0	0	54 682	0	0	0	0	0	54 682
	Health promotion	0	0	0	0	0	0	0	0	0	0
	Sub-total of FD	45 800	0	6 000	80 201	0	1 440 448	0	0	0	1 526 649
Reproductive Health and child survival	Reproductive Health	0	0	206 672	21 873	0	0	0	0	0	228 545
	Child survival	20 000	0	0	154 883	0	0	0	0	0	154 883
	Subtotal of RH/CS	20 000	0	206 672	176 756	0	0	0	0	0	383 428
Health care system	Institutional reform	7 650	0	0	0	0	13 565	756 648	0	0	770 212
	Infrastructure	0	0	0	0	0	0	329 584	0	0	329 584
	Hospital reform	60 000	0	0	0	0	0	0	0	0	0
	Pharmaceutical systems and laboratories	0	0	0	0	0	0	29 460	0	0	29 460
	Human resources	372 663	0	0	0	0	5 836	462 522	0	0	468 358
	Health information system	0	0	0	0	0	8 985	2 946	0	0	11 931
	Research and knowledge management	0	0	0	0	0	0	0	0	0	0
	Health financing	0	0	0	0	0	3 150	8 838	0	0	11 988
	Subtotal of HSC	440 313	0	0	0	0	31 536	1 589 997	0	0	1 621 533
TOTAL 2012	506 113	0	212 672	256 956	0	1 471 984	1 589 997	0	0	3 531 610	

14% 0% 6% 7% 0% 42% 45% 0% 0% 100%

YEAR 2013

Components	Sub-components	Financing sources									TOTAL
		GOVERNMENT	WHO	UNFPA	UNICEF		FM	PASCO	GAVI	IDB	
Fight against the disease	Malaria	20 000	0	0	0	0	1 578 592	0	0	0	1 578 592
	HIV/AIDS	20 000	0	0	0	0	136 126	0	0	0	136 126
	Leprosy and tuberculosis	0	0	0	0	0	0	0	0	0	0
	Non-communicable diseases	0	0	0	0	0	0	0	0	0	0
	Filariasis	0	0	0	0	0	0	0	0	0	0
	Epidemiological surveillance	0	0	0	0	0	0	0	0	0	0
	Disaster management	5 800	0	0	0	0	0	0	0	0	0
	Hygiene and sanitation	0	0	0	0	0	0	0	0	0	0
	Health promotion	0	0	0	0	0	0	0	0	0	0
	Sub-total of FD	45 800	0	0	0	0	1 714 718	0	0	0	1 714 718
Reproductive Health and child survival	Reproductive Health	0	0	0	0	0	0	0	0	0	0
	Child survival	20 000	0	0	50 000	0	0	0	0	0	50 000
	Subtotal of RH/CS	20 000	0	0	50 000	0	0	0	0	0	50 000
Health care system	Institutional reform	7 650	0	0	0	0	18 486	100 112	0	0	118 598
	Infrastructure	0	0	0	0	0	0	109 861	0	0	109 861
	Hospital reform	60 000	0	0	0	0	0	0	0	0	0
	Pharmaceutical systems and laboratories	0	0	0	0	0	0	0	0	0	0
	Human resources	372 663	0	0	0	0	0	429 920	0	0	429 920
	Health information system	0	0	0	0	0	15 155	5 892	0	0	21 047
	Research and knowledge management	0	0	0	0	0	0	0	0	0	0
	Health financing	0	0	0	0	0	3 602	0	0	0	3 602
	Subtotal of HSC	440 313	0	0	0	0	37 243	645 785	0	0	683 028
TOTAL 2013	506 113	0	0	50 000	0	1 751 961	645 785	0	0	2 447 745	
		21%	0%	0%	2%	0%	72%	26%	0%	0%	100%

YEAR 2014

Components	Sub-components	Financing sources									TOTAL
		GOVERNMENT	WHO	UNFPA	UNICEF		FM	PASCO	GAVI	IDB	
Fight against the disease	Malaria	20 000	0	0	0	0	726 769	0	0	0	726 769
	HIV/AIDS	20 000	0	0	0	0	180 060	0	0	0	180 060
	Leprosy and tuberculosis	0	0	0	0	0	0	0	0	0	0
	Non-communicable diseases	0	0	0	0	0	0	0	0	0	0
	Filaria	0	0	0	0	0	0	0	0	0	0
	Epidemiological surveillance	0	0	0	0	0	0	0	0	0	0
	Disaster management	5 800	0	0	0	0	0	0	0	0	0
	Hygiene and sanitation	0	0	0	0	0	0	0	0	0	0
	Health promotion	0	0	0	0	0	0	0	0	0	0
	Sub-total of FD	45 800	0	0	0	0	906 829	0	0	0	906 829
Reproductive Health and child survival	Reproductive Health	0	0	0	0	0	0	0	0	0	0
	Child survival	20 000	0	0	0	0	0	0	0	0	0
	Subtotal of RH/CS	20 000	0	0	0	0	0	0	0	0	0
Health care system	Institutional reform	7 650	0	0	0	0	20 951	100 000	0	0	120 951
	Infrastructure	0	0	0	0	0	0	0	0	0	0
	Hospital reform	60 000	0	0	0	0	0	0	0	0	0
	Pharmaceutical systems and laboratories	0	0	0	0	0	0	0	0	0	0
	Human resources	372 663	0	0	0	0	0	0	0	0	0
	Health information system	0	0	0	0	0	12 667	0	0	0	12 667
	Research and knowledge management	0	0	0	0	0	0	0	0	0	0
	Health financing	0	0	0	0	0	4 280	0	0	0	4 280
	Subtotal of HSC	440 313	0	0	0	0	37 898	100 000	0	0	137 898
TOTAL 2014	506 113	0	0	0	0	944 727	100 000	0	0	1 044 727	
		48%	0%	0%	0%	0%	90%	10%	0%	0%	100%
TOTAL 2010-2014		2 530 564	410 432	648 168	682 570	89 408	6 185 599	4 385 887	0	220 704	13 128 881
		19%	3%	5%	5%	1%	47%	33%	0%	2%	100%

ATTACHMENT III: TECHNICAL STANDARDS

3.1. HEALTH CARE MAP

1. Definition

The health care map is a tool allowing in displaying the health care facilities, diseases, and available health resources on a map, either together or separately. This tool helps in examining and increasing the appropriateness between the requirement and health services offer as well as the spread of major diseases. Thus, the health care map helps in displaying the areas which are not sufficiently covered by health care facilities and geographical distribution of prevailing diseases. Hence, it is a beneficial planning tool for decision making with respect to equitable distribution of health care resources. The health care map must be drawn up according to standards of accessibility and coverage objectively defined and standardized. The new health infrastructure and specific health interventions targeting must be created in compliance with these standards.

The health care map also helps in displaying the interconnections between two or several administrative bodies which share the same health care facilities, provided that it does not necessarily follow the logic of administrative distribution of the country. However, within the framework of decentralization policy set up where the Municipal council may hold a meeting for policy for establishment and management of collective investments (including the health centers), it is recommended to strive for consistency between communal distribution and health distribution.

The health care map is valid only for a limited time. Any change occurring on the site (setting up or termination of a Health center, population shift, changes in accessibility conditions, change in the service offer and/or quality of services rendered by a Center, shift in the disease profile, etc) affects necessarily the health care map. The regular data update helps in updating the Health care map and monitoring the attainment of Health development objectives. Hence, the health care map is a precious database.

2. Current health care map of the Union of Comoros:

The Health system in Comoros is divided into three levels: (i) At the central level, there is the national referral hospital (CHN) El-Marouf, the National and Autonomous Pharmacy of the Comoros (NAPC), and the National School of Medicine and Public Health (NSMPH) connected to the University of Comoro Islands (ii) At the intermediate level or the islands, there is a Regional Hospital Center (RHC) on each island and (iii) At the peripheral level, there exist the following:

- ✓ (In Ngazidja Grande Comore): 7 districts of health covered by 1MSC (medical and surgery centers), 5 DHC (district health centers), 1 UMC (urban medical centers) and 24 health posts including that of CARITAS for 325,569 inhabitants in 2007 i.e. on average 46,510 inhabitants per district.
- ✓ In Nzuani: 7 districts of health covered by 1MSC (medical and surgery centers), 5 DHC (district health centers), 1 UMC (urban medical centers) and 19 health posts for 269,235 inhabitants in 2007 i.e. on average 38,432 inhabitants per district.
- ✓ In Moheli (Mwali): 3 districts of health covered by 2 DHC (district health centers), 1 UMC (urban medical centers) and 9 health posts including that of CARITAS for 40,865 inhabitants in 2007 i.e. on average 13,662 inhabitants per district.

The geographic accessibility to a health center within 5 km range is estimated at 45 % in Grande Comore, 74 % in Anjouan and 69 % in Moheli, i.e. an average of 63 % for the whole country. 100% of the population have access to health facilities within 15km range. The occupancy rate of health care facilities is 14.7%, 20.21% and 8.92% in Grande Comoro, Anjouan and Moheli respectively, the national average being 10.25%. The average bed occupancy rate varies from 20% to 60% with strong variations too as per the seasons and Health Centers.

3. Perspectives:

In order to bring the health services even more closely and improve their quality, and considering the small size of health districts and islands themselves, it is recommended to review the health care map for implementing a more feasible framework by grouping the health districts in the medical poles covering a larger critical mass of population. Thus, the Islands of Ngazidja and Nzuani shall be divided into three medical hubs and that of Moheli into one medical hub. This reorganization will facilitate in a more rational exploitation of poor human resources and equipments available within a framework of sharing and solidarity.

4. Impact on the administration plan:

Each medical hub shall be divided in such a way so that the activities of all health care facilities which come under it are coordinated efficiently and in such a way that each level, from health post to MSC including DHC, plays its role efficiently. In order to do this, a public health team composed of senior medical officers of DHC and director of SMC or RHC (in case of Moheli and central hub of Nzauni) or CHN (in case of central hub of Ngazidja) shall be implemented for each hub. It shall be managed by Medical hub Coordinator who shall be resident in the health care facility for reference except in the case of Medical hubs covered by RHC or CHN. For latter, the senior health officer of one of the health care facilities can play this role. The Coordinator of Medical hub certainly comes under Director-General for Health of the Island.

3.1.1. HEALTH STRUCTURES PER ISLAND

HEALTH REGIONS	HUB	HEALTH DISTRICTS	HEALTH SECTORS	OBSERVATIONS
NGAZIDJA (Grande Comore)	CENTER	El-Maarouf National Hospital Center		<p><i>This hub comprises of health districts of Moroni, Ouachili and Mitsoudjé with El-Maarouf National Hospital Center as Hub Referral Hospital and technical support center of UMC of Moroni lined up with that of other DHC</i></p>
		Moroni Urban Medical Center	HP (health post) of Mkazi	
			Karthala center in Nvouni*	
			FS (health care provider) of Sambakouni**	
			HP of Hahaya	
			HP of Tsidjé	
		Health Center of Hambou (Mitsoudjé)	HP of Singani	
			HP of Mjoyezi	
		Health Center of Oichilli	HP of Idjinkoundzi	
			HP of Itsinkoudi	
	HP of Mtsangadjou			
	NORTH	Medical and Surgery Center of Mitsamiouli	HP of Ivembeni	<p><i>This hub comprises of the Health districts of Mitsamiouli and Mbéni with MSC of Mitsamiouli as Referral Hospital for Health Hub</i></p>
			HP of Douniani-Mandza	
			Dispensary of Ouzio	
			FS of Ntsaoueni**	
			HP of Bangoi-Kouni	
			HP of Ouellah	
HP of Memboïdjou				
Health Center of Mbéni		HP of Chézani		
	HP of Dimadjou			
		HP of Moidja		

3.1.1. HEALTH STRUCTURES PER ISLAND (Continuation)

NGAZIDJA (Continuation))	SOUTH	Health Center of Foubouni	HP of Nioumamilima	This hub comprises of health districts of Foubouni and Ouzioini with transformation of DHC of Foubouni into UMC acting as Referral Hospital of Medical Hub.
			FS of Mohoro*	
			HP of Bandamadji Domba	
			HP of Chindini	
		Health Center of Ouzioini	HP of Kourani ya Sima	
			FS of Dembeni*	
			HP of Ntsinimoichongo	

*Structures to be added in the health care map

*Structures in construction to be added in the health care map

HEALTH REGIONS	HUB	HEALTH DISTRICTS	HEALTH SECTORS	OBSERVATIONS
MWALI	ONE HUB	Regional Hospital Center of Fomboni		One single Medical hub grouping the districts of Fomboni, Nioumachoua and Wanani, keeping the technical support center of UMC of Fomboni in line with that of other DHC, during which the Hospital of Fombani shall act as referral hospital of medical hub.
		Fomboni Urban Medical Center	HP of Miringoni	
			HP of Hoani	
		Health Center of Wanani	HP of Hangnamoida	
			HP of Itsamia	
			HP of Siri Ziroundani	
		Health Center of Nioumachoua	HP of Ndrondroni	

3.1.2. HEALTH STRUCTURES PER ISLAND (Continuation)

HEALTH REGIONS	HUB	HEALTH DISTRICTS	HEALTH SECTORS	OBSERVATIONS
NDZOUANI	CENTER	Regional Hospital Center of Hombo		This hub comprises of districts of Mutsamudu, and Tsembéhou with Hombo hospital as referral hospital of hub and technical support center of UMC of Mutsamudu in line with that of others HDC.
		Mutsamudu Urban Medical Center	HP of Bandrani	
			HP of Ankibani	
		Health Center of Ouani	HP of Djimilimé	
	Health Center of Tsembehou	HP of		
	NORTH	Medical and Surgery Center of Domoni	HP of Bandra Mahalé	This Hub comprises of Health districts of Domoni and Mrémani with MSC of Domoni as Referral Hospital of Hub.
			HP of Bambao Mromaji	
			HP of Ouzini	
		Health Center of Mrémani	HP of Mramani	
			HP of Adda Daoueni	
			HP of Nkangani	
	SOUTH	Health Center of Pomoni	HP of Komoni	This hub comprises of health districts of Pomoni and Sima with transformation of DHC of Pomoni into UMC acting as Referral Hospital for Medical Hub.
			HP of Chaoueni	
HP of Moya				
Health Center of Sima		HP of Vassi		
	HP of Lingoni			
		HP of Bimbini		

3.2. Minimum Health Care Package (MHCP) – Health Post			
ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS	
CURATIVE			
-Diagnosis and treatment in simple cases of malaria	Reception—Waiting room	2 Tongue-depressor boxes	Tape measure
-Diagnosis and treatment of STI (sexually transmitted infection) by syndromic approach	2 Consultation rooms	1 Weighing machine	- Minor surgery pack
-Tuberculosis: Sputum specimen and 2 nd phase of treatment	1 Delivery room	Box of thermometers	- Ambu bags-infant and adult size
- Leprosy: screening and treatment	1 Treatment room	2 Examination lamp	- 4 observation beds
- Filariasis: treatment	1 Pharmacy room	2 Battery flash light	- algorithms
-Diagnosis and treatment in simple cases of ARI (acute respiratory infections)	1 Staff room	2 Stethoscope	Water tank
-Diagnosis and treatment of acute diarrhea	2 washroom facilities	1 obstetric stethoscope	Watering cans
- Screening and treatment in cases of acute/severe malnutrition	1 Chamber	1 Obstetrical table	hurricane lamp
-Diagnosis and treatment of intestinal parasitosis	- 2 observation rooms	1 Handling and examining table	Solar panel
-Diagnosis and treatment of simple dermatosis		3 Sphygmomanometer with adult size cuff	Waterproofs
- Assistance in normal deliveries (using labor curve)		2 Sphygmomanometer with infant size cuff	Gowns
-Nursing care (dressing, minor surgery, injection, etc...)		2 Aspirator bulb	Otoscope
- Clinical screening of anemia in infants and pregnant women		1 Poupinel (sterilizer)	Dipsticks or strips for urinalysis
Pregnancy follow-up appointments,		2 First-aid box	Laryngoscope
- Early detection of risk pregnancy		2 Delivery set	Intrauterine contraceptive device box
- Early detection of diabetes, HT (hypertension)...		2 Baby Weighing scale	6 Air-tight bins
- Consult the risk pregnancies		2 Set of accessories (Trays, spittoon bowls, kidney trays)	4 Table desks
- Immunization of children and pregnant women		Drum	10 Chairs
- Preventive treatment of malaria		Survey coverage	4 Cupboards

3.2. Minimum Health Care Package – Health Post (Continuation)			
ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS	
CURATIVE (Continuation)			
- Supplementation with iron and folic acid to prevent anemia		Height gauge	Wooden penis
- Distribution of intestinal parasite drug		Baby Weighing Scale	Flannel board
- Epidemiological surveillance (declaration of epidemic-prone)		Rapid tests (E.g. Malaria, glucometer..)	Board
- Distribution of oral and injectable contraceptives and condoms		Pregnancy test	Leaflets
- Distribution of male and female condoms to prevent STI/AIDS		one oxygen concentrator with fittings provided in delivery room	Posters
- Screening and transfer of patients with breast nodules and infection		2 benches	Information Publications
		sensitization support	Sample of contraceptive products
		1 aspirator	Small information publications
		Urine test	Guides for case management
		Image box	
PROMOTIONAL			
Information and guidance on maternal breastfeeding, immunization, FP (family planning), nutrition, HIV/AIDS, the making pregnancy safer (MPS), malaria and other diseases.		1 complete audio-visual equipment	
Guidance and orientation for HIV/ and STI testing			
Family life education			
- Distribution of impregnated mosquito nets			
Hygiene and sanitation education			
Micronutrient supplementation			
MANAGEMENT			
Outline of plans and activity reports		1 motorcycle	
Outline of monthly SIS reports		1 Complete Computer system	
Management of essential drug stock		1 Telephone line + Internet	
Material, financial and human resource management		1 Paraffin or solar refrigerator	
Co-ordinate the community associations under its health area		1 electric generator set	
Monitoring/supervision of community activities		1 Overhead projector	

3.2. Minimum Health care Package – District Health Center (Continuation)			
ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS	
CURATIVE SERVICES			
Treatment of patients referred by the health posts	Reception—Waiting room	2 Tongue-depressor boxes	- 1 incinerator
- Treatment and follow-up of PLWHA (People living with HIV/AIDS) by a trained staff	2 Consultation rooms	- 2 Personal weighing scales	- 2 spray equipments
-Diagnosis and treatment of STI (sexually transmitted infection) by syndromic approach	6 wards	-20 Thermometers	- 1 electrocardiogram
- Diagnosis and treatment of patients with communicable diseases (Tuberculosis, Leprosy, Filariasis, ARI, diarrhea etc.)	1 Laboratory Room	- 8 Examination lamps	-1 visual acuity chart
- Diagnosis and treatment of patients with non-communicable diseases (Diabetes, HT, malnutrition, etc.)	1 Dental treatment room	- 2 Battery flash light	- 5 nebulizers
- Assistance on obstructed labor and reference of complicated cases	1 Immunization room and follow up of growth	-5 Stethoscopes	-1 pulse oxymeter
- Resuscitation and treatment of infections in newborns	2 Office rooms (Administrator and Public Health Sanitarian)	-5 Obstetric stethoscopes	- 2 oxygen extractors
- Management of Minor surgeries which can be conducted under local anesthesia	1 Delivery room	- 1 Obstetrical table	- 4 minor surgery packs
- Laboratory tests (Stool, GE, HIV, CBC(Complete blood count), glycemia, glucose, Albumin, Pregnancy test, Syphilis, Chlamydia, PV, Hepatitis, CBEU (cytobacteriological examination of urine), sputum specimen for BAAR (acid-alcohol-resistant bacillus))	1 Treatment room	- 6 Handling and examining tables	- 1 ENT set for foreign body extraction
- Obstetrical ultrasound, monitoring system	1 Pharmacy room	- 6 Sphygmomanometer with adult size cuff	- 1 mobile ultrasound device (abdo and gyn)
Use of oxytocic and antibiotics on the basis of algorithms in emergency obstetric care	1 Staff room	- 2 Sphygmomanometer with infant size cuff	- 1 anoscope
- Oral care	2 washroom facilities	2 Aspirator bulbs	- 1 radio message
- Clinical aspects of IMCI (Integrated Management of Childhood Illness)	2 Staff on-call accommodation	- 1 Poupinel (sterilizer)	- Algorithm and Labor curve
Reception and caring of newborn in delivery room and treatment of infections in newborns	1 Multipurpose room	2 First-aid boxes	- 1 Complete package of dental chair and fitting..
Diagnosis of newborn requiring a transfer	1 store	- 2 Delivery sets	- 2 Beds after-Delivery
	1 hanger for mosquito net	- 2 Baby Weighing scale	- 50 Hospital beds of which the half is reserved for pediatrics
	1 storage room for insecticides	- 10 Set of accessories (Trays, spittoon bowls, kidney trays)	- 50 Trapeze bars with fittings
		- 6 Drums	- 2 Suction cups

3.2. Minimum Health Care Package – District Health Center (Continuation)		
ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS
CURATIVE SERVICES		
		- Survey coverage
		- 20 Air-tight bins
		- 12 Table desks
		- 30 Chairs
		- 12 Cupboards
		-3 Baby Height gauges including 1 for newborn
		- 2 Episiotomy sets
		- 20 Tape measures
		- 3 Complete minor surgery packs
		- 2 Ambu bags-manual resuscitator -adult size
		- 2 Ambu bags-manual resuscitator -infant size
		- 4 observation beds
		- algorithms
		- Water tank
		- Watering cans
		- hurricane lamp
		- Solar panel
		- Waterproofs
		- 50 gowns
		- 4 Oscopes
		Dipsticks or strips for urinalysis
		- Laryngoscope
		Intrauterine contraceptive device box
		Rapid tests (E.g. Malaria, glucometer..)
		- Pregnancy test
		- Urine test
		- 3 Time-print unit
		- 5 Water filters
		- 2 Forceps
		- 5 Personal weighing scales
		- 6 Step stools
		- 4 Oscopes
		- 4 Laryngoscopes
		-1 Complete package of dental chair + fittings
		- 2 Microscopes
		- ABX
		- 1 Biochemisty device
		- Laboratory equipments and agents (to be added)
		- 2 glucometers
		- 1 Centrifuge
		- 1 mobile ultrasound machine+ accessories
		- 1 small ECG machine
		-1 Monitoring System
		- 2 Aspirators
		- 2 Oxygenators
		- 2 Tables for newborns
		-4 Benches
		- A breeding box for premature infants
		- 5 Vaccine carrier
		- 30 Accumulators
		- 30 Revolving stools
		- 3 Pressure cookers with hot plates
		- 2 Statistical chart from Navarro
		- 10 Speculums
		- 2 Breast pumps
		- 1 automated defibrillator

3.2. Minimum Health Care Package – District Health Center (Continuation)			
ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS	
PREVENTIVE SERVICES			
-Screening and counseling of HIV/AIDS		- 2 Gravimeters	20 bins
- Pregnancy follow-up,		Image box	12 table desks
- Early detection of risk pregnancy		Wooden penis	30 chairs
- Consult the pregnancy complications		Flannel board	12 cupboards
- Immunization of pregnant women and infants		Board	- 3 complete minor surgery packs
-Preventive treatment of malaria in pregnant women		Leaflets	
- Supplementation with iron and folic acid to prevent anemia		Posters	
- Distribution of intestinal parasite drug		Information Publications	
- Epidemiological surveillance (declaration of epidemic-prone)		Sample of contraceptive products	
-Distribution of all contraceptive methods		Small information publications	
- Distribution of male and female condoms to prevent STI/AIDS			
-Screening and transfer of patients with breast nodules			
- School medicine			
- Distribution of impregnated mosquito nets			
- Preparation and solution of epidemic and emergency situations			

3.2. Minimum Health Care Package – District Health Center (Continuation)			
ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS	
HEALTH PROMOTION SERVICES			
- Information and guidance on maternal breastfeeding, immunization, FP (family planning), nutrition, HIV/AIDS, the making pregnancy safer (MPS), malaria and other diseases.			
- Guidance, and orientation for HIV/ and STI screening			
- Family life education			
- Hygiene and sanitation education			
- Promotion of using LLIN (long-lasting insecticide-treated net)			
- Micro nutrient supplementation			
- Fight against tobacco			
- Promotion of support to fight against communicable and non-communicable diseases			
-Oral hygiene education			
ADMINISTRATIVE AND FINANCE MANAGEMENT SERVICES			
- Outline of plans and activity reports		1 commercial vehicle	- 1 Video projector
- Outline of monthly SIS reports		- 1 Off-road vehicle	- 1 Electric generator set
- Management of essential drug stock		- 1 Ambulance	- 1 solar panel
Material, financial and human resource management		- 5 Computers + Printers + Inverters	- 1 audio-visual equipment (TV, DVD,...)
- Co-ordinate the actions of health posts associated with DHC		- 1 Photocopier	1 flipchart easel
- Follow-up/supervision of health post activities		- 1 Telephone line + Internet	
- Supervision in the community participation in health activity management		- 3 Refrigerators	

3.2. Minimum Health Care package - Medical and Surgery Center

ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS	
CURATIVE			
- Treatment of patients referred by DHC or who are in distress for acute emergency	Reception—Waiting room	- 18 Tongue-depressor boxes	- 1 incinerator
- Treatment and follow-up of PLWHA (People living with HIV/AIDS) by a trained staff	10 Consultation rooms	- 10 Personal weighing scales	- 2 spray equipments
-Diagnosis and treatment of STI (sexually transmitted infection) by syndromic approach	31 wards	-30 Thermometers	- 1 electrocardiogram
- Diagnosis and treatment of patients with communicable diseases (Tuberculosis, Leprosy, Filariasis, ARI, diarrhea etc.)	25 separate AC rooms with toilets, telephone	- 8 Examination lamps	-1 visual acuity chart
- Diagnosis and treatment of patients with non-communicable diseases (Diabetes, HT, malnutrition, etc.)	5 Laboratory Rooms	- 8 Battery flash light	- 5 nebulizers
- Assistance in obstructed labor	1 wing for medical imaging	-5 Stethoscopes	-1 pulse oxymeter
-Management of pregnancy complications -Resuscitation and treatment of infections in newborns	1 wing for kinesi therapy	-5 Obstetric stethoscopes	- 2 oxygen extractors
- Management of Minor surgeries which can be conducted under local anesthesia	2 Operation rooms	- 1 Obstetrical table	- 4 minor surgery packs
- Laboratory tests (Stool, GE, HIV, CBC, glycemia, Glucose, Albumin, creatinine, Pregnancy test, Syphilis, Chlamydia, PV, Hepatitis, CBEU , sputum specimen for BAAR Ionogram (acid-alcohol-resistant bacillus)), cholesterol, antibiogram,.....)	2 Resuscitation Rooms	- 13 Handling and examining tables	- 1 ENT set for foreign body extraction
- Obstetrical /abdominal ultrasonography	1 Dental treatment room	- 15 Sphygmomanometer with adult size cuff	- 1 mobile ultrasound machine (abdo and gyn)
- ECG	1 Immunization room and follow up of growth	- 8 Sphygmomanometer with infant size cuff	- 1 anoscope
- Monitoring system		2 Aspirator bulbs	- 1 radio message
Use of oxytocic and antibiotics on the basis of algorithms in emergency obstetric care	1 predelivery room (40m ² = 6 box 2WC shower)	- 4 Poupinel (sterilizer)	- Algorithm and Labor curve
- Oral care	2 Delivery rooms (20m ² each)	10 First-aid boxes	- 2 Complete package of dental chair and fitting..
- Obstetric and gynecological care	4 Treatment rooms	- 8 Delivery sets	3 Beds after-delivery
General and obstetric surgery	2 counters of Pharmacy		- 80 Hospital beds of which the half is reserved for pediatrics

Minimum Health Care Package - Medical and Surgery Center (Continuation)			
ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS	
CURATIVE (Continuation)			
Post-operative resuscitation and monitoring	1 Staff room for each service	- 10 Set of accessories (Trays, spittoon bowls, kidney trays)	- 50 Trapeze bars with fittings
- Treatment of patients with breast nodules	10 washroom facilities	- 8 Drums	- 4 suction cups
- Blood transfusion	4 Staff on-call accommodation	- Survey coverage	- 4 Forceps
Resuscitation in delivery room for screening of abnormalities in neonatal development and treatment of some newborn diseases	1 triage area	- 20 Air-tight bins	- 5 Personal weighing scales
Hematology	1 mortuary	- 12 Table desks	- 6 Step stools
Bacteriology	1 Multi-purpose room	- 30 Chairs	- 4 Oscopes
Parasitology	1 store	- 12 Cupboards	- 4 Laryngoscopes
Immunology	1 hanger for mosquito net	- 3 Height gauges for babies including 1 for newborn	- 1 Complete package of dental chair + fittings
Biochemistry	1 storage room for insecticides	3 Episiotomy sets	- 2 Microscopes
Blood transfusion	Ambulance garage	-20 Tape measure	- ABX
	3 administrative office rooms	- 3 Complete minor surgery packs	- 1 Biochemistry device
	1 maintenance workshop	- 3 Ambu bags-manual resuscitator-adult size	- Laboratory equipments and agents (to be added)
	Laundry	- 2 Ambu bags-manual resuscitator- infant size	6 Glucometers
	Food court	- 4 observation beds	- 1 Centrifuge
	1 library	- algorithms	- 1 mobile ultrasound machine+ accessories
	1 CPN (Center for Psychiatry and Neuroscience) room	- Water tank	- 1 small ECG machine
	2 FP (family planning) rooms	- Watering cans	-1 Monitoring System
	4 Radiography rooms	- hurricane lamp	- 5 Aspirators
	1 sterilizing room	- Solar panel	- 5 Oxygenators
		- Waterproofs	- 2 Tables for newborns

Minimum Health Care Package - Medical and Surgery Center (Continuation)		
ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS
	CURATIVE (Continuation)	
		- 120 gowns
		- 4 Oscopes
		Dipsticks or strips for urinalysis
		- Laryngoscope
		Intrauterine contraceptive device box
		Rapid tests (E.g. Malaria, glucometer..)
		- Pregnancy test
		- Urine test
		4 Baby weighing scales
		2 U.V. Lamps
		- 3 Time-print unit
		- 2 Warm tables for newborns
		3 INCUBATORS
		2 Defibrillator
		2 Washing machines
		8 Bedpans
		4 Urinals
		30 Aprons for block
		10 Series of surgical sites
		160 Draw sheets
		80 Bedside tables
		Alarms
		8 Telephone beep
		20 Tables
		1 Cautery knife
		15 Benches
		- A breeding box for premature infants
		- 5 Vaccine carrier
		- 30 Accumulators
		- 30 Revolving stools
		- 3 Pressure cookers with hot plates
		- 2 Statistical charts from Navarro
		- 18 Speculums
		5 Refrigerators and one freezer
		4 sterilizers
		- 2 Breast pumps
		1 Radiology
		2 Shadow less lamp
		2 Complete Anesthesia set
		15 Stethoscopes
		1 Blood bank
		- 1 incinerator
		5 concentrators
		- 1 automated defibrillator
		- 2 Gravimeters
		6 Anti-decubitus mattresses
		10 Pairs of cane tips
		1 Resuscitation table for Newborn
		- 8 Water filters
		15 step stools

3.2. Minimum Health Care Package - Medical and Surgery Center (Continuation)

ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS
PREVENTIVE		
-Screening and counseling of HIV/AIDS		Image box
- Pregnancy follow-up,		Wooden penis
- Early detection of risk pregnancy		Flannel board
- Consult the pregnancy complications		Board
- Immunization of pregnant women and infants		Leaflets
-Preventive treatment of malaria in pregnant women		Posters
- Supplementation with iron and folic acid to prevent anemia		Information Publications
- Distribution of intestinal parasite drug		Sample of contraceptive products
- Epidemiological surveillance (declaration of epidemic-prone)		Small information publications
Health of adolescents and youth		
-Distribution of all contraceptive methods		
- Distribution of male and female condoms to prevent STI/AIDS		
School health		
-Screening and transfer of patients with breast nodules		
- School medicine		
The vulnerable section health (old people, pregnant women, newborn, refugees)		
Consult the pathology requiring specialized management		
- Distribution of impregnated mosquito nets		
- Preparation and solution of epidemic and emergency situations		

3.2. Minimum Health Care Package - Medical and Surgery Center (Continuation)

ACTIVITIES	INFRASTRUCTURES	EQUIPMENTS/MATERIALS	
PROMOTIONAL			
- Information and guidance on maternal breastfeeding, immunization, FP (family planning), nutrition, HIV/AIDS, the making pregnancy safer (MPS), malaria and other diseases.			- 1 Video projector
- Guidance, and orientation for HIV/ and STI screening			- 1 Electric generator set
- Family life education			- 1 solar panel
- Hygiene and sanitation education			- 1 audio-visual equipment (TV, DVD,...)
- Promotion of using long-lasting insecticide-treated net (LLIN)			1 flipchart easel
Micro nutrient supplementation			
Fight against tobacco			
Promotion of support to fight against communicable and non-communicable diseases			
Oral hygiene education			
MANAGEMENT ADMINISTRATION			
- Outline of plans and activity reports		1 commercial vehicle	1 flipchart easel
Outline of blueprint for establishment including: architectural plan, human resources plan and budget for establishment		- 1radio message	- 1 Video projector
Outline of monthly SIS reports		- 1 Off-road vehicle	- 1 electric generator set
Management of essential drug stock		- 1 Ambulance	- Provision of toll-free number
Social life promotion: Maouloud, games...		-1 motorcycle	- 1 utility vehicle
Actual, financial and human resource management		- 5 Computers + Printers + Inverters	- 1 Off-road vehicle
Co-ordinate the actions of posts and DHC which come under UMC		- 1 Photocopier	- 1 Ambulance
Follow-up/supervision of health post activities		- 1 Telephone line + Internet	10 Computers + Printers + Inverters
Supervision in community participation in health activity management		- 3 Refrigerators	- 1 Photocopier
		- 2Telephone line + Internet	- 3 Refrigerators

3.2. Minimum Health Care Package - Regional Hospital Center

Activities	Infrastructures	Equipments / Materials	
<p>The two Islands of Ndzouani and Moheli must have a second referral hospital (RHC). These RHC offer four basic specialty services (Internal Medicine, Pediatrics, Surgery, Gyneco-Obstetrics) and it refers the complicated cases to upper level "University Hospital Center". A RHC must be equipped with hospital beds for 2000 patients. Generally, the Regional Hospital should receive the cases only referred by Medical-Surgery Centers.</p> <p>Each Regional hospital must have following blocks and services (with name of sections and or main activities):</p> <ul style="list-style-type: none"> - 1 Administrative block – technical: <p>Administrative (General department; Technical Department, Department of human Resources; Department of Economic and Financial affairs, Quality Department and Department of Rights of Patient, Department of Health Information System,).</p> <p>Outpatient visits (triage by nurses, reception by a medical secretary and consultation by a physician: New Cases, Old Cases, reference and on appointment);</p> <p>Emergencies (open 24/7, emergency consultations; technical acts of emergency);</p> <p>4 Hospital blocks (of services for all four basic specialties: Internal Medicine, Pediatrics, Surgery, Gyneco-Obstetrics);</p> <ul style="list-style-type: none"> - 1 Surgical technique block (Maternity, Emergency surgery and minor operations, Anesthesia , Sterilization) ; - 1 Medical Block (Laboratory, Ultrasonography-Radiology, Pharmacy, Kinesitherapy) ; - 1 General service block (Laundry, Kitchen, Hygiene - Sanitation; Maintenance, Transport, Mortuary, Catering store) ; - Dwelling units for physicians, custodial staff 			
Out-patient visits			
Diagnosis, treatment and reference if required in specialized services	Front office- Reception—Waiting room	- 4 metal tongue depressors	- 3 Sphygmomanometer with adult size cuff
Triage (reception, registration, management of parameters)	3 Consultation rooms (1 for triage; 2 for physicians)	- 1 Personal weighing scale	- 2 Sphygmomanometer with infant size cuff
Clinical examination,	3 washroom facilities	- 3 Thermometers	- 2 X-ray viewing machines
Requirement of para-clinical examination		- 2 Examination lamp	- 2 Set of accessories (Trays, spittoon bowls, kidney trays)
Diagnosis and out-patient care		- 2 Battery flash light	- 4 Air-tight bins
Decision of hospitalization, case follow-up		- 2 Reflex hammer	- 4 Table desks
		- 3 Stethoscope	- 10 Chairs
		- 3 Handling and examining table	

Regional Hospital Center (Continuation)			
Activities	Infrastructures	Equipments / Materials	
Gyn-obstetrical consultation			
Diagnosis, treatment and reference if required in the specialized services:	Front office- Reception—Waiting room	- 1 Baby weighing scale	- 1 Battery flash light
Triage (reception, registration, management of parameters)	3 Consultation rooms (1 for triage; 2 for gynecologists)	- 1 Personal weighing scale	- 1 X-ray viewing machine 1section
Gynecological examination	3 washroom facilities	- 3 Vaginal speculums boxes in 5 sizes	- 1 Pelvimetry
Surveillance of labor,		-1 Doppler fetal monitor	- 1 Binaural stethoscope
Decision of hospitalization, case follow-up		- 1 N/B ultra sound machines with printer video	- 1 Pinard fetal stethoscope
		- 1 ladder with 2 steps	- 1 Gynecological table
		- 1 Set of accessories in Stainless steel (Trays, spittoon bowls, kidney trays)	- 1 obstetrics (suite)
		- 1 Mobile examination lamp	- 1 Aneroid Sphygmomanometer with Adult Cuff
Emergencies and minor surgeries			
Diagnosis, treatment and reference if required in the specialized services:	1 Reception counter	- 4 metal tongue depressors	2 Set of accessories (Trays, spittoon bowls, kidney trays)
24hours hospitalization	2 Offices of Physicians	- 3 Thermometer	- 4 Air-tight bins
	2 treatment rooms	- 2 Examination lamp	-Top table autoclaves
	3 wards (Observation)	- 2 Battery flash light	- Basin for decontamination of instrument under cold water
	1 Examining room	- 2 Reflex hammer	- Forceps jar
	1 Office of Supervisor	- 3 Stethoscope	-Forceps box
	1 Staff room for nursing	- 3 Handling and examining table	- Dental anesthetic carpule syringe kit
	1 Staff room for Physicians	- 3 Sphygmomanometer with adult size cuff	- Box of circumcision instruments
	3 Toilets	- 2 Sphygmomanometer with infant size cuff	- Minor surgery instrument pack

Regional Hospital Center (Continuation)			
Activities	Infrastructures	Equipments / Materials	
Emergencies and minor surgeries (Continuation)			
		- 2 X-ray viewing machines	- Instrument box for dressing (forceps, stylus, catheter, etc.)
		- Box of instruments for suture	- Small and medium drum set
		-Instrument pack for ENT (for foreign body)	-Mobile surgical lamp
		- Rolling stretcher	- Otoscope
		- Wheelchair	- Laryngoscope
		- Plaster trolley	- Instrument tray with covers
		- Two steps ladder	- Poupinel
		- Water filters	- Mayo instrument table
		- Mobile utility trolley for instruments and treatment	- Adjustable stools
		- Instrument box for removing plasters (electric plaster saw, scissor, etc.)	Trapeze bar
		- Manual insufflators with adapter-adult size	- Safety box (incineration)
		- Manual insufflators with adapter-pediatric size	- Table desks
		- Splint set	- Chairs
			- Cupboards
Operation theatre block			
- Maternity, Emergency surgery and minor operations, Anesthesia , Sterilization) ;	1 surgical technique block with following spaces:	- 4 Air-tight bins	- 1 portable defibrillator with charger, compatible with cardio scope
	2 Operation rooms (2 x 40 m ²)	- 2 Anesthesia apparatus	- 2 ladder with 1 step (for surgeon)
	1 Emergency and minor surgery unit (10 m ²)	- 2 Autonomous aspirator	- 10 Redon bottles
	1 Recovery room (10 m ²)	- 2 Surgical aspirator	- 2 mobile utility trolley for instruments and treatment
	1 Room for preparation / change room	- 1 Top table autoclave	- 2 Ambu Bags-manual insufflators, Adult size
	1 Sterilizing room and cleansing room (16 m ²)	- 1 Vertical autoclave	- 2 Ambu Bags- manual insufflators –Pediatric size
	1 Personal space (12 m ²)	- 1 Vertical autoclave combined heating	- 4 Set of boxes for instruments

Regional Hospital Center (Continuation)			
Activities	Infrastructures	Equipments / Materials	
Operation theatre block (Continuation)			
		- 1 Personal weighing scale	- 4 Set of bowls
		- 2 Electrosurgical pencil	- 4 Kidney dish set
		- 2 Forceps jar	- 2 Set of washing bottle for disinfectants
		- 3 Hernia Set	- 4 Instrument tray set
		- 3 Appendectomy Set	- 6 Set of drums for dressing gauze
		- 3 Caesarean set	- 6 Set of drums for linen
		- 4 Abdominal surgery set	- 2 Mobile surgical lamp (mains/battery)
		- 4 Intubation set	- 2 Ceiling surgical lamp
		- 4 Instrument set of general surgery	- 2 Laryngoscope
		- 1 Curettage set	- 1 portable cardioscope with printer and charger
		- 2 Box for incision and drainage of abscess	- 1 trolley for transporting oxygen cylinders
		- 4 Box for suture	- 1 Oxygen concentrators
		- 2 Oxygen cylinder (large volume)	- 2 Kick bucket on low rolling support
		- 10 Redon Bottles	- 2 Rolling stretcher
		- 2 Sterile rinsing basin - 2 places	- 2 Binaural stethoscope
		- 3 Pressure regulator for oxygen cylinder	- 2 Instrument table, 2 trays, big model – 2 Instrument table, adjustable
		- 2 X-ray viewing machines	- 2 Mayo instrument table
		- 1 pulse oxymeter	- 2 Operating table
		- 2 Single use intravenous stand	- 2 Adjustable revolving stool
		- 1 Refrigerator-freezer, fuel-electricity, 240 liters 1	- 2 Aneroid sphygmomanometer, with adult /child cuffs
		- 4 Spare oxygen cylinders (2 per room)	- 3 Automatic lung ventilator for anesthesia apparatus
		- 1 Dry heat sterilizer, 25Litres	

Regional Hospital Center (Continuation)			
Activities	Infrastructures	Equipments / Materials	
Delivery block			
- Normal delivery, episiotomy recovery, care of mother, care of newborn.	1 surgical technique block with following spaces:	-1 Dual mucus aspirator (electric, pedal), - 1 obstetrical related aspiration (voluntary termination of pregnancy)	- 1 Ambu Bags- manual insufflator –Pediatric size
- Obstructed labor (suction cup, forceps, ...).	1 Operation rooms (40 m ²)	- 1 Top table autoclave	- 1 set of accessories in Stainless steel (Trays, spittoon bowls, kidney trays...
Newborn first aid (resuscitation)	1 Recovery room (10 m ²)	- 1 Basin for decontamination of instrument under cold water - 1 Baby weighing scale	- 4 Drum set (small and medium)
-Reference to OR (Operation room) (caesareans, hysterorrhexis, cranioclasia, etc)	1 Room for preparation / change room (10 m ²)	- 2 Bedpan	- 1 IR Lamps for Newborn
	1 Sterilizing room and cleansing room (16 m ²)	- 2 cradles with mattresses	- 1 Mobile surgical lamp (mains/battery)
	1 Personal space (12 m ²)	- 1 Forceps jar	- 1 Sterile rinsing basin - 2 places
		- 1 Jar with thermometer	- 2 Labor bed
		- 1 Suspension irrigator, with tube	- 4 Instrument tray set
		- 4 episiotomy sets	- 1 Double use intravenous stand
		- 4 Delivery instrument set	- 2 Single use intravenous stand
		- 1 Rolling stretcher	- 1 Binaural stethoscope
		- 1 Wheelchair	- 2 Pinard fetal stethoscope
		- 1 Oxy hood	- 2 Delivery table
		- 1 Oxygen concentrators	- 2 Table for receiving newborn
		- 2 breeding boxes for Newborn	- 2 Adjustable revolving stool
		-1 Portable Doppler fetal	- 1 Aneroid sphygmomanometer, with adult cuff
		- 2 ladder (mounting step), with 2 steps	- 2 Clinical thermometer
		- 2 Forceps	- 1 Obstetrical , mechanical or electric suction cup
		- 2 mobile trolley for instruments and ward trolley	- 1 Ambu Bags-manual insufflators, Adult size

Regional Hospital Center (Continuation)			
Activities	Infrastructures	Equipments / Materials	
Laboratory			
Blood: GE, blood sugar, NFS, ESR (erythrocyte sedimentation rate), HIV rapid test		- 2 Oscillating agitator of Kline	- 1 Complete hemocytometer kit
urines : CBEU, glycosuria, pregnancy test, proteinuria		- 2 Vibrating agitator	- 1 Lovibond haemoglobinometer
sputum: MB Sputum examination , gram stain		- 2 Esbach's albuminimeter	- 2 Set of accessories in Stainless steel (Trays, spittoon bowls, kidney trays)
stool: direct examination: parasites, blood		- 2 Western green apparatus, 10 tubes with - 2 sets of droppers	- 3 sets of bottles for stain
others: cervical smear, urethral		- 1 semi-automatic hematology apparatus	- 2 sets of adjustable micrometric syringe(3)
		- 1 Top table autoclave	- 3 Sets of washing bottles for disinfectants
		- 1 Vertical autoclave	- 1 Set of glassware(droppers, sample tubes , test tubes, centrifuge tubes, urine glass test
		-1 Basin for decontamination of instrument under cold water	- 2 Spirit lamps
		- 1 Water bath for serum test	- 2 material for stain on slide (basin 30 slides), holder, boxes for dividing slides
		- 1 Electronic precision scale	- 2 Binocular microscopes- mirror/electric
		- 1 Blood bank	- 2 Time-print unit
		- 2 Bunsen Burner	- 4 Holders for test tubes
		- 1 Vaginal speculums boxes in 5 sizes	- 1 Cooking plate
		- 1 Hematocrit centrifuge	- 1 Refrigerator/freezer (fuel/electricity)
		- 2 Electrically driver centrifuge	- 1 Rhesuscope
		- 1 Manual centrifuge	- 1 Equipment unit with slides and cover slip
		- 1 ELISA system	- 1 Chair for blood collecting
		- 1 Pressure cooker with adjusted hot plate	- 3 mobile trolley for instruments and ward trolley
		- 2 Manual cell counters	- 1 Distiller

Regional Hospital Center (Continuation)			
Activities	Infrastructures	Equipments / Materials	
Radiology			
		- 1 Spectrophotometer	- 1 Set of cassettes
		- 1 Table of treatment for examination	- 3 Set of film holder with support
		- 1 Gynecological table	- 1 Set of Gonard protection
		- 4 Adjustable revolving stools	- 1 set of screens for cassettes with films
		- 1 5kVA Emergency set	- 1 Safelight
		- 1 Cupboard for blank films and arrangement and loading of cassettes	- 1 X-ray viewing machine 1section
		- 1 X-Ray film developing tanks	- 1 X-ray protective screen
		- 1 set of accessories in Stainless steel (Trays, spittoon bowls, kidney trays...	- 2 Protection X-ray apron
			- Unit of radiography –osmium-lungs
Hospitalization (serv. hospit, emer, mat, sur, anes)			
	4 hospital block with following spaces:	- 1 Baby weighing scale	- 8 set of accessories (trays,
	3 rooms;	- 4 Personal weighing scale	- 8 spittoon bowls, kidney trays ...
	5 rooms with 4 beds	- 20 Bedpan	- 4 Mobile examination lamp
	1 nurse room and one store	- 10 cradles with mattresses	- 4 Battery flash light
	o 1 room: maternity , store+ nurse room,	- 4 Forceps jar	- 80 Hospital bed
	3 more rooms with 4 beds	- 4 Jar with thermometer	- 80 Mattresses
	Washroom facilities (separate outside)	- 2 Minor surgery instrument pack	- 80 Impregnated mosquito net
		- 6 Instrument box for dressing (forceps, stylus, catheter, etc.)	- 4 Oscope
		- 3 Adjustable bed frame+ fittings	- 4 Double use intravenous stand

Regional Hospital Center (Continuation)			
Activities	Infrastructures	Equipments / Materials	
Hospitalization (serv. hospit, emer, mat, sur, anes) (Continuance)			
		- 4 Oxygen therapy trolley (oxygen cylinder + pressure regulator/flow meter)	- 8 Binaural stethoscope
		- 4 Pressure cooker with adjusted hot plate	- 80 Bedside table
		- 4 Water filter	- 4 Handling and examining table
		- 8 mobile trolley for instruments and ward trolley	- 1 Aneroid sphygmomanometer with adult/children cuffs
		- 3 Ambu Bags-manual insufflators, Adult size	- 3 Aneroid sphygmomanometer with an adult cuff - 20 Clinical thermometer
		- 1 Ambu Bags- manual insufflator –Pediatric size	- 5 Men’s urinal
Intensive care			
		- 1 Tracheal suction	-1 Ambu-bags-manual insufflator, pediatric size - 2 set of accessories in stainless steel (trays, spittoon bowls, kidney trays,...
		- 2 Bedpan	- 1 Mobile examination lamp
		- 1 Forceps jar	- 1 Laryngoscope
		- 1 Jar with thermometer	- 2 Sterile rinsing basin - 2 places
		- 2 Instrument box for dressing (forceps, stylus, catheter, etc.) -1 mobile trolley for instruments and ward trolley	- 2 Bed with upper and lower body adjustment
		- 1 Ambu bags -manual insufflator , Adult size - 2 Instrument tray set	- 1 Aneroid sphygmomanometer with adult/children cuffs
		- 1 Double use intravenous stand	- 2 Clinical thermometer
		- 2 Single use intravenous stand	- 2 Men’s urinal
		- 1 Binaural stethoscope	- 1 Automatic lung ventilator for anesthesia apparatus
		- 2 Bedside table	

3.3. Human resources – Health post, District health center and Medical –Surgery Center

Health posts			
Staff categories	Standards	Existing	Requirements
Nursing manager in Public Health	52	0	52
Registered Midwife	52	0	52
Assistant Nurse or Mid wife	52	52	0
Community worker with manager profile	52	0	52

District Health Centers			
Staff categories	Standards	Existing	Requirements
Public health physicians	28	0	28
Dental surgeon	14	7	7
Nursing manager in Public Health	14	0	14
Registered Nurse	70	64	6
Registered Midwives	42	59	-17
Laboratory technicians	28	26	2
Pharmacy technician	14	7	7
Accounting manager	14	0	14
Sanitation Worker	42	12	30
Public Health Sanitarian	14	0	14
Statistics Technical Assistant	14	0	14
Certified Nurse Assistance	140	0	140
Security Guard and Watchman	14	14	0
Handyman	14	14	0
Workers for Maintenance and Cleaning	28	26	2

Medical Surgery Centers			
Staff categories	Standards	Existing	Requirements
General practitioner	10		10
Public health physicians	10	0	10

Medical-Surgery Centers (Continuation)			
Staff categories	Standards	Existing	Requirements
General Surgeon	5	1	4
Gyneco-Obstetrician	5	0	5
Anesthesiologist-Resuscitator	5	0	5
Pediatrician	5	0	5
Radiologist	5	0	5
Dental surgeon	5	4	1
Anesthetic Nurses	10	15	-5
Surgery Assistant Nurses	15	6	9
Nursing manager in Public Health	5	0	5
Registered Nurse	45	25	20
Registered Midwives	25	19	6
Laboratory technicians	10	5	5
Pharmacy technician	10	2	8
X-ray technician	5	6	-1
Field Engineers	10	2	8
Medical Secretaries	10	0	10
Public Health Sanitarian	5	0	5
Manager	5	2	3
Health administrator	5	0	5
Accountant	5	0	5
Human Resources Technician	5	0	5
Administrative Secretary	5	8	-3
Sanitation Worker	15	0	15
Statistics Technical Assistant	5	2	3
Certified Nurse Assistance	75	0	75
Security Guard and Watchman	5	8	-3
Handyman	5	6	-1
Workers for Maintenance and Cleaning	10	19	-9

3.3. Human Resources – Regional and National Hospital Centers

Regional Hospital Centers			
Staff categories	Standards	Existing	Requirements
Physicians	4	20	-16
General surgeons	8	5	3
Maxillofacial surgeon	2	0	2
Gynecologists	8	5	3
Emergency physicians	8	2	6
Anesthesiologist-resuscitator	4	0	4
Clinical Pathologists	2	1	1
Pneumologist	2	0	2
Dental surgeon	2		
Nurse Manager	10	0	10
Registered Nurse	40	36	4
Emergency Nurses	8	0	8
Anesthetic Nurses	32	6	26
Registered nurse or nurse with A1 experienced level	16	0	16
Nurses with level A2	16	0	16
Nurses with level A3	40	0	40
Registered Midwives	20	26	-6
Medical secretaries	4	0	4
Scrub nurses	12	0	12
Nurse Assistants	62	41	21
Stretcher bearers	20	0	20
Manager	2	2	0
Health administrator	2	0	2
Accountant	2	4	-2
Human Resources Technician	2	0	2
Administrative Secretary	2	4	-2
Statistics Technical Assistant	2	2	0
Security Guard and Watchman	2	6	-4
Handyman	4	6	-2
Workers for Maintenance and Cleaning	6	41	-35

National Hospital Center			
Staff categories	Standards	Existing	Requirements
General practitioner	31	24	7
General surgeons	13	7	6
Pediatricians	4	3	1
Gastroenterological surgeon	4	0	4
Gynecologists	8	2	6
Emergency physicians	5	1	4
Clinical Pathologists	6	1	5
Dental surgeon	6	4	2
Maxillofacial surgeon	2	0	2
Stomatologist	1	0	1
Neurosurgeon	1	1	0
Otorhinolaryngologist	4	2	2
Oncologist	1	0	1
Hematologist	1	0	1
Endocrinologist	1	0	1
Nutritionist	5	0	5
Urologist	1	0	1
Pediatric Surgeon	4	0	4
gastroenterologists	1	0	1
Cardiologists	3	2	1
Nephrologists	1	1	0
Neurologists	1	0	1
Radiologists	3	1	2
Pneumologist	2	0	2
Ophthalmologists	2	1	1
Anesthesiologist-resuscitator	6	2	4
Anatomic Pathology Specialist	4	0	4
Senior technicians in entomology	6	0	6
Dermatologists	2	2	0
Psychiatrists	1	1	0

3.3. Human Resources – Regional and National Hospital Centers (Continuation)

National Hospital Center (Continuation)				National Hospital Center (Continuation)			
Staff categories	Standards	Existing	Requirements	Staff categories	Standards	Existing	Requirements
Anesthetic Nurses	6	3	3	Nurse Managers	5	0	5
Senior technician in medical imaging	8	4	4	Registered Nurse	123	93	30
X-ray technician	13	10	3	Emergency Nurses	6	0	6
Pharmacists	4	1	3	Manager	10	5	5
Laboratory technicians	30	30	0	Health administrators	2	0	2
Pharmaceutical assistant	5	3	2	Executive assistant (level BAC +2 (French baccalaureate + 2 years of study)	6	2	4
Pediatric nurses	6	1	5	Accountant	4	1	3
Registered or nurse with A1 experienced level	2	0	2	Human Resources Technician	2	0	2
Nurses with level A2	2	0	2	Administrative Secretary	6	4	2
Nurses with level A3	2	0	2	Statistics Technical Assistant	6	1	5
Registered Midwives	79	69	10	Security Guard and Watchman	16	16	0
Dental nurses	4	2	2	Nurse assistants	246	0	246
Biomedical maintenance engineer	8	2	6	Handyman	10	9	1
Field Engineers	12	4	8	Workers for Maintenance and Cleaning	45	28	17
Maintenance workers	5	0	5	Stomatologist	1	0	1
Public Health Sanitarian	28	28	0	Neurosurgeon	1	1	0
Prosthetists	4	0	4	Otorhinolaryngologist	4	2	2
Anesthetic Nurses	10	4	6	Oncologist	1	0	1
Massage therapist assistants	22	4	18	Hematologist	1	0	1
Orthopedists	14	0	14	Endocrinologist	1	0	1
Medical secretaries	6	0	6	Nutritionist	5	0	5
Scrub nurses	6	0	6	Urologist	1	0	1
Nurse Assistants	200	194	6	Pediatric Surgeon	4	0	4
Stretcher bearers	6	0	6				

ATTACHMENT IV: LEGEND OF THE HEALTHCARE MAP



Legend:

- RHC: Regional Health Center UMC: Urban medical center
- DHC: district health center CHC: Community health center
- MSC: Medical surgery center HP: Health Post
- C: General practitioner's practice CS: Specialist doctor's practice
- CCP: Private surgical clinic
- HP -> CHC: Health post transformed into Community health center
- DHC / MSC** : Construction project of a center
- MSC: Construction project of a medical surgery center



Legend:

- RHC:** Regional hospital center
- MSC:** Medical surgery center
- DHC:** District health center
- UMC:** Urban medical center
- HP:** Health post
- GP:** General physician's practice
- DHC:** DHC supported by NGO
- HP:** Health care facility irregularly functional
- HP:** Post of maternity pilot project
- CHC:** Community health center
- CS:** Specialist physician's practice



Legend:

- RHC:** Regional hospital center
- UMC:** Urban medical center
- DHC:** District health center
- HP:** Health post

**ATTACHMENT V:
MAIN PARTNERS**

Main partners of “health sector”

Multilateral Cooperation	
Main partners	Thrust areas
European Union (9th EDF)	Building of hydro-sanitary structures and raising awareness on hygiene and health in schools (Red Cross)
	Health insurance support network
	Intervenes in Anjouan through NGO CAP for financing health care facilities,
World Bank	Capacity-Building and biomedical maintenance within CDSF(Community development support fund) framework
UNDP/UNCDF	Joint program for fight against HIV/AIDS
	Health insurance support
	Technical assistance support if required,
	Institutional capacity building
WHO	Fight against communicable and non communicable diseases
	Health System Development
	Mother and child health
UNFPA	Reinforcement of the reproductive health and gender
	Population and development strategy and gender,
	Joint program of fight against HIV/AIDS
UNICEF	Community based nutrition program
	Mother and child health
	Fight against HIV/AIDS
GAVI	Building capacities for immunization (training, logistics procurement)
GFATM (Global Fund to Fight AIDS, Tuberculosis and Malaria)	Fight against Malaria,
	Fight against HIV/AIDS
IDB	Capacity building in the hospitals (equipment and training)
IOC (AIRIS/RSIE)*	Fight against HIV/AIDS,
	Epidemiological surveillance (Training, equipment, participation in international meetings by the national staff, exchange programs at regional level)

*AIRIS : Appui à l’Initiative Regionale de prevention IST/Sida (HIV/AIDS Regional Initiative Support)
RSIE : Réseau de Surveillance et d’Investigation des Épidémies (Outbreak Investigation Network)

Main partners of “health sector” (Continuation)

Bilateral co-operation	
Main partners	Thrust areas
China	Fight against Malaria,
	Building capacity (Technical assistance, training of specialists and medical material subsidy)
Sharjah-United Arab Emirates	Institutional support in equipments
	Building construction
Egypt	Support in equipments and Building construction
France	Support in the health sectors based on reproductive health through PASCO
	Capacity building (Technical assistance, training)
Co-operation with NGOs	
a). At International level	
DAMIEN /AIFO Foundation	Fight against tuberculosis and leprosy
Iranian Red Crescent	Capacity building (Technical assistance)
CARITAS	Capacity building (Technical assistance)
IPPF	Reproductive health through ASCOBEF
IIRO	Capacity building of some district centers (Technical assistance)
b). At national level	
Diaspora	Institutional support (Health structures) in equipments, drugs and others
CRC	Health education, fight against malaria and HIV/AIDS, - Fight against epidemics
Women and Development National Network	Reproductive health, HIV/AIDS
	Raising awareness and advocacy for health
ASCOBEF	Reproductive health, HIV/AIDS, Malaria
CAP/Anjouan	Reproductive Health