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MINISTRY OF PUBLIC HEALTH

HEALTH SECTOR STRATEGY 2016-2027

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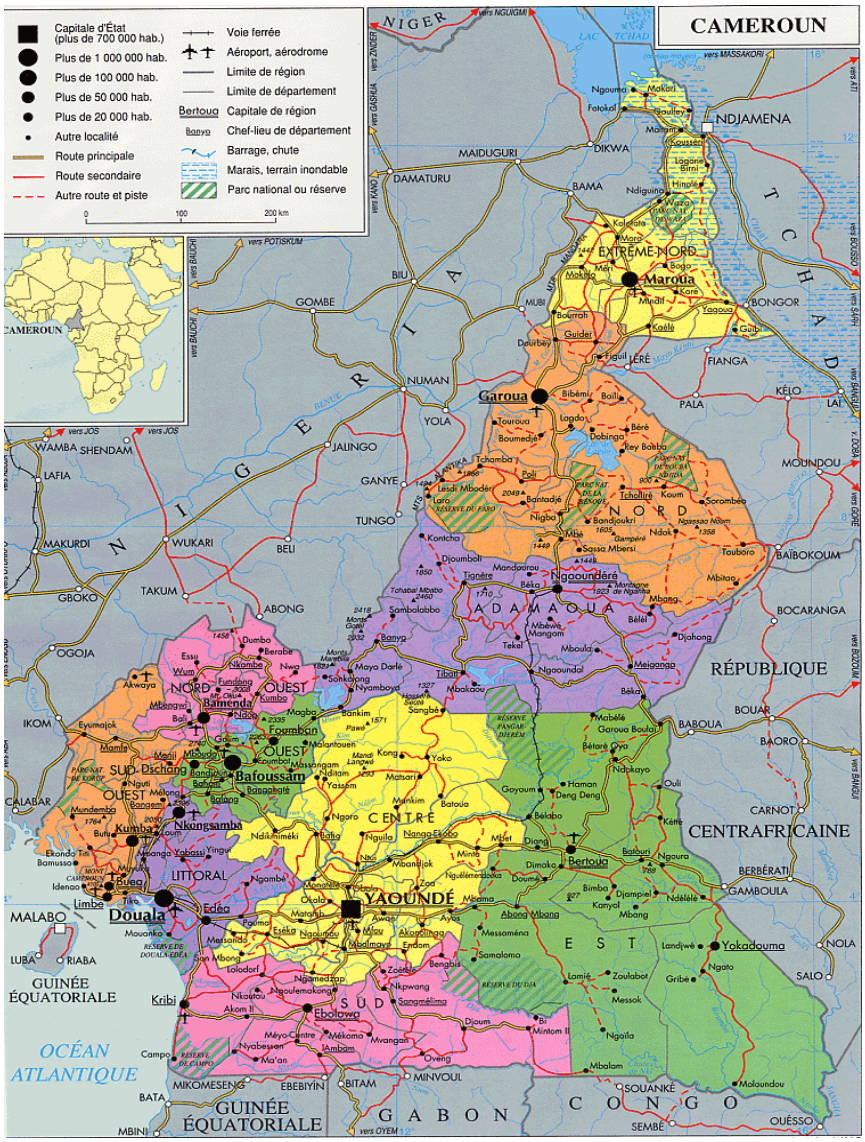
HEALTH SECTOR STRATEGY

2016-2027

CAMEROON MAP



Some indicators on the country's socio-economic and health situation

General data

Surface Area	475 650 km^2
Official languages	French, English
Currency	FCFA

Socio-demographic indicators

Total estimated population	21 143 million
Population growth rate	2.6%
Poverty rate	37.5% (in 2014)
Gross unemployment rate	5.7% (in 2010)
Underemployment rate	70%
Lifespan at birth	54 years

macro-economic indicators (2013)

Nominal GDP	FCFA 14 607 billion
Per capita GDP	F CFA 696 000
GDP growth rate	5.6%
Investment expenditures	FCFA 1 053.3 Billion
Overall budgetary resources	FCFA 2 655.3 billion
Indebtedness rate	10.6%
Inflation rate	2.1%

Health indicators (MICS 2014, sic)

Access to improved water points	72.9% (households)
HIV prevalence	4.3% (EDS-2011)
Unmet needs in FP	34.3%
BP urban prevalence	29.7% (Kingue et al. 2015)
Maternal mortality rate	782 deaths/100 000 live births (EDS, 2011)
Access to improved toilets	34.9% (households)
DTC3 coverage rate	79.3%
Infant and child mortality rate	103‰
Chronic malnutrition rate	31.7%

Source: *INS, BUCREP, MINFI* *s.i.c: unless otherwise specified*

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INTRODUCTION

The ambition set out in the Growth and Employment Strategy Paper (GESP) to build an emerging Cameroon by 2035 highlighted the need to implement sector strategies for a successful implementation of this reference document. These strategies make it possible to identify the main areas where the interventions of public institutions should be oriented. In the area of health, the existence of an adapted sector strategy is clearly shown when the plurality of actions to be carried out by the various stakeholders involved requires coherence and synergy. The 2001-2015 Health Sector Strategy enabled to get significant results in terms of improved coverage of some interventions. In spite of the progress made, there are still a number of challenges to be met in order to achieve universal access to quality health care. On 12 December 2012, the General Assembly of the United Nations adopted Resolution A/67/L.36 for universal health coverage. This resolution *calls upon Member States to adopt a multi-sector approach and address the determinants of health per sector, integrating health into all policies, as appropriate, while taking into account its social, environmental and economic determinants in order to reduce inequalities in this area and to promote sustainable development*.

In his seven-year programme on "Great achievements" published in 2011, His Excellency Paul BIYA, President of the Republic of Cameroon and Head of State, prescribed this universal health coverage to the Government as a salutary goal to be achieved. Hence, in 2001 he gave instructions to work for the establishment of "a medical assistance system that would leave no Cameroonian without care, whatever the social stratum". The year 2015 served as a transition between the Millennium Development Goals (MDGs) set in 2000 and the Sustainable Development Goals (SDGs), which aim to induce inclusive and sustainable development in the countries. The third objective aims to reduce maternal and child

mortality, to eradicate epidemics related to major communicable diseases, and to reduce early mortality due to non-communicable diseases, by 2030; This should be done through universal access to health care and services, the promotion of healthy behaviours and the development of healthy environments.

The 2016-2027 HSS falls within a twofold perspective: on the one hand, contributing to accelerate the development of human capital for growth and sustainable development in line with the indications and recommendations of the GESP and, on the other hand, aligning with the Sustainable Development Goals by accelerating the implementation of universal health coverage.

The implementation of the strategy will be carried out in a favourable national context characterized by:

i. *The implementation of the 2015-2017 Triennial Emergency Plan (PLANUT), which includes the construction and rehabilitation of referral hospitals in all regions of the country, as well as the development of basic social infrastructure;*
ii. *Innovative health financing initiatives such as Performance Based Financing (PBF), health cheques, obstetric kits, Value for Results, etc. ;*
iii. *Major structural projects which will improve the well-being of populations through infrastructure and new jobs, if environmental risks are contained;*
iv. *The evolution towards decentralization of social policies, which will further promote the involvement of communities in solving their health problems;*
v. *High literacy rate which promotes the understanding of health messages and the adoption of healthy behaviours;*
vi. *The new financial regime of the State which allocates the budget programme as a budgetary framework modality, and guarantees more visibility in the medium term.*

At the end of a thorough analysis based on data and conclusive indicators from our health profile, the strategic option which sets out the guidelines for our health sector strategy for the next twelve years has been adopted. It brings together two major healthcare approaches, namely: the Primary Health Care approach, whose impact on the beneficiaries is no longer to be demonstrated, and the more complex specialized care approach, whose service provision will considerably increase through the implementation of the Head of

State's Triennial Emergency Plan (PLANUT). It will therefore be necessary to seek the right balance between these two approaches during the validity period of this strategy.

Finally, the concern of providing appropriate solutions to the health problems identified during the situation analysis of our health context, the possibility for their effective implementation as well as the certainty of having chosen the most responsive option to population health problems, in turn reinforced the choice of this strategic option.

This Health Sector Strategy is therefore the reference document for stakeholders of the health sector. They will work together to achieve the Goals of the GESP and the SDGs. I therefore urge all of them to make good use of it and contribute in its effective implementation.

ACKNOWLEDGEMENTS

On behalf of the Cameroon Government, I would like to warmly congratulate and thank the officials of the Ministry of Public Health and those from partner Ministries, Technical and Financial Partners, members of the Technical Working Group, those of the Steering Committee, Civil Society Organizations and all the experts who relentlessly contributed in the development of this area of the Health Sector.

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ABBREVIATIONS AND ACRONYMS

AIDS	*Acquired Immune Deficiency Syndrome*
ART	*Antiretroviral Treatment*
AWP	*Annual Work Plan*
BHP	*Basic Health Package*
CBO	*Community-Based Organisation*
CENAME	*National Essential Drug Procurement Centre*
CHP	*Complementary Health Package*
CHRACERH	*Research Hospital Centre on Human Reproduction and Endoscopic Surgery*
CHS	*Community Household Survey*
CICRB	*Chantal Biya International Reference Centre*
CLTS	*Community Led Total Sanitation*
CEmONC	*Comprehensive Emergency Obstetric and neonatal Care*
CSM	*Community Self-Monitoring*
CSO	*Civil Society Organization*
DHC	*District Health Committee*
DHDP	*District Health Development Plan*
DHS	*Demographic and Health Survey*
DLMEP	*Department of Disease, Epidemics and Pandemics Control*
DMC	*District Management Committee*
DTC	*Diagnostic and Treatment Centre*
EmONC	*Emergency obstetric and neonatal care*
EPD	*Epidemic-Prone Diseases*
EPI	*Expanded Programme on Immunization*
FCFA	*Franc of the Financial Community in Africa*
FINEX	*External Funding*
FP	*Family Planning*
FTP	*Financial and Technical Partner*
MINEFOP	*Ministry of Employment and Vocational Training*
MINDEF	*Ministry of Defence*
GAVI	*Global Alliance for Vaccines and Immunization*
GDP	*Gross Domestic Product*
GDSN	*General Delegation of National Security*
GESP	*Growth and Employment Strategy Paper*
HC	*Health Centre*
HIV	*Human Immunodeficiency Virus*
HBP	*High Blood Pressure*
HRDP	*Human Resources Development Plan*
HSS	*Health Sector Strategy*
IDSR	*Integrated Disease Surveillance and Response*
IHC	*Integrated Health Centre*
IMCI	*Integrated Management of Childhood Illnesses*
NIS	*National Institute of Statistics*
IPPF	*Infrastructure Project Preparation Facility*
IPT	*Intermittent Preventive Treatment*
LANACOME	*National Laboratory for the Quality Control of Drugs and Valuation*
LLIN	*Long Lasting Insecticide Treated Net*
MC	*Management Committee*
MDG	*Millennium Development Goal*
MHC	*Medicalized Health Centre*
MICS	*Multiple Indicators Cluster Survey*
MINAC	*Ministry of Arts and Culture*
MINADER	*Ministry of Agriculture and Rural Development*
MINAS	*Ministry of Social Affairs*
MINATD	*Ministry of Territorial Administration and Decentralization*
MINCOM	*Ministry of Communication*
MINEDUB	*Ministry of Basic Education*
NMCP	*National Malaria Control Programme*
NOPH	*National Observatory of Public Health*

MINEPAT	*Ministry of Economy, Planning and Regional Development*
MINEPIA	*Ministry of Livestock, Fisheries and Animal Husbandry*
MINESEC	*Ministry of Secondary Education*
MINEPDED	*Ministry of Environment, Nature Protection and Sustainable Development*
MINESUP	*Ministry of Higher Education*
MINFI	*Ministry of Finance*
MINFOPRA	*Ministry of Public Service and Administrative Reforms*
MINJEC	*Ministry of Youth Affairs and Civic Education*
MINJUSTICE	*Ministry of Justice*
MINPROFF	*Ministry of Women's Empowerment and the Family*
MINRESI	*Ministry of Scientific Research and Innovation*
MINSANTE	*Ministry of Public Health*
MINTP	*Ministry of Public Works*
MINTSS	*Ministry of Labour and Social Security*
MINSPC-NCD	*Multi-sector and Integrated National Strategic Plan for the Control of Non-Communicable Diseases*
MTEF	*Medium-Term Expenditure Framework*
NACC	*National AIDS Control Committee*
NCD	*Non Communicable Diseases*
NGO	*Non-Governmental Organisation*
NHA	*National Health Accounts*
NHIS	*National Health Information System*
NTD	*Neglected Tropical Diseases*
PAC	*Post Abortion Care*
PETS	*Public Expenditure Tracking Survey*
PHC	*Primary Health Care*
PLWHA	*People living with HIV/ AIDS*
PM10	*Particulate Matter 10 microns*
PMCT/PM	*Prevention of Mother-to-Child Transmission (of HIV)/Paediatric Management*
RDPH	*Regional Delegation of Public Health*
RLA	*Regional and Local Authorities*
RMNCAH	*Reproductive, Maternal, New-born, Child, and Adolescent Health*
RPPC	*Regional Pharmaceutical Procurement Centre*
SC/TS-HSS	*Steering Committee of the Technical Secretariat of the Health Sector Strategy*
STI	*Sexually Transmitted Infection*
SWAP	*Sector-Wide Approach*
SYNAME	*National Essential Drug and Medical Supplies Procurement System*
UNDP	*United Nations Development Programme*
UNFPA	*United Nations Fund for Population Advancement*
UNICEF	*United Nations International Children's Emergency Fund*
UNITAID	*International Drug Purchasing Facility*
WASH	*Water, Sanitation and Hygiene*
WHO	*World Health Organisation*

EXECUTIVE SUMMARY

The 2001-2015 Health Sector Strategy (HSS) policy framework for government action on health expired in 2015. An evaluation of its content and its implementation guided the development of a new HSS that covers the period 2016-2027. This new strategy aligns with the Growth and Employment Strategy Paper (GESP) and with the Sustainable Development Goals (SDGs). The evaluation process of the expired 2001-2015 strategy and the development of the new strategy were participatory. It had the technical support of the Ministry of Economy, Planning and Regional Development (MINEPAT) and experts from the World Health Organization (WHO) on the one hand, and contributions from partner administrations, private sector representatives, technical and financial partners (TFPs) and the civil society, on the other hand.

In accordance with its duties, the Steering and Monitoring Committee for the Implementation of the Health Sector Strategy validated the assessment projects of the 2001-2015 HSS and the development of a new HSS, as well as all progress reports and the various deliverables of the process. These include:

- the "final evaluation report of the 2001-2015 HSS implementation";
- the "health sector assessment and diagnostic" document;
- the "strategic choices of the health sector" document;
- the “2016-2027 Heath Sector Strategy".

ASSESSMENT OF THE IMPLEMENTATION OF THE 2001-2015 HSS

The internal assessment of the 2001-2015 HSS consisted of two parts: one quantitative and the other qualitative.

Quantitative Assessment

The development process of the new strategy started with the 2001-2015 HSS assessment. The analysis of the level of achievement of the objectives of the expired HSS revealed that efforts made by the Government and its national and international partners, have improved

the health condition of the populations in general. In disease control, for example, the rate of the Disability Adjusted Life-Years (DALY) which is an indicator assessing disease burden reduced by 23.5% between 2000 and 20131. This reduction mainly concerns communicable diseases. For example, HIV/AIDS prevalence dropped from 5.5% to 4.3% between 2004 and 2011 and specific mortality rate of malaria in hospitals reduced from 43% to 22.4% between 2008 and 2013. Similarly, child mortality shows a significant reduction of 28%, from 144 to 103 deaths of children less than 5 years per 1,000 live births between 2004 and 2014. As regards health promotion, the major achievement is the reduction of more than 50% of cases of malnutrition across the country between 2001 and 2014.

While progress is being seen in communicable diseases, it is not the case in non-communicable diseases, where the disease burden only reduced by 4.3% between 2000 and 2010, with an upward trend starting from 2010. In addition, maternal mortality that was to be reduced by 2/3 rather increased from 669 to 782 deaths per 100 000 live births between 2004 and 2011. Moreover, the percentage of serviced districts whose target was set at 80% remained at 7%.

Qualitative Assessment

Following the qualitative assessment, strengths and weaknesses of the 2001-2015 strategy were classified and analysed according to their nature.

STRENGTHS

Strengths focused on the following: service provision, human resources, drugs, funding and operational research.

Infrastructure: the following strengths were pointed out: (i) the real commitment of the State in building proximity health facilities and, mostly, referral hospitals in each region, (ii) the existence of standards in equipment, (iii) the availability of technical files to rehabilitate health facilities including the sequential opportunities of implementing the works to be done (architectural and technical development plan of district hospitals from ordinary internal funding), (iv) the availability of technical personnel able to draft architectural as well as

development plans according to standards; (v) the existence of a partnership strategy aimed at strengthening the concerns of the private sector in service delivery; (vi) the existence of a wide range of training institutes; and (vii) State grants to private health facilities as well as to private health training institutions for medical personnel.

Human resources: With regard to human resources for health (HRH), the following were noticed: the availability of data on the state of needs in HRH; the improvement of the health map; the availability of the software for the management of personnel (SIGIPES) as well as tools on the management of careers (job and posts mapping software, HRH National Observatory) and, the increasing number of staff trained in the numerous rapidly growing universities and professional schools.

Drugs: As regards drugs, the strengths are as follows: prices of essential drugs have been standardized in the public sector and their costs are affordable even in remote areas where the poverty index is high. Moreover, a free-of-charge policy is applied for many medical products as part of the priority programmes; and to the advantage of vulnerable groups (children less than 5 years, pregnant women...).

Funding: As progress made in this area, the operational capability and efficiency of several innovative strategies to enhance health funding were noticed, notably Performance-based Financing (PBF), health cheques, obstetrical kits, etc. Besides, the State's budget devoted to health has been increased in absolute terms during the last decade, even though the latter is still insufficient in relation to the identified needs.

Health research: The main strengths identified in health research include: strengthening the institutional framework of the operational research in health; strengthening regulation and the creation of Regional Ethics Committees on Human Health, and a framework for health research through the Scientific and Strategic Advisory Board for Research in human Health (CCSSRS); the existence of structures and provisioning tools and extension of health data and results of health research, including the Centre for the Development of Good Practices in Health (CDGPH) and the Health Sector Digital Documentation Centre (HSDDC).

WEAKNESSES

The weaknesses noticed were specifically on the following aspects: legislation and regulation; polical commitment; health financing; management (planning, managing, monitoring and evaluation availability and functioning of infrastructure and basic equipment; health information and research in health.

Legislation and regulation: In the absence of a public health code and the legal gaps noticed, it was not possible to better accompany the actors in the health sector.The number of Technical and Financial Partners (TFP) who were involved in a sector approach remained constant (only two bilateral cooperation partners, AFD and KfW are still working on this issue since 2011), showing proof of insufficient political commitment for the implementation of the SWAp.

High-level political commitment: this is also insufficient as concerns the funding percentage the State allocates to the health sector. The Abuja Declaration prescribes a subvention of 15% of the State budget to this sector. The current tools do not give the possibility to obtain all information on funding allocated to health in other administrations working in this sector, (partner ministries). However, the proportion of the national budget allocated to the Ministry of Public Health varies between 5% and 5.5%[2].

Health financing: To date, the collection of health resources (private and public financing) and their pooling is not sufficiently organized in the sector.The existence of various health financing systems (30 in 2013) is the evidence of the lack of an integrated approach and insufficient coordination in financing management[3]. Moreover, the low level of information on funding allocated in the sector (those of the private sector, partner administrations, health care/service providers, as well as those of regional and local authorities, and some TFP fundings) did not help in preventing the duplication of resources. This did not enable the coherent management of the most vital needs of the targeted populations (horizontal equity).

In the same vein, it was found that the financial productivity of health facilities is not properly monitored to help an optimal use of public funding. Furthermore, out-of-pocket payments

still constitute the main means of getting access to health care and the health system does not yet ensure protection against health risks to all the population.

Management (planning, supervision, control, monitoring and evaluation): The areas of concern are:

The *MOH leadership*. Although effective in the sector, it should continue to be strengthened and finally align with an established vision and programme of the various actors and stakeholders and implementented coherently. In addition, the extreme hierarchical nature of interventions does not prevent duplications and to realize economies of scale, resulting in inefficiency.

Shortcomings in achieving the missions of the Technical Secretariat of the Steering and Monitoring Committee of the Implementation of the Health Sector Strategy (health sector technical impetus). This weakness contributed to limit the overall performance of the sector.

Inadequate strategic planning: the strategic objectives stated in the 2001-2015 HSS and the interventions chosen were not always in accordance with the institutional as well as structural capacities and the previous progression rates.

Inadequate operational planning at the regional level: needs expressed by health regions did not take into account budgetary constraints as well as available resources. The lack of realistic regional objectives hampered the allocation of resources based on real needs.

Weakness of the monitoring and evaluation system: with the exception of the performance achieved in vertical programmes, there is little information on other progress in the health system. The lack of a monitoring and evaluation integrated plan is one of the causes. Moreover, information about the initial values as well as some target values of the expired HSS monitoring indicators were not given, making their monitoring difficult. In addition, they were numerous.

Deficit in the anticipation and risk management: Due to the absence of a risk management plan, it was not possible to anticipate the structural and economic barriers in achieving the

results of the strategy. This led to a more reactive than proactive attitude of the actors in implementing the expired strategy.

Deficit in implementing accountability mechanisms: few accountability mechanisms of the actors put in place were operational, thus, one of the causes of inefficiency.

Availability and operation of infrastructure: Due to the absence of an infrastructure development plan during the implementation period of the last strategy, it was not possible to ensure the respect of the requirements of the health map and the technological changes during the construction of infrastructure. Consequently, there are inequalities in Regions and Districts in terms of health coverage.

National health information system (NHIS): the institutional and organizational framework of the NHIS is weak. The absence of a data management procedures manual and and a monitoring plan of activities in most health facilities is noted. A strengthening NHIS strategic plan for the period 2009-2015 was developed in 2008, but its implementation has not been effective. Furthermore, there is a multiplicity of information sub-systems and data collection tools in a very low computerized environment at all levels.

Research in Health: weak points mentioned in the area are: (i) the non-compliance with the existing legal regulatory framework governing the practice of health research in Cameroon; (ii) insufficient financial resources allocated to the functioning of regulatory bodies and the underfunding of research activities by public and private structures; (iii) absence of a national list of health research priorities; (iv) a weak culture of research, insufficient dissemination of research results; (v) low availability of reliable evidence and the non systematic use of research results in making health decisions.

DEVELOPING THE 2016-2027 HSS

The development of the 2016-2027 HSS was done in three stages: (i) drawing up a situation analysis, (ii) developing a strategic framework, and (iii) an implementing, monitoring and evaluation framework.

Situation analysis and diagnosis

A complete situation analysis of the health sector enabled to gather convincing information to better describe the needs of the beneficiaries as well as the services and care provided. This data collection was done with the delimitation and the segmentation of the health sector in five components, namely: (i) health promotion, (ii) disease prevention, (iii) case management, (iv) health system strengthening and (v) governance and strategic steering.

The main issue of the health system is its “weak capacity to meet the social and health needs of the population and contribute to the development of a healthy and skilled human capital”. This gives rise to implications such as:

- weak adoption of healthy behaviours by people;
- high prevalence and frequency of risk factors of preventable diseases;
- unsatisfactory case management in health facilities as well as in the community;
- high rate of preventable morbidity and mortality;
- financial inaccessibility to care and services for beneficiaries;
- reduction of the labour force in the overall population.

Strategic framework of the health sector

According to the results of the evaluation of the 2001-2015 HSS implementation as well as the analyses made during the description of the situational analysis of the health sector, the 2016-2027 HSS sets a new vision in compliance with national and international priorities, the stakes and great challenges of the sector.

The 2016-2027 HSS vision derived from the 2035 vision of the President of the Republic is formulated as follows:"Cameroon, a country where global access to qualitative health services is insured for all the social strata by 2035, with the full involvement of communities".

To this end, the health sector will work towards contributing to the achievement of the development objectives of the Cameroon Vision by 2035 and the Growth and Employment Strategy Paper (GESP).

The general objective of the 2016-2027 HSS is to contribute to the development of a human capital that is healthy, productive and able to bring a strong, inclusive and sustainable growth.

As far as health promotion is concerned**,** this will include: "**encouraging the population to adopt healthy and positive behaviour by 2027**". To this end, four specific objectives were identified: (i) Strengthen the institutional, community capacity building, and coordination in the field of health promotion in 80% of HDs; (ii) improve the living environment of the population in at least 70% of HDs;(iii) develop promotion actions in at least 80% of HDs in order to strengthen the health skills of individuals and communities ;(iv) bring 75% of families to adopt essential family practices including Family Planning.

In the area of disease prevention, there will be a need to "reduce premature mortality due to prevention-preventable diseases". To achieve this,there will be a need to: (i) reduce by at least 20% the impact/prevalence of the main communicable diseases(HIV, malaria and TB) and eliminate some NTDs (filiariosis, lymphatic and THA ; (ii) reduce the risk of occurrence of major public health events and epidemic-prone diseases including zoonoses in at least 90% of HDs; (iii) increase the coverage of high impact prevention interventions fot the mother, new-born and child target in at least 80% of HDs and; (iv) reduce by at least 10%the prevalence of major non-communicable diseases (diabetes and HBP).

Regarding case management, the strategic objective is to: "**Reduce hospital and community lethality and mortality**." More specifically, it will include: (i) curative management according to standards of the main communicable and non-communicable diseases as well as their complications in at least 80% of health facilities;(ii) ensuring the comprehensive management ans according to standards of maternal, newborn, child and adolescent health problems at the community level and in at least 80% of health facilities; (iii) ensuring the management of medical emergencies and public health events in at least 80% of health districts according to standard operation procedures, and (iv) reducing by at least by 20% the proportion of the population with at least one corrigeable disability.

Due to budgetary constraints, high-impact interventions will be prioritized in the three strategic axes mentioned above. Particular attention will be given to the mother and child target, or those related to communicable and non communicable diseases; which contribute most to the increase in the overall disease burden (malaria, HIV infections, tuberculosis, cardiovascular diseases, etc.).

As regards health system strengthening**:** the overall objective of this strategic area is to "increase institutional capacity of health facilities for sustainable and equitable access of populations to health care and services". To achieve this objective, it will be necessary by 2027 to: (i) reduce by at least 30% of direct payments of households through a fair and sustainable funding policy; (ii) ensure availability of infrastructure, equipment, services and health care packages according to the standards in 80% of 3rd, 4th, 5th and 6th category health facilities (specialized care); (iii) increase by 50% the availability and use of drugs and other quality pharmaceutical products in all health districts; (iv) increase based on needs the availability of quality HRH in at least 80% of health districts RDPH, and central departments;and (v) ensure the development of research in health and the availability of quality health information for making decision based on evidence at all levels of the health pyramid.

In the area of governance and strategic steering: the overall objective is to **"increase the performance of the health system at all levels**." A results-based management assessment scale of health facilities will be developed for this purpose. The two specific objectives for 2017 are: (i) improve governance in the sector through further standardization, regulation and accountability; and (ii) strengthening planning, supervision and coordination, as well as strategic and health monitoring at all levels of the health pyramid."

Implementation and strategy monitoring-evaluation framework

The 2016-2027 HSS will be implemented in a new legal environment characterized by the entry into force, in 2013, of Law No. 2007/006 of 26 December, 2007 on the financial regime of the State. The 2016-2027 HSS will be "operationalized" through several documents,

including: (i) the National Health Development Plan (NHDP), (ii) the Medium-Term Expenditure Frameworks (MTEFs) and (iii) the Annual or Multiannual Work Plans (AWPs) of health facilities. In addition, the multi-sector approach and innovation will still be favoured.

The MOH will ensure leadership for the achievement of these objectives in collaboration with MINEPAT, MINFI, other partner administrations in this sector (MINDEF, MINPROFF, DGSN, MINTSS, MINEPIA, etc.) and partner organizations whose interventions have a direct impact on the health of the populations. Non-Governmental organizations (NGOs), civil society organizations (CSOs) and development partners will support the Government's efforts in the health sector development. The provision of health care and services will be delivered by public, private and traditional sub-sector actors.

Reforms will be necessary for the successful implementation of the HSS. These will include: (i) the health financing reform with the development of a universal health coverage; (ii) the update of the hospital reform; (iii) the reform of the national drugs regulatory authority; (iv) HD development; (v) human resource development; and (vi) governance and strategic steering.

Financing the strategy: The total cost of the various developed strategic axes is estimated at FCFA 5 824 billion for the period 2016 - 2027, giving an annual average of FCFA 485 billion. This volume can be broken down as follows: health promotion FCFA 362.8 billion, disease prevention FCFA 682.2 billion, curative case management, FCFA 1385.6 billion, health strengthening system FCFA 3101.6 billion, Strategic steering and governance FCFA 291.9 billion In terms of financial sustainability, the strategies will focus on: (i) the efficient and rational use of existing resources; (Ii) the mobilization of internal resources; and (iii) the development of disease risk-sharing mechanisms.

Coordination and monitoring of the HSS implementation: Monitoring of the implementation will be done at all levels by steering and co-ordinating bodies. However, at the central level and for the monitoring of planned interventions to be more efficient, some structural and organizational reforms are de facto necessary. They concern, among others, the creation of a

Technical Monitoring Committee to ensure the implementation of the operational coordination of the National Health Development Plan (NHDP). This committee will be chaired by the Secretary General of the MOH. The steering and monitoring committee will have regional branches. These will be under the Governor's authority in order to strengthen the coordination of interventions and the strategic reflection in the "One Health" spirit approach. At the operational level, the institutional and operational capacity of executive teams from the districts, Regional and Local Authorities (RLA), and Civil Society Organisations (CSO) will be strengthened under the current decentralization process. This strengthening will depend on the development level of health districts. Furthermore, mechanisms for monitoring performance and the accountability of the actors involved in the implementation of interventions will be developedat all levels of the health pyramid.

A national compact on *International Health Partnership (IHP+)* approach will also be developed to facilitate the implementation, monitoring and consensual assessment of the strategy by stakeholders.

A systematic monitoring of the HSS implementation will be done in the form of biannual, annual, mid- and end-term reviews, with reports according to a defined pattern and shared at all levels of the health pyramid. Given inadequacies inherent in the monitoring of the expired HSS implementation, a technical assistance (national preference) is necessary and will be considered for the first years of the implementation of this strategy.

Strategy assessment: It will be done through internal and external assessments, particularly at mid-term and at the end of the period. The periodic supervision reports of each level of the health pyramid, health activities audit, financial and accounting audits, control and inspection, and the activity reports of health facilities at all levels will be used as support in the achievement of these assessments.

PART I:
GLOBAL BACKGROUND AND METHODOLOGY NOTE

Chapter 1:
GLOBAL BACKGROUND OF THE HEALTH SECTOR

1.1 General information on Cameroon

Cameroon, a country in Central Africa, has a surface area of 475 650 km², of which 466 050 km2 is continental surface area and 9600 km2 of maritime area. It is bordered to the west by Nigeria, to the south by Congo, Gabon and Equatorial Guinea, to the east by the Central African Republic, to the North East by Chad.

The country is characterized by geographical diversity: the Centre, East, Littoral, South and South-West Regions have a hot and humid climate with abundant rainfall. The highlands of the West (West and North-West) are a savannah zone and volcanic lands suitable for agriculture. The Sudano-Sahelian Northern Cameroon (Adamawa, North and Far North Regions) is an area of savannah and steppes characterized by a hot and dry tropical climate with an increasingly diminished rainfall as we move closer to the Lake Chad.

1.2 Political and Administrative organization

Since 2015, Cameroon has 10 Regions, divided into 58 Divisions and 360 Sub-divisions[4]. There are also 360 municipalities. The law on the orientation of decentralization of 22 July 2004 provides for the transfer of powers and resources to the municipalities[5]. In the health sector, Decree No. 2010/0246/PM specifies the powers transferred to the municipalities: the construction, equipment and management of Integrated Health Centres (IHCs). Mayors are chairs of the Management Committee of District Hospitals (DHs) and Sub-divisional Medical Centres (SMCs), while Government Delegates to city councils are chairs of those of Regional Hospitals (RHs) and Central Hospitals (HCs).

1.3 Economic and social situation

1.3.1 Macroeconomic situation

In 2014, Cameroon's GDP (Gross Domestic Product) was estimated at FCFA 15,846 billion with an annual growth rate of 5.9% and an inflation rate of 1.9%[6,7]. Current projections situate the average annual growth rate at 6.3% between 2015 and 2017[8].

In December 2014, following the initiative of the President of the Republic, the Government adopted the "Three-year Emergency Plan (PLANUT) to accelerate growth"[9]. The amount allocated to this Plan was FCFA 925 billion. The health aspect of PLANUT has two essential components: (i) rehabilitation of infrastructure and upgrading the technical levels of the Douala and Yaounde general hospitals and that of the Yaounde University Teaching Hospital (30 billion); (ii) construction and equipment of regional hospitals (120 billion)[10].

1.3.2 Demographic situation and Population policy

In 2015, Cameroon's population was estimated at 22,179,707 inhabitants. The population growth rate was 2.6% between 2005 and 2010. At this rate, the population will reach 36 million inhabitants in 2035. This population is unevenly distributed across the country: almost 20% of the national population lives in the cities of Douala and Yaounde. The most populated Regions are the Centre (18.7%), the Far North (18%), Littoral (15.1%) and North (11.0%)[11].

Cameroon has not yet begun the demographic transition phase and fertility is still high. Such a population growth leads to high dependency ratio (about 95%) and a high pressure on infrastructure and basic social services such as education, health, access to energy, potable water, food and land security[12]. In 2010, 52% of the total population lived in urban areas, 43.6% was less than 15 years and only 5.5% was aged 60 or more[13].

1.3.3 Social situation

In 2014, about two people out of five (37.5%) were living below the income poverty threshold, mostly in rural areas (about 90%) and in the northern regions (over 52%). In 2010, 70% of the population was in a situation of global underemployment, that is, they

involuntarily worked less than the minimum working week of 35 hours or earned less than the hourly minimum wage. Moreover, the net enrolment rate at primary level (6 to 11 years) remained around 80% between 2005 and 2010. The literacy rate of persons above 15 years of age was estimated at 71% in 2010 (55 % among women)[14].

1.3.4 Equity and social justice in health

With a Human Development Index (HDI) of 0.512, Cameroon ranked 153rd out of 188 countries assessed in 2014. But the Inequality-adjusted Human Development Index (I-AHDI) increased from 0.330 in 2013 to 0.344 in 2015[15]. This indicates an increase in inequalities in living standards especially in the domains of health, education and income.

Public health facilities are more accessible to the rich: 14.5% for the poorest quintile against 25% for the richest quintile in 2007. In fact, while the share of the richest quintile that consulted a public medical doctor was close to 43%, it was only about 3% for the poorest[16]. In addition, disparities are observed in geographical access to care based on the area of residence (rural and urban). For example, only 46.7% of births are attended by qualified personnel in rural areas, against 86.7% in urban areas[17].

1.3.5 Humanitarian and Security context

The situation of conflict/terrorism in northern Nigeria and Central African Republic (CAR) has repercussions on the safety of persons and property in the Far North and East Regions, thus impeding the provision of basic social services (services and health care). The number of refugees from these two countries was estimated at 309,013 in August 31, 2015; these conflicts have caused the internal displacement of 81,693 people in Cameroon[18].

1.4 Communication channels

Cameroon has dense transport infrastructure made up of road, railway and sea transportation networks. Road network has developed considerably and has reached almost 77,589 km in 2012 of which only 5,133 were tarred[19]. Road network is poorly maintained. As far as the railway network is concerned, it is 1000 km long and poorly maintained[20].

The country also has an air and sea network. The air network includes 6 functional aerodromes including 3 international airports (Douala, Yaoundé-Nsimalen and Garoua) and 3 secondary airports (Maroua, Ngaoundéré, Bafoussam).

As for the maritime network, the country has 4 autonomous ports: Douala, Garoua, Kribi and Limbe.

1.5 Access and use of Information and Communication Technologies

In 2014, 78.9% of Cameroonians used a mobile phone, 8.3% used a fixed-line phone, 21.2% used a computer, while 16.2% used the internet. With a penetration growing rate, the mobile phone has become the most used communication tool by the people. The number of subscribers increased from 4.5 to 14.8 million between 2007 and 2013, with a geographical coverage of 83.3% and a growth rate of 13.2% in 2013[21].

For the weekly exposure to mass media, heads of households are more frequently exposed to television (42%) and radio (24%) or reading newspapers (11%)[22]. However, a little more than half of household heads (51%) is not exposed to any media (radio, television, newspapers) on a weekly basis.

The use of information and communication technologies and networks is increasingly used for the mobilization and education of populations.

Chapter 2:

METHODOLOGY NOTE

2.1 Methodology and Development Process of the 2016-2027 HSS

The 2016-2027 Health Sector Strategy Document is a summary report of two other documents, namely: (i) "*Situation Analysis and Diagnosis of the Health Sector*", and (ii) "*Strategic Choices in Health Sector*". The development of the above mentioned documents was preceded by the production of "*The 2001-2015 HSS Evaluation Report*".

This methodology note gives a report on the process and work tools used in developing the 2016-2027 Health Sector Strategy. The methodology was based on two reference documents namely: (i) Methodology Guidelines of Strategic Planning in Cameroon, 2011 edition (MINEPAT); and (ii) the WHO Guidelines for the Development of a National Health Policy and a National Strategic Health Plan[23,24].

The methodology is structured around three points:

- Institutional and organizational framework;
- Involvement and participation of all stakeholders in the process;
- Major steps and process flow.

2.2 Institutional and organizational framework

At the institutional level, the Health Sector Steering Committee was reorganized by Decree No. 186/ PM of 20 December 2010, of the Prime Minister, Head of Government[25]. Chaired by the Minister of Public Health, this Committee is responsible for steering the sector and monitoring the implementation of the health sector strategy. To this end, it is made up of (i) a monitoring technical committee; and (ii) a Technical Secretariat, the core of the development process of the Health Sector Strategy (HSS). Among others, the committee is responsible for:

- Mobilizing resources and ad hoc expertise;
- Collecting all the information necessary for the execution of the development of the new HSS;
- The technical and logistical organization of the meetings of the steering committee;
- Monitoring the implementation of recommendations made by the steering committee.

On 28 November 2014, a Technical Working Group was established by Decision No. 1412/D/MINSANTE/SG of the Minister of Public Health[26]. Chaired by the Secretary General of the MOH, this group's main mission was to produce the 2016-2027 Health Sector Strategy and the different deliverables of the process of its development, the development of the NHDP and its monitoring-evaluation plan.

The methodological framework was provided by the Ministry of Economy, Planning and Regional Development (MINEPAT) and by experts from the regional office of the World Health Organization (WHO). The Steering and Monitoring Committee for the Implementation of the Health Sector Strategy, in accordance with its mission, validated the project, and all progress reports and intermediate documents from this process.

Other independent ad hoc experts were mobilized because of their knowledge on health issues, their mastery of the strategic planning process or their proven expertise in the health domain.

2.3 Involvement and participation of stakeholders

The development approach of the 2016-2027 HSS was greatly participatory and consultative. Effort was made throughout the process to involve all stakeholders, including beneficiaries of health interventions from the 10 regions in order to better identify their needs and those of the HSS implementation actors. Various working methods were used: individual work, workshops, document reviews, participatory consultations, focus group discussions and individual interviews.

The development process of the 2016-2027 HSS was structured around the following major steps:

- Internal evaluation of the 2001-2015 HSS;
- Preparation of the “Situation Analysis and Health Sector Diagnosis” document;
- Formulation of strategic choices;
- Development of a summary framework for steering and monitoring /evaluation of the 2016-2027 HSS implementation.

The internal assessment of the 2001-2015 HSS was done with the JANS tool (*Joined Assessment of National Health Strategies, August 2013 version)* and the analysis grid entitled “Analysis of a strategy document” proposed by the methodological guide for strategic planning in Cameroon. These tools helped to formulate assessment questions and analyze the implementation content of the expired strategy. Then the weaknesses and strengths of this strategy were identified, categorized and analyzed according to their nature.

The development of the *“Situation Analysis and Health Sector Diagnosis”* document was made up of four key events: (1) the definition of the sector and its position in relation to other development sectors; (2) segmentation of this sector in components and sub-components; (3) description of beneficiary needs in the sector; (4) description of the institutional and community situation of services supplied; and finally (5) establishment of sector diagnosis through causal analysis of problems identified.

At the end of this work, discussion groups and participatory consultation groups were set up in the ten (10) Regions with the implementation stakeholders of the expired strategy and with beneficiaries of health interventions. The purpose of this exercise was to gather their opinion on good practices to be encouraged and also their perception of structural and organizational dysfunctions that plague the sector's performance.

Finally, the DELPHI method, used for the consultation of stakeholders from the central level, helped to build consensus around problems in the health sector and provide an update on the major issues and challenges of the sector. Moreover, the absence of disaggregated data (by region and by poverty quintile) for some analysed variables, compelled the use of average values. This constraint did not help in the refining of the mapping of problems.

With regard to the formulation of the strategic choices necessary for the resolution of issues in the health sector, multi-sector workshops were organized. Three strategic options were formulated from this stage, then analysed and submitted to the HSS steering committee that validated the best strategic option for the sector. It was defined in terms of strategic axes, objectives and implementation strategies.

The budgeting of these planned interventions was done using the "*One Health Tool*". The strategic planning team had previously been trained in the use of this tool[27].

The process ended with the development of the steering framework of the sector, the logical framework for the implementation and monitoring/evaluation and financing mechanisms of the strategy.

Finally, the breakdown of the strategic orientations into sub-components, categories and types of interventions helped to develop the nomenclature of the new strategy which will be useful during the operational planning at all levels of the health pyramid.

PART II:
SITUATION ANALYSIS AND HEALTH SECTOR DIAGNOSIS

Chapter 3:

SITUATION ANALYSIS OF THE HEALTH SECTOR

3.1 Health Sector overview

3.1.1 Organization of the health sector

The health sector in Cameroon is structured in three levels forming a pyramid whose functional relationships are specified in the table below. It has three sub-sectors: a public sub-sector, private sub-sector and traditional sub-sector[28].

Table 1: Different levels of the health system

Level	Administrative Structures	Competences	Health Structures	Dialogue Structures
Central	Minister's Office, Secretariat General, Departments and similar Structures	- Development of concepts, policies and strategies - Coordination - Regulation	General Hospitals, University Teaching Hospitals, Central Hospitals and others ranking as such, CENAME,CPC, CHRACERH, LANACOME,CIRCB, ONSP)	National Council for Health hygiene and Social Affairs
Intermediate	10 Regional Delegations	Technical support to health districts	Regional hospitals and others ranking as such; Regional Drugs Supply Centres	Regional Fund for Health Promotion
Peripheral	189 Health Districts	Implementation of programmes	- District Hospitals - Clinics; - SDHCs; - IHCs, Healthcare practice	DHC; DMC HC; MC

Source: MOH. Conceptual framework of the Health District completed from the 2013 organizational chart

3.1.2 Definition and segmentation of the sector in components

3.1.2.1 Definition of the health sector: Major missions of the health sector

In accordance with Decree No. 2013/093 of 3 April 2013 to organize the Ministry of Public Health, the latter is responsible for the formulation and implementation of the Government's public health policy[29].

3.1.2.2 Major stakeholders of the sector

State actors of the health sector are public administrations at the central level, their decentralized departments and Regional and Local Authorities (RLAs). They are made up of:

- Ministries and health care provider administrations (MINDEF, DGSN MINEDUB, MINESEC, MINSUP, MINJUSTICE, MINAS, and MINTSS).

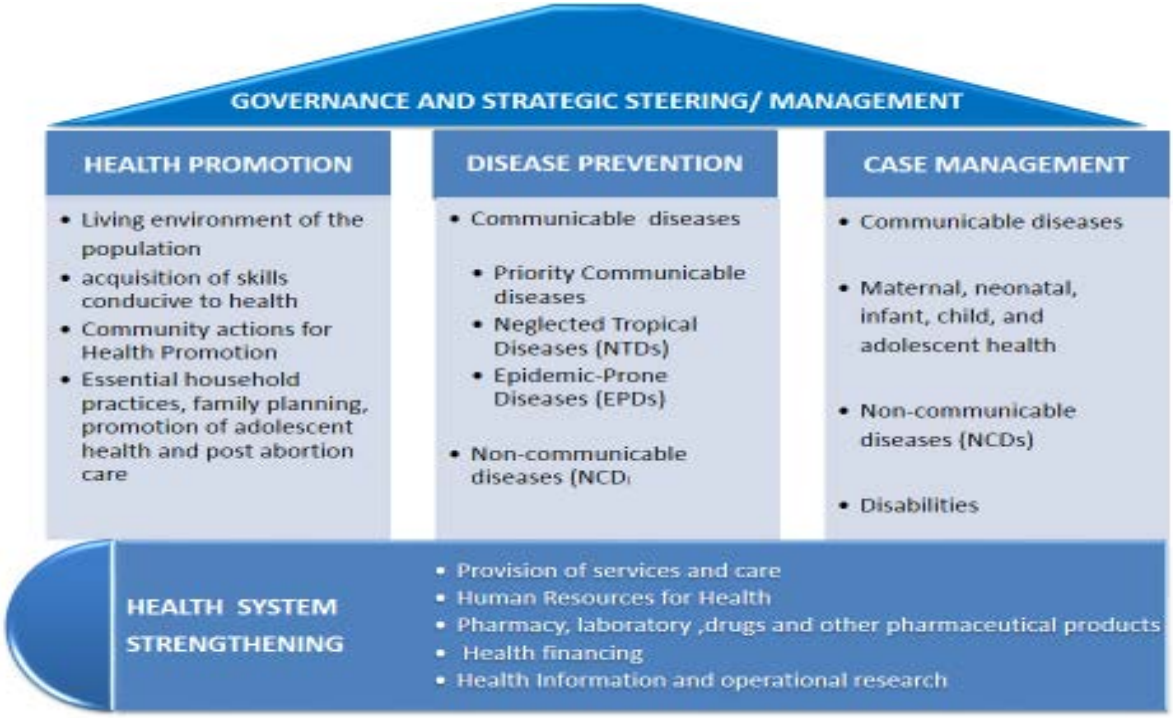
- Partner Ministries working to promote health, particularly those that act on health determinants (MINEDUB, MINESEC, MINSUP, MINPROFF, MINAS, MINTSS, MINCOM, MINADER, MINEPIA, MINEE, MINEPDED, MINDUH, MINTP, MINEFOP, MINSEP, MINJEC, and MINAC).

To these state actors are added, at the national level: professional representations (professional councils, trade unions and associations); public and private human resources institutions training in health and health research structures; parapublic and private companies that integrate health concerns into their activities through social responsibility; organizations of civil society, dialogue structures, NGOs and community Based Organizations (CBOs). Apart from national stakeholders, the sector also has many technical and financial partners (TFP).

3.1.2.3 Segmentation of the sector into components and sub-components

The health sector has been segmented into three vertical components namely: i) health promotion, ii) disease prevention and iii) case management; and two horizontal or transversal components which are: health system strengthening and governance and strategic steering. This segmentation of components and subcomponents, schematized below, is an artifice to better describe the health sector[30].

Figure 1: Segmentation of the health sector in components and sub-components



Source: 2014 Report of the situation analysis of the health sectorMOH (ST-CP / HSS)

NB: Since community involvement is transversal, the sub-component "community actions for health promotion» will not have a specific objective attached to it

3.2 Health Promotion Component

Health promotion is the process that gives people the means to ensure a greater control and improve their own health[31]. This chapter shall focus on the following aspects: (1) the actions taken by the community to manage their health problems, (2) the living environment of the population, (3) the acquisition of skills conducive to health, and (4) essential household practices, especially family planning.

3.2.1 Community action for health promotion

In 1993, Cameroon adopted the Primary Health care policy Reorientation following the Bamako Initiative. This policy is characterized by the development of “dialogue structures” and relies on three major principles: co-financing, co-management and community participation. Today, community action is expressed through[32]:

- Public participation in health care financing;
- Participation of representatives of communities in co-management;
- Advocacy, communication and social mobilization of civil society organizations;
- Services of community health workers;
- Community initiatives for the promotion of health.

Regarding the civil society, about 160 NGOs and associations participate formally in the activities of the Ministry of Public Health (Letter of Collaboration, Convention Framework and Execution Contracts, Means and Obligations Framework). Many public administrations are working to strengthen community action (MOH, MINAS, MINPROFF, etc.). A guide on community- directed interventions is available since 2012. The community health policy document is being finalized. Community health is not sufficiently developed in the health system and community health workers operate without legal framework. This could explain the weak performance observed.

3.2.2 Living environment of the population

The description of the living environment of the population will focus on the following themes: (1) potable water, waste management, hygiene and environmental sanitation, (2) air quality, (3) effects of climate change, (4) non-ionizing radiation (5) access to equipment and services for the practice of sport and physical activities (SPA), (6) housing, (7) schools and universities, and (8) prisons.

3.2.2.1 Potable water, waste management, hygiene and environmental sanitation

In Cameroon, more than 27% of households have no access to potable water. The proportion of households using improved water sources has nevertheless increased from 68.9% to 72.9% between 2011 and 2014. However, only 10.9% of households that do not have access to improved water sources use appropriate water treatment techniques. In 2011, about 41% of households (67% in rural and 15% in urban areas) did not have improved toilets.

Furthermore, the use of these improved toilets by households decreased from 39.9% to 34.9% between 2011 and 2014 [177,33].

Regarding environmental health, the annual average production of solid household waste is 312 kg/year/person with more than 23% directly thrown into gutters and/or in open air. Factories located in the city expose Cameroonian cities to a serious pollution of running water and the atmosphere with toxic residues. In 2011, the annual production of industrial waste only in the town of Yaounde was 153, 152 tons. Those from healthcare activities were estimated at 55.6 tons per day[34]. Their management is a problem despite the existence of a National Plan for Hospital Waste Management and the reopening of the sanitary engineering training school in 2007. Similarly, pharmaceutical products unfit for consumption in health facilities (HFs) or elsewhere (damaged, expired, and street drugs) are poorly managed. This remains a real concern given the costs related to the respect of environmental norms to be observed during destruction.

Waste management in urban areas (regional and some divisional headquarters) is handled by HYSACAM (Hygiène et Salubrité du Cameroun), but remote neighbourhoods do not yet benefit from this service. This situation results in flooding and the development of vector-borne diseases and those of faecal origin. However, pre-collection initiatives are underway in these neighbourhoods and are done by some district municipalities through the PADY II programme (2013-2017)[34].

3.2.2.2 Air Quality

In 2004 and according to WHO, indoor pollution by burning charcoal and firewood and outdoor pollution by PM10 were respectively the cause of 11,400 and 2,200 deaths in Cameroon[35]. NSI reveals that 49% of households in urban areas (92.5% in rural areas) use wood for cooking [17]. Nitrogen oxides, major pollutants in urban areas, emanate mainly from vehicles older than 15 years[36]. These accounted for almost 92% of the car parks in June 2015[37].

The scope of projects such as "*Smoke and Drinking Water*", where only 15 local craftsmen were trained in the construction and marketing of improved stoves that produce a small amount of smoke and CO2, remains very low[38].

3.2.2.3 Effects of climate change and energy transition

Climate change and energy transition are new threats to public health worldwide. The impact of environmental and energy transitions impose new strategies to improve population resilience and the health system to these changes. The consequences of such changes are: the worsening of the incidence of diseases related to water, food, vectors, etc.; and worsening of air pollution, shortage of food and water[39].

3.2.2.4 Non-Ionizing Radiation

About 41.6% of old people's homes are built near high voltage power lines that generate magnetic fields of very low frequency[40]. These are associated with the occurrence of childhood leukemia[41]. Moreover, these results do not include studies on the effects of installations of many technical transmission equipment from mobile operators.

3.2.2.5 Access to equipment for the practice of sports and physical activity

Efforts made as part of the development of proximity infrastructure for the practice of sports and physical activity (SPA) are insufficient. Nevertheless, one can mention the construction of 10 sports proximity platforms, 03 Parcours Vita (Yaounde, Douala, Bamenda) and sports complexes in some towns (Bertoua, Bafoussam, Maroua, Ebolowa, etc.) and their rehabilitation for the organization of schools and university games. However, they are not properly maintained[42]. There is also a National Programme for Sports Infrastructure Development (NPSID) which aims at providing all the regions and cities with sports facilities tailored for sports in general and elite sports in particular[43].

3.2.2.6 Housing

According to the NIS, 85% of the urban population lived in precarious housing in 2011; and 70% of urban space was occupied by spontaneous, anarchic and indecent neighbourhoods [17,44]. The inhabitants of these spontaneous neighborhoods are faced with the lack of basic sanitation infrastructure; hence their high exposure to malaria and fecal peril diseases.

3.2.2.7 School environment

In 2012, only 19.5% of primary schools had electricity and 42.3% had potable water[45]. In addition, almost half of them had poorly maintained toilets, and about one third of them had an infirmary. Moreover, very few schools had a school canteen and a playground.

3.2.2.8 Prison environment

By 31 August 2015, there were about 27,000 prisoners for a total capacity of 16,000 in all prisons in Cameroon. These prisoners were distributed in 78 prisons with a proportion of 94.6% men, 2% women and 3.4% children[46]. Risk factors to which these prisoners were exposed are: sedentary lifestyle, stress, overcrowding and inadequate ventilation of cells that promotes the onset of pulmonary tuberculosis[47]. The most frequent diseases in order of importance in this environment are: malaria, skin diseases, diarrhoea, HIV/AIDS infection and tuberculosis[48]. Regarding the health workforce, the prison administration network has 23 medical doctors, 36 State Registered nurses, 113 Nurse Aids and 34 Health Technicians. It should be noted that these personnel are primarily for curative activities.

Generally, despite the establishment of health centres in schools, the organization and implementation of interventions for health promotion and prevention in schools and prisons are marginal.

3.2.3 Acquisition of skills conducive to health

The acquisition of skills conducive to health will be described in the following 4 aspects: (1) food and nutrition; (2) road safety in urban and inter-urban areas; (3) practice of sports and physical activities; (4) abusive use of illicit or harmful substances.

3.2.3.1 Food and nutrition

Nutritional status of children under five years: The prevalence of chronic malnutrition (stunting) remained stable, around 31% from 2011 to 2014. Moderate and severe malnutrition have in turn decreased from 5.6% to 5.2%, during the same period, the North and Far North Regions being the most affected with prevalence of 12% and 10.2%. In 2014,

the national prevalence of underweight was 14.8% while that of obesity was 6.7% in children under five years of age [17,33].

Exclusive breastfeeding rate in the first six months: The rate was 28.2% in 2014[17,33]. Regarding micronutrients, the prevalence in 2011 of iron deficiency in children less than five years was 60%, vitamin A 34.4% and zinc 69.1%. Iodized salt consumption decreased from 90.9% to 86% from 2011 to 2014 meanwhile Ministerial Order No. 0113/A/MSP/SG/DMFS of 29 May 1991 establishes compulsory salt iodization throughout the national territory.

Nutritional status of adults including women of childbearing age: About one third (32%) of women were overweight or were obese in 2011, this proportion was higher in big cities of Yaounde and Douala, where it reached 46%. The prevalence of anaemia was 40% in women aged 15-45 years and 50% in pregnant women[17,33]. Among women aged 15 to 49 years, the prevalence of vitamin A deficiency was 21.4% in 2011; those of zinc and folic acid were 76.9% and 8.4% respectively[49].

3.2.3.2 Road safety in urban and inter-urban areas

In absolute terms, the number of public road traffic accident (RTA) victims declined from 3,552 to 3,071 between 2011 and 2013. This reduction was achieved through the combined prevention and road safety efforts of MINTRANS and MINDEF coordinated by the National Roads Committee (CONAROUTE). The death toll decreased from 1,588 to 1,170 during the same period[50]. The case fatality rate remains high (about 40%), indicating either a low promptness/effectiveness in the management of RTA victims or the seriousness of the case. Indeed, Medical Emergency Assistance Services were created for this purpose but are not very operational.

3.2.3.3 Practice of sports and physical activity

The role and importance of sports and physical activity for health maintenance are not sufficiently rooted in lifestyles. This could be explained by the shortage of and dilapidated sports facilities, lack of a collaboration platform between the MOH and partner ministries,

the anarchic operation of fitness centres in Regions, lack of qualified staff and poor dissemination of information, messages and public awareness[51].

However, the following can be noted : (i) training of 2,194 SPE teachers in 2012-2013, who were put at the disposal of different user administrations (MINESEC, MINEDUB, MINEFOP, MINESUP, etc.); (ii) since 2005, institutionalization by the government of the celebration of the National Day of Physical Education; (iii) the existence of many organizations and structures for the management of mass sports (Cameroon Sports for All Federation, Cameroon Labour Sports Federation, Parcours Vita, and other associations promoting the practice to keep fit, etc.)[52].

3.2.3.4 Abusive use of illicit or harmful substances

It is estimated that about 1.1 million Cameroonians consume tobacco, i.e. 13.9% of men and 4.3% of women in the general population[53]. The average age at initiation of daily smoking is approximately 18.5 years. Furthermore, 15% of adults who smoked daily had started before the age of 15 in urban areas, against 5.3% in rural areas. The abuse of illicit substances, psychotropic analgesics (tramadol and cannabis) is observed in all regions of the country[54]. To remedy this, several sensitization and advocacy measures are carried out within the framework of the National Committee for the Control of Drugs created in 1992. However, there are no structures to control addiction and accompany those who wish to stop.

Alcohol consumption is estimated at 8.4 litres of pure alcohol per person per year in persons above 15 years of age[55]. The prevalence of alcoholism is 4% in men against 0.9% in women. That of alcohol-related diseases is estimated at 9.5% in men and 1.9% in women[56].

N.B.: Moreover, only 10.33% of the personnel are specialised in social work. At the financial level, FCFA 85 million (1.9% of MINPROFF budget) is allocated to family promotion.

3.2.4 Essential household practices, family planning, promotion of adolescent health and post abortion care

Essential household practices are high impact interventions aimed at reducing morbidity and mortality of the populations. These include a balanced diet, environmental hygiene, individual and body hygiene, breastfeeding, etc. But disaggregated data per region for these practices are not available.

In 2014, contraceptive prevalence was 34.4% with a proportion of 16 % (MAMA excluded) for modern contraception. Unmet needs were estimated at 18% in 2014 [17,33]. Abortion rate among women of 15 to 35 years is between 30 to 40% and almost one quarter of these abortions are induced[57]. About 20% of health facilities have at least one trained provider to offer contraceptive technology (14.2% are in the public sub-sector, 4.4% in the private profit-making sub-sector and 14% in the private non-profit making sub-sector). It should be noted that 71.3% of health facilities offer short-term methods and 19.4% would offer implants, in addition to these methods[58].

Problems related to family planning are of several types: insufficient political commitment, insufficiently qualified health workforce, lack of inputs and poor implementation of communication strategies aimed at breaking sociocultural barriers[59].

As an institutional response to support families in addressing the health problems identified above, it should be noted that MINPROFF trained more than 27,000 people (family heads and mothers) on topics such as reproductive health, premarital education, HIV/AIDS and STIs[60]. However, these performances do not cover all needs because of insufficient human and financial resources, and the persistence of social and cultural constraints. Out of the 11,794 jobs scheduled by the MINPROFF organizational chart, only 823 were provided, which represents only 7%[61] of satisfied needs in human resources.

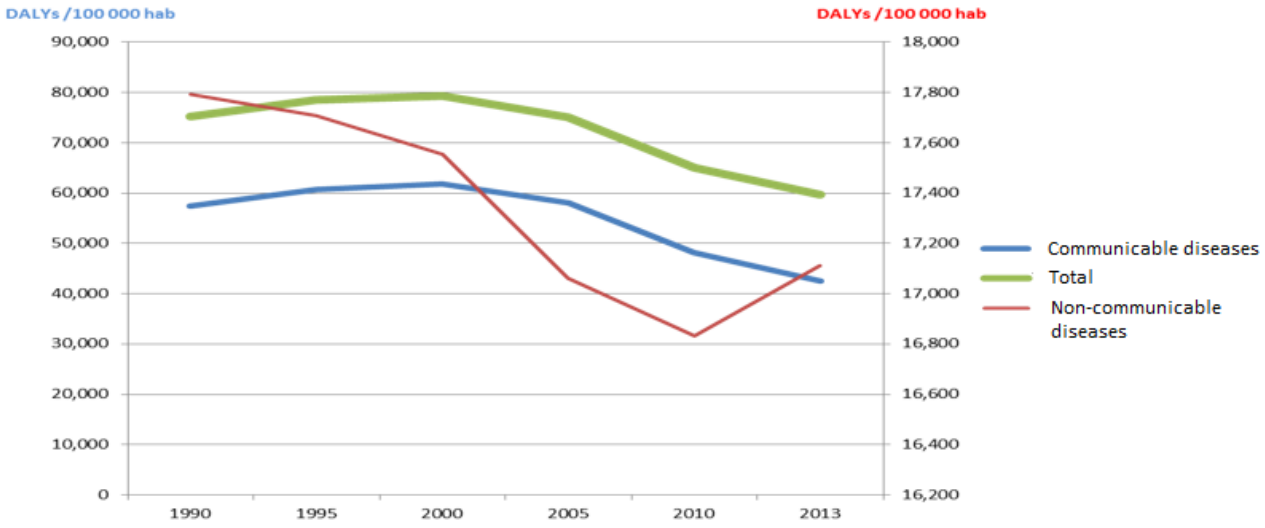
MINAS, whose mission is the social support of individuals, has 32 social welfare services in health facilities across the country. However, given the needs, the number of social workers working there remains qualitatively and quantitatively insufficient[62].

3.3 Disease Prevention Component

The occurrence of the global economic crisis after 1970 caused glaring inequalities in the socio-economic and health situations within countries. In Cameroon, it led to an overall increase in morbidity during that period. From 2010, the country has recorded an overall decrease in morbidity and an onset of epidemiological transition characterized by a decrease in the prevalence of communicable diseases and an increase in non-communicable diseases (see figure 2). The reduction of communicable diseases is related to that of key risk factors such as access to potable water, hygiene and improvement of the immediate environment.

Despite this epidemiological transition, the prevalence and burden of communicable diseases remain higher than those of non-communicable diseases[63].

Figure 2: Progress of the global burden of communicable and non-communicable diseases in Cameroon from 1990 to 2013.



Source: results obtained from data from the Global Burden of Diseases of 2015 .

Between 2007 and 2015, funds allocated to disease prevention and case management accounted respectively for 29.7% and 30% of the MOH budget[64]. But, according to the national health accounts, the overall expenditures for disease prevention were FCFA 13.6 billion in 2011, representing 2.9% only of the overall health expenditures[65].

3.3.1 Communicable diseases

3.3.1.1 Priority communicable diseases: HIV/AIDS, STIs, Tuberculosis, Malaria and Viral Hepatitis

HIV/AIDS and STIs: The average prevalence of HIV is 4.3% among people aged 15 - 49 years, with a peak of 8.1% for those between 35 and 39 years[177]. The number of new HIV infections was 58,757 in 2014[66]. The populations that are the most exposed are: sex workers (36%), homosexuals (24-44%), and lorry drivers (16%). Other vulnerable populations are: prisoners, adolescents and youths, refugees and workers in industrial zones. In addition, the prevalence of HIV is very high among widows (17.9%), divorcees/separated spouses (15.7%), and widowers (10.6 %)[17]. Moreover, the prevalence is higher in women among age groups 15 – 19 and 20 – 24; girls are 5 to 6 times more affected than boys. Furthermore, the epidemiological distribution also shows a disparity between urban areas (4.8 %) and rural areas (3.8 %), as well as between the Far-North Region at 1.2 % and the South Region at 7.2 %.

The most important factors which maintain the epidemic in Cameroon are: multiple sexual partners, the number of sexual partners in the last 12 months; early sexual activity for young girls with older partners; mobile and high level, prostitution, reticence in the use of condoms; stigma and discrimination against people living with HIV (PLWHIV); and blood transfusion[66].

Tuberculosis: In its 2014 report, WHO reported an incidence between 47,000 and 49,000 cases that is, a rate between 210 and 265 per 100,000 inhabitants. During the same year, the number of new relapse cases notified was 26, 517, that is, 117 cases per 100,000 inhabitants (49 % of WHO target). The number of PTB+ cases is higher in low socio-economic neighbourhoods. The East region recorded an increase of cases at about 35 % between 2013 and 2014 due to the influx of refugees from Central African Republic[67].

Malaria: In 2013, malaria (fever) was the first cause of consultation (28.6 %) and hospitalization (46 %)[68]. These figures should be treated with caution because there are many other pathogens which cause fever in Cameroon. For example, Dengue, which is a febrile disease, has a seroprevalence of 61 % in Douala, 24 % in Garoua, and 10 % in Yaounde[69].

The morbidity rate among children under 5 years of age (children tested positive) has decreased from 56 % in 2008 to 30 % in 2014[70]. Severe anaemia due to malaria represents an important cause of deaths in children under 5 years of age. In 2014, 37.4 % of households owned one insecticide-treated net for two persons[33]. The use of insecticide-treated nets was 47.5 % in the overall population and 54.8 % among children aged 0 to 59 months[33]. Regarding intermittent preventive treatment (IPT), 26 % of pregnant women received at least three doses in 2014[33].

Viral hepatitis: The average seroprevalence of viral hepatitis B is 12 % with a peak of 17 % in the Far-North Region. The average prevalence of viral hepatitis D is 10 %. That of viral hepatitis C is 1.03 %, and is higher among people from 50 years and above. HIV-hepatitis B co-morbidity is low at 1.5 % [71]. A good proportion of viral hepatitis is due to blood transfusion.

3.3.1.2 Neglected Tropical Diseases (NTDs)

In Cameroon, the main Neglected Tropical Diseases are: Onchocerciasis, Schistosomiasis, enterohelminthiasis, Lymphatic Filariasis (LF), Leprosy, Yaws, Trachoma, Human African Trypanosomiasis (HAT), Buruli Ulcer, Leishmaniasis and Rabies[72].

Onchocerciasis and Lymphatic Filariasis: In 2013, about 32,000 persons infected with Onchocerciasis were blind and more than 1.5 million infected persons had severe skin lesions[73]. The prevalence of lymphatic filariasis varies from 6 % in the North to 1.1 % in the West[74]. In 2006, 111 and 158 health districts respectively were hyper and/or meso-endemic to Onchocerciasis and Lymphatic Filiariasis[75]. The use of Community-Directed Treatment with Ivermectin (CDTI) continues to be the most indicated prevention means during these past years. The disease vector control component is still insufficient.

Schistosomiasis: Schistosomiasis or bilharziasis currently affects 2 million Cameroonians while more than 5 million persons are at risk of infestation. School-age children from 5 to 14 years are the most affected group[76]. The control of these diseases focuses on regular and systematic deworming of the populations at risk, relying on community participation, partnership and multi-sectoriality.

Intestinal Helminthiasis: Enterohelminthiasis or intestinal worms (roundworms, whipworms and hookworms) affect more than 10 million Cameroonians. As with Schistosomiasis, roundworms and whipworms infest more than 6 million persons, and hookworms about 2 million. School-age children (6-15 years) are the most vulnerable group (50% for schistosomiasis and 38% to 47% for intestinal helminthiasis)[77].

Leprosy: Amongst the 719 cases recorded in 2014, 315 new cases were diagnosed in the Adamawa, East, North and South-West Regions. To date, about 15 health districts are still hyper-endemic[78].

Buruli Ulcer: It is mainly rife in the Nyong Valley (Centre Region), Bankim Basin in the Adamawa, and Mbonge in the South-West. The disease mainly affects children aged 2 to 15 years from underprivileged socio-economic settings. A total of 3,700 cumulated cases has been recorded since 2002 in 64 health districts, and 126 cases were diagnosed and treated in TB diagnostic and treatment centres (DTC) in 2014[79].

Trachoma: Trachoma is the first cause of infectious blindness. Epidemiological investigations carried out in 2010, 2011 and 2012 respectively in the Far-North, North and Adamawa regions indicated that the disease is endemic in 14 health districts in the Far-North Region and in 3 health districts in the North region. Mass distribution of Azythromycin, and the management of trichiasis in these regions are underway[80].

Human African Trypanosomiasis: There are currently 5 active areas in the country: Campo and Bipindi (South region); Fontem and Mamfe (South-West region); and Doumé (East region). Prompt sensitization and mobilization activities for communities have been organized in the above-mentioned areas[81].

3.3.1.3 Epidemic-Prone Diseases (EPDs)

Epidemiological situation

During the last 5 years, the epidemiological landscape (see Table 2) was especially characterized by epidemics of (i) Cholera (in 2011, 23,152 suspected cases) and prevention measures helped to reduce the occurrence of these epidemics, (ii) Bacterial Meningitis (the

most frequent serogroups were A and MenAfricaW135, which disappeared before the introduction of the meningococcal vaccine), (iii) Flu, (iv) Measles, (v) Yellow Fever and (vi) Poliomyelitis (4 cases of wild poliovirus in 2013, 5 cases in 2014 and 0 case in 2015)[82].

Concerning zoonoses and epizootics, the country has experienced in the last decade, an outbreak of many zoonotic episodes, among which yellow fever in human beings, anthrax in cattle and primates, H5N1 avian flu in domestic poultry and avifauna, A(H1N1) pandemic flu in pigs in 2009, Rift Valley fever in ruminants and human beings, monkeypox in chimpanzees. Endogeneous epidemic risks or importation of Ebola virus disease still exist.

Expanded Programme on Immunization

To date, 12 Epidemic-Prone Diseases are targeted by the routine Expanded Programme on Immunization (EPI): Tuberculosis, Poliomyelitis, Diphtheria, Tetanus, Pertussis, Hepatitis B, *Hemophilus* Infection, pneumococcal infection, Rotavirus Diarrhoea, Yellow Fever, Measles and Rubella[83]. There are many challenges in implementing this programme:

- Insufficient coverage of transport equipment (36% for motorcycles in health areas, 54% for vehicles in health districts and 40% for engine boats)[84].
- The coverage of cold chain equipment in Health facilities is 75% (national standardis 80%)[85].
- There is low achievement of advanced/mobile strategies in many health districts.
- Poor quality and use of routine data for decision-making;
- High dependence on external financing. Indeed, Cameroon will no more be eligible for external financing (GAVI Alliance) when its GDP will exceed 1,580 $ per capita, which could probably be in 2020 according to projections on GDP evolution[86].

Surveillance system of Epidemic-Prone Diseases

To date, four diseases are under epidemiological surveillance: yellow fever, measles, tetanus and poliomyelitis. Despite the surveillance system in place (management tools, telephone fleet, Internet, notification circuit, etc.), multidisciplinary and multi-sector collaboration and

coordination of the integrated surveillance of diseases are not optimum. Currently, there is no global and multi-sector plan which could ensure, using relevant strategies, specific and efficient response to any epidemic that could be declared in the country. Currently, the functioning of the fleet is financially supported by development partners who are likely to disengage. The national network of laboratories is not functional. Centre Pasteur of Cameroon in Yaounde, and its Garoua branch, the *Global Viral Cameroon* laboratory and *National Veterinary Laboratory* (LANAVET) are currently the only reference laboratories. However, sending samples to these laboratories is not optimum. Table 2 below summarizes the history of some epidemic-prone diseases from 2011 to 2015[87].

Table 2: History of some epidemic-prone diseases in Cameroon from 2011 to 2015

Epidemic-Prone Diseases	2011			2012			2013			2014			2015		
	Suspected Cases	Deaths	Lethality (%)	Suspected Cases	Deaths	Lethality (%)	Suspected Cases	Deaths	Lethality (%)	Suspected Cases	Deaths	Lethality (%)	Suspected Cases	Deaths	Lethality (%)
Cholera	23,152	843	3.6	125	4	3.2	29	0	0	3,355	184	5.5	228	10	4,4
Meningitis	2,733	191	7.0	1128	103	9.1	1,013	68	6.7	1 156	60	5.2	1 230	62	5,0
Measles	4,574	27	0.6	14,806	73	0.5	1,681	10	0.6	4,152	16	0.4	9 895	39	0,4
Severe acute Gastroenteritis*	1,366	2	0.1	21,877	60	0.3	46,017	63	0.1	53,477	80	0.1	56706	70	0,1
Bloody Diarrhoea	2,114	4	0.2	7,376	13	0.2	10,966	7	0.1	13,066	11	0.1	12 892	9	0,1
Typhoid fever	-	-	-	55,100	21	0.0	138,758	31	0.0	176,899	28	0	229849	28	0,0
Human Flu	34,087	14	0.0	35,868	37	0.1	70,234	6	0.0	83,640	5	0.0	99 645	12	0,0
Poliomyelitis**	187	0	0.0	216	1	0.5	444	2	0.5	700	2	0.3	498	2	0,4

Sources: History of some EPDs, 2011-2014. (DLMEP, unpublished)[88]

**: Monitoring diarrhea with dehydration in children under 5 years of age*
***: Monitoring of Acute Flaccid Paralysis*

Preparation for the management of epidemics and zoonosis

The experiences of previous epidemics did not help in establishing a sustainable response structure such as what is recommended in the National Technical Guidelines for Integrated Disease Surveillance and Response (IDSR): management committees, rapid response teams, etc. Beyond threats of the Ebola virus disease, there has been no other assessment of needs or pre-positioning in stocks of products and equipment. There is no integrated management plan for epidemics or laboratories with a high level of biological safety (BSL4).

In addition, a national prevention and control programme for emerging and re-emerging Zoonosis was established and organized in April 2014 and its action plan was developed in December 2015.

Management of epidemic-prone diseases

Management of epidemic-prone diseases is done in all health structures in the country; it is also done at the community level for some cases of epidemic-prone diseases. During epidemics, case management is free of charge. Isolation and treatment centres are necessary and constructed for some diseases, especially for the Ebola virus disease. Rapid response teams have been trained and equipped. However, efficient management requires material, financial, logistical and multidisciplinary health workforce including experts in animal health, most of which are often insufficient.

Vertical transmission of diseases

Prevention of mother-to-child transmission of HIV (PMTCT): Mother-to-child transmission rate of HIV ranges between 15 and 30% during pregnancy and delivery and between 10 and 20% during breastfeeding[88]. Mother-to-child transmission is the most important source of HIV infection in children under 15 years. In 2013, only 13,244 HIV-exposed children (34.7%) received ARV prophylaxis at birth[89]. In 2014, the HIV testing rate in pregnant women was 59.67%, with a seropositivity rate of 6.3%. ARV coverage was 53.5% among HIV positive pregnant women[90]. But in 2015, the proportion of HIV-positive pregnant women on ARVs

improved significantly. It varies according to region as follows: Adamawa (87.4%), East (68.4%), Far North (62.2%), North 87%), Northwest (93%) and Southwest (88%)[91].

Prevention of mother-to-child transmission of viral hepatitis B (VHB): There is no data on the prevention of mother-to-child transmission of VHB. Immunization at birth of VHB-exposed new-born babies is not yet systematic.

3.3.2 Non-Communicable Diseases (NCDs)

For integration purpose, NCDs in Cameroon have been classified, based on common risk factors, into 5 groups[92]. But their epidemiological situation is poorly documented.

Group 1 diseases: High Blood Pressure (HBP), other Cardiovascular Diseases, Diabetes and Chronic renal Diseases

The national prevalence of HBP was 29.7% and that of Diabetes was 6.6% in 2015[93]. The prevalence of chronic renal disease is estimated at 14.2% in Douala and 14.1% in Dschang[94,95]. According to the NIS (2013 GATS report), smoking is a risk factor which is more and more a concern (see health promotion)[96]. Added to this, are overweight, obesity and inactivity. Other factors responsible for the occurrence of cardiovascular diseases in this target have also been identified: overweight, obesity, sedentariness etc.

Despite efforts made by the Government and stakeholders from the private sub-sector (construction of imaging centres in every region, a centre for cardiac surgery, etc.) to address this important problem, there are still many inadequacies in the capacity of the health system to effectively control cardiovascular diseases (low-skilled human resources and insufficient equipment for quality management of cases

Regarding prevention per se, sensitisation, education and screening activities are mainly carried out by learned societies (Cameroon Society of Cardiology, Cameroon Society ofDiabetology) and civil society organizations (CAMHEF, ACADIA). These associations also establish partnerships with private enterprises for the implementation of the above-mentioned activities. However, the interventions of these stakeholders are inadequately monitored and coordinated.

Group 2 diseases: Cancers, asthma and chronic respiratory diseases

In 2012, 14,000 new cases of cancers were diagnosed and about 25,000 people lived with cancer. More than 80% of persons affected were tested at a very late stage of the disease and the majority died within 12 months after they have been diagnosed. The most frequent cancers are: breast cancer (18.5%), cervical cancer (13.8%) prostate cancer (7.3%) and liver cancer (3%)[97]. National prevalence of asthma is unknown; it was 2.3% in Yaounde in 2014[98]. The mortality rates related to chronic respiratory diseases are 131 per 100,000 men against 85 per 100,000 women[99].

Group 3 diseases: Oral diseases, visual and chronic hearing impairments

National prevalences of oral and visual infections are unknown. However, some studies show prevalences in dental cavities at 73.3% in children aged 9 - 12 years, 92.3% in adolescents aged 13 - 17 years in 1999 in rural areas in the North-West region[100]. Regarding visual impairment in older subjects, partial or complete crystalline opacification (cataract) is frequent and responsible for 50% of cases of blindness, and glaucoma represents 2–6% of cases[101]. Concerning the prevalence of hearing impairment, it accounts for 1.2% in Cameroon[17]. In the North-West region, it varies according to age groups, affecting 15% of people aged 50 and above against 1.1% in those below 17 years[102].

Group 4 diseases: Epilepsy and other neurological diseases, sickle cell disease, genetic and degenerative diseases including mental and rheumatic diseases

The prevalence of epilepsy in Cameroon was estimated at 5.8% in 2008 in hospitals[103]. The most affected localities are Mbam (6%), Lekie (5.9%), Nkam, Mbengwi health districts, Batibo, Kumbo, Ndu, and Garoua. The age group from 10 to 29 years is the most affected (89.2 %)[104].

According to WHO, the prevalence of sickle cell trait in Cameroon varies between 20% and 30%, representing a population of about 3.5 million people with almost 2% of homozygotes[105]. Very few data exists in the country concerning rheumatic diseases. The prevalence of schizophrenia is estimated at 1% in Cameroon, representing 211,430 cases.

According to WHO, the burden of mental and neurological diseases and that of illicit substance abuse were estimated at 225,000 Disability Adjusted Life Years (DALYs), or 1,432 DALYs per 100,000 inhabitants[106].

Group 5 diseases: Traumas, violence, intoxications, emergencies and disasters

The situation analysis of diseases in this group will be presented in the Case Management component.

3.4 Case management Component

In 2013 in Cameroon, the main communicable diseases accounted for about 24% of the total burden of the disease. Indeed, HIV/AIDS, malaria and tuberculosis accounted respectively for 11.48%, 10.77% and 1.41% (Table 3). The diseases mentioned above, associated to lower respiratory infections (10.12%), to diarrheic diseases (5.57%) and to STIs (1.31%), represent about 41% of the disease burden and are responsible for 42% of deaths(see Table 3).

For non-communicable diseases, these are dominated by cardiovascular diseases, cancers, accidents and traumas representing about 14% of the disease burden and 23.3% of the overall mortality. In children aged 0 to 5 years, malaria, lower respiratory infections and diarrhea represent about 3% of the overall morbidity and mortality[107].

Table 3: Contributions of diseases to mortality and morbidity in Cameroon in 2013

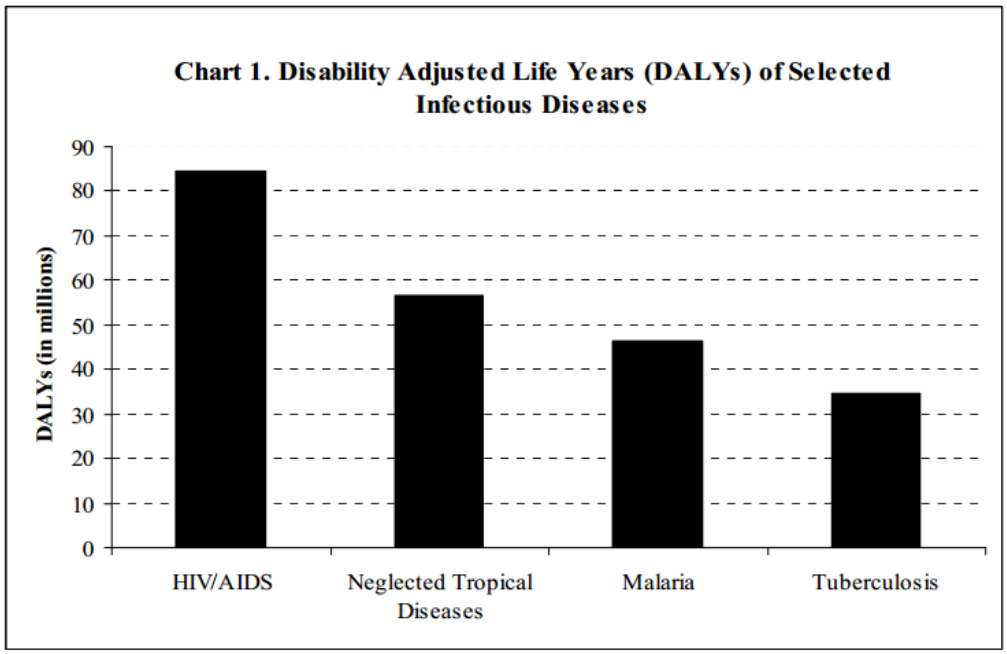
	Diseases or groups of diseases	Contribution to the disease burden (DALY)	Contribution to deaths (%)
1	HIV/AIDS	11.48%	14.24%
2	Neonatal Diseases	11.27%	8.47%
3	Malaria	10.77%	8.78%
4	Lower Respiratory Infections	10.12%	10.52%
5	Diarrheic Diseases	5.57%	5.01%
6	Nutritional Deficiencies	5.03%	3.74%
7	Cardiovascular Diseases	4.67%	11.56%
8	Accidents on Public Roads	3.95%	4.38%
9	Mental Diseases and Substance Abuse	3.53%	0.86%
10	Unintentional Accidents	2.88%	2.87%
11	Cancers	2.02%	4.45%
12	Complications related to pregnancy, delivery, and infant and childhood period	1.95%	2.17%
13	Musculo-Skeletal Diseases	1.82%	0.14%
14	Neglected Tropical Diseases	1.82%	0.22%

	Diseases or groups of diseases	Contribution to the disease burden (DALY)	Contribution to deaths (%)
15	Tuberculosis	1.41%	2.08%
16	Chronic Respiratory Diseases	1.38%	1.47%
17	STIs	1.31%	1.01%
18	Cirrhosis	1.30%	2.42%
19	Neurological Diseases	1.15%	0.87%
20	Chronic Kidney Diseases	0.76%	0.83%
21	Other causes	15.81%	13.91%
	Total	100.00%	100.00%

Source: Results obtained from the 2013 Global Burden of Diseases

However, the data presented in the table above do not take into account Neglected Tropical Diseases which, according to some contextual studies, are ranked second among high morbidity infectious diseases, after HIV/AIDS and before Malaria (see graph below)[108].

Figure 3: Disease burden of some infectious diseases



Source: Norris J. et al. (2012)

The description of the Case Management component will include: (i) Communicable diseases and Neglected Tropical Diseases (NTDs), (ii) Non-Communicable Diseases (NCDs), (iii) curative measures focusing on priority targets (mother, newborn, child, adolescents), and (iv) the situation on motor, sensory and other disabilities.

3.4.1 Communicable diseases

3.4.1.1 HIV/AIDS and STIs, Malaria, Tuberculosis and Viral Hepatitis

HIV/AIDS and STIs: According to NIS (DHS 2011), 4.7% of women and 5% of men who are sexually active declared having had STI-related symptoms in the previous year[17]. Among the identified STIs, gonorrhea had the highest prevalence (32%), followed by syphilis (30%), trichomoniasis (26%), chlamydiae infection (8%) and chancroid (4%). The increase in the prevalence of micro-organism resistance to antibiotics is one of the main causes of treatment failure.

Since 1 May 2007, ARVs are free of charge for patients managed in all Management Units (MUs) and Approved Treatment Centres (ATCs). The number of persons on ARVs was 145,038 in 2014, that is, 42.6% of eligible persons[109].

Among the challenges to face for a better management of HIV are: the growing prevalence of resistance to ARVs at the time of diagnosis on the one hand (18% in the North-West) and the increase in the number of PLWHIV requiring blood transfusion[110], on the other hand, poor observance of treatment and underutilization of HIV treatment centers (UPEC, CTA), lack of visibility on the sources of funding for the sustainable acquisition of ARVs with the announced departure of certain donors.

Tuberculosis: In 2013, according to WHO, the number of tuberculosis-related deaths in Cameroon was estimated at 7,800 cases, giving a ratio of 35 deaths per 100,000 inhabitants. In 2014, 91 out of 126 cases of MR-TB diagnosed started treatment. Regarding TB/HIV co-infection, the HIV seroprevalence observed was 37% in persons with smear-positive Tuberculosis (PTB+). The prevalence of HIV in TB patients varies from one region to another: from 18% in the Far-North to 60% in the North-West[111].

In 2013, 238 DTCs were operational, representing a ratio of 1 DTC per 87,886 inhabitants (WHO standards being between 50,000 and 150,000 inhabitants). Recovery rate varies between 45% in Yaounde and 84% in the North region. Some DTCs (Yaounde Jamot Hospital,

Dibamba Catholic SMC in the Littoral region, Bamenda Regional Hospital, Baleng SMC in Bafoussam) are referral centres for the management of multi-resistant tuberculosis[112].

Malaria: Generally, out of 19,727 deaths recorded in health facilities in 2013, 22.04 % (that is, 4,349 cases) were related to malaria[113]. In 2009, this rate was 29%[114]. Incidence rates for malaria-related mortality have reduced for almost 10 years. Indeed, on the one hand, the number of malaria cases decreased by 15.61% between 2009 and 2012, and on the other hand, there was a reduction by 34% in hospital mortality between 2008 and 2012[115]. In 2011, per capita malaria-related expenses were FCFA 6 752[116]. Intermittent preventive treatment of malaria in pregnant women is free of charge since 2006. This is similar with the treatment of uncomplicated and severe malaria in children under 5 years since 2011 and 2014, respectively[117].

Viral hepatitis: Faced with the magnitude of viral hepatitis B, Delta and C, (See paragraph 3.3.1.1.) institutional response is progressively being organized. Indeed, their management is subsidised in 3 health facilities in the Centre and Littoral regions. Moreover, progress is made for greater decentralisation of this management. In the other structures, treatment is inaccessible despite the reduction of the cost of drugs. Viral hepatitis B and HIV co-infection cases are managed free of charge in MUs and ATCs. For the management of viral hepatitis C, efforts have been made to render available new ARVs at a lower cost.[118]

3.4.1.2 Neglected Tropical Diseases (NTDs)

This paragraph presents the health system response to the various neglected tropical diseases. The epidemiological situation of these diseases has already been described in the chapter on Prevention (see paragraph 3.3.1.2.).

Onchocerciasis and Lymphatic Filariasis: Managing these diseases requires mass polychemotherapy as the main control strategy. In 2014, the therapeutic coverage rate by Community-Directed Treatment with Ivermectin (CDTI) was 79.84% and the geographical coverage rate was 98.98%[119]. Regarding lymphatic filariasis, the control strategy is based on mass treatment with Ivermectin and Albendazole in endemic areas[120].

Schistosomiasis and intestinal helminthiasis: Faced with the magnitude of these diseases, each year the Government organises systematic deworming campaigns in communities and schools as a response strategy. The diagnosis and treatment of these infections are also effective in every health facility[120].

Leprosy and Buruli Ulcer: The control of Leprosy and Buruli Ulcer has been organized since 2009 within the National Programme for the Control of Yaws, Leishmaniasis, Leprosy and Buruli Ulcer[121]. Case management is free of charge, but indirect costs are a heavy burden for affected patients and families[122,123].

Human African Trypanosomiasis (HAT): The National Control Programme for Human African Trypanosomiasis (NCPHAT) was established in 1990. However, the implementation of planned activities is insufficient. During the last 5 years, more than 100,828 persons were consulted and 51 cases were diagnosed and treated[124].

Trachoma: The treatment of Trachoma requires the "SAFE" strategy (SAFE = Surgery for trichiasis, Antibiotic therapy (Tetracycline, Azythromycine), Facial cleaning, Environmental improvement). Case management is done through mass distribution of Azythromycin and Tetracycline. These distributions started in 2011. In 2014, 1,156,483 patients were treated, and 3,889 cases of trichiasis were operated upon[125]. According to impact studies carried out in 2014 in 7 health districts in the Far-North affected by trachoma, 3 years of mass treatment helped eliminate the disease in 5 out of the 7 health districts.

3.4.2 Maternal, neonatal, infant, child, and adolescent health

The description of interventions concerning the mother-child and adolescent target will focus on Comprehensive emergency obstetric and newborn care (CEmONC), and Post Abortion Care (PAC): antenatal care, delivery conditions, postnatal care.

3.4.2.1 Situation of beneficiaries

***Antenatal care and delivery conditions*:** Maternal mortality increased from 430 to 782 maternal deaths per 100,000 live births between 2004 and 2011 [177,33]. This increase is partly due to: (i) low rate of deliveries through cesarian section (2.4% in 2014). This rate is lower

than the WHO minimum acceptable limit of 5%., (ii) high rate of home deliveries (35.9%), without the assistance of trained health personnel especially in the northern regions, (iii) low financial and geographical access to care services, (iv) insufficiency of essential drugs (example : magnesium sulfate) in some HFs and blood products to save the lives of mothers and newborns (v) low prevelance of modern contraceptives (16.1% in 2014), (vi) high prevalence of HIV in women (5.6% against 2.9% in men)[33], (vii) socio-cultural barriers that inhibit the use of RMNCAH services; and (viii) unsatisfactory ANC4 coverage (58.8% in 2014)[33].

Moreover, there are significant disparities in the coverage of ANC1 between regions on the one hand and also between urban and rural areas on the other.

Three quarters of maternal deaths are due to direct obstetrical causes, such as haemorrhages (45.5%), dystocia (22.3%), pre-eclampsia (10.6%) and post-partum infections (8.9%). Three-quarters of maternal deaths are due to direct obstetric causes such as haemorrhage (45.5%), dystocia (22.3%), preeclampsia / eclampsia (10.6%) and postpartum infections (8.9%)[126].

Postnatal care: In 2014, postnatal consultation rates of the mother and the child within 48 hours of birth were insufficient at 65% and 68.5%, respectively[33].

Family Planning: (see Health Promotion paragraph 3.2.4).

Prevention of mother-to-child transmission of HIV (PMTCT): (see disease prevention, paragraph 3.3.2.6).

Child health: Neonatal mortality rate declined from 31‰ to 28‰ live births between 2011 and 2014, and this rate represents about half of infant mortality [17,33]. Infant mortality rate also declined from 74‰ to 60‰; the North and the Far-North regions were the most affected. Finally, child mortality rate declined from 122‰ to 103‰ live births during the same period. The main causes of mortality in children aged between 2 months and 5 years are: malaria (21%), diarrhoea (17%), pneumonia (17%) and HIV/AIDS (7%) [127]. Chronic malnutrition is the cause of 14.7% deaths in children under 5 years of age[128].

Adolescent and Youth Health: HIV prevalence in youths from 15 to 24 years was 1.7% in 2011. It was 5 times higher in girls (2.6%) than in boys (0.5%). The South region had the

highest prevalence of HIV (8.5% of girls infected). Fertility rate for girls aged 15 to 19 years reduced from 127% to 119% between 2011 and 2014. At the age of 15, 8.3% of women had already given birth at least once and 50% had a baby at the age of 19.5. With regard to family planning, 9% of girls and 100% of boys aged 15 to 19 years were already aware of at least one contraceptive method [177,129].

3.4.2.2 Health system response: Analysis of high-impact interventions coverage of RMNCAH

Many action plans have been developed in order to reduce maternal and child mortality, but the results so far have been very marginal. The Multi-sector National Programme to control Maternal, Neonatal and Child Mortality aims to bring a comprehensive and integrated solution to the mother, child and adolescent health issues[130]. Particularly, to acheive self-sufficiency in quality blood products, hemorrhage being the main cause of mortality among women in labour and anemia in children, the National Blood Transfusion Programme, established in March 2013, is one of the institutional responses to the improvement of indicators related to maternal, neonatal and child mortality.

In order to fill the gap related to qualified human resources who can provide health services to the mother and the newborn, 10 midwifery schools were created in 6 regions in the country, in 2011 and 2012.

Refocused Antenatal Consultation (RANC) and delivery attended by skilled personnel are the main pillars for the reduction of maternal mortality. To improve beneficiaries' access to obstetrical care, the prepositioning of obstetrical kits in health facilities was introduced in 2011[131]. In 2014, it was effective in 9 regions. It is envisaged, as part of the health voucher project, that this strategy moves towards providing the whole package of obstetrical services (delivery, caesarean section, blood transfusion and other complications, transport of emergencies, etc). Despite the implementation of these strategies, the rates of births attended by skilled personnel, for deliveries in a health centre and for caesarean sections have stagnated respectively from 63.6% to 64.7%, and from 3.8 to 2.4% between 2011 and 2014[132,17]. The caesarean section rate reported (2.4%) is below the 5% target set by WHO as

the lowest acceptable limit. This poor performance highlights insufficiencies in the management of obstetrical complications which are still the main causes of maternal mortality. This low rate shows that the referral and counter-referral systems as well as that of transfer/evacuation of emergencies are performing poorly.

Regarding PMTCT, in 2012, the country adopted Option B+ for the management of HIV infection in the mother and new-born.

Concerning family planning, about 20% of health facilities have at least one provider trained in contraceptive technology. In addition, 71.3% of health facilities provide short term methods; 19.4% of health facilities provide implants; 18.8% provide IUD and 4.5% provide Voluntary Surgical Contraception (VSC)[133].

Clinical IMCI is not carried out in all health districts. In 2010, the percentage of HDs with trained IMCI health personnel was estimated at 31%[134]. There are 3 EmONC schools per 500,000 inhabitants instead of 5/500,000 inhabitants[135]. EmONC studies in 2010 showed that out of the 15% of expected complications in pregnancy, only 8.7 % are received in health facilities.

3.4.3 Non-Communicable Diseases (NCDs)

In 2013, these diseases represented about 40% of the global disease burden in Cameroon (see Figure 2). During the same year, they were responsible for 882 and 862 deaths per 100,000 in men and women respectively[136]. The epidemiological situation of NCDs in Cameroon was addressed in the Disease Prevention component (see paragraph 3.3.3).

Community management of NCDs is still embryonic. Some NGOs or Associations working in the field of NCDs control received a Letter of Collaboration issued by the MOH and work in the field of NCD control[137]. Their activities are mainly focused on advocacy for resource mobilization and sensitisation.

Group 1: HBP and other cardiovascular diseases, Diabetes and Chronic renal Disease

With close to 11.56% of the overall deaths, cardiovascular diseases were the second cause of mortality in Cameroon in 2013 (Table 3)[138]. In 2010, the epidemic affected mostly women

with about 523 deaths per 100,000 against 472 deaths per 100,000 among men[139]. Regarding high blood pressure, national prevalence is 29.7%[140] .

The management of cardiovascular diseases and diabetes is done in 1st to 4th category health facilities. Moreover, the country has 3 specific centres for the management of diabetes (Yaounde Central Hospital, Garoua Regional Hospital, and Bamenda Regional Hospital) and 9 specialized centres for the management of pediatric diabetes. About 50 district hospitals host diabetic clinics and carry out educational activities for the prevention of high blood pressure, diabetes and other cardiovascular diseases. At the operational level (health district), the quality of the management of cardiovascular diseases is often inadequate because of the unavailability of national management guidelines. To this, is added the lack of adequate technical platforms.

The management of renal diseases and their complications is effective in the 10 regions of Cameroon (in some 1st, 2nd, 3rd and 4th category hospitals). Since 2002, the cost of a haemodialysis session is subsidised by the Government to the tune of FCFA 105,000 and the patient contributes FCFA 5000/session. Despite this subsidy, costs supported by patients remain high and can sometimes reach FCFA 1 million per month at the initiation[141].

Group 2: Cancers, asthma and other chronic respiratory diseases

The National Cancer Control Programme was established in 2002, followed in 2003 by the opening of cancer registers in Yaounde and Douala[142]. The country has 2 radiotherapy centres, whose functioning is not optimal. The management of cancers is still very expensive for patients and their families despite subsidies by the Government and some NGOs. Generally, 1st and 2nd category hospitals have specialized services for the management of chronic respiratory diseases. However, equipment and/or drugs and inputs necessary for their management are not often available or are insufficient. Regional medical imaging centres have been created in 8 regions[143]. These centres are sometimes non-operational because there is no structured policy for maintenance.

Group 3: Oral diseases and chronic visual and hearing impairment

Deafness and visual disorders are the first and fourth handicaps in Cameroon with 38.8% and 10.9% of disorders respectively[144]. The diagnosis and management of cataract, glaucoma and hearing defects are still limited to 1st, 2nd, and 3rd category hospitals. There is a national strategic plan for eye health, but the control of eye diseases is neither organized nor coordinated.

Management services of oral diseases are available in all central and regional health facilities, but they are inadequately equipped and/or maintained. There is one dental surgeon per 87,500 inhabitants[145]. This number is highly below WHO standards which recommend 1 per 2,000 inhabitants. The absence of a national policy for oral health in Cameroon does not enable to organize and coordinate care in an efficient way.

Group 4: Epilepsy and other neurological diseases, sickle cell disease, genetic (orphan) and degenerative (including mental and rheumatic) diseases

The implementation of a strategic plan to control epilepsy is not optimal; however, there is a national management guide for medical personnel, and a community management guide[146].

Management units for sickle cell disease have been created in Yaounde and Douala (Mother-Child Centre in Yaounde and Douala Laquintinie Hospital). However, the country has only 10 haematologists who work only in these two big towns.

The management of mental diseases is inadequate. However, there are specialized centres equipped with adequate technical platforms for the management of mental diseases (Yaounde Jamot Hospital and Douala Laquintinie Hospital). At the national level, the number of psychiatrists and other health professionals is insufficient (10 in total and 6 in the public sub-sector). For socio-cultural and economic reasons, the populations often turn to traditional medicine or other types of care. The non-existence of a national integrated strategic plan for mental health in Cameroon does not enable to organize and coordinate case management in an efficient way.

To close the human resources gap, a specialization cycle in mental health is offered at the University of Yaounde I, and a school for mental health nurses was created.

Group 5: Trauma, violence, intoxication, emergencies and disasters.

Civil protection: Cameroon has experienced several natural disasters, for example the 2010, 2011 and 2012 floods that caused about 60 000 victims in the North, and also several outbreaks and recurrence of various epidemic prone-diseases. Other disasters have also been recorded in recent years: i) the crash of a commercial aircraft in 2007 (114 deaths), (ii) a shipwreck in Campo (26 deaths), (iii) multiple recurrent fires in markets in big cities, (iv) road traffic accidents (RTAs) and (v) impact of wars and terrorist acts. A national contingency plan was developed in 2011 for the management of emergencies and disasters[147]. Led by MINATD, the aid and assistance system to accident victims involves many sectors. The health sector is in charge of health response.

Major scourges such as the resurgence of epidemics, border insecurity and terrorism, now require the health system to be proactive. In Cameroon, a multi-risk plan is being prepared as part of the Global Health Security Agenda (GHSA) as a more effective response to the multiple public health emergencies and major events[148].

Medical and surgical emergencies: statistics at national level are unknown; however, those registered at the Yaounde Central Hospital are of two types: (i) medical emergencies mainly made up of infectious diseases (50%) with HIV infection at the base, cardiovascular diseases (10%), severe anaemia (6%), and (ii) trauma emergencies dominated by RTAs (60%), domestic violence and accidents[149]. In addition, rabies and snake poisoning are growing causes of concern and recorded a cumulated total of over thirty deaths at the end of the 3rd quarter of 2015[150].

Coverage of blood transfusion needs is low. In 2014, while the annual blood demand in Cameroon was estimated at about 400 000 bags, only 10% were covered[151]. Resuscitation/intensive care services are only available in first and second category hospitals. Few hospitals have resuscitation rooms. No management system for high mortality diseases is available: angiogram for myocardial infarction, septic shock or thrombolysis for the very high number of cerebrovascular accidents a (see Table 3).

An Emergency Medical Assistance Service (EMAS) was established to manage out-of-hospital emergencies. However, it is not functional. The Yaounde Emergency Centre (CURY) and the Reception and Emergency Services (ES) in hospitals are structures dedicated to the management of emergencies. However, case management is often conditioned by payment of care. Furthermore, health workforce in these services are still insufficient. User satisfaction rate with the Reception and Emergency services in Yaounde stood at 51.5% in 2011. This dissatisfaction was largely due to long waiting time before the actual management, to direct and indirect high costs for care, the occurrence of many complications and side effects as well as to high mortality[152].

3.4.4 Motor, sensory and other disabilities

More than 5% of the population suffers from at least one sensory and/or motor disability. Sensory disabilities (3.5%) are the most common, followed by motor disabilities (1.5%)[17]. The prevalence of disabilities varies in regions across the national territory and highlights three major groups, namely: high prevalence in the South and Littoral (10 to 11%); average prevalence in the Centre, North-west, West and Far North (6-7%); low prevalence in the South West, East, North and Adamawa (3-5%). To date, only the Ministry in charge of Social Affairs has a health facility specialized in the rehabilitation of the physically disabled. However, some physiotherapy and physical rehabilitation services in some health facilities under the Ministry of Public Health are operational. Some initiatives are also conducted in the regions to rehabilitate persons with motor and sensory disabilities.

Institutionally, a law was enacted in 2010 to strengthen the medical prevention of disabilities through, among others, prenuptial tests and screenings in schools and in workplaces. Indeed, Law No. 2010/002 of 13 April 2010 which distinguishes between three types of disabilities: physical disabilities, mental disabilities and multiple disabilities, is a legal framework for actions to prevent and manage them, both clinically and at community level.

3.5 Health system strengthening component

Ranked 164th among the 191 countries assessed by WHO in 2001, Cameroon's health system is weak. Consequently, it does not effectively meet the needs of the population[153]. The analysis of the health system will be done following its six pillars, namely, i) health financing, ii) service provision, iii) human resources for health, iv) health information and health research, v) pharmacy and drugs and vi) governance and leadership. However this last pillar will be analyzed separately in a second cross-cutting component entitled "Governance and strategic steering."

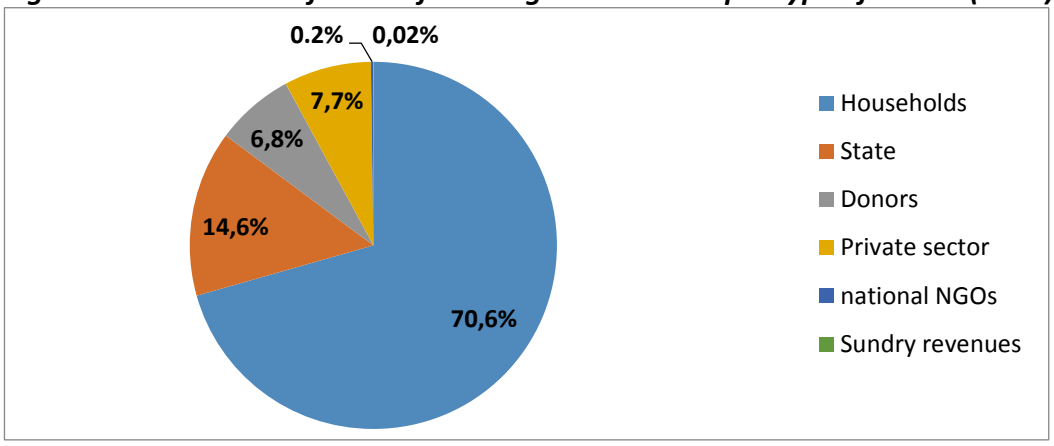
3.5.1 Health financing

Cameroon does not have a national health financing strategic plan. The various financing functions (resource collection, rsource pooling and risk sharing mechanisms, and purchase of health services) do not meet a national logical framework. However, several programmes and projects have developed financing strategies. Health financing will be presented following its three functions.

3.5.1.1 Collection of Resources

According to the 2011 National Health Accounts, the total amount of health funding stood at FCFA 728 billion, representing 5.4% of the GDP. The main funding sources (Figure 4) were: households (70.6%) the State (14.6%), the private sector (7.7%) and donors (6.9%)[65].

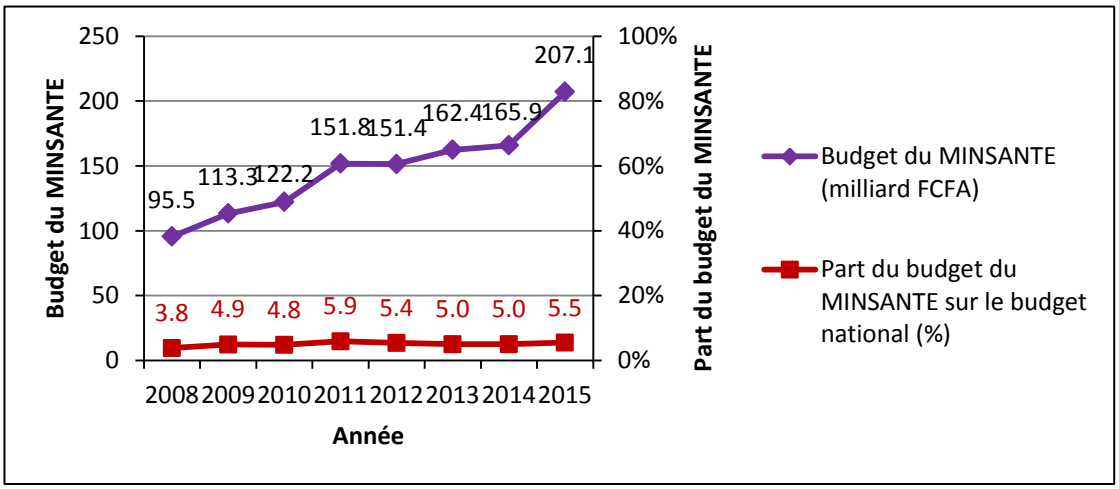
Figure 4: Distribution of health financing in Cameroon per type of source (2012)



Source : 2012 National Health Accounts

State funding: The total amount of the national budget allocated to the MOH has increased since 2008. However, the percentage in relation to the national budget decreased between 2011 and 2015[154] (Fig. 5)

Figure 5: Evolution of the budget allocated to the MOH since 2008.

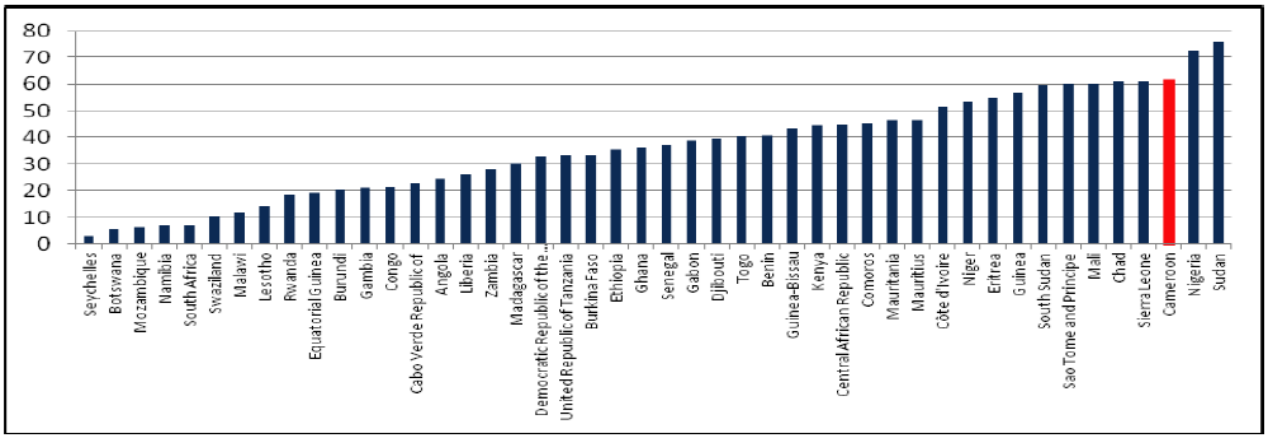


Source : 2008-2015 Finance Law

The proportion of the State budget allocated to health varies between 6 and 8% since 2011. This proportion is below the commitment made by African leaders during the Abuja Summit in April 2001. They recommended the allocation of 15% of national budgets to health[155].

Household financing: Household contribution accounted for close to 61% of the total health expenditures in 2013, the 3rd largest contribution in Sub-Saharan Africa after Sudan and Nigeria (Figure 7)[156].

Figure 6: Percentage of total health expenditures coming from households.



Source : Data base of the National Health Accounts, WHO, 2014

External financing (EXFIN): It should be noted that the MOH mobilizes several international financial and technical partners. At the end of 2015, EXFIN (loans and grants) provided funding of 65 billion for interventions in the following areas (Table 4)[157].

Table 4: Total contributions of Partners per programme in 2015 (FCFA billion)

Domain	2015	
Maternal, child and adolescent health	22	34%
Disease control and health promotion	25	38%
Health district development	18	28%
TOTAL	65	100%

Source : MOH - Cooperation Division, 2015

Public financial resources allocated to health are insufficient; this promotes dependency on external financing. However, EXFIN is marked by a lack of visibility in their medium-term estimates (3-5 years). Besides, a significant decrease in the contribution of partners is currently projected in the coming years. Henceforth, the major multilateral partners will condition their support in perspective of a gradual withdrawal. Thus, the ineligibility of Cameroon for GAVI Alliance funding is projected for 2020. According to estimates, this deadline corresponds to the year when the country reaches a level of 1,580 USD per capita income. In addition, some partners such as the Global Fund have developed co-financing conditions that require a progressive increase in State contribution.

The multiplicity of procedures and coordination bodies, the fragmentation of health financing and low pooling of EXFIN result in a loss of effectiveness and efficiency in their use. Consequently, they contribute little in strengthening the health system and meeting the critical needs of the population (horizontal equity). Specifically, in 2014, 63% of EXFIN basically covered the control of communicable diseases (Malaria 51%, HIV/AIDS 12% and Tuberculosis 0.3%), 27% was allocated to maternal and child health, and only 5% was allocated to strengthening the system[158].

National resources outside State budget: Besides the State budget, several national actors are involved in charitable and humanitarian health actions. These actions are reflected particularly through health campaigns, whether they fall under instruments of the

partnership strategy or not. In the absence of an integrated monitoring mechanism, the financial impact of these interventions cannot be evaluated.

Innovative financing: The MOH and its technical and financial partners are engaged in innovative strategies to mobilize additional resources. These include the following amongst others: Participation in the global UNITAID initiative through funds obtained from a 10% quota from airport tax levied on airline tickets for international flights;

Private Funding: Access to private financing and their efficient use is a great challenge and a strong potential source of health financing. It constitutes an opportunity to diversify funding sources to meet up with the increasing budgetary constraints linked to public fundings.

3.5.1.2 Pooling of resources and disease risk sharing

The pooling of resources from different funding sources is limited for several reasons:

Firstly, out-of-pocket payments from patients at the level of the health facility, the bulk of that revenue (about 90%) are directly reinvested in the activities of health facilities. The remaining 10% go to the solidarity fund established at the national level which can thus be used to brace up to any priorities that crop up in the healh sector.

Secondly, prepayment systems are underdeveloped and fragmented, also limiting the pooling of revenues. In fact, household health expenditures constitute about 97% out-of-pocket payments at the point of contact with health care delivery; only 3% of these expenditures go through risk pooling mechanisms or third parties.

In 2014, only 43 active mutual health organizations existed and covered 63,000 persons, an equivalent of 0.2% of the national population[159]. Adherence to a mutual health organization is done on a voluntary basis for an annual contribution of FCFA 3,000 to 5,000 per person. A contribution of 10-50% of the cost of health services is borne by the patient [65].

Other private non-profit making initiatives provide financial insurance to patients. This is the case of BEPHA (Bamenda Ecclesiastical Province Health Assistance) in the Southwest and Northwest regions. Membership is not individual and the contribution is voluntary per family

to avoid reversed selection[1]. In 2013, BEPHA had 30 000 members and plans to reach 80,000 by 2017[160]. Talking about private insurance, In 2014, there were 16 insurance companies offering health coverage for an average subscription of FCFA 155,000 per adult per year[161].

In 2011, it was estimated that less than 3% the population was covered by a health risk sharing mechanism[162]. However, recommendations of the Inter-ministerial Conference for Programmes Review (ICPR) in 2015 advocated for the development of a strategy for the implementation of universal health coverage (UHC) in Cameroon[163]. A national multi-sector technical group in charge of the establishment of the UHC was set up. National actors were trained and the organizational and institutional assessment for the strengthening and improvement of health financing in Cameroon is underway.

3.5.1.3 Purchase of health services

Several mechanisms for the payment of services exist in the health sector, namely:

- **Out-of-pocket payment by households:**

Majority of health care costs (70.6%) are borne by households that directly pay these services at the health facility[65]. The system of out-of-pocket payment is a source of inequity both in the use of health services as well as in the mobilization of private and public resources for health. It exposes households to very high expenditures and is a barrier to the access of health services. This is explained on the one hand by insufficient funding from the State and the other hand by the weak development of disease risk sharing mechanisms.

- **Reimbursement of health care costs by mutual health organizations/health insurance for insured persons with a deterrent fee:**

Most mutual health organizations are bankrupt and unable to pay health facilities for services provided to their members. The reasons for this bankruptcy are related to: (i) inadequacy in

[1] The reverse selection is the fact that healthy people tend to subscribe to health insurance than people who are mostly sick, which tends to make the health insurance financially unsustainable.

the structure of mutual health organizations based on volunteerism (such an approach limits risk sharing between the rich and the poor and among the sick and the healthy); (ii) low bonuses not compensated by an external support and (iii) poor management of resource collected.

- **Subvention/free medical care for some services:**

For several years, some services and health care are offered free of charge to the population. Among these include: the management of malaria for children under 5 years of age and dispensation of ARVs for PLWHIV, etc. However, economic principles reveal that generalized free medical care without a proper financial compensation mechanism for health facilities is not sustainable and viable in the long term. The consequences are poor quality of care, stock outs of drugs and development of a black market. These free medical care policies were not preceded by reliable economic studies on their feasibility and sustainability before their implementation.

- **Experimenting results based financing (RBF):**

Results Based Financing is aimed at improving access to quality care and services with a resulting efficiency and fairness of the system. This approach is being implemented in Cameroon since 2006. it was extended to 400 health facilities in 26 health districts located in the East, Littoral, North West and South West Regions in 2011.

The mid-term internal review of the pilot project from April - May 2013 revealed satisfactory results that prompted the Government to make the following decisions: (i) extend the pilot phase until 2017 so as to have time to prepare for national scaling-up, (ii) fund the RBF in the Littoral region with State budget as from 2014 (670 million has been allocated and used for this purpose), (iii) extend the RBF in the 3 Regions of the northern part of the country thanks to an additional funding of 40 million Dollars from the World Bank, an equivalent FCFA 20 billion (10 billion representing grants and 10 billion representing loans from IDA).

Cameroon has also been eligible for the "Every woman every child global financing mechanism" (GFF) that will enable it, through a World Bank-Government funding, to progressively scale-up RBF by 2020. However, the implementation of RBF best practices faces

some obstacles, notably provisions of the laws and regulations in force, hence the need for legal and institutional reforms to enable its regulatory implementation. Moreover, the financial sustainability of the national scale-up of this new approach is a major challenge.

- **Experimenting the health cheque**

The health chaques are available in accredited public and private non-profit making health facilities. Previously accredited EmONC and CemONC Structures offer the following services: pregnancy care, simple and complicated deliveries, postpartum and family planning, transferable care and neonatal care up to the 42nd day. The remuneration of the service providers is done in two complementary manners;

A fix remuneration corresponding to the tariffs of services (medical acts and inputs) adopted by the MOH.

A variable remuneration allocated to service providers after audit of the criteria of the quality and control of the compliance with management procedures associated to third party sponsors.

The health cheque uses mechanisms of accreditation of health facilities and the payment of service providers which shall be capitalized during the brainstorming on UHC.

- **State subsidy for the functioning of health facilities:**

Resource allocation: I should be noted that this is regulated by the Medium Term Budgetary Framework (MTBF) based on economic conditions, and expressed in the level of the ministry in the Medium Term Expenditure Framework (MTEF).There is very little data that enable in measuring the performance of the budget allocated to the health sector in Cameroon.

Nevertheless, the implementation of the programme budget since 2013 aims to improve the management of the State's financial resources and the effectiveness of health interventions.

Despite the ongoing decentralization policy, there is still a significant centralization of budgetary allocation; decentralized funds represented less than 3% (6 billion) of the MOH budget in 2015. Devolution, on its part, has witnessed an improvement in recent years with a breakdown of budgetary packages increasingly targeting the peripheral level. Indeed, the

allocation of resources should be sufficient at the operational level to enable health facilities offer a comprehensive and qualitative care package to the populations (Table 5).

Table 5: Distribution of the 2013-2015 budgetary packages per level (in billion FCFA)

Level	Budgetary packages (billion FCFA)		
	YEAR		
	2013	2014	2015
Central	79.31	62.41	93.49
Peripheral (AA+TR)	82.73	103.46	113.57
Total	**162.04**	**165.87**	**207.06**

Source: Adapted from MINEPAT, MINFI. (Administrative data). AA= Annual Allocation, TR= Transferred Resources

The budget is drafted vertically following strategic and operational plans of the different health programmes. These plans are budgeted according to different methodologies, often based on a centralized planning of inputs and not on the real needs of the population covered by health facilities. Budget formulation at the peripheral level is almost non-existent; whereas it should be the pillar of national budgeting following a bottom-up logic.It is therefore necessary to: (i) conduct assessment studies of resources required for the delivery of a quality care package by a health facility to a given population. (ii) Train actors of the operational level in the techniques of budgetary interventions; (iii) allocate resources based on approved priorities

Budget implementation: The budget implementation rate (engagement base) was estimated at 88% in 2014 (Table 6)[164]. However, due to liquidity problems at the Ministry of Finance, it is sometimes difficult to know the actual level of expenditure made by the Ministry of Public Health.Moreover, the calculation of the implementation rate is further complicated by the absence of a financial information collection and analysis system. In addition, cumbersome public spending procedures do not guarantee the visibility and predictability of the expenditure chain.

Table 6: Implementation rate (engagement base) of the MOH 2014 budget.

Budget	2014 Allocation (Billion FCFA)	Amount engaged in 2014 (Billion FCFA)	Rate of budgetary engagement
Functioning	91.4	86.9	95%
Investment	74.5	59.0	79%
TOTAL	165.9	145.9	88%

Source: 2015 Budgetary presentation of the Minister of Public Health at the National Assembly

Monitoring and evaluation of budgetary implementation: Presently, there is no information and comprehensive monitoring system in real-time for budgetary implementation. Indeed, the software used for budgeting (PROBMIS) does not track the use of resources at the decentralized level.Another major challenge related to the issue of resource use is the lack of a consolidated compendium of procedures governing resource management (national budget and external funding) of the sector. This is reflected on the field by recurring problems of governance and weak transmission of supporting documents.

To conclude on health financing, it appears that the level of efficiency of health care expenditure is low. For example, in 2012, Cameroon spent USD 61 per capita and had comparable results to those of countries spending between USD 10 and USD 15 per capita[165].

3.5.2. Healthcare and service delivery

The description of the situation analysis of the delivery of services and care will concern the following aspects:

- Types of healthcare and service delivery
  - Primary Health Care (package of activities (MPA, CPA));
  - Specialized care;
  - Other types of care (traditional medicine and alternative/parallel medicine);
  - Informal use of health care by populations (home care, auto-medication, street drugs).
- Infrastructure and equipment;
- Terms of provision (fixed and outreach strategies, referral and counter referral system, telemedicine, etc)
- Initiatives to improve healthcare and service delivery
- Strategies to stimulate demand.

3.5.2.1 Types of healthcare and service delivery

i. Primary Health Care (PHC)

In accordance with strategic guidelines approved by the stakeholders, Primary Health Care is the strategy recommended to meet the health needs of the majority of the population. The principles chosen to this effect are: strengthened community participation, a more effective

inter-sector action, the availability of appropriate technology, equity and social justice. The situational context of PHC and the level of achievement of MDGs are presented in the table below:

Table 7: Coverage rate of some primary health care interventions

Components	Indicator	Value	Year	Reference
Food and nutrition conditions	Food insecurity rate (%)	8.1	2011	[166]
	Prevalence of breastfeeding (%)	28.2	2011	277
	Anaemia in women (%)	40	2011	17
	Anaemia in children (%)	60	2011	
	Obesity in women (%)	32	2011	
WASH	Access to potable water (%)	72.9	2014	33]
	Access to improved latrines (%)	34.9	2014	
	Maternal mortality (per 100,000 births)	782	2011	17
	Infant and child mortality (per 1,000 births)	103	2014	33
	Modern contraceptive prevalence (%)	21	2014	3
Immunization	Children immunized with DTP3 reference antigen (%)	79.6	2014	33
Prevention and control of endemics	Hospital morbidity due to malaria (%)	20.7	2014	708
Treatment of common Diseases and injuries	Subjective morbidity rate (%)	25	2007	[167]
	Use of health care (%)	52.6	2007	
Supply of essential drugs	Availability of essential drugs (%)	86	2015	173
	Average stock out per year(day)	18.1	2015	16
	Consumption of poor-quality essential drugs (%)	61.4	2012	
Education for health	Health literacy rate	undetermined	undetermined	

Source: Based on data from the document " Situation analysis and diagnosis of the health sector "

After analysis, the level of coverage of certain interventions is acceptable but the populations do not yet benefit from all the services. They still face difficulties in accessing all interventions of the Minimum Package of Activities (MPA) and PHC issued by first level health facilities. Healthcare and service delivery at the community level is low and limited to certain priority health programmes. However, an experience with multi-skilled Community Health workers for the implementation of community-directed interventions is conducted in seven health districts in the Far North and the North regions.

ii. Specialized health care and services

3rd and 4th category health facilities provide specialized care in surgery, pediatrics, obstetrics and gynecology, medical imaging, dental care and hemodialysis. Other specialized care and services are concurrently delivered by 1st and 2nd category hospitals. Access to specialized care is low due to the high cost of the services. However, some medical procedures such as hemodialysis, x-ray and chemotherapy are subsidized. Yet, the quality of care remains insufficient because of poor infrastructure and technical platforms (equipment and health workforce), which justifies the high number of medical evacuations abroad.

iii. Other types of care (Traditional medicine and alternative/parallel medicine);

To date, the population increasingly makes recourse to other types of services and care such as: traditional medicine and alternative medicine in an environment filled with charlatans. The poor supervision and monitoring of the activities of traditional healers do not enable the supervising authority to master and control them, which contributes to increased morbidity and mortality.

iv. Recourse of the populations to informal health care (home care, auto-medication, roadside drug vendors).

It is important to note that the informal network of health care is expanding and progressing, due to the increase of the "roadside drug vendors", home care, auto-medication, and the expansion of cultural and spiritual approaches. This situation has negative consequences on the health of populations and imposes considerable pressure on the health system.

3.5.2.2 Infrastructure and equipment

In 2014, there were 4,034 public and private health facilities (Table 8). 27.9% of these health facilities belonged to the private sector (profit or non-profit making)[198]. In absolute terms, the number of health facilities at the operational level is satisfactory, but their geographical distribution in the country is inequitable. Indeed, there is an infrastructural imbalance between different regions and even among health districts where there are still people living more than 20 km away from a health facility.

This is compounded by inadequate quality and quantity technical equipment, limiting the use of these health facilities[16]. Moreover, some structures are not functional due to weaknesses in the follow-up of rehabilitation/construction works on the one hand, and the inadequate provision of equipment and HRH, on the other hand. The diversity of medical equipment brands and their obsolescence do not facilitate the implementation of a preventive and curative maintenance strategy and to achieve economies of scale.

Table 8 below shows the distribution of health facilities per region.

Table 8: Distribution of health facilities per region in Cameroon in 2014

Region	2014 Population	IHC & MHC	HD & related hospitals	RH	CH & GH	Overall total
Adamawa	1,125,438	148	8	1	0	157
Centre	3,906,883	797	29	1	11	838
East	888,682	213	13	1	0	227
Far North	3,856,740	296	30	3	0	329
Littoral	3,175,664	575	39	2	3	619
North	2,271,914	257	14	-1	0	272
North-West	1,999,831	336	30	1	0	367
West	1,978,322	595	32	1	0	628
South	766,981	298	9	2	1	310
South-West	1,533,964	271	14	2	0	287
Overall total	**21,504,419**	**3,786**	**218**	**15**	**15**	**4,034**

Source: document on the presentation of the Ministry of Public Health budget to the National Assembly in December 2014

There is an uncontrolled proliferation of private health facilities in urban districts in some regions. Many of these health facilities are not authorized by the MOH and are not controlled. This weak mastery of the health map leads to a gross oversupply of services and health care delivery in big cities. This results in inefficiency in the sector because of duplication of investments. Furthermore, the underutilization of some HRH and the encouragement of bad practices related to unfair competition among health facilities lead to inefficiencies.

Furthermore, it is important to highlight the existence of "borrowed names" when applying to open a health facility and the non-respect of regulatory processing period by the MOH. Finally, the control of authorizations granted by MOH is not effective.

Standards for equipment in health facilities at the operational level were developed in 2009, but are not often respected. Indeed, a study conducted in 2012 identified a lack of delivery

kits (24.5%), dry-heat sterilization system (39.5%), Caesarean section kits (67.5%) and functional microscopes (11.6%) in health facilities [16].

The technical platforms of 1st, 2nd and 3rd category hospitals are mostly deteriorated due to lack of maintenance. These hospitals offer specialized care without discriminating cases and in a spirit of competition; they are not regularly assessed. Furthermore, they hardly play their role as support and referral structures to lower-level health facilities. Finally, there are not enough reference laboratories and their accreditation terms are not set. All 10 regions were provided with hemodialysis and medical imaging centres in 2015.

3.5.2.3 Conditions of service delivery

i. Fixed strategies and outreach strategies

The minimum and complementary packages of activities (MPA and PCA) are often delivered in fixed strategy. The outreach and mobile strategies for remote health facility populations or in cases of disasters and non-epidemic emergencies are weakly implemented. But in 2007, a study showed that the most distant village was 80 km from a health centre. In addition, the poorest people were taking twice the normal time to reach the nearest Integrated Health Centre (43.2 min for the poorest quintile against 19.4 min for the richest quintile)[16]. However, a major study should be conducted to determine the proportion of populations unserved by IHCs and who do not benefit from the MPA.

ii. Referral and counter referral system

There are few specific studies on the functionality of the referral and counter referral system in Cameroon, but it has been repeatedly described as inefficient[168], [169]. [170].

3.5.2.4 Initiatives to improve healthcare and service delivery

New initiatives to improve service delivery have recently been developed in the health system. These initiatives aim at strengthening public-private partnership, social marketing and community involvement especially Regional and Local Authorities, telemedicine, task shifting and experimental mechanisms for the financing of health services and care (Performance-based Financing, obstetric kits, value for results ...).

3.5.2.5 Strategies to boost demand

There is no comprehensive strategy to stimulate demand for health services and care. However, several types of innovative financing mechanisms for health demand are implemented in health districts: health cheques, obstetric kits, health insurance, free treatment of malaria for children under five years and pregnant women, etc. But these experiences are very limited in space and results obtained are insufficiently disseminated.

3.5.3 Pharmacy, laboratory, drugs and other pharmaceutical products

3.5.3.1 Pharmacy, drugs and other pharmaceutical products

- **Procurement and distribution**

The national procurement system of essential drugs consists of pharmaceutical manufacturing, distribution/wholesale establishments, public pharmacies as well as pharmacies in both public and private health facilities. These structures are divided into three sub-sectors, namely: (i) the public sub-sector, (ii) the private profit-making sub-sector and (iii) the private non-profit making sub-sector.

This situation analysis will concern pharmaceutical structures from the public sub-sector (CENAME, RPPC and pharmacies of health facilities).

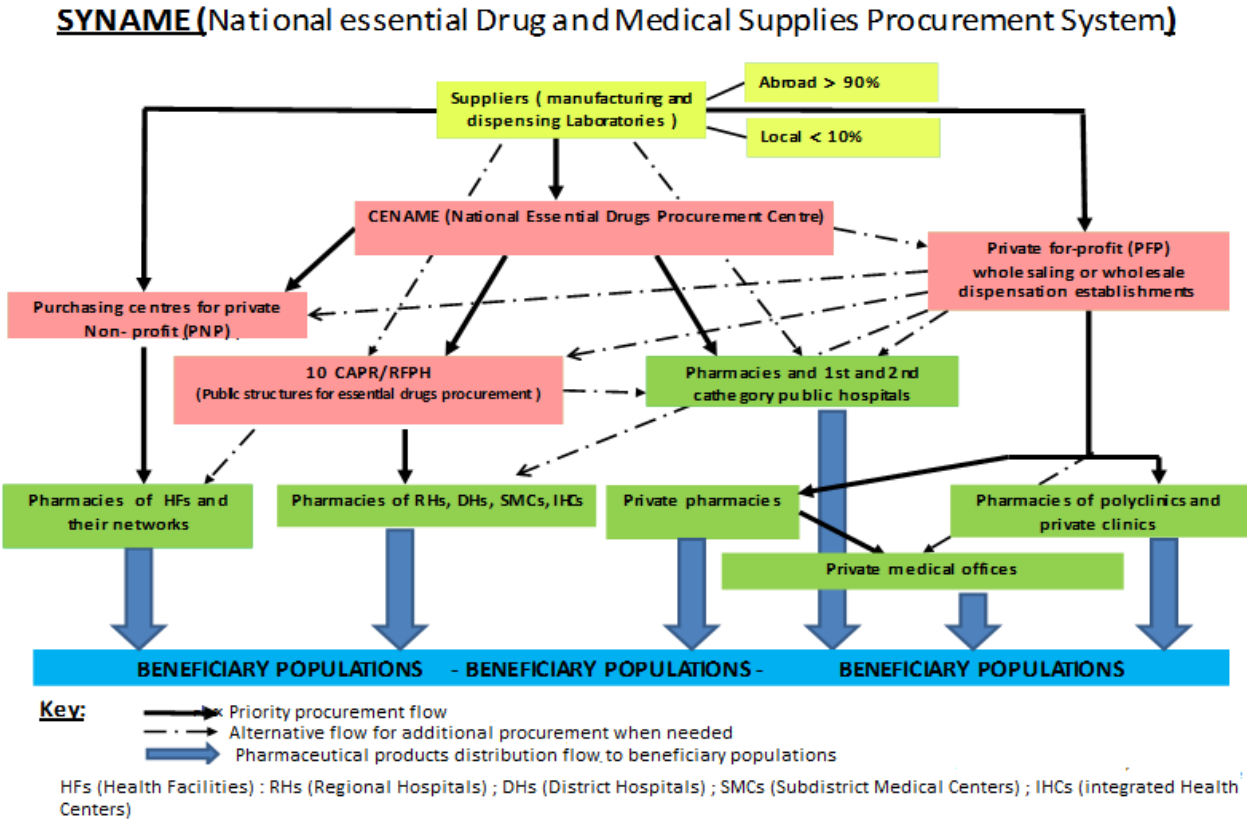
Drug procurement is organized around the National Essential Drugs and medical consumables Procurement Centre (CENAME), the main provider of RPPC/RFHP. However, they may be allowed to have other suppliers in case of stock-out in CENAME. In 2015, 9 of the 10 RPPC were changed into Public Interest Groups (GIP) called Regional Fund for Health Promotion pursuant to Law No. 2010/023 of 21 December 2010[171].

Some administrations other than the MOH have health facilities networks, are customers of CENAME but whose drug supplies are not always controlled by the National Drugs Regulatory Authority (NDRA). There is a vast network of illicit supply that feeds the market of street drugs and that may have connections with the legal sector.

Drugs donations constitute a source of procurement, which has to be integrated into the system according to guidelines with regard to donation. But their quality is not always controlled. Indeed, many actors in the drug industry escape the control of the MOH/DPML.

There are no reliable statistics on the management of drugs and pharmaceutical consumables. This malfunctioning does not enable the efficient management of drugs and consumable stocks. Figure 7 below shows the flows and major actors of SYNAME.

Figure 7: Organization of the National Essential Drugs and Medical Supplies Procurement System (SYNAME)



Source: MOH/General Inspectorate for Pharmaceutical and Laboratory Services - January 2016

The pharmacist ratio per capita varies from 1 per 6,920 to 1 per 177,051 inhabitants with an unequal distribution between rural and urban areas. The same applies for the distribution of drugs professionals at different levels of the health pyramid. Generally the purchase of drugs and medical consumables is about 40% of the current health expenditure[65].

- **Geographical and financial accessibility**

In 2003, the geographical access to drugs was estimated at 66% and the level of availability of tracer drugs was estimated at 86% in 2008[172]. With regard to the average number of stock-out days for essential tracer drugs, this figure increased from 21 days in 2012 to 13.69 days in 2015 indicating an improvement in the availability of drugs in health facilities[173,174]. Difficulties in procurement, poor management and inadequate transport equipment at all SYNAME levels are, among others, the source of these shortages.

With the support of partners and State subsidies, certain therapeutic classes are given free of charge (TB drugs, 1st and 2nd line ARVs, antimalarial ACT combinations, injectable artemisinin derivatives for children aged 0 to 5 years, anti -lepromatous drugs, etc.). Other classes are available at a lower cost (obstetric kits, contraceptives, insulin, malaria drugs etc.).

A price regulation effort is made in the drug approval process, which enables to get significant reduction of prices from generic manufacturers.

Drugs are exempted from customs duties, VAT and data processing fees. However, SGS tax, that is about 1%, is still applied. The local production of drugs is low[175]. Despite these efforts, a non-negligible portion of the population buys pharmaceutical products in the street.

- **Regulation of drugs and other pharmaceutical products**

There is no consultative framework between the various structures of ANRP (IGSPL, DPML, DROS and LANACOME) on the one hand, and all the stakeholders in the pharmaceutical sector on the other hand, to share information and better implement the guidelines on the regulation of the pharmaceutical sector.

The pricing of drugs in the public sub-sector is harmonized across the country. In the private non-profit making sub-sector, each structure has its own pricing system and has access to all products from CENAME.

Nationally, there is no harmonized information system for drugs logistical management, which leads to insufficient monitoring of stocks.

- **Quality control of drugs and other pharmaceutical products**

The drug quality assurance system is based on several pillars, namely: laboratory quality control, pharmaceutical inspection and market supervision, approval, pharmacovigilance, control on imports, rigorous selection during the acquisition process, proper storage of drugs, the fight against fake drugs and illicit trafficking of pharmaceutical products. All these activities are poorly implemented. Indeed, deficiencies in the quality control of drugs have led to the development of the informal sector of drug sales (illegal pharmaceutical deposits, in markets, street vendors) that represent 25% of the market[173].

The National Laboratory for the Quality control of Drugs and Valuation (LANACOME) is the structure in charge of quality control. However, this control is not systematic for imported drugs and only a small proportion of batches circulating are controlled in post marketing (after obtaining the marketing authorization). Counterfeiting has developed and the illicit drug sector represents about 30% of the pharmaceutical market in African countries[176]. Inspection of pharmaceutical structures is still very irregular due to the lack of logistical and financial resources.

3.5.3.2. Medical analysis Laboratory and blood transfusion

In 2009, the MOH developed and adopted a national health technology policy document that defines laboratory equipment per level. The practice of medical analysis, the modalities for the creation and functioning of private medical analysis laboratories are regulated by Decree No. 1465 of 9 November 1990.

Institutionally, the 2013 organizational chart of the Ministry of Public Health provides for a Sub-Department in charge of biomedical analysis laboratories and blood transfusion. The inspection of biomedical analysis laboratories is conducted by the General Inspectorate for Pharmaceutical Services. Current regulations (Decree No. 450/PM of 22 October 1998 to lay down the procedures for the approval of pharmaceutical products) provides for the approval of laboratory reagents after evaluation by a specialized committee of the National Drugs Commission. Services in charge of biomedical analysis are usually available in most public

and private health facilities, especially in urban areas. Biologists, engineers, and medical and health laboratory technicians are trained in Cameroon, in public and private institutions. However, classifications of such personnel and training curricula are not harmonized.

Concerning blood transfusion, Law No.2003/014 of 23 December 2003 regulates blood transfusion in Cameroon, with some implementing instruments. A service in the Ministry of Public Health is specifically devoted to Blood Transfusion and a Programme was developed in 2013 for this purpose. Most of the central, regional and general hospitals have services in charge of blood collection, qualification and conservation.

Texts governing the practice of medical analysis and blood transfusion are inadequate and most of them are obsolete. Administrative structures in charge of organizing and regulating laboratory and blood transfusion activities are not sufficiently equipped in terms of human, material and financial resources to optimally fulfil their duties. There is no accreditation body for medical biology analysis laboratories, no national laboratory network nor referral and counter referral system for laboratories. The insurance and biological diagnostic quality control policy has not yet been defined in Cameroon. There are no procedures manual or approved standard operational procedures at the national level. The distribution circuit of laboratories and blood transfusion inputs is not well mastered and very few laboratory reagents used are approved. The specialized structures provided for in the legislation on blood transfusion have not yet been created.

The cost of services at private medical analysis laboratories usually located in big cities is often out of reach of the middle-income people. Apart from laboratories in 1st and 2nd category hospitals, the equipment available do not always enable to conduct laboratory activities corresponding to the Minimum Package of Activities. In terms of biosecurity, many laboratories have an incinerator for waste processing operations. However, there is no national strategy for biosecurity and waste management. Most laboratories do not have an efficient maintenance system for their equipment which is mostly obsolete.

3.5.4 Human Resources for Health

3.5.4.1 Situation and needs of the sector (standards and needs)

The overall staffing needs were identified at the end of the General Census of Health Workforce (RGPS) in 2011 and presented in the Human Resources Development Plan (HRDP)[179] In 2011, the number of personnel was estimated at 38,207 with 25, 183 in the public sub-sector (66%) and 13, 024 (34%) in the private sub-sector (Table 9)[177]. Based on data obtained from the third RGPS, staff/population ratio was 1.07 (medical doctor, midwife, nurse) for 1000 habitants. This ratio is below WHO standard, which stands at 2.3 per 1000 inhabitants.

Table 9: Distribution of human resources for health per region

Qualifications	Regions											Total
	Adamawa	Centre	East	Diaspora	Far-North	Littoral	North	North-West	West	South	South-West	
CRW	3	26	27	0	131	6	11	47	97	11	8	367
Social assistant	1	54	1	0	9	9	3	0	12	5	11	105
Other health professionals	7	305	55	1	176	508	26	499	555	44	237	2413
Administrative personnel	47	770	58	0	69	191	58	184	131	64	152	1724
Dental surgeon	4	22	0	0	4	17	1	2	3	3	2	58
Pharmacy clerk	5	133	42	0	166	137	92	211	234	24	134	1178
Nurses	817	4512	874	3	1733	3276	965	1590	2599	781	1804	18954
General Practitioner	38	500	53	72	71	307	42	82	116	45	94	1420
Medical Specialist	16	192	5	7	10	127	3	9	26	11	16	422
Paramedical staff	176	1343	204	2	342	786	160	377	593	175	368	4526
Support staff	77	1401	120	0	816	1534	227	844	726	100	828	6673
Pharmacist	7	38	4	0	12	40	8	2	26	4	21	162
Traditional healer / birth attendant	0	0	0	0	189	0	10	0	1	1	4	205
Total	1 198	9 296	1 443	85	3 728	6 938	1 606	3 847	5 119	1 268	3 679	38 207

Source: MOH, RGPS, 2011

The figures give the following ratios: 1 nurse per 3,157 inhabitants and 1 medical doctor per 11,335 inhabitants in the public sub-sector at the national level. However, these averages conceal some regional disparities. In fact, the Centre, Littoral and West, through the major towns of Yaounde, Douala and Bafoussam, have over 55% of personnel against only 10% for the East, Adamawa and South Regions. Table 10 presents the gap between the reality and revised personnel standards (all categories) in 2011 by the MOH. Information on types of specialization per level of the health pyramid is not available.

Table 10: Estimates in personnel needs per level of the health pyramid

Level of the health pyramid	Needs
Central services	14
Priority health Programmes	227
First and second category hospitals	1 732
Regional hospitals	1 582
Health districts	2 222
Health facilities of health district level (IHC, MHC,DH)	21 976
Total	27 753

Source: MOH, PDRH : Situation analysis and diagnosis of HRH, 2012.

3.5.4.2 Strategic guidelines of the Human Resources Development Plan (HRDP)

Adopted in 2013, the Human Resources Development Plan (2013-2017 HRDP) stems from the guidelines of the 2001-2015 HSS. Three major strategic areas were identified in this HRDP: (i) improving management and governance of HRH, (ii) strengthening the production of HRH and (iii) strengthening strategic monitoring of HRH.

3.5.4.3 Production of human resources

Initial training: The targeted production level in the GESP is 500 medical doctors/year, 150 pharmacists per year, and 150 dental surgeons/year. Given the number of currently functional public and private training institutions, the GESP will probably meet its targets in the short term. However, there is a significant deficit in specialists. A strategic plan for the development of medical and surgical specialties was established in 2010. The initial phase of the implementation of this plan resulted in the production in 2014 of the first batches of nephrologists, neurologists, pulmonologists, hepato-gastroenterologists, etc. To this, should be added pharmacists and dental surgeons that are now trained locally. To date, the number of specialists is 626 with 5 psychiatrists and 9 nephrologists[178]. Several other specialties are still under-represented. These include: geriatrics, interventional X-Ray examination, haematology, medical analysis, infectiology, etc. (see Appendix 1). In 2014, there were 92 public and private training schools for health technicians. The current production rate of medical and paramedical staff is far above the absorption capacity of the public sub-sector. Taking into account the needs of the system, new courses have been introduced, these include midwifery/maïeuticians (238 + 183 trained since 2011 with an annual production rate of 250), Optometry/refraction technicians, Community Health Assistants, Assistant Health

Technicians, Mortuary attendants (40 students are currently undergoing training). The creation of a cycle for Pharmacy technicians to gradually replace the current pharmacy clerk is envisaged for 2016. This will involve transferring competences to health personnel on the 'One Health' Approach while taking into account the management of zoonoses.

Continuous training: Generally, continuous training is deficit for all categories of staff. There is a disparity with the needs of the sector because of lack of specific pluriannual planning and financial resources. Nevertheless, each year, a proportion of the funds of the State budget is allocated for scholarships and internships. This proportion was about 0.1% of the total budget of the MOH in 2015 (see table 11 below). This figure only concerns the budget allocated to the Department of Human Resources and does not take into account that of other departments, projects and programmes or specialized organizations. In addition, some development partners support the continuous training process. However, funding is mainly directed towards individual training needs rather than institutional needs.

Table 11: Funds allocated to continuous training from 2010 to 2015

Year	Allocated funds
2010	217 424 700
2011	227 424 700
2012	217 424 700
2013	217 424 700
2014	235 000 000
2015	235 000 000

Source: MOH Budget, 2010 - 2015.

3.4.4.4 Recruitment and management of HRH

In terms of quantity, the minimum staff required in 2005 was 49,074 in the public sub-sector. In 2010, only 19,709 were available[28], this figure reached 21,567 in 2015, according to administrative data of the National Observatory for HRH. The economic crisis of 1986 and structural adjustment programmes led to a large emigration of health professionals[179,180]. In addition to the resulting quantitative and qualitative deficit, there was non-optimal personnel management characterized by the non-mastery of the workforce, their underutilization, the incompatibility between profiles and functions, non-respect of the career profile and a high absenteeism rate in public health facilities varying between 2 and

37%[181]. It should be noted that this absenteeism is caused among others by the search for additional income and shortcomings in the mechanisms for personnel retention, particularly in difficult to access areas (basic infrastructure, special bonuses, honours, health insurance[182]). Moreover, postings are centralized and do not often meet the needs of user structures. In the public sub-sector, there is a high attrition rate slightly balanced by recruitment that depends on the exclusive jurisdiction of MINFOPRA.

3.5.5 Health Information and Research in Health

3.5.5.1 Situation of the National Health Information System (NHIS)

A NHIS strategic strengthening plan for 2009-2015 was developed in 2008, but its implementation has not been effective. On the other hand, the verticalization of health programs in order to address the problems of high morbidity and mortality of certain priority diseases has rather created a multitude of information subsystems and data collection tools with more than 300 indicators to be filled in. This made it difficult to monitor the implementation of the 2001-2015 HSS interventions.

The limited availability of disaggregated data from interventions implemented at the regional level and in the health districts does not, to date, provide accurate information on the health situation of the Districts. It is therefore difficult to guide the choice of priority intervention zones. This limited availability of disaggregated health information by district affects the decision-making of actors in the health system.

3.5.5.2 Situation of research in health

Health research remains a sector of activity whose competences are divided between several ministerial departments (MOH, MINRESI and MINESUP etc.). According to the Decree No. 2013/093 of 3 April 2013 to organize the Ministry of Public Health, the MOH was provided with a Division of Operational Research in Health (DROS) which coordinated the development of the 2011-2015 Strategic Plan of Operational Research in Health but the implementation of this plan was compromised by the insufficient funding allocated to research. The main problems encountered in the field of health research are:

Inadequate regulation: an inadequate legal framework was noted because of the lack of specific instruments and the non-respect of existing ones; *Ethical framework*: Cameroon neither has a code of ethics in terms of research in health, nor a satisfactory legislation or regulations. In 2012, the MOH established an ethical review system for research protocols in human health[183].

Insufficient coordination: Research on diseases is the favourite area of health research at the expense of other areas (health system and health promotion). Indeed, the vast majority of research projects submitted to the DROS request for an Administrative Research Authorization (AAR,) on STIs/HIV/AIDS, Tuberculosis, Malaria, Onchocerciasis, Influenza or zoonoses, resistance to molecules notably antibiotics, HIV/TB co-infection and the epidemiology of different diseases.

Insufficient financing: International recommendations prescribe that at least 2% of the budgets of ministries in charge of health and at least 5% of development assistance funds be allocated to health research.To date, this proportion is low (below 1%);

Low popularization and exploitation of results: The decision-making process based on evidence in Cameroon is still maturing. This is justified by low national capacity in implementing research projects. Moreover, research results are inadequately disseminated and recommendations are poorly taken into account in decision-making. Initiatives such as the Best Practices Development Centre produce factual evidence from the works of health research.

Lack of research culture: very few actors in the health sector are interested in research[184]. In fact, African scientific production in terms of research barely reaches 1% of the global production[185].

This situation, as stated above, is justified not only by the low national capacity to carry out research projects; this is why initiatives such as the Center for the Development of Good Practices, which makes available evidence-based data from research in health, should be promoted.

3.6 Governance and strategic management component

3.6.1 Governance

3.6.1.1 Legislative and regulatory framework

In the absence of an integrated public health code, several legal instruments govern major health functions and interventions. Several domains of public health do not yet have an appropriate legal framework: Bioethics (notably medically assisted procreation, organ donation, transplantation, management of end of life [euthanasia]); the practice of traditional medicine and the development of alternative medicines; provision of ambulatory health care, etc.

Moreover, the pricing of medical acts and healthcare is regulated in the public and private sub-sectors respectively by two decrees: Decree No. 63/DF/141 of 24 April 1963 to lay down fees for public health consultation, visits, deliveries, medical certificates as well as the value of the key letters of the classification of professional acts on the one hand, and Decree No. 62/DF/62 of 1 March 1962 to lay down public health fees for consultation, visits, deliveries, medical certificates and the value of the key letters of the classification of professional acts in private medicine on the other hand. These legal instruments are obsolete and prescribed prices no longer reflect the current socio-economic situation of Cameroon. This sometimes results in the violation of the provisions of these legal instruments by several actors leading to the disparity of prices in both the public and private sub-sector.

The legal framework for interventions is also characterized by a multiplicity of regulatory acts with sometimes competing, conflicting and outdated provisions. This is explained by:

- the non-respect of the development circuit of legal instruments by actors of the health system;
- the lack of knowledge of existing legal instruments.

The organizational and structural mechanisms put in place to manage legal problems in the health sector (MOH) are available at the central level through the DAJC (Division of Legal Affairs and Litigation), which is most often saturated.

3.6.1.2 Audits and Internal Controls

At the central level, the need for an effective implementation of regulatory, statutory auditing and control missions assigned to general inspectorates covering all management aspects of the sector is necessary. Audits and control missions are limited by insufficient logistic and financial means as well as the lack of the implementation of recommendations from inspection missions at all levels[186]. To overcome this difficulty, control brigades were created and equipped with personnel in Regional Delegations for Public Health[187].

3.6.1.3 Fight against corruption and accountability

The Government adopted a 2010-2017 anti-corruption strategy whose implementation concerns all sectors. A roadmap based on the "PRECIS" (Prevention, Education, Conditions, Incentives and Sanctions) approach was developed by the Prime Minister's Office to accelerate the implementation of anti-corruption strategies, with conditions for success being admissibility, transparency, consolidation of the rule of law and decentralization. Civil society organizations have been mobilized through several initiatives such as CHOC (Change Habits, Oppose Corruption). In the same vein, local anti corruption committees were established in public hospitals. Transparency and denunciation tools (complaints and suggestion boxes ...) were also put in place. The Rapid Results Initiative (RRI) to fight against corruption was implemented with the support of NACC, in hospitals. The landmarks of the said RRI were applied as measures to strengthen governance and security of hospital income and property.

At the national level, accountability remains an important issue in the health system and is a major obstacle to ownership of the implementation of HSS by all actors. To date, several institutional mechanisms have been put in place to enable health authorities to report on the implementation of their activities (reports on the performance of administrations). The setting up of exchange platforms (NACP, Steering Committee and its branches, CCIA, coordination meetings, etc.) highlight the concern and the will of the public authorities to involve all the stakeholders in the implementation of the HSS and decision-making. But insufficient financial resources for the organization of coordination meetings, especially at the decentralized level, often limit their functionality.

3.6.1.4 Social Monitoring

Social monitoring of health interventions, which is one of the modalities for community participation in activities of the health system, remains "*quite low*"[188]. Dialogue structures exist at all levels of the health pyramid and should be involved in the co-financing and co-management of interventions in health facilities. However, a majority of them are less functional.

3.6.2 Strategic steering

Strategic steering/management consist in leading an organization towards achieving previously laid down objectives through an effective and efficient use of available resources. In this document, the description and analysis of the strategic management of the health sector will focus on four main areas namely: (i) Strategic observation, (ii) strategic planning and coordination, (iii) monitoring - evaluation of interventions, (iv) health partnership.

3.6.2.1 Strategic observation

In the health sector, the strategic observation system is based on the National Observatory of Public Health (NOPH) created in 2010. However, its missions are not effectively implemented because of the inadequate financial and technological resources

3.6.2.2 Strategic Planning and Coordination of the HSS

In Cameroon, Strategic planning has the following as reference framework: the Cameroon Vision by 2035 and the GESP. The 2001-2015 HSS was inadequately implemented due to its low dissemination and appropriation as well as its low use as reference framework for planning at all levels of the health pyramid.

Despite the existence of a Steering and Monitoring Committee for the Implementation of the Health Sector Strategy, the health sector is still characterized by a multiplicity and variety of other coordinating bodies. Indeed, most health programmes and projects have a steering and supervisory body with an inter-sector or inter-ministerial nature (for instance the National Coordination Body for funds from the Global Fund for the control of TB, HIV and Malaria; the CCIA, etc.). These coordinating bodies of vertical programmes often have no direct link with

the HSS steering committee which leads to the fragmentation of HSS monitoring. This coordination and strategic management fragmentation is also reflected at the regional level.

For the MOH, an internal management committee for the Planning, Programming, Budgeting and Monitoring/Evaluation (PPBM) chain was established in 2009 but its functioning is not harmonious. Furthermore, there is no capacity building of members of the committee. Therefore, this committee has neither developed an action plan with specific targets nor indicators to measure its performance.

3.6.2.3 Monitoring and Evaluation

The Monitoring and Evaluation Integrated Plan (MEIP) of the 2001-2015 HSS has never been validated, and therefore, has never been implemented.

3.6.2.4 Health Partnership

Cameroon's health sector has developed a true partnership dynamic which has expanded its network of partners, both nationally and internationally.

Internationally, Cameroon is a member of global health partnerships, such as the International Health Partnership (IHP+). It also cooperates with bilateral and multilateral partners, which support health at the international level.

Nationally, the partnership portfolio comprises hundreds of actors: ministries and government-controlled administrations, public and private companies, regional and local authorities, NGOs and associations.

Ministerial Order No. 1433/A/MSP/SG/DCOOP/CPNAT of 16 August 2007 laid down the regulatory framework for effective implementation of the partnership. To this end, a partnership Thematic Group, under the authority of the Steering and Monitoring Committee of the HSS implementation, was established in 2013. One of its missions is to create a framework for dialogue, consultation and harmonization among health actors in order to enable the Ministry of Public Health to fully play its role as a promoter of partnership.

However, the current institutional and technical coordination framework requires reinforcement and multiform support to animate, capitalize and make profitable this important partnership patrimony.

Chapter 4:

DIAGNOSIS OF THE HEALTH SECTOR

This chapter focuses on the following four themes: (1) lessons learned from the implementation of the 2001-2015 HSS, (2) major problems of the health sector per component (3) significant external factors and (4) major stakes and challenges of the strategy.

4.1 Analysis of past policies: lessons learned from the implementation of the 2001-2015 HSS

The period from 2000 to 2009, known as the strategic planning period, witnessed the development of the first Health Sector Strategy. The Health Sector Strategy, which stems from the Poverty Reduction Strategy Paper (PRSP), was a first-generation reform focused on some health programmes. Its revision in 2009 enabled it to comply with the 2001-2020 GESP, to incorporate the MDGs as strategic objectives, especially taking into account the notion of the *health districts development process*. Its update in 2009 should therefore result in a paradigm shift. We had to move from the logic of vertical programmes to health district development. Nevertheless, this logic was not followed.

Indeed, the 2001-2015 HSS had amongst its major objectives the decentralization of the health system[189]. Health districts were supposed to empower themselves while the central level should further handle monitoring, control, regulation and norms. The number of vertical programmes had to decrease gradually and health districts in turn had to develop progressively to be able to offer integrated and comprehensive intervention packages to the population.

- To date, even though the actual number of fully functional HD is not known, health sector experts believe that number to be less than 10 out of 189 HD[190].

- The expected and projected results of the expired strategy do not still take into account institutional capacities.

Overall, the implementation of the 2001-2015 HSS in health districts suffered from inadequate monitoring (financing, supervision, control, inadequate inspection of technical and administrative activities). The definite balance sheet that can be drawn from the implementation of the 2001-2015 HSS is presented in the form of strengths and weaknesses (see figure 8 below).

4.1.1 Strengths

Strengths were identified in the following areas: provision of infrastructure, human resources, drugs and funding and operational research in health.

Provision of infrastructure: The following strengths were identified: the State's commitment to construct health facilities in all regions and the availability of rehabilitation technical files of health facilities highlighting the sequential possibilities of the implementation of work to be performed (technical and architectural development plan of DH under ordinary internal financing); the availability of technicians who are able to develop architectural projects and development plans according to standards in collaboration with the various technical authorities concerned (MINTP, MINDCAF, MINHDU and MINEE); the availability of a partnership strategy to strengthen public-private partnership; the existence of a dense network of health facilities and training institutions at the national level and in new domains; the State subsidizing private health facilities and private training institutions for health personnel; the existence of norms in equipment, although these are not updated.

Human resources: Management of human resources has improved through the development and implementation of the Human Resources Development Plan for Health (2013-2017 HRDP). Indeed, the plan led to: (i) improving the management and governance of HRH, (ii) strengthening the production of HRH and (iii) strengthening the strategic monitoring of HRH. One notes with satisfaction the availability of data on situation of needs promoted by varied efforts such as studies on needs assessment, improvement of the health map, identification of human resources, personnel management software (SIGIPES) and career planning tools

(Posts and Jobs Mapping Software, National Observatory of HRH), increasing number of personnel trained by several universities and decreasing vocational training institutions.

Drugs: Considerable efforts have been made by the Government to facilitate access to drugs. Regarding regulation, the prices of essential drugs have been standardized in the public sector and their costs are affordable as well as in remote areas where poverty rate is high. Moreover, the free medical care policy is applied to several medical products within the framework of priority programmes, particularly for vulnerable groups (children under 5 years, pregnant women etc). In addition, some therapeutic classes such as anti-TB, anti-lepromatous, and even first and second lines antiretroviral drugs are delivered free of charge. Other classes are available at a subsidised cost. This is especially the case of antimalaria drugs, obstetric kits, contraceptives, insulin, etc.

Health financing: Progress registered involves the introduction and operational capacity of several innovative strategies to improve health financing; these include RBF, health cheques, obstetric kits, value for result, etc.

Operational research in Health: Some strengths were particularly noted: strengthening of the institutional framework for research in health; strengthening regulation by creating a National and Regional Human Health Ethics Committee and a dialogue framework for the different stakeholders involved in health research through the Scientific and Strategic Advisory Commission for Research on Human Health (CCSSRS); the existence of structures and tools to ensure the availability and popularization of health data and results of research on health, notably the Centre for the Development of Best Practice in Health (CDBPS) and Health Sector Digital Documentation Centre (CDNSS).

4.1.2 Weaknesses

The weaknesses noted concern the following points: political commitment, legislation, regulation, management (planning, management, control and monitoring/evaluation), budget/expenditure and availability of infrastructure and operational research.

Political commitment: The high-level political commitment in the sector has improved but is still insufficient regarding: i) the percentage of budgetary allocation in the sector. Although the budget allocated to health has increased significantly, at least with respect to the MOH budget, it is still below the Abuja recommendations (the Abuja Declaration indeed proposes the allocation of 15% of the State budget to health); ii) the promotion of Health Partnership (the failure of the implementation of SWAP is a marker). In fact, in the health sector, there are a significant number of TFPs (bilateral and multilateral), however, since 2011, very few partners are working for a sector-wide approach. Therefore, high-level political commitment was estimated to be insufficient.

Legislation, regulation: There is no public health code in Cameroon. Moreover, the legal framework for health interventions is characterized by dissipation as well as the proliferation of regulatory acts with sometimes competing and conflicting provisions not leaving out the obsolescence of several legal instruments in force. Very often, practices precede the legal framework and legal gaps persist in several areas.

Management (planning, supervision, control and monitoring/evaluation): Here, the identified areas of concern include the following: the Technical Secretariat of the Health Sector Strategy Steering Committee failing to complete its mandate (motivation and promotion of the health sector). This failure has limited the overall performance of the latter. The characteristics of this managerial failure at the level of the TS-SC/HSS are:

- **Inadequacy in strategic planning**: strategic objectives formulated in the 2001-2015 HSS and selected interventions were not always in line with the institutional and structural capacity as well as past progression rates.
- **Inadequacy in operational planning at the regional level**: the needs expressed by the regions did not take into account budgetary constraints and available resources. The absence of realistic regional targets hinders the allocation of resources according to actual needs. In addition, local resource mobilization remains weak.

- **Absence of an integrated monitoring/evaluation plan**: baseline values and target values of monitoring indicators of the expired HSS were not completed, rendering their follow-up difficult. Moreover, their numbers were excessive.
- **Deficit of risk anticipation and management**: because of the lack of a risk management plan, it was not possible to anticipate structural and economic barriers to achieve the results of the strategy. This resulted in the implementing actors adopting a reactive rather than proactive attitude for the expired strategy.
- **Mismatch in the resources allocated to regions**, considering the needs identified therein.

Deficit in accountability: few accountability mechanisms for actors were introduced or were functional. This undermined effectiveness and efficacy.

Some allied ministries, providers of curative, preventive and promotional care were not identified and their duties were not formally clarified within the framework of the implementation of the HSS and the 2011-2015 NHDP.

Health financing: In terms of budget and expenditures, in Cameroon, the existence of several health financing schemes (27 in 2013) result from a lack of an integrated approach to health financing. In addition, the low level of information on funding mobilized in the sector (those of the private sector, those of partner ministries providers of health services and healthcare, as well as regional and local authorities) did not contribute in preventing a duplication of investments. This did not enable to act coherently in managing the most critical needs of target populations (horizontal equity). To date, the collection of resources for health (private financing, public funding) and their pooling for universal health coverage are not sufficiently organized in the sector.

Moreover, the weakness of the monitoring/evaluation mechanism and the shortcomings noted at the level of the coordination of interventions resulted in the duplication of investments and subsequently inefficiencies noted in the sector. Indeed, the average per capita expenditure was USD 63 in 2012, but the results obtained were similar to those of

countries spending between USD 10 and 1414 (the equivalent of 6.000 and 8.000 FCFA respectively).

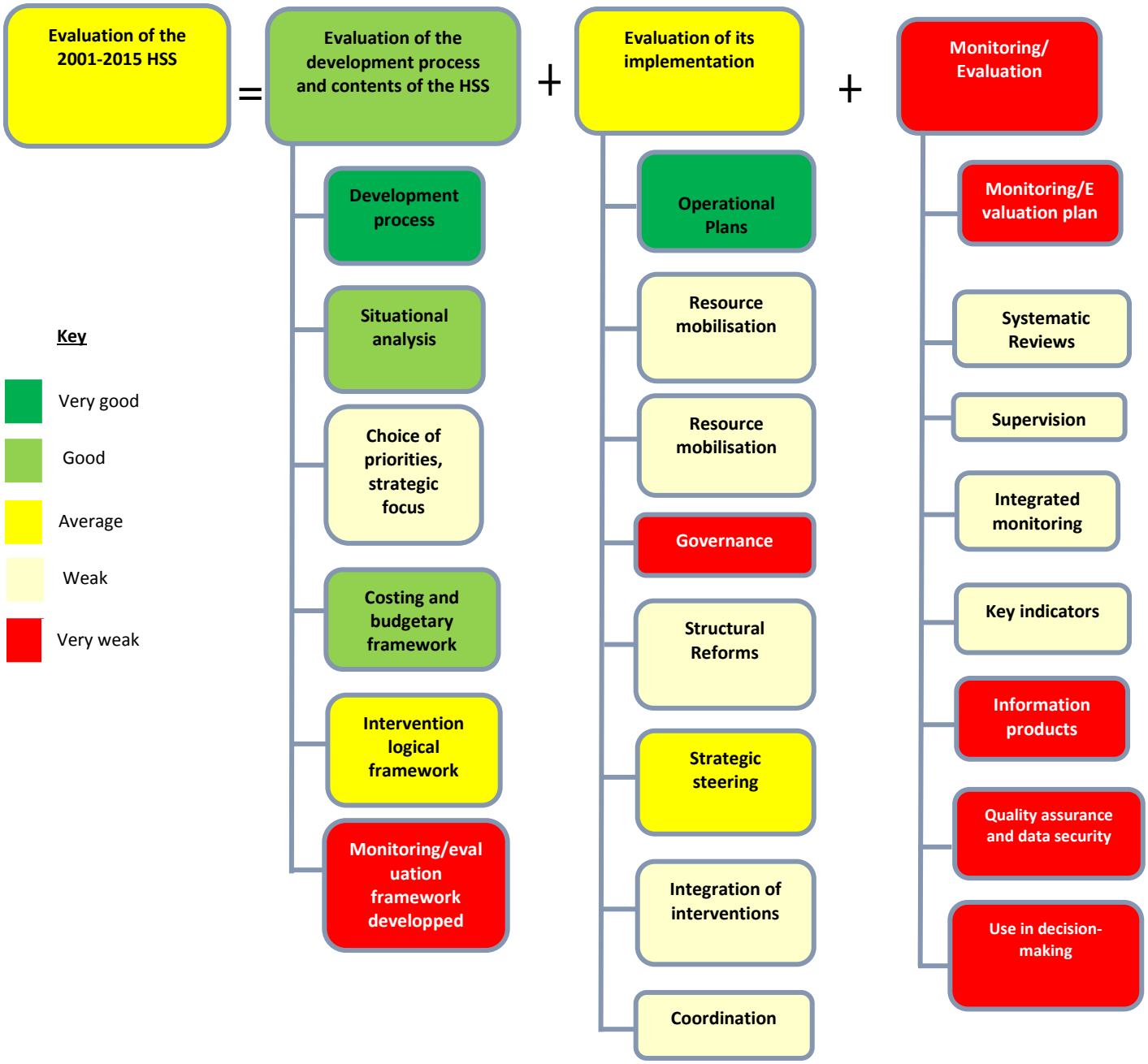
In the same vein, it was noted that the financial productivity of health facilities are not sufficiently monitored to promote the optimal use of public funds; the health system does not provide protection to the entire population against disease risk: only 3% is covered by some sort of health insurance related mechanism. Out-of-pocket payments representing almost 95% of private health expenditures remain the main care procurement modality. Moreover, the persistence of poor governance practices in public services in general is still a hindrance to the efficient use of resources.

Finally, the significant equity gap in health coverage was favoured by the ineffectiveness of strategies aimed at pooling disease risk and to ensure universal health coverage.

Availability of infrastructure: The development of infrastructure has neither taken into account the requirements of the health map because of the absence of a management plan designed for this purpose nor technological development (simplification of laboratories with increasing points-of-care tests and telemedicine opportunities among others).

Research in health: The shortcomings noted in this domain include: the non-respect of the existing legal regulatory framework governing the practice of health research in Cameroon; insufficient financial resources allocated to the functioning of regulatory bodies and the underfunding of research activities by public and private structures; weakness in the planning, coordination, monitoring and evaluation of health research activities in the MOH; lack of a national list of health research priorities; poor research, monitoring and evaluation culture; inadequacy in the dissemination of research results, availability of reliable evidence base and use of research findings in decision-making in health.

Figure 8: Synoptic summary of the qualitative assessment of the 2001-2015 HSS



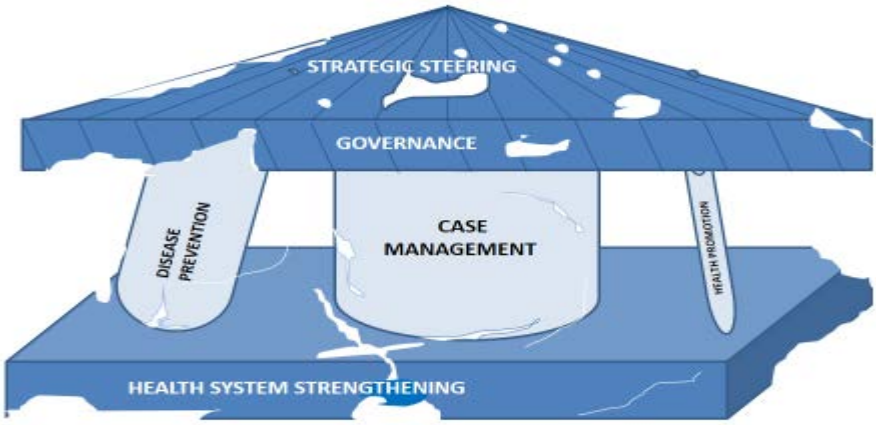
Source: MOH 2001-2015 HSS Assessment Report

4.2 Main problems in the health sector per component

The diagnosis of the health sector helped in identifying, as a major problem, the "low capacity of the health system to effectively meet the social and health needs of the population and contribute to the development of a healthy and productive human capital."

Indeed, faced with the weakness of its six pillars (leadership and governance, human resources, healthcare provision, infrastructure, drugs and health technology, financing and health information system), the current health care system does not helped in adequately preventing events that negatively influence health. It fails to adequately and effectively ensure health promotion of the populations, or to ensure adequate and holistic disease management. In practice, the low capacity of the health system to effectively meet the needs of the population is reflected by unsatisfactory health indicators, notably high morbidity and mortality, increased health care costs and a decrease in the health workforce. The overall diagnosis is summarized schematically in the image below (figure 9) and in Table 12.

Figure 9: Synoptic summary of the diagnosis of the sector



Source*: MOH Situation Analysis and Diagnosis of the Health Sector (2015)*

Table 12: Priority problems identified in the situation analysis of the health sector

CORE ISSUE OF THE HEALTH SYSTEM	**Low ability of the health system to meet the social and health needs of the populations and contribute to the development of a healthy and productive manpower**
HEALTH PROMOTION COMPONENT	
CORE ISSUE OF THE COMPONENT : Low ability of the population to solve their health problems and adopt healthy behaviours	
IMMEDIATE CAUSES	**ROOT CAUSES**
Inadequate promotion of good feeding/nutritional habits and personal hygiene; and the importance of SPE;	Weak institutional capacity for the implementation of health promotion policies and strategies
	Inadequate service delivery in the domain of health promotion (lack of proximity infrastructure for the practice of group sports, lack of health related sports supervisors, unavailability of FP or user-friendly services in HFs etc.)
	Insufficient funds allocated to health promotion (< 2 % for MOH)
	Insufficient number of qualified personnel (experts in public and/or community health)
	Lack of an integrated health promotion strategy
	Lack of an integrated communication approach for behaviour change
	Low consideration of health promotion aspects in public policies
Low consideration of social determinants in health care and service delivery as well as in public policies	Insufficient inter-sector planning, monitoring and evaluation of health promotion interventions at all levels
Low consideration of health promotion aspects in public policies	Training of actors of the health system based on biomedical approach rather than on health determinant approach
	Lack of an integrated health promotion strategic plan
	Low dissemination in administrations of resolutions taken at the international level (E.g. : OTTAWA Charter)
DISEASE PREVENTION COMPONENT	
CORE ISSUE: high incidence and prevalence of transmissible and non transmissible diseases	
IMMEDIATE CAUSES	**ROOT CAUSES**
Lack of knowledge in actions/means and advantages of disease prevention by the population	Low availability of disintegrated data for decision-making in favour of the prevention of non transmissibe diseases (hypertension, diabetes,cancers etc)
	Low implementation of sensitization and screening campaigns especially in the health areas
	Low budgetary allocation for activities of prevention of diseases (especially for non transmissible diseases)
	Low implementation of service delivery modalities for adequate disease prevention (outreach and mobile strategies, transfer of responsibilities)
	Low programming and implementation of prevention interventions in disease control strategic plans and policy documents
	Weak strategic positioning of prevention intervention in health strategies and projects
	Lack of an integrated disease prevention strategic plan
	Low availability of disintegrated data for decision-making in favour of the prevention of non transmissibe diseases (hypertension, diabetes,cancers etc)
	Low implementation of sensitization and screening campaigns especially in the health areas

	Low budgetary allocation for activities of prevention of diseases (especially for non transmissible diseases)
	Low implementation of service delivery modalities for adequate disease prevention (outreach and mobile strategies, transfer of responsibilities)
Under–estimation by actors of the system of the comparative advantages of prevention in relation to case management	Training of personnel focused on curative aspects as priority
	Low availability of data for better decision making in terms of prevention
	Low visibility of the advantages and long term effects of prevention to beneficiaries (advantages of prevention are not sufficiently understood)
	Inadequate national operational research on disease risk factors
	Insufficient resource allocation to prevention activities
CASE MANAGEMENT COMPONENT	
Core issue: Global mortality and lethality in heath facilities and the community are high	
IMMEDIATE CAUSES	**ROOT CAUSES**
Underutilization of operational procedures and protocols for hospital and community case diagnosis and management	Caregivers are not refreshed in the use of protocols and SOPs for case management of non transmissible diseases especially at the external services
	Low availability of case management standardized protocols in health facilities especially for non transmissible diseases
	Inexistence of a standardized approach for health care and services per health facility category
	Weak planning, coordination, supervision and monitoring/evaluation of case management actions at all levels of the health pyramid
Insufficient delivery of quality health care	Inappropriate technical platform (incomplete emergency drugs, absent or sometime obsolete equipment, personnel not sufficiently retrained etc.)
	Unavailability of inputs for emergency case management in HFs
	Low availability of specialized care services (mental health, palliative care and support, severe burns etc.)
	Low participation of community actors in case management (care continuum) including traditional medicine
	Unavailability of normative documents and standards for effective case management of the most frequent cases of NTDs in health facilities at the operational level (hypertension, diabetes, CVA etc)
	Hardly functional referral and counter-referral system
	Insufficient service delivery for the rehabilitation/re-education of disabled persons
	Insufficient management facilities for high mortality situations (resuscitation room, intensive care, interventional radiology)
Preparation, case detection and delayed response in the event of EPDs	Insufficient qualitative and quantitative human resources trained in integrated surveillance and response
	Insufficient financial, material and logistical resources allocated to IDSR
	Lack of an electronic surveillance system for diseases orpublic health events
	Insufficient promptness and completeness of EPDs
	Insufficient implementation of the IHR
	Insufficient organisation of community-based surveillance of diseases and public health events
Limited physical and financial accessibility to health facilities	Vulnerability of households (low or unstable revenue or purchasing power of the populations)
	Pricing of medical acts in HFs of the same category is not harmonised
	Underdeveloped disease risk sharing mechanism
	Inadequate implementation of instruments on community participation and RLAs

	Unequal geographical distribution of health facilities	
	Low implementation of outreach and mobile activities	
Demotivation of personnel	Poor working conditions (lack of basic commodities, poor remuneration, lack of career plan, low participation of personnel in decision-making and management of the health facilities)	
	Low attractiveness of rural and difficult to access areas : lack of staff accommodation for personnel	
COMPONENT : HEALTH SYSTEM STRENGTHENING		
SUB-COMPONENT : HEALTH FINANCING		
CORE ISSUE	**IMMEDIATE CAUSES**	**ROOT CAUSES**
Limited financial accessibility to quality health care services of the populations especially the most vulnerable	Insufficient resources allocated to health and ineffective use of that allocated to health facilities	Lack of structured and continuous advocacy from key actors (MINFI, MINEPAT, MINSANTE) for in increase in the financing of public health
		Support to the war against terrorism
		Insifficient public finances for health
		Low mobilization of private finances for health
		Weak coordination and low visibility in the long run of funding from TFPs
		Ever increasing health needs (several emerging and re-emerging diseases)
	Low adherence of the population to disease risk sharing mechanisms	Low development of disease risk sharing mechanisms
		Weak coordination of the multiple care financing mechanisms
		Actors of the health system are not adequately trained for the development and establishment of disease risk sharing mechanisms
		Weak culture of health care prepayment
SUB-COMPONENT/pillar: PROVISION OF HEALTH CARE AND SERVICES		
CORE PROBLEM OF THE PILLAR	**IMMEDIATE CAUSES**	**ROOT CAUSES**
Low utilization of health structures and services	Inadequate distribution of infrastructure and sometimes insufficient/obsolete equipment	Lack of a development plan for infrastructures and equipment
		Poor governance
		Lack of formal maintenance framework in most of the health structures
		Constructions which do not always take into account the shortcomings and insufficiences of the health map
		Political pressure for the construction of health facilities in zones that already have enough
		Lack of a quality assurance system in terms of infrastructure and equipment
		Low implementation of the health technology national policy
	Low availability and accessibility to quality health care and services	Absence of national policy for community health and the regulatory framework for community participation not updated
		Low performance of the referral and counter referral system for the continuity of treatment

		Inadequate technical platform in relation to the missions of health facilities
		Insufficient or unavailable inputs (stock-outs of some essential drugs, insufficient number of community health agents, other quialified health human resources, financial resources) to insure putting In place and making available health care packages
		Low availability of prrocedures, norms, protocols and standards for the management of cases
		Insufficient usage of certain innovative modalities of service(telemedicine, outreach strategy) offer
		Low performance of the referral and counter referral system
		Existence of socio-cultural barriers to health care
SUB-COMPONENT : DRUGS AND PHARMACEUTICAL CONSUMABLES		
CORE ISSUE	**IMMEDIATE CAUSES**	**ROOT CAUSES**
Under-utilization of quality drugs and medical consumables and their rational use	Inadequate institutional framework for the drugs and pharmaceutical consumables sector	Human resources for health not well trained for elaboration of texts
		Absence of a promotion policy for the rational use of drugs
	Low availability and accessibility to quality drugs	Low purchasing power of households
		Defective management of drug stocks in health facilities at the operational level
		Inadequate managerial capacities of persons in charge of drugs in health facilities at the operational level
		Weakness of the supply system
		Weakness of the quality assurance system of drugs (quality control, inspection, homologation, pharmacovigilance, surveillance of the pharmaceutical market) and reagents of the laboratory tests
		Verticalisation of the supply system of drugs
		Expansion of trafficking and fake drugs
		Precarious and insufficient funds allocated to drugs and vaccines
		Low local production of pharmaceutical and medical consumables
	Low availability of reference laboratories	Low prioritization in putting in place of reference laboratories
		Deficit in qualified health human resources for the management of refence laboratories for quality laboratory tests
		Insufficient finances for the creation and introduction of reference laboratories ito the network
SUB-COMPONENT : HUMAN RESOURCES		

CORE ISSUE	IMMEDIATE CAUSES	ROOT CAUSES
Insufficient qualitative health workforce	Inadequate recruitment of human resources for health Non-optimal use of existing personnel	Significant migration of HRH
		Budgetary constraints for the recruitment of new health human resources
		Deficit rigid advocacy for the recruitment of human health resources in the public sub sector -
		Poorly adapted institutional set up for the optimal management of human resources for health
		Heads of health facilities weakly capacitated for the optimal management of health resources at all the levels of the health pyramid
		Poor implementation of the HRDP
	Low motivation of healthcare providers of the public sub-sector	Inadequately implemented personnel retention mechanisms in difficult to access areas
		Precarious working conditions especially in rural areas
		Inequitable practices in the posting of personnel
		Low salaries for staff working in the public sub sector
		Poor mobility of HRH posted in rural areas
		Inappropriate (at times inequitable) choice of profile of persons to undergo continuos training
		Inadequacy between the profile of person and the post occupied
		Insufficient and ineqitable continuos training
SUB COMPONENT :HEALTH INFORMATION AND RESEARCH IN HEALTH		
CORE ISSUE	**IMMEDIATE CAUSES**	**ROOT CAUSES**
Inadequate development of research in health and decision-making not always based on concrete data	Poor management of health information	Low availability and use of routine data for decision-making
		Poor implementation of the NHIS strategic strengthening plan
		Fragmented institutional and organizational framework
	Insufficient dissemination of health information and research products at all levels for better decision making	Insufficient financial resources for research works
		Culture of research in health not sufficiently rooted in the habits of health care and service providers
		Low production and availability of strategic information
GOVERNANCE AND STRATEGIC MANAGEMENT COMPONENT		

CORE ISSUE : **Low performance of the health system**	
IMMEDIATE CAUSES	**ROOT CAUSES**
Inadequate regulation,leadership planning,co-ordination, follow-up and evaluation at all levels of the health pyramid	Regulatory instruments and laws aimed at governing performance in the sector are unavailable or not updated (instrument on community participation, pharmaceutical reforms, instruments regulating the practice of traditional medicine and supervision of traditional healers, harmonisation of the regulation governing professional councils and conditions governing their practice, regulation on the grafting of organs and medically assisted procreation, etc)
	Inadequate managerial skills of heads of regional delegations, health districts
	Inadequate technical skills of heads of health facilities notably with respect to strategic management, coordination of actions in the health sector
	Inadequate accountability in the health sector
	Insufficient financial resources for logistical support to coordination meetings of thematic work groups
	Inadequate development of partnership notably public-private (low contracting)
	Poor performance of the institutional framework for strategic management and monitoring in the sector (existence of several uncoordinated sub management committees)
Inadequate governance at all levels of the health pyramid	Inadequate implementation of recommendation of reports from inspection, control and audit missions
	Low accountability culture in the health sector
	Inadequate internal and external audits
	Persistent corrupt practices in the public services
	Weak financial and technical support to community participation
	Inadequate institutional support to different social control mechanisms (RLAs, dialogue structures; associations, development committees at all levels)
	Inadequate monitoring, evaluation and coordination of interventions at all levels of the health pyramid
	Sanctions (positive or negative) not properly applied

4.3 Significant external factors

The development of the Cameroonian health system is strongly influenced by several national and international factors. These were classified into two groups: constraining factors and promising factors.

4.3.1 Constraining factors

Constraining factors are the major threats that undermine the development of the sector. They can be summarized as follows:

- Border insecurity caused by wars in neighbouring countries (Chad, CAR) that result in the influx of refugees/internally displaced persons leading to epidemics. Pressure on

health services from these displaced populations weakens the health system, removes and increases the vulnerability of populations at the local level;

- The global financial crisis limits the availability of external financing;
- The planned decrease in external financing due to the withdrawal of some donors in priority areas (e.g. vaccination.);
- High population growth rate pressurizes basic social services;
- Inadequate and poor road conditions that limit geographical accessibility to health services;
- Inadequate public health funding (less than 15% of the national budget);
- Poverty in the population which limits their financial accessibility to health services;
- Vulnerability to adverse effects of climate change and loss of biodiversity;
- Strong growth rate of urbanization with the development of informal settlements;
- Customs and traditions of populations that are sometimes harmful to their health;
- Low remuneration of personnel and poor working conditions.

4.3.2 Promising factors

Promising factors are the main opportunities that the health system could exploit. These factors include:

- The 2015-2017 Emergency Plan to Accelerate Economic Growth which provides for the construction and rehabilitation of referral hospitals in all regions of the country as well as the development of basic social infrastructure[191];
- The high penetration rate of ICTs that can facilitate information management and use of low-cost technologies subject to a good implementation policy of medical informatics and telemedicine;
- Major projects which, if environmental risks are controlled, will improve the well-being of the population with new infrastructure and jobs;
- International commitments ratified by Cameroon, such as the MDGs/SDGs, which create a conducive environment for improving social policies in general[192];
- Evolution towards the decentralization of social policies in general which will further encourage the community to master their own health problems;

- High literacy rate that favours an understanding of health messages and adoption of healthy behaviours;
- The new financial scheme of the State dedicating the performance budget as the budgetary framework modality that guarantees increased medium-term visibility.

4.4 Key stakes and challenges of the strategy

Based on the GESP, four major issues were identified for the 2016-2027 HSS[193]. They focus on the contribution of the health sector to poverty eradication[194]. The corresponding challenges are presented in Table 13 below.

Table 13: Significant stakes and major challenges of the health sector for poverty reduction

STAKES	CHALLENGES
Reducing morbidity and mortality of the population for increased life expectancy	▪ Strengthening the functionality of health facilities as well as reference dialogue and coordination frameworks; ▪ Extension of community-based and community directed interventions ; ▪ Improved availability and use of quality essential generic drugs (EGDs); ▪ Strengthening the inter-sector coordination framework in terms of promotion and prevention; ▪ Availability of strategic information for decision-making based on evidence.
Improving universal access to quality health care and services.	▪ Definition of a sustainable disease risk sharing mechanism; ▪ Mobilization of adequate funding for the establishment of a national risk-sharing system; ▪ Coverage of vulnerable populations; ▪ Definition of participation modalities for workers of the informal sector; ▪ Strengthening the availability of quality care and services; ▪ Coordination of efforts between the Ministry of Public Health and partner ministries in charge of the UHC.
Strengthening the health system	▪ Strengthening the institutional framework and management skills of heads of health facilities at all levels of the health pyramid; ▪ Contracting with the private sector; ▪ Operationalizing decentralization in terms of health; ▪ Implementation of the quality approach at all levels of the health system; ▪ Improved regulation of the sector; ▪ Development of human resources for health in science and related technologies through increased staffing, optimum distribution in the country and the improvement of working conditions; ▪ Compliance of the health map with the demand for care; ▪ Strengthening the health information system, notably monitoring/evaluation; ▪ Development of a health financing strategy; ▪ Development of a quality assurance mechanism.
Partnership strengthening in the health sector	▪ Strengthening decentralization; ▪ Strengthening coordination within and between sectors; ▪ Strengthening community participation in response to their health needs.

PART III:
STRATEGIC FRAMEWORK OF THE HEALTH SECTOR

Chapter 5:
STRATEGIC ALIGNEMENT AND ORIENTATIONOF THE HEALTH SECTOR STRATEGY

The selected strategic guidelines in the field of health are in line with the national guidelines and international commitments ratified by Cameroon.

5.1 National Guidelines

5.1.1 Framework law in the health domain

Article 2 of Law No. 96/03 of 4 January 1996 to lay down the framework law in the health domain stipulates that:

"The National Health Policy aims to improve the health status of populations through increased access to integrated and quality care for the entire population, with the full participation of communities in the management and financing of health activities."

5.1.2 Cameroon Vision by 2035

In 2009, Cameroon set out its vision by 2035: "Cameroon: an emerging, democratic and united country in its diversity". In this vision, the country assigned to itself four general objectives which include, “reducing poverty to a socially acceptable level."

In the field of healthcare, achieving this goal will require, improving services and care delivery and ensuring access of the majority of population to quality health services. This will enable it to address challenges of manpower development that require providing the population with good health, education, knowledge and professional competence. Moreover, the 2035 vision in its second phase (2020-2027) provides for the following objectives in its social plan (i) increase of social infrastructure; (ii) expansion of the social security system; and (iii) strengthening mechanisms for the fight against social exclusion.

5.1.3 Growth and Employment Strategy Paper (GESP)

The Growth and Employment Strategy Paper (GESP), an implementation document for the first phase of this vision, identified improvements in health for populations as a goal both

for social development and economic growth. The GESP also reiterated the government's determination to pursue the achievement of the Millennium Development Goals (MDGs) in general.

5.2 International guidelines

Concerning the health domain, Cameroon has ratified several international commitments. Among these are:

The Abuja Declaration on HIV/AIDS, Tuberculosis and other Infectious diseases (2001). This is a resolution adopted by African countries to allocate at least 15% of their annual budget to the improvement of the health sector by 2015. This was reaffirmed in the Maputo Declaration (2003).

The Addis Ababa Declaration on Community Health (2006). It recommends:

- empowering communities and strengthening community management structures, consumer activities and linkages to health service delivery systems;
- ensuring commitment and participation of the community in health care interventions (planning, delivery, self-monitoring);enhancing interaction between health services and the communities they serve;
- establishing mutual information sharing mechanisms;
- strengthening partnerships.

The Kampala Declaration of 2006 on the availability of human resources to strengthen the health system.

The Ouagadougou Declaration on Primary Health Care and Health Systems in Africa (2008) reaffirms the principles of the 1978 Alma Ata declaration especially on health as a fundamental human right and the responsibility of governments to cater for ther health of their populations.

The Algiers Declaration of 2008 on the strengthening of research in health in Africa.

The African roadmap on the Campaign for Accelerated Reduction of Maternal Mortality in Africa (CARMMA) (Addis Ababa, 2009).

The Rio Declaration on Social Determinants of Health (2011). It is a non constraining engagement through which member states of the WHO promise to improve working and living conditions that influence the health and well-being of the population. It outlines the five engagements which seek to reduce inequalities.

The Declaration on universal health coverage, Mexico City (2012). The central objective being to ensure equal access to care and services including drugs that are acceptable, affordable, accessible and of good quality.

The Global Action Plan for vaccines 2011-2020. This plan aims to extend the benefits of immunization to all persons, regardless of where they were born.

Adherence to the International Health Partnership (IHP+) in 2011 which shows Cameroon's commitment to improve the management of public assistance to health development.

Ending Preventable Child and Maternal Deaths: A Promise Renewed (APR). This is a commitment made in 2012 by 176 member states of the United Nations to fulfill the promise of MDGs 4 and 5 and to support progress towards these MDGs beyond 2015 until mothers and children no longer die of preventable causes.

Sustainable Development Goals 2015 (SDGs): Objective No.3 is specifically related to health. This objective targets the reduction of maternal and child mortality, the end of epidemics linked to major communicable diseases and reducing premature deaths from non-communicable diseases through universal access to health care services and the promotion of healthy behaviours as well as the development of health-conducive environments by 2030. Table 15 shows in detail the compliance of the 2016-2027 HSS with the Sustainable Development Goals.

5.3 Vision of the sector

5.3.1 Vision Statement

It is based on the vision 2035 of the President of the Republic and formulated as follows:

« Cameroon, a country where universal access to quality health services is ensured for all social strata by 2035, with the full participation of communities »

This vision is supported by equity, national solidarity, shared responsibility and social justice values.

5.3.2 Guiding principles

The vision is guided by principles that constitute major rules to regulate or inspire "policy choices a priori. These include:

GP1. Equity in geographical, financial and cultural access to health services

In Cameroon, health interventions take into account both the territorial dimension and socio-economic and cultural situation of populations (Universal Health Coverage).

GP2. Quality healthcare and services: compliance with quality requirements by all stakeholders

The health sector will provide healthcare and services that comply with national and international norms and standards.

GP3. Community participation

The effective empowerment of communities will be encouraged for an improved management of their health problems.

GP4 .Governance

Accountability, transparency, and social control will be strengthened for better coordination and participation of stakeholders, as well as interventions at all levels. Accountability of its actions and social control will lead to an increased effectiveness.

GP5. Performance-based management (effectiveness, efficiency, relevance, financial viability, excellence)

The PPBS chain (planning programming budgeting monitoring/evaluation) should be optimized to achieve the objectives/targets set, using available resources.

GP6. Health Partnership

The Health Partnership consists of creating, organizing, and ensuring consistency of interventions of all partners (TFP, RLAs, CSOs, private sector actors, etc.) based on a budgeted and consensual plan.

GP7.Devolution and decentralization

Devolution aims to bring health services and healthcare closer to users and to strengthen strategic management at the health district level in a bid to enable them manage their health problems.

Decentralization, as laid down in the 1996 constitution and the 2004 framework law, gives responsibilities to RLAs in terms of social development, especially in the health sector.

GP8. Participation and Accountability

Since health is a common value, its preservation requires the participation and responsibility of citizens, service providers and public authorities with the support of their partners.

GP9. Optimal management of health information

This involves establishing an integrated system for data collection, analysis, storage and production of evidence for a better orientation for decision making in the health domain.

5.4 Strategic choice in the health sector

5.4.1. Criteria for the formulation of strategic choice:

The strategic choice of the sector was made based on the following criteria:

- the contribution of choice in achieving the objectives of the Vision by 2035/GESP and MDGs/SDGs;
- the technical feasibility of the option (institutional capacity) and its financial feasibility (implementation cost);
- the necessary institutional reforms to be implemented;
- the acceptability of the option by stakeholders, as well as opportunities for strategic alliances;

- diversification and integration of health interventions;
- the achievement of targets (geographical accessibility) and the reduction of household expenditure on health (affordability);
- autonomy/sustainability/supportability of the option;
- the ability of the option to reverse morbidity/mortality figures and to take into account the current epidemiological transition.

5.4.2 Statement of the strategic choice

The strategic choice selected by all stakeholders and approved by the Steering Committee is as follows:

"Ensuring equitable and universal access to health services and basic healthcare as well as quality priority specialized care, with the full participation of the community and the involvement of other related sectors."

5.4.3 Description of the strategic choice

The strategic choice will help in achieving national and international goals in the health domain (SDGs, GESP) and evolution towards universal health coverage. It was selected with the full participation of different actors of the health system (beneficiaries, providers and policy makers) and will enable in reducing mortality related to non-communicable and communicable diseases.

This choice will result in the implementation of following intervention packages:

a. Basic and essential services and health care: the major interventions in this option will be oriented towards primary health care (health promotion, disease prevention, curative management of common diseases in the community). This involves offering packages of minimum and complementary services/care (MHP and CHP) to control of major communicable and non-communicable diseases or to address public health events.

b. Priority and specialized services and healthcare: This component consists of service provision for the management of priority chronic diseases and public health events requiring care or specialized measures.

This component is expected to provide the populations with necessary geographical, financial and cultural access to health services and care as well as quality priority specialized care especially to the most vulnerable ones.

Chapter 6:
LOGICAL FRAMEWORK OF THE 2016-2027 HEALTH SECTOR STRATEGY

6.1 Strategic alignment

6.1.1 Compliance with the National Development Strategy and the 2035 Vision

For the period 2016 to 2027, the health sector will mainly focus on contributing to the development goals of Cameroon's 2035 Vision and the national development strategy. It will mainly involve contributing to the improvement of the health status of the population. The following table presents a summary of the HSS linkage to the national strategic framework.

Table 14: Compliance of the HSS with the national development strategy and the 2035 Vision

Main mission of the health sector	Overall objective of the Strategy	Impact of the strategy	Indicators	Baseline	Targets (2027)	Source of verification
Improving the health status of the populations	Contribute to the development of a healthy and productive manpower that is capable of ensuring a strong, inclusive and sustainable growth	Accelerating demographic transition	Life expectancy from birth	57,35[195] years (in 2014)	62 years in 2025 (2035 Vision)	BUCREP/NIS
			Crude mortality rate	10,4 per 1000 inhabitants (in 2014)	9 per 1000 inhabitants	
			Demographic dependency ratio	85.1% (in 2014)	70% in 2027	RGPH/NIS
		Increased productivity	Years of healthy life	48 years (in 2013)	51 years	WHO BUCREP/NIS
		Improving household living standards	Proportion of total household expenditures on health	70,6% (in 2012)	40%	NHAs
			Incidence of huge health expenditures	10.1% (in 2013)	5%	ECAM

6.1.2 Compliance with the Sustainable Development Goals (SDGs)

Following the expiration of the MDGs, the UN General Assembly in November 2015 validated new objectives that will guide the development programme of member countries from 2016-2030. The 2016-2027 HSS complies with health related SDGs (SDGs No.3, No.6 and No.13).

Table 15: Consideration of Sustainable Development Goals (SDGs) in the HSS (compliance)

HEALTH RELATED SDGs	OBJECTIVES OF THE 2016-2027 HSS
SDG No. 2.1 Eliminate hunger and ensure that everyone especially the poor and people living in vulnerable conditions including breast feeding children have acces to healthy, nutritive and sufficient feeding all the year round by 2030	Attain 75% of families carrying out essential family practices especially family planning by the year 2027
SDG No. 2.2 By 2030, end all forms of malnutrition including meeting the objectives fixed at the international level in relation to retarded growth, emaciation of children less than five years, meet the nutritional needs of adolescents, pregnant women, breast feeding mothers and aged people by the year 2025	Develop promotional actions in at least 80% of the Health districts in order to reinforce attitudes which are good for the health of individuals and the community by the year 2027
SDG No.3.1: by 2030, reduce global maternal mortality rate below 70 per 100 000 live births.	Ensure global management of all health problems of the mother, newborn, child and adolescent according to international norms at the community level and in at least 80% of the health structures by the year 2027
SDG No. 3.2: by 2030, eliminate preventable mortality of infants and children under 5 years, all countries should endeavour to reduce neonatal mortality to 12 per 1000 live births at most and mortality of children under 5 to 25 per 1000 live births at most.	
SDG No.3.3: by 2030, put an end to the AIDS epidemic, tuberculosis, malaria and neglected tropical diseases and control of hepatitis, water borne diseases and other communicable diseases.	Reduce the incidence/ prevalence of majopr communicable diseases (AIDS, malaria and tuberculosis) by at least 30% and eliminate certain neglected tropical diseases (elephanthiasis, HAT) by 2027
SDG No. 3.4: by 2030, reduce by one third, through prevention and treatment, the rate of premature mortality caused by non-communicable diseases as well as promoting mental health and well-being.	Reduce the prevalence of non communicable diseases (diabetes, hypertension) by at least 10% by 2027
SDG No.3.5: Strengthen the prevention and treatment of the abuse of psychoactive substances, notably drugs and alcohol.	Develop promotional actions in at least 80% of the Health districts in order to reinforce attitudes which are good for the health of individuals and the community by the year 2027 By 2027, bring the population to adopt positive and healthy behaviours
SDG No.3.6: by 2020, reduce global deaths and injuries caused by road traffic accidents by half.	
SDG No.3.7: by 2030, ensure universal access to sexual and reproductive health services, including for the purpose of family planning, information and education, and taking into account reproductive health in national strategies and programmes	Attain 75% of families carrying out essential family practices especiall family planning by 2027 Reduce unmet family planning needs by 2027 especially in adolescents
SDG No.3.8: Ensure that everyone benefits from universal health coverage, consisting of protection against financial risks and providing access to essential quality health services as well as to essential safe, effective, quality and affordable drugs and vaccines.	Reduce by at least 30% out-of-pocket payments by individuals through a fair and sustainable funding policy

SDG No.3.10 : Support research and development of vaccines and drugs against communicable or non-communicable diseases	By 2027, ensure the development of research in health and the availability of quality health information for decision making based on evidence at all levels of the health pyramid.
SDG No.3.11 : considerably increase the health budget and recruitment, development, training and retention of health personnel	By 2027, increase the availability of quality HRH in at least 80% of health facilities (health districts, RDPH, technical and central departments.
SDG No.3.12: Strengthen the capacity of all countries, particularly developing countries in terms of early warning, reduction of national and global risk as well as health risk management	By 2027, reduce the occurrence risk of major public health events, epidemic-prone diseases and zoonoses in at least 80% of districts
SDG No.3.9: by 2030, significantly reduce the number of deaths and illnesses caused by hazardous chemicals and pollution as well as air, water and soil contamination	Improve the living environment of the population in at least 70% of health districts
SDG No.6.2 by 2030, ensure universal access by all, under equitable conditions, to sanitation and adequate hygiene services and put an end to open air defecation, paying particular attention to the needs of women and girls and persons in vulnerable situations	
SDG No.: 6.3 By 2030 improve water quality by reducing pollution, eliminating waste disposal and minimizing emissions of chemicals and hazardous materials; reducing by half the proportion of untreated sewage and considerably increasing worldwide the recycling and safe reuse of water.	
SDG No.13. Take urgent measures to combat climate change and its effects	

Table 16: Logical framework of the 2016-2027 HSS (Strategic axis)

OVERALL OBJECTIVE OF THE STRATEGY: Contribute to the development of a healthy and productive manpower capable of ensuring a strong, comprehensive and sustainable growth
EXPECTED RESULTS :
- The health system is efficient;
- The populations have access to promotional, quality preventive as well as curative healthcare and services that meet their needs.
IMPACT INDICATORS:
- Life expectancy in good health (DALY)
SOURCE OF VERIFICATION:DHS-MICS, WHO yearly reports

Strategic axis	Strategic Objective	Performance indicators	Baseline (2015)	Target (2027)	Source of verification
Health promotion	By 2027, bring the population to adopt behaviours conducive to their health.	% of households using improved toilets	34.9% in 2014 MICS 5	75%	DHS, MICS, ECAM, Studies
		Prevalence of obesity in urban areas	23.5% In 2015 Kingue et al.	20%	STEPS
		% of targeted companies applying the principles of health and safety at job site	ND	40%	EDS, MICS, ECAM, Studies
		Percentage of children under 5 years who are chronically malnourished	14,8% in 2014 (MICS 5)	11%	EDS, MICS, ECAM, studies
Disease prevention	Reduce premature death due to preventable diseases	Prevalence rate of HBP in urban areas	29.7% In 2015 Kingue et al.	27%	STEPS
		% of children aged 0-5 years sleeping under LLINs	54.8% in 2014	85%	EDS-MICS
		Percentage of HIV positive pregnant women taking ARV treatment	59,3% in 2015 (NACC Report)	95%	NACC Report
Management of curative cases	Reduce hospital and community lethality	Peri-operational death in 3rd and 4th. Degree hospitals	ND	Less than 50 % annually	Studies, surveys
		Maternal mortality ratio (/100 000 live births)	782 in 2011 DHS-MICS	350/1000	DHS, MICS
		Infant mortality rate/1000 live births	60 in 2014 (MICS 5)	36/1000 75/1000	DHS, MICS
		Neonatal mortality	28 /1000 live births in 2014	17/1000	DHS,MICS
		Infanto-juvenile mortality	103/1000 live births in 2014 (MICS 5)	62/1000	DHS,MICS
		Direct obstetrical intra-hospital mortality	1.5% (SONU Survey) 2015	-40% over the period	Studies, SONU Survey
Health System strengthening	Improve institutional capacity in 80% of districts for a sustainable and equitable access of the populations to health care and services	Global Index of the availability of health care and services	NA	50%	SARA Survey
Governance and strategic steering	Improve the performance of the health system at all levels.	Achievement rate of the HSS objectives	NA	95%	COPIL Reports

6.2 Specific objectives and implementation strategies

The formulation of the objectives of this Health sector strategy is based on the sector diagnosis

6.2.1 Health Promotion strategic axis

Reminder of the issues of the component: Health promotion interventions are poorly implemented in Cameroon because of the weak integration of social determinants in solving health problems. Nonetheless, these interventions are crucial in a country where life expectancy at birth is just 57.30 years[196]. The analysis reveals that the living environment is not health conducive and the sector is not able to help them acquire skills to promote positive life style. In addition, the populations contribute little to solve their health problems.

In effect, the budget for health promotion which represents only 0.3% of the framework of mid-term expenditure 2007-2009 and 1% of the programmed budget of the national plan for health development 2011-2015[197,198] proved to be insufficient as compared to the needs of health promotion identified.

Strategic objective: "Bring the population to adopt healthy lifestyle"

Specific objectives: by 2027;

- Strengthen institutional and community capacity, and coordination in the field of health promotion in 80% of health districts;
- Improve the living environment of the population in at least 70% of health districts;
- Improve the health skills of individuals and communities in at least 7 (0)% health districts;
- bring 75% of families to adopt essential household practices especially family planning.

6.2.1.1 Specific objective no.1.1'' Strengthening institutional capacity and the participation of the community in the domain of health promotion in 80% of HDs''

To achieve the above objective, it will be necessary to strengthen the capacity of administrations of the sector, community stakeholders (RLAs, dialogue structures,

NGOs/CSOs/CBOs), and populations on the one hand, and improve multi-sector coordination of the promotion of health interventions on the other hand. In addition, the training curricula will be updated and harmonized to better take into account socio-environmental approach in educational programmes. This will help to refocus health promotion services on individual needs as a whole.

Implementation Strategy 1.1.1: providing technical expertise and transfer of competences to administrations of the health sector for an effective implementation of health promotion actions

The low consideration of health promotion in public policies and weak community participation in health activities are also caused by insufficient institutional capacities of public administrations and the weak intersectorial coordination of stake holders in the sector among others. For an efficient implementation of health promotion activities, it will be thus necessary not only to increase the availability of inputs but most especially to increase the capacity of stakeholders especially institutional actors so that they can be able to significantly inergrate health promotion activities in all the strategic documents. It will also be necessary to produce integrated intersector health promotion at all levels programs to effectively act on all the health determinants.

It will also be necessary to strengthen initial and further training in community health at all levels to have a pool of significant trainers. Lastly, the continuous advocacy for the absorption of the trained human resources in community health equally constitutes a prerequisite for the effective implementation of health promotion actions.

Implementation Strategy 1.1.2: Transfer of competence to the community for an appropriation of health interventions

The health sector in general and the MOH in particular are facing serious quantitative and qualitative human resources deficit in community health. As a result, the planning and implementation of community health interventions (involvement of the community in solving health problems) are limited. The chosen interventions in the framework of this strategy will be: (i) strengthening initial training in community health (Nursing Assistant, community health worker, doctors specialised incommunity health...) (ii) absorb these staff into the health system.

Equally: (i) technical assistance has to be given to communities for their organisation capitalizing on achievements like health committees; (ii) elaborate and implement a regulatory framework for the activities of community health workers; (iii) organize training of community leaders on their civic roles on all developmental activities.

The strengthening of Community action will help in stimulating self-assistance and social support within the community. The National Guide on Community-Directed Interventions in Cameroon shall be the reference document for the implementation of activities at the community level. The areas of intervention of community actors will be clearly defined based on needs identified in the district (social mobilization, search for the lost to follow-up in the framework of the fight against HIV, TB, Mectizan distribution, self monitoring etc). The mapping of NGOs and CSOs will be done and according to their type of expertise and capacity, these NGOs and CSOs will intervene at the operational level, in the provision of services and shall be a link between health services and the community. Inter-sector consultation meetings under the leadership of administrative authorities will be formally organized and will constitute an opportunity for the transfer of competences.

Implementation Strategy 1.1.3: Strengthening the legal framework for greater community participation

Although efforts have been made to equip community dialogue and participation structures (regional funds for health promotion, Health Area Health Committees, District Health Committees, etc) with a clear legal status, community participation remains weak and the functioning of these dialogue structures is not optimal; as a result there are enormous disparities in their output. Meanwhile, there is a technical reference framework which guaranties the regulation and functioning of these structures. The National Guide of interventions under community directives produced and validated in 2009 which had as an ambition to serve as a reference framework for dialogue structures is little known by the majority of actors. Moreover, the legal instruments (legislative and regulatory which regulate community participation are insufficient in the sector. At this level the strategy will constitute of strengthening the legal framework by updating the existing framework and filling the legal gaps which hinder the effective implementation of the community in health interventions, noteably by taking into account aspects related to the motivation of

community health workers. All these actions constitute a prerequisite for the effective involvement of community actors in the resolution of their health problems. (Community Participation).

Implementation Strategy 1.1.4: Providing technical expertise and transfer of competences to RLAs and community-based organizations (dialogue structures, civil society organizations, Non governmental organizations) in the field of health promotion

Decentralization is a strategic option that offers the opportunity of implementing proximity public policies. It clears the way for the implementation of high impact socio-health interventions through Mayors, and other civil society elected persons. However, the low level of knowledge of the locally elected persons in matters of health and the capacities of actors of the RLAs are often limited, hence their low participation in resolving health problems.

To this end, during the validity period of this HSS the following actions will be undertaken: (i) develop and implement plans for capacity building of RLAs, CSOs and dialogue structures; (Ii) sign contracts with CSOs so that they can do technical follow-up of dialogue structures.

Implementation Strategy 1.1.5: Improving the multi-sector coordination in the implementation of health promotion interventions

Health services are designed to support individuals and groups in their quest for a healthier lifestyle by involving, alongside the health sector other social, political, economic, environmental administrations etc. Thus, to improve multi-sector coordination, the following actions will be undertaken:

(i) establishing multi-sector coordination platforms at all levels of the health pyramid for the implementation of health interventions (including health promotion interventions). These platforms will be tasked, among others, with monitoring progress in improving health promotion indicators.

(ii) elaboration, implementation and participatory follow up of an integrated strategic plan for health promotion, which will be the consensual reference for all stakeholders to achieve better results in the domain of health promotion. In order to reduce the incidence and prevalence of non-communicable diseases, targeted actions of sensitization on health

determinants in urban areas shall be planned and carried out based on a multi-sector approach. This will be similar for the control of modifiable risk factors of non-communicable diseases (tobacco addiction, poor feeding, lack of sports and physical exercises).

Implementation strategy 1.1.6: Revising the training curricula to better take into account the socio- environmental approach in educational programmes.

There are very few trained personnel in the field of health promotion. Therefore, taking into account the socio-environmental approach is insufficient. To solve this problem upstream, the initial and continuous training curricula of human resources of the concerned administrations shall be revised to include the socio-environmental approach and communication for human and animal health.

Implementation strategy 1.1.7: Improving service delivery of health promotion to meet the needs of the individual as a whole.

The goal is to promote the balance between the delivery of institutional and community services and the needs of populations. A better understanding of the individual, their environment, their performances in health domain, their perceived and non-perceived needs, is a prerequisite for the implementation of strategies aimed at satisfying them. Precisely, it involves bringing all health facilities at all levels of the pyramid to organize participatory planning workshops, and to include in their AWP only integrated healthcare packages with a direct link and an impact on the social and health situation of their target. The services provided will focus on individuals.

It will also involve conducting studies that will enable in identifying the real needs of the populations and regrouping them into homogeneous segments so that the health service packages delivered are adapted to their needs.

6.2.1.2 Specific objective No. 1.2 "Improving the living environment of the populations in at least 70% of health districts by 2027"

The purpose of this sub-component is to enable the populations obtain a safe living environment conducive to their health. To achieve this, four strategies were selected:

Implementation strategy 1.2.1: Improving environmental health (water, hygiene, and sanitation)

Improving environmental health aims at reducing the risk of diseases due to unhealthy living environment. Thus, this strategy will be based on seven pillars: (i) improving the management of collective liquid, solid and gaseous waste (household, industrial and hospital) to reduce the incidence of vector-borne diseases; (ii) educating the populations on hygiene and environmental sanitation; (iii) strengthening of qualified human resources in sanitary engineering at all levels of the health pyramid; (iv) improving the availability of basic facilities (water points, toilets) in schools, prisons, workplace, public places and households; (v) advocacy for increased financial resources allocated to environmental health; and (vi) cleaning of food consumption and sales points; and (vii) health promotion and prevention of non-communicable diseases in the workplace.

Implementation strategy 1.2.2: Promoting structured urban development and planning of slums

The proportion of households living in slums or squatter settlements and exposed to disease risk factors is significant in urban areas. Therefore, interventions of this strategy will include: (i) advocacy with structures in charge of the management of cities to improve the implementation of the developed urban plans; (ii) sensitization of communities living in ecologically fragile areas on the health risks they face.

Implementation Strategy 1.2.3: Strengthening preventive actions against soil, water and air pollution

Soil, water and air pollution is an issue of growing concern. To remedy this, interventions of this strategy will primarily focus on: (i) management of health risk related to the development of agro-pastoral and industrial activities; (ii) sensitization of stakeholders on death risks of certain development initiatives and (iii) improving the management of collective liquid and solid waste (household, industrial and hospital).

Implementation Strategy 1.2.4: Developing best practices for resilience and management of risks and disasters related to climate change

The harmful effects of climate change are increasingly felt in Cameroon. To limit the impact on the health of the populations, this strategy will be implemented through:

(i) advocacy for the reduction of the effects of deforestation on health ; promotion of reforestation; promotion of the use of improved stoves; introduction of a "health" tax on

the importation and use of vehicles with high CO_2 emissions and popularization of alternative sources of non-polluting energy;

(ii) Strengthening awareness on the negative effects of climate change on the environment and health.

6.2.1.3 Specific objective No. 1.3: « developing promotion actions in at lease 80% of HDs to improvee healthy behaviours of individuals and communities by 2027"

Most risk factors for major communicable and non-communicable diseases are preventable through the adoption of healthy behaviours. Among these factors, there are high blood pressure, pollution of indoor air, excessive alcohol consumption, smoking, diabetes, malnutrition (under-nutrition and overnutrition, especially obesity), inadequate breastfeeding, micronutrient deficiency especially iron, occupational hazards, pollution of outdoor air, lack of physical activity etc.

Implementation strategy 1.3.1: Promoting healthy eating and nutrition habits

The interventions under this strategy will aim to reduce the exposure of populations to diseases caused by poor feeding. This will involve: (i) advocating for increased human and financial resources for the promotion of a healthy and balanced diet; (ii) improving the safety of foods on sale in the market and those consumed by the population; (iii) designing and implementing nutrition education programmes adapted to our cultural and socio-economic context and fight against poor feeding practices in each region (iv) improving the population's access to a balanced diet and (v) reinforcing food labelling; (vi) establishing specific programmes to control obesity and encourage regular physical activity in schools; (vii) strengthening the screening of diabetes and high blood pressure in hospitals and in the community.

Implementation strategy 1.3.2: Control of smoking, alcohol abuse and consumption of illicit substances (modifiable risk factors for non-communicable diseases)

Smoking, alcohol abuse and consumption of illicit substances constitute a public health problem in Cameroon. To ensure the effectiveness and appropriation of the control of these scourges, it will be important to strengthen: (i) the control of the consumption of tobacco, drugs and other illicit substances; (ii) the capacities of youths and improve their access to information on the dangers of smoking (iii) advocacy for a more stringent regulation on the marketing and consumption of alcoholic beverages; (iv) sensitization on alcohol abuse, smoking and consumption of illegal substances especially among youths; (v) the fight against street or counterfeit drugs; (vi) coordination of stakeholders involved in the control of alcohol abuse, smoking and consumption of illicit substances ; (vii) promoting the establishment of detoxification and social reintegration centers for alcoholics and drug addicts in large metropolitan areas, and technical and financial support will be given to HDs, associations or communities for the control of NCD risk factors.

Implementation strategy 1.3.3: reinforcing road safety

Despite recent progress in road safety, public road accidents significantly contribute to the morbidity and mortality of the population. In order to control the causes of these accidents and to reduce the lethality, the strategy will consist of: (i) raising awareness on road safety; (ii) strengthening the capacity of drivers and residents of accident-prone zones (Bafoussam-Douala-Yaounde highway) on first aid; (iii) advocacy for the enforcement of sanctions on road traffic offenses and for the improvement of the road network.

Implementation strategy 1.3.4: Strengthening the practice of physical and sport activities

The regular practice of physical and sport activity can prevent among others obesity, cardiovascular diseases and stress. To promote the adoption of these practices daily by the populations, this strategy will preferentially be oriented towards policy advocacy. This advocacy will be aimed at obtaining decisions in favour of: (i) the construction and rehabilitation of proximity sports infrastructure for the practice of physical exercises; (ii) the training and recruitment of human resources in PSA and; (iii) the increase of financial resources for infrastructure development in prisons, schools and workplaces.

Implementation strategy 1.3.5: Strengthening Integrated Communication for Development (C4D) and social marketing

The aim of this strategy is to enable the populations to acquire skills and behaviours that motivate and facilitate their access to the use of health information. Communication for behaviour change will be done holistically for better effectiveness and efficiency. It will cover the domains of health promotion, disease prevention, case management and governance. It will also involve ensuring the promotion of services in the health sector in order to stimulate demand.

This strategy will be preferentially oriented towards sensitizing the populations on the habits and customs detrimental to health and strengthening of health education.

The strategy will also target: (i) the implementation of an integrated strategic communication plan for development; (ii) advocacy for increased resource allocated to health education activities; (iii) strengthening training curricula for a better consideration of communication for health; (iv) social marketing for a better use of preventive and promotional health services; (v) improving the use of mass media (audio-visual, written press and social networks) through reinforcing their regulation for the dissemination of ethical health messages; (vi) improving programming and the quality of health messages that are broadcasted in the media.

6.2.1.4 Specific objective No. 1.4: "By 2027, bring 75% of families to adopt essential family practices notably Family Planning»

This includes essential household practices, notably family planning balanced diet, environmental, individual and body hygiene etc. Efforts will be made in order to significantly reduce unmet needs for long-acting modern contraception. The following strategies will be implemented for this purpose:

Implementation Strategy 1.4.1: Improving public policies in favour of FP

The improvement of public policies in terms of FP will be carried out through: (i) updating policy documents and standards in the area of FP; (ii) strengthening the legal and regulatory framework in terms of RH and FP; (iii) strengthening advocacy with decision-makers, local and national elected representatives and other major stakeholders to better integrate FP as a national development strategy; (iv) increased mobilization of resources

for repositioning FP; (v) considering FP services in the health care basket of the Universal Health Coverage.

Implementation Strategy 1.4.2: Improving the demand for FP services

Improving the demand of FP services will be achieved through the development of the following interventions: (i) interpersonal and mass communication in favour of FP to raise awareness on the availability of FP services at the operational level; (ii) strengthening the participation of men as partners in the promotion of FP especially in cultures where women have little decision-making power over their reproductive health.

Implementation Strategy 1.4.3: Improving FP service delivery and use

Improving the availability of FP services shall be done through:

scaling up integrated FP service delivery; (ii) improving the availability of inputs through better management of the supply system and the establishment of an FP support fund; (iii) capacity building of human resources in FP to make up for the significant shortage of trained personnel; (iv) development of FP services adopted to the youth and adolescents. It is for this purpose that inventories will be made for a good mapping of the needs of quality inputs and human resources.

As concerns improving the use of contraceptives, it will be achieved through: (i) sensitizing the eligible persons; (ii) removal of financial barriers (subventions or even free healthcare for vulnerable targets) and socio-cultural (religious beliefs, disinformation); (iii) improving the quality of reception to increase access to FP services, particularly in large cities.

Implementation Strategy 1.4.4: Strengthening the monitoring and coordination of RH/FP interventions

Strengthening monitoring and coordination of RH/FP interventions will be integrated into general and / or thematic coordination activities at all levels of the health pyramid. It will be achieved through: (i) improving the collection of information and management mechanisms relating to FP; (ii) increasing resources for supervision and coordination activities.

Implementation strategy 1.4.5: Strengthening other essential household practices conducive to health

This will involve promoting other essential household practices notably balanced diet, environmental, individual and body hygiene etc.

Emphasis shall be laid on infant and child feeding, community treatment of diarrhoea in children with Oral rehydration salt (ORS and zinc) and finally the promotion of the use of LLINs.

In the same vein, exclusive breastfeeding during the first six months of life and immediate breastfeeding are encouraged to significantly reduce the risk of diarrhoea in infants. Furthermore, it will involve promoting the administration of supplementary foods to children after the first six months of life.

Table 17: Logical framework for health promotion

Overall Objective of the 2016-2027 HSS	Contributing to the development of healthy and productive human capital capable of ensuring a strong, integral and sustainable growth							
Core Problem of the component	Low capacity of the populations to resolve their health problems and adopt healthy behaviours							
Strategic Objective	Bring the populations to adopt healthy behaviours							
Tracer Indicators	- % of households using improved toilets							
	- Prevalence of obesity in urban areas							
	- - Percentage of targeted enterprises that apply occupational health and safety principles at workplaces							
	- Rates of chronic malnutrition among children under 5 years of age							
SPECIFIC OBJECTIVES	**TRACER INDICATORS**	**Baseline Value**	**source**	**Targets**				**Verification source**
				2018	**2020**	**2024**	**2027**	
Strengthening institutional and community capacity as well as coordination in the field of health promotion in 80% of HDs by 2027	Proportion of operational COSADI	65%	(2015 RM and 2013-2015 MTEF)	80%	90%	95%	95%	Surveys
Improving the living environment in at least 70% of health districts by 2027	% of households with access to potable water	72.9%	(MICS 5)	75%	78%	80%	85%	DHS, MICS, ECAM, studies
	% of households using solid combustibles as primary energy source for cooking	80.4%	(MICS 5)	78%	75%	73%	70%	
Developing promotional activities in at least 80% of HDs in order to strengthen the healthy behaviours of individuals and communities by 2027	Prevalence of teenage pregnancies	25.2%	(MICS5)	22%	19%	17%	14%	DHS, MICS, ECAM
	Prevalence of smoking in youths aged 15 years and above	6%	(GATS 2013)	5.5%	5%	3%	2%	GATS
By 2027 bring 75% of families to adopt essential family practices especially FP	Modern contraceptive prevalence rate	21%	(MICS 5)	25%	30%	32.50%	35%	DHS/MICS
	Proportion of unmet needs in FP	18%	MICS 5	16%	14%	13%	10%	MICS 5

6.2.2 Disease prevention Strategic axis

Reminder of problem on the component: measures of disease prevention were underfinanced in recent years and most of these interventions were conducted by vertical programmes for the control of major endemic and epidemic diseases. These programmes lack an integrated coordination at the strategic and intermediate levels. Moreover, they target more of infectious diseases whereas the country is experiencing the beginning of epidemiological transition caused mainly by changes in the lifestyle of the populations (sedentary lifestyle, stress, poor feeding, alcohol, smoking, excessive salt consumption, etc.) responsible for the emergence of non-communicable diseases. Epidemic-prone diseases continue to be a real threat despite efforts in the domain of immunization. Surveillance of these diseases is weakened by the low participation of the communities and hospitals in detecting and reporting cases. Finally, the system is slow in responding in the event of these epidemics.

Strategic Objective: “Reduce premature mortality due to vaccine-preventable diseases".

Specific objectives: by 2027 it will involve:

- reducing by at least 30% the incidence / prevalence of major communicable diseases (HIV, malaria and tuberculosis) and eliminate certain NTDs (lymphatic filariasis and HAT);

- reducing in at least 90% of districts the risk of occurrence of major public health events and epidemic-prone diseases, including zoonoses;

- increasing by at least 80% the coverage of high-impact prevention interventions for mother, newborn and child target in at least 80% of HDs;

- reducing by at least 10% the prevalence of major non-communicable diseases

6.2.2.1 Specific objective 2.1: "Reduce by at least 30% the incidence/prevalence of major communicable diseases (HIV, malaria and tuberculosis) and eliminate certain NTDs (lymphatic filariasis and HAT) by 2027"

Communicable diseases still represent an important cause of suffering, morbidity and mortality in the country. To date, significant efforts have been made to prevent, control, treat and eliminate some of them.

A decrease in the incidence and prevalence of communicable diseases is therefore a prerequisite to reduce the burden caused by these preventable diseases. It will therefore involve consolidating achievements in terms of prevention and strengthening some interventions for an absolute decline of major communicable diseases.

The major NTDs in Cameroon are: Onchocerciasis, Lymphatic Filariasis, schistosomiasis, intestinal worms and trachoma. Preventive measures of these NTDs are aimed at informing the public on the risk factors. Specifically, this will involve:

- Strengthening C4D activities and vector control for the prevention of onchocerciasis, lymphatic filariasis, schistosomiasis, intestinal worms and trachoma;
- strengthening the capacities of health personnel, teachers and community distributors on the control of NTDs;
- ensuring the community surveillance of yaws, leishmaniasis, leprosy and Buruli ulcer.

Implementation Strategy 2.1.1: Strengthening the coordination and integration of the preventive interventions of communicable diseases

Strengthening integration and coordination will enable in improving the efficiency of preventive interventions by avoiding duplication. Operationally, it will involve all stakeholders (MOH, beneficiaries of health interventions, partner ministries, RMAs, CSOs, NGOs, etc) in the development and implementation of policy documents and consolidated multi-annual prevention plans. It will also involve defining the roles of each stakeholder and ensuring that their specifications are rigorously respected (role of the HSS Steering and Monitoring Committee).

Implementation strategy 2.1.2: Strengthening the prevention of HIV/AIDS, Tuberculosis, STIs and Viral Hepatitis especially for the most vulnerable groups

HIV/AIDS and hepatitis prevention actions will be carried out at all levels of the health pyramid and will help to reduce the incidence of the diseases mentioned above.

Two strategies shall be prioritized: fixed strategy through "Provider-initiated counselling and testing (PICT)" (in hospitals) and mobile strategy (caravans and mobile units) in health areas.

To achieve this, it will require the following: (i) strengthening Communication for Behaviour Change (CBC) especially for HIV and Tuberculosis exposed populations (sex workers, men who have sex with men, truck drivers, forestry exploitation workers etc.); (ii) Improve on blood safety measures to avoid BEAs; (iii) advocating for the reduction of the costs of screening tests for Viral Hepatitis B, C and D; (iv) strengthen the implementation of the strategic plan to control HIV/AIDS.

In addition, the different channels of communication (radio, television, press, etc) will be further used to convey prevention messages.

It will also be necessary to (i) sensitize the population on the morbid complications of an infection of the viral hepatitis B virus (liver cancer) and on the importance of vaccination against this disease; (ii) acquire sensitization equipment and microscopes for the Tuberculosis Diagnostic Centers; and (iii) manage contacts to limit the spread of the disease.

PMTCT will be included in all antenatal consultation (ANC) to reduce the incidence of HIV and viral hepatitis in newborns.

Implementation strategy 2.1.3: Strengthening Malaria prevention

Intersector collaboration, public-private partnership and collaboration with the communities will be developped to improve malaria prevention. It shall also include strengthening:

- Advocacy and communication on malaria control;
- Vector control through the use of LLINs and spraying of neighborhoods especially in the North and Far North regions where Plasmodium transmission is particularly high during the rainy season;
- Community participation in malaria prevention activities including administration of IPT in pregnant women during ANC;
- preventive treatement of seasonal malaria in children under 5 years in epidemic-prone areas;

Furthermore, emphasis will be on :

- the construction of a national LLIN manufacturing factory;

- the integration of LLINs tools for imported and locally made beds;
- improving the sanitation of the living environment.

Implementation Strategy 2.1.4: Strengthening the prevention of NTDs and other communicable diseases

The main NTDs in Cameroon are: onchocerciasis, lymphatic filariasis, schistosomiasis, intestinal worms and trachoma. Prevention interventions for these NTDs are intended to inform the public about their risk factors.

Specifically, it will involve:

- strengthening C4D activities and vector control for the prevention of onchocerciasis, lymphatic filariasis, schistosomiasis, intestinal worms and trachoma;
- Strengthening the capacity of health workers, teachers and community distributors for better appropriation of NTD control;
- Ensuring community surveillance of yaws, leishmaniasis, leprosy and Buruli ulcer.

6.2.2.2 Specific objective No. 2.2: "Reduce in at least 90% of health districts the risk of occurrence of major public health events and epidemic-prone diseases including zoonoses by 2027"

Implementation Strategy 2.2.1: Strengthening the epidemiological surveillance system

The occurrence of epidemics and disasters is a real public health problem. To respond to this, it is necessary to: (i) carry out a permanent analysis of factors that determine the occurrence and spread of diseases or other public health events (surveillance); (ii) to be prepared accordingly to provide early and timely response based on quality information.

Generally, it will involve the development and implementation of a national epidemiological surveillance strategy. This will include among others: (i) early case detection and response in case of epidemic; (ii) strengthening health surveillance actions and inter-sector collaboration; (iii) strengthening the participation of first and second category hospitals in the surveillance and response system; (iv) implementing and monitoring of the activities of the Health Posts at borders and the International Vaccination Centre, (v) the putting in place of a high level security biological laboratory (NSB4) and developing a laboratory network for improved surveillance of epidemic-prone

diseases; (vi) mobilizing resources to prepare for the response to outbreaks and public health events; (vii) establishing a legal and regulatory framework for the development of a community-based surveillance system.

Implementation strategy 2.2.2: Improving the prevention of vaccine preventable diseases

Preventing the occurrence of the most deadly early childhood diseases is an important strategy for the reduction of morbidity and mortality in child below 5 years of age.

This strategy will therefore involve: (i) strengthening the availability of the provision of quality vaccines, and necessary logistics for vaccination; (ii) developing and promoting accelerated control initiatives against vaccine preventable diseases; (iii) strengthening community participation in communication and social mobilization for immunization; (iv) strengthening supplementary immunization activities (SIAs), and prioritizing advanced strategies as vaccination procedure in remote areas.

Implementation strategy 2.2.3: Improving the prevention of other EPDs not included in the EPI

In terms of epidemic-prone diseases (EPDs) not taken into account by the EPI, including zoonoses, it will involve: (i) strengthening communication for behaviour change; (ii) capacity building of actors for the prevention of EPDs not taken into account by the EPI; (iii) integrating prevention actions to be taken under the "One Health" approach.

Implementation Strategy 2.2.4: Strengthening preparedness and response to epidemics and major public health events

Preparedness phase is an important prerequisite for responding effectively to epidemics and humanitarian crises. It will involve developing and implementing preparedness and response plans for major public health events. The preparedness phases imperatively include interventions targeting greater participation of communities to increase their resilience.

It is also imperative to (i) develop operational response plans for epidemics in HDs; (ii) capacity building of rapid response teams, especially in border health posts in order to avoid the spread in the regions; (iii) strengthen the technical and logistical capacities of the Regional Centres for Prevention and Control of Epidemics (CERPLE); (iv) map out

epidemic and other major health events risk areas; v) strengthen inter-sector coordination and training in field epidemiology for regional and operational stakeholders; (vi) put in place surveillance and response measures against the most frequent emerging and re-emerging diseases; (vii) develop strategies to further involve the private sub-sector in reporting EPDs; (viii) develop and implement a national strategy for health and strategic surveillance.

6.2.2.3 Specific objective No. 2.3: Increase by at least 80% the coverage of high-impact prevention interventions for the mother, newborn and child target in at least 80% of HDs by 2027,

For strategies aimed at improving RMNCAH prevention interventions, see case management component.

6.2.2.4 Specific objective No. 2.4: "Reduce by at least 10% the prevalence of major non-communicable diseases by 2027"

Reducing the prevalence of Non-Communicable Diseases shall be done through extending preventive actions that will target every strata of the population, particularly the most vulnerable in cities and rural areas. To achieve this, six integrated strategies shall be implemented:

Implementation Strategy 2.4.1: Strengthening the coordination and integration of NCD preventive interventions

The coordination of NCD preventive interventions is a major prerequisite to improve the performance of actors in the health sector. To this end, priority shall be given to the participatory approach in the development and follow up of an integrated national strategic plan to prevent NCDs, especially HBP and Diabetes.

Implementation strategy 2.4.2 Promotion of health research to reduce the incidence of NTDs

This will involve sensitizing research institutions to map out NCDs, focus their works on epidemiological and behavioural research (particularly lifestyles) and NCD determinants.

Implementation strategy 2.4.3 Raising population awareness on non-communicable diseases and encouraging prevention

The prevention of non-communicable diseases requires the implementation of several public and private initiatives amongst which are sensitization acitivities in the communities found in the health areas in order to raise awareness on the recrudescence

of NCDs, and to encourage behaviour change in the populations. During these awareness campaigns, screening shall be offered to groups presenting NCD risk factors. In addition, advocacy for increased mobilization of resources and the negotiation of partnership agreements with the private sector in favour of NCDs shall be encouraged.

Implementation Strategy 2.4.4: Improving the prevention of oral diseases, visual and hearing disorders

Oral diseases as well as visual and hearing disorders constitute a public health problem whose solution largely depends on prevention which is more cost effective than case management.

For an effective prevention of oral diseases, it will be necessary to: (i) conduct national surveys on the prevalence of oral diseases, visual and hearing disorders to estimate their magnitude and geographical distribution; (ii) build health personnel capacities to enable them develop preventive strategies for oral diseases, visual and hearing disorders at all levels of the health pyramid and by involving the community. (iii) organize screening campaigns of the abovementioned diseases for target groups such as school-age children and the elderly.

Implementation Strategy 2.4.5: Strengthening the prevention of sickle cell disease and other genetic and degenerative diseases

Sickle cell disease is a genetic condition that can be easily prevented by antenatal diagnosis (pre-nuptial screening) among all persons or couples who want to have children.

Preventing sickle cell and other genetic and degenerative diseases shall require: (i) advocating for an increase of qualitative and quantitative human resources (geneticists, biologists, etc.), (ii) strengthening the implementation of the provisions of the 2010 Law on medical prevention of disability through: premarital counselling, antenatal diagnosis of sickle cell anaemia and other genetic and degenerative diseases.

Implementation Strategy 2.4.6: Strengthening the prevention of mental illnesses, epilepsy and other neurological conditions

The measures emphasized in this strategy are diverse. This will require: (i) increasing human and financial resources to address the issues related to the prevention of the above-mentioned diseases; (ii) strengthening initial and continuous training in mental health fields, the prevention of epilepsy and other neurological diseases; (iii)

strengthening education and raising awareness of the population to enable them avoid risk factors such as the abuse of addictive substances.

Implementation Strategy 2.4.7: Strengthening the prevention of diabetes, hypertension, other cardiovascular and renal diseases

Prevention of diabetes and hypertension is one of the major strategic components in the control of cardiovascular and renal diseases. Making it effective will involve: (i) strengthening advocacy for increased resources for the prevention of CNCDs; (ii) strengthening education and raising awareness of the population to enable them avoid cardiovascular disease risk factors (abuse of alcohol, smoking, sedentarity, obesity, stress, auto-medication...); (iii) advocating for the implementation of the Law on tobacco in order to reduce the impact on the health of the population; (iv) setting up specific programmes to control obesity in schools and in families (raising awareness on the importance of regular physical activity); (v) advocating with other ministries for the development of spaces dedicated for physical activity in health districts and RLAs); (vi) developing and implementing quality screening programmes in patients at risk at all levels of the health pyramid.

Implementation Strategy 2.4.8: Strengthening the prevention of cancer, asthma and other chronic respiratory diseases

Cancers represent an increasingly heavy burden for the health system. It is necessary to lay emphasis on preventive measures of these diseases. To reduce their prevalence, the following actions will be carried out: (i) reinforcing advocacy for increased resources for cancer control; (ii) strengthening immunization of girls aged 9 to 13 years against HPV; (iii) strengthening immunization against Viral Hepatitis B; and (iv) raising awareness of the populations on community measures to prevent cancers; (v) mass screening for the most common cancers (breast, cervix, prostate, etc) in hospitals and in the community.

Implementation Strategy 2.4.9: Strengthening the prevention of rare diseases

As with other non-communicable diseases, the aim here is to: (i) develop and establish a national registry of rare diseases; (ii) advocate for increased human resources for their prevention; (iii) financially support organized community groups and associations of patients involved in the control of these diseases; and (iv) establish a national screening programme for rare diseases.

Table 18: Logical framework for disease prevention

Overall objective of the strategy	"Contribute to the development of a healthy and productive manpower capable of ensuring a strong, inclusive and sustainable growth."						
Core problem of the component	Incidence and prevalence of vaccine-preventable diseases are high in Cameroon						
Strategic objective of the component	"Reduce premature mortality caused by vaccine-preventable diseases."						
Tracer Indicators	- Prevalence of HBP						
	- Percentage of newborns with low birth weight (weight below 2500 grams)						
Specific Objective	**Tracer indicators**	**Baseline**	**Source**	**Targets**			**Source of verification**
				2018	**2020**	**2024**	**2027**	
Reduce by at least 30% the incidence/prevalence of major communicable diseases (HIV, malaria and TB) and eradicate some NTDs (lymphatic filarioisis and HAT) by 2027	Incidence of HIV	2.4‰	(Country profile estimates of HIV in Cameroon 2010-2020 NACC)	2.1‰	1.9‰	1.7‰	1‰	Studies
	Prevalence of HIV	4.3%	(EDS-MICS 2011)	4,1	3,9	3,7	3,5	EDS, MICS, Studies
	Prevalence of Hepatitis B	11.9%	CPC 2015	11%	10%	9%	4%	DHS-MICS
	Coverage of preventive onchocerciasis chemotherapy (CDTI coverage)	80%	(2015 NTDs Activity report)	84%	85%	86%	87%	NCPO, NTDs Activity report
Reduce the risk of the occurrence of major public health events, epidemic-prone diseases as well as Zoonoses in at least 90% ofdistricts by 2027.	Proportion of HDs with confirmed measles outbreak that organized response based on the national guidelines	34%	2014 DLMEP report	70%	80%	90%	95%	Sector reviews, -EPI report, DLMEP report
	Proportion of measles outbreaks reported and investigated.	50%	2014 DLMEP Report	70%	80%	90%	95%	Sector review
Increase by at least 80% the coverage of high-impact preventive interventions for the mother, newborn and child target in at least 80% of health districts by 2027	Immunization coverage with the reference antigen (Penta3)	84.5%	2015 EPI Report	87%	92%	93%	95%	DHS, MICS, EPI Report
	Coverage rate in ANC1	82.8%	MICS 5	85%	90%	95%	95%	DHS, MICS, Studies
	% of pregnant women who received at least 3 doses of IPT during pregnancy (% IPT3)	26%	MICS 5	40%	55%	60%	75%	RAP-PNLT
	% of children aged 0-5 years sleeping under an LLIN	54.8%	MICS5	85%	90%	90%	90%	DHS, MICS
	% of HIV infected pregnant women on ART	59,30%	2015 NACC Report	80%	85%	90%	95%	NHIS, RM, NACC Report
Reduce by at least 10% the incidence/prevalence of major non-communicable diseases by 2027	Prevalence of Diabetes type II	6.6%	Kingue et al. (2015)	6%	5.8%	5.6%	4.3%	NHIS

6.2.3 Case management Strategic axis

Reminder on the diagnosis: One of the challenges of the health system is to ensure proper management of diseases, impairments and disabilities, as well as provide equitable access to quality health care and services.

In accordance with the strategic choices made in the health sector, it will be necessary to strengthen the implementation of both primary and specialized health care. To date, case management in most health facilities is not done adequately. This is explained by the lack of technical norms (SOP) on case management but also of their inadequate use when they exist.

Strategic objective:"Reduce global mortality and lethality in health facilities and in the community."

Specific objectives: By 2027, this strategic axis aims to:

- provide curative management of all communicable and non-communicable diseases and their complications according to standards in at least 80% of health facilities;
- provide comprehensive management of maternal, newborn, child and adolescent health problems according to standards in at least 80% of health facilities;
- ensure the management of medical and surgical emergencies, disasters and humanitarian crises according to standards in at least 80% of health facilities;
- reduce by at least 20% the proportion of the population with at least one correctable disability.

6.2.3.1 Specific objective No. 3.1: "By 2027, ensuring curative management of all communicable and non-communicable diseases as well as their complications according to standards in at least 80% of health facilities"

Due to budgetary constraints, interventions with a high impact on mortality/morbidity due to communicable or non-communicable diseases shall be prioritized.

This will be achieved through the following strategies:

Implementation Strategy 3.1.1: Improving the quality of care and services in HFs through focusing on patients reception

A warm welcome is a guarantee and criterion for quality case management. Indeed, the humanization of care is imperative for user satisfaction and reduces stress and anxiety of clients and patients. A warm welcome favours healing and will be done by receptionists or hospital staff. To ensure a warm welcome and improve curative case management, it will notably involve: (i) defining a therapeutic circuit for patients, (ii) equip waiting areas, and (iii) sensitize staff on the importance of proper reception of users.

Implementation strategy 3.1.2: Improving diagnosis and curative management of HIV/AIDS, TB, STDs and Viral Hepatitis

Early diagnosis of the aforementioned diseases will enable for their timely management and to prevent the occurrence of complications. Diagnostic and curative management of HIV/AIDS, TB, STIs and viral hepatitis will be organized in an integrated manner. The strategy will also involve: (i) improving access to HIV testing (routine provision of voluntary counselling and testing to patients in the hospital and in the community during awareness campaigns); (ii) systematically initiating treatment for positive cases (option B +); (iii) sensitizing the population on the need to visit accredited health facilities for the screening and management of these diseases.

Furthermore healthcare service providers are encouraged to systematically refer to operational procedures and validated protocols for the diagnosis and management of cases. In terms of support structures (health districts, RDPH, MOH), special emphasis will be placed on (i) supervision of providers at community and hospital levels and (ii) the provisioning of screening inputs and drugs in health facilities.

Moreover, to ensure the sustainability of the management of PLWH, and universal access to care, several actions will be envisaged among which is selective freecare for the needy and vulnerable persons, and the establishment of a support fund for the subvention of antiretrovirals, etc.

Implementation strategy 3.1.3: improving diagnosis and management of cases of malaria and major causes of fever (dengue, typhoid, flu …)

The early diagnosis and management of the abovementioned diseases enable to reduce morbidity and mortality related to malaria and subsequent complications. This strategy will involve amongst others: (i) instituting a systematic recourse to operational procedures and validated protocols for the diagnosis and management of malaria cases; (ii) supervising case management at all levels of the health pyramid; (iii) making screening inputs and quality antimalarial drugs always available, especially at the operational level. Diagnosis using RDT will be strengthened as well as those of other major causes of fever not requiring anti malaria treatment. Special emphasis shall be placed on risk groups (pregnant women, children and youths).

Implementation strategy 3.1.4: Improving the diagnosis and management of cases of Neglected Tropical Diseases

The diagnosis and management of NTDs will reduce the prevalence of these diseases or even eradicate a few. This will involve: (i) stepping up early screening and treatment of NTDs (leprosy, yaws, leishmaniasis, Buruli ulcer, HAT); (ii) improving geographic and therapeutic coverage of targeted NTDs by increasing mass poly-chemotherapy for the following conditions: onchocerciasis, lymphatic filariasis, trachoma, enterohelminthiasis, schistosomiasis); (iii) instituting the systematic use of operational procedures and validated protocols for the diagnosis and management of all NTDs in hospitals, schools and the community.

Implementation Strategy 3.1.5: Improving the diagnosis and management of cases of Non-communicable diseases

Improving the diagnosis and management of cases of NCDs will help in controlling the rising trends in the prevalence of these diseases and reducing their global burden. To do this, it will mainly involve: (i) raising awareness for early detection of these diseases at all levels of the health pyramid; (ii) training service providers at operational level in performing some specialized curative tasks (task shifting for the management of NCDs) then improving the supervision of service providers mainly at operational level especially for the management of some diseases (mental illnesses, HIV, HAT, etc.); (iii) developing, popularizing and systematically using standard operational procedures and validated

protocols for the diagnosis and management of NCDs both in the hospital and the community; (iv) reinforce the referral and counter-referral system; (v) enforce the provisions of law No. 2003/014 of 22 December 2003 on blood transfusion (indeed, blood tranfusion safety will be ensured through establishing Blood Transfusion National and Regional Centres) ; (vi) create regional centres for the integrated management of NCDs, including geriatric diseases ; (vii) make screening inputs and drugs for the most frequent NCDs (HAT, Diabetes, etc.) available and accessible at all levels of the health pyramid; (viii) develop a strategy for providing palliative care at all levels; (ix) ensure the availability of essential psychotropic drugs and painkillers in the HFs of the operational level after assessing the real needs of the HF.

Implementation strategy 3.1.6: improving the comprehensive (holistic) management of cases at all levels of the health pyramid

Comprehensive management shall be done through the development and dissemination of guides, protocols and simplified algorithms that take into account scientific and technological breakthroughs in the area of the holistic management of cases. The most common NCDs (diabetes, HBP, and other cardiovascular diseases, cancer, mental disorders) will be greatly concerned by this case management approach.

6.2.3.2 Specific objective No.3.2: "By 2027, ensure comprehensive management of maternal, newborn, child and the adolescent health problems in at least 80% of health facilities"

High impact interventions on maternal, newborn, child and adolescent health shall be privileged with the aim of reducing maternal and infant morbidity and mortality. These interventions shall be implemented through the following strategies:

Implementation Strategy 3.2.1: Improving financial and cultural accessibility to RMNCAH care

Low financial and cultural accessibility to RMNCAH care is one of the major causes of the underutilization of health facilities. To remedy this situation, a reinforcement of mechanisms aimed at reducing out-of-pocket payment is necessary as well as the promotion of targeted subvention and/or free medical care. It is important to remember that several mechanisms are already being tested to improve financial accessibility to health care and services of the mother-child couple- health checks and obstetric kits in the

northern regions, etc. A study will be scheduled to assess the strengths and weaknesses of these different funding mechanisms. The results of this study will be capitalized during the development of the national health financing strategy. This action will be coupled with an intensive sensitisation of the population to undermine cultural barriers, which prevent the use of RMNCAH services.

Implementation Strategy 3.2.2: Improving the availability and geographical access of services for the prevention of vertical transmission of HIV and Hepatitis B from the mother to the child (scaling-up PMTCT in functional HFs)

The vertical transmission of HIV and Hepatitis B from mother to child is a major public health problem in Cameroon. To reduce this transmission risk of the abovementioned diseases, it shall involve : (i) strengthening the progressive expansion of PMTCT sites for better geographical coverage of the population; (ii) decentralizing the screening and care of HIV-positive pregnant women through task shifting and integration of services so that each RMNCAH site can provide PMTCT services; (iii) increasing the availability of PMTCT inputs; and (iv) prioritizing advanced strategies as method of service delivery to improve the geographical accessibility of RMNCAH services and care for pregnant women living in remote health areas.

With regard to the prevention of the vertical transmission of viral hepatitis B, it will involve making available the screening of this disease in all ANC sites and strengthening prevention (vaccination against hepatitis B) in exposed newborns.

Implementation Strategy 3.2.3: Improving the quality of the Integrated Management of Childhood Illness (clinical and community IMCI)

It will involve strengthening both clinical and community IMCI. These two approaches for management of children will be used in all health facilities and health areas.

In addition, emphasis will also be placed on pre-employment IMCI training, which minimizes the costs of regurlarly building the capacities of in-service providers.

Implementation strategy 3.2.4: Improving the availability of the provision of quality RMNCAH service and care package

A health system capable of offering quality RMNCAH service and care will significantly reduce maternal and infant/juvenile mortality. In this context, healthcare stakeholders

will have to deal with the availability of the following service packages in the coming years: RANC, PNC, assisted delivery, family planning, EmONC, IMCI, essential care and Emergency care for the newborn, PAC, etc.). For example and as mentioned above, counseling and testing of HIV and viral hepatitis B, D and C will be systematically proposed to all pregnant women and their partners/ spouses during ANC. The implementation of Option B + will be ensured at all levels

Implementation Strategy 3.2.5: Strengthening the capacities of HFs and the community in RMNCAH

Technical assistance to health care and service providers is an important prerequisite for the proper management of maternal, newborn, child and adolescent health problems. This will involve: (i) conducting a community-based diagnosis of maternal and child health problems following a prioritization of the intervention areas; (ii) training community leaders so they can mobilize the community for the search of long term solutions to maternal and child health problems; (iii) training community health workers (CHWs) on the content of their specifications (community directed intervention relating to RMNCAH).

It will also involve: (i) strengthening advocacy for the recruitment of midwives/maieuticians; (ii) training general practitioners in district hospitals in emergency obstetric surgery and EmONC. Priority will be given to practitioners in district hospitals in regions with high maternal mortality ratios (medical doctors practicing in the northern and eastern regions). Heads of maternities and antenatal consultation services in IHCs/ SMCs will also benefit from capacity building sessions on EmONC and IMCI; (iii) upgrading equipment in RMNCAH services in targeted HFs; (iv) ensuring the availability of essential inputs (vital products for mother and child) in these HFs.

Implementation strategy 3.2.6: Strengthening integrated communication at all levels for citizen mobilization for maternal, newborn and child health issues.

The aim of this strategy is to increase knowledge and induce behavior change which is conducive to the health of the aforementioned targets. It places particular emphasis on information sharing that can increase their level of knowledge and enable them to avoid the occurrence of diseases. This strategy will therefore involve:

- carrying out communication actions for community development so as to empower them, build their capacities and facilitate thier adherence in the implementation of RMNCAH interventions and maternal, neonatal and infant mortality control actions;
- organizing advocacy with political leadears for an increase in the budget allocated to the mother, new-born, child and adolescent target;

6.2.3.3 Specific objective No.3.3: by 2027, ensure the management of medical and surgical emergencies, disasters and humanitarian crisis according to Standard Operating Procedures in at least 80% of HDs.

Implementation Strategy 3.3.1: Strengthening multi-sector coordination in the management of medical and surgical emergencies and public health events

The coordination of multi-sector interventions is an essential prerequisite to ensure synergy, coherence and effective management of emergencies and public health events. To date, there has been a mismatch between the quality of technical platforms of the emergency services (emergency doctors, inadequate equipment and insufficient drugs, etc.) and the expectations of the population. It will therefore be necessary to: (i) develop integrated multi-sector coordination plans; (ii) set up multisector rapid intervention teams in HFs, HDs and RDPH and strengthening the technical platforms of these health facilities; (iii) ensure the coordination of stakeholders in multi-sector rapid response units capable of timely mobilization for rapid action at emergency sites, and (iv) clarifying the roles and responsibilities of each stakeholder in the management of medical and surgical emergencies as well as public health events.

Finally, simulation exercises for emergencies and disasters or public events will be organized in all regions.

Implementation Strategy 3.3.2: Strengthening the resource management forecasting processs

Resource management forecasting enables the pre-positioning of essential inputs for rapid response in the event of a risk. This will involve providing stocks of essential drugs and inputs, preparing multi-sector rapid response teams through simulation exercises.

Implementation Strategy 3.3.3: Strengthening diagnosis and curative management of emergencies and public health events

The effectiveness of management of emergencies and public health events depends on early diagnosis. Therefore, to improve case management in Cameroon, it is necessary to:

- Develop national strategic and operational response plans for major_public health events;
- Establish an emergency service network ;
- Equip emergency services of Category 1,2,3 hospitals with advanced and quality equipment;
- Develop, harmonize and disseminate standards and operating procedures for the management of emergencies and public health events;
- Develop national strategic and operational response plans to major public health events;
- Procure and deploy mobile clinics.

In addition, guidelines will be developed for health facility heads for the improvement of the quality of reception in HFs in general and in emergency services in particular. Faced with the ever-present vital risk in certain emergencies, it will be necessary to: (i) organize prehospital case management (first aid) in the HDs located in the most accident-prone areas (ii) reinforce the technical platforms of the HFs located in the roads that record the highest number of accidents (death triangle).

6.2.3.4 Specific objective No. 3.4 “By 2027, reduce by at least 20% the proportion of the population with at least one correctable disability”

Implementation Strategy 3.4.1: Establishing an integrated and coordinated policy for disability management including mental disability

The establishment of an integrated disability management policy will enable: (i) to mobilize all stakeholders and unite their efforts for a better management of disabilities; (ii) to clarify their roles and responsibilities in the management of disabilities both in the community and in the hospital; (iii) to establish a multi-sector platform capable of promoting the sharing of experiences, lessons learned, and best practices.

Ultimately, the implementation of this policy should reduce the overall burden of disabiliting diseases on the health system.

Implementation Strategy 3.4.2: Decentralising the management of disability interventions

Decentralization will enable authorities to effectively address the needs of disabled persons. Specifically, it will involve (i) creating specialized centres with multi-functional teams to manage disabilities especially at the operational level; (ii) encouraging the creation of associations of disabled persons; (Iii) strengthening the screening of disabled persons and the early rehabilitation of the disabled; (iv) develop mechanisms for the management of the mentally disabled at all levels of the health pyramid.

In addition, it will also involve supporting communities, by giving them the necessary means to manage disabilities at the community level, and strengthening multi-sector collaboration (MINAS, MOH, MINPROFF) in managing disabilities.

Table 19: Logical Framework for case management

Overall objective of the strategy	- 'Contributing to a healthy and productive man power capable of ensuring a strong, integral and sustainable growth							
Core problem of the component	Diagnosis and curative case management are not properly carried out (Incidence and prevalence of preventable diseases are high)							
Strategic objective	Reduce overall mortality and lethality in health facilities and in the community							
Tracer indicators	maternal mortality ratio							
	- neonatal mortality rate							
	- infant mortality rate							
	- Intra-hospital obstetrical lethality rate							
Specific objectives	**Indicator**	**Baseline**	**source**	**Target**				**Source of verification**
				2018	**2020**	**2024**	**2027**	
By 2027, provide curative care for all communicable and non-communicable diseases as well as their complications according to standards in at least 80% of health facilities	Rate of therapeutic success of PTB+	84%	(2013 cohort) PNLTB Report	86%	87%	89%	92%	NHIS, PNLTB Report
	Specific mortality rate due to malaria in children under 5 years of age	45%	2015 PNLTB Report	38%	31%	24%	22%	Technical audit
	Proportion of cases of Buruli ulcer cured without complications	80%	NTD activity report	95%	95%	98%	98%	Survey report, NTD and HF activity report
By 2027, ensure the overall management and according the standards maternal, new-born, child and adolescent health problems at the level of the community and in atlease 80% health facilities	Rate of deliveries attended by a qualified personnel	64.7%	MICS 5	66%	70%	80%	95%	health statistics
	Percentage of new born who received postnatal care within 48 hours following birth	68.5	MICS 5	70%	75%	80%	90%	DHS, MICS, NHIS, DSF supervision report
	Rate of mother-to-child transmission of HIV	6.5%	2014 NACC Report	5%	4%	3%	2%	NACC Report
	Percentage of health districts with health personnel trained in IMCI	31%	Health statistics DSF reports	32.5%	35%	37%	40%	DSF report, health statistics
By 2027, ensure the management of medical and surgical emergencies, disasters and	Peri-operative mortality rate in 3rd and 4th category hospitals	NA		Reduce by 5% by the deadline				AUDITS

Overall objective of the strategy	- 'Contributing to a healthy and productive man power capable of ensuring a strong, integral and sustainable growth							
Core problem of the component	Diagnosis and curative case management are not properly carried out (Incidence and prevalence of preventable diseases are high)							
Strategic objective	Reduce overall mortality and lethality in health facilities and in the community							
Tracer indicators	maternal mortality ratio							
	- neonatal mortality rate							
	- infant mortality rate							
	- Intra-hospital obstetrical lethality rate							
Specific objectives	**Indicator**	**Baseline**	**source**	**Target**				**Source of verification**
				2018	**2020**	**2024**	**2027**	
public health events in at least 80% of health facilities according to standard operating procedures								
By 2027, reduce by at least 20% the proportion of the population with at least one correctable disability	Proportion of the patients suffering from cataract who regained their sight after surgery	ND	DHS 2011	Increase to 50% by the deadline				

6.2.4 Health system Strengthening Strategic axis

Reminder on the diagnosis: The health system in Cameroon is ineffective and inefficient due to the poor functioning of its pillars.

Indeed, geographical and financial access to health services is limited and technical platforms are most often outdated and incomplete in HFs of the operational level. In addition, out-of-pocket payment is the main health financing method. The lack of quality information hinders decision-making and the availability of quality drugs is reduced.

Concerning the health workforce, they are insufficient and their management is sub-optimal. Finally, there is no quality assurance system.

Strategic objective: "Increase the institutional capacities of health facilities for a sustainable and fair access of the population to quality health care and services'.

Specific objective: It will involve:

- Reducing by at least one-third by 2027 out-of-pocket payment by households through a fair and sustainable finance policy;
- Ensuring the harmonious development of infrastructure, equipment, as well as the availability of health care and service packages according to standards in 80% of category 3, 4, 5 and 6 health facilities by 2027;
- Increasing by 50% the availability and use of drugs and other quality pharmaceutical products in all HDs by 2027;
- Increasing according to prioritized needs the availability of the Health workforce in 80% of health districts, RDPH, and central departments;
- Ensuring the development of research in health and the availability of quality health information for evidence based decision-making at all levels of the health pyramid by 2027.

6.2.4.1 Specific objective No. 4.1: "Reduce by 30% out-of-pocket payments of households through a fair and sustainable finance policy"

Given the importance of the payment system for health care (out-of-pocket payment) it is necessary to develop strategies to mitigate household expenses on health. This will be done by establishing a universal health coverage system in Cameroon.

Moreover, there is no formal strategic document for health financing in Cameroon. Health financing is fragmented into multiple financing schemes, which remain ineffective. Resource collection and pooling as well as disease risk sharing are poorly organized and implemented. Finally, the allocation and use of public and private resources is ineffective.

Five implementation strategies were identified to address this situation:

Implementation strategy 4.1.1: Developing disease risk sharing mechanisms

Disease risk sharing mechanisms help to reduce out-of-pocket payments and the burden of health expenditure on households. This will need further development of prepayment mechanisms to gradually cover the populations of all sectors (formal, informal, the destitute, etc.) and develop healthcare payment strategies to improve the quality of services delivered (particular emphasis will be placed on the revision and harmonization of fees for healthcare and health services. Therefore, an institutional framework for a risk-sharing management system will be set up and a strategy for the establishment of universal health coverage will be developed.

Implementation strategy 4.1.2: Streamlining and strengthening institutional health financing mechanisms

The health financing institutional framework will be streamlined and strengthened. This will involve assessing all the existing financing schemes in the health sector (free healthcare, subsidies, State budget, results-based financing, health insurance, mutual health organizations, obstetric kits, health checks etc). The results of this study shall provide the basis for the development of a national health financing strategy. The implementation of such a strategy will ensure equitable and sustainable health financing for universal access to quality healthcare and services.

To this end, instruments on the responsibilities of technical structures for the management of health financing schemes (collection, pooling, risk sharing and purchase

of services) will be developed/revised. An integrated financial information management system (resources and expenses) at all levels of the health pyramid will be also developed.

Implementation Strategy 4.1.3: Strengthening financial resource mobilization

Financial resource mobilization is a key function in health financing. It involves setting up a platform for dialogue between the Government and all stakeholders. This platform will be used to strengthen advocacy for a greater allocation of the national budget for health; identify additional financial opportunities at the national (including Public-Private Partnership) and international levels.

This platform should facilitate the harmonization of procedures of external partners and their alignment with national priorities. Thus, interventions and funding from different stakeholders shall be complementary without duplication, which will enable in identifying and filling potential financial gaps.

Implementation Strategy 4.1.4: Strengthening autonomous financial management at the operational level

Autonomy of financial resource management is one of the key objectives which will enable stakeholders of the system to improve their performance. This will be done gradually and eventually, it will ensure flexibility in decision-making at the level of devolved structures. The advantage of this measure is to enable local actors to respond promptly and adequately to their contextual needs. It means allocating to devolved level adequate funds for the implementation of operational activities.

For this, a budgetary framework will be established to improve the allocation of funding at the devolved level. It will also be necessary to: (i) develop and see to the adoption of instruments, (ii) establish a system which promotes autonomous financial management of HFs.

Health facilities heads will be trained in financial resource management procedures and dialogues structures (health and management committees) increasingly involved in the management of health facilities. This will result in a systematic accountability of health structures at the devolved level.

Implementation Strategy 4.1.5: Strengthening the performance and efficiency of the health system

In this strategy, it will involve strengthening the capacity of stakeholders at all levels in identifying their priorities and a permanent search for the best cost-effective proposed solutions.

RBF, which aims at improving the quality and quantity of care delivered to the populations, as well as the efficiency and equity of the system is one of the strategies to consider. It is based on principles such as management autonomy, separation of duties to ensure good governance and public-private collaboration.

For increased efficiency, its extension will be preceded by the analysis of results obtained in the pilot regions and through the analysis of other financing mechanisms in Cameroon so as to capitalize on the strengths of other financing strategy.

6.2.4.2 Specific objective No 4 2 : "By 2027, Ensure the harmonious development of infrastructure, equipment and the availability of healthcare and service packages according to standards in at least 80% of category 3, 4, 5 and 6 health facilities."

In some districts, populations have limited geographical access to health facilities. The situation is worsened with the technical platform, which has deteriorated over time due to lack of maintenance and depreciation plans.

The health district is the operational level of the health system where most health interventions should be implemented in a multi-sector approach and with the involvement of the community. It is important to strengthen health system pillars at this level. This strenghtening will be achieved in a three-phase development process: (i) the startup phase relating to the setting up of mechanisms that will allow for the implementation of activities (functional health district), (ii) the consolidation phase assesses the functionality of these mechanisms and (iii) the autonomy phase corresponding to the sustainability of this functionality at the technical, institutional and financial levels. Taking into account financial constraints, the construction of infrastructure and supply of equipment shall be carried out by prioritizing districts with high development potential and those having high morbidity/mortality rates.

Four implementation strategies were adopted to address the problems identified:

Implementation strategy 4 2.1 Institutional capacity building of HFs for a better case management at all levels of the health pyramid

Institutional capacity building of HFs for better case management is one of the major prerequisites for quality care. This will be done on a consensual basis. Health districts with high development potential, as well as those with poor performances but with a large population (mostly located in the northern regions) shall be prioritized.

Specifically, this strategy shall: (i) build the capacities of health care providers for them to be able to offer quality service packages and integrated health care; (ii) bring HF heads to have at their disposal and implement development and expansion plans of their health facilities; and (iii) build the capacities of health facility managers and encourage them to implement the management process by involving all stakeholders.

Implementation strategy 4.2.2: improving infrastructure supply (construction / rehabilitation / expansion of health facilities according to standards)

Generally, efforts have been made in recent years by the Government to build health facilities. These efforts must continue. Emphasis will, however, be placed on: (i) the construction of regional hospital centres. The supply of infrastructure and equipment will be enriched by the construction and equipment of eight Referral Hospitals, as well as the rehabilitation of general hospitals and the Yaounde University Teaching Hospital (YUTH); (ii) requalification of regional hospitals as regional hospital centres, and (iii) the completion of abandoned construction sites.

Moreover, most HFs do not have a development plan and their equipment rehabilitation/expansion or endowment is not systematically planned. Yet the availability of a plan for the development or expansion of a HF is an important indicator of the health system's ability to prospectively ensure the availability of a quality infrastructure capable of meeting current and future needs of the populations. Consequently, each HF head must have a development plan of his structure as previously mentioned.

The acquisition of certain equipment should be centralized in order to achieve economies of scale. In addition, the uncontrolled proliferation of health facilities in large cities, due to poor control of the health map, leads to duplication of achieved investments. Arbitrations will, therefore, be made to rationalize the supply of services and avoid duplications.

At the central and, regional levels, category 1, 2 and 3 hospitals shall be organized into centres of excellence for better provision of specialized care (specialization/focused strategy of health facilities providing tertiary care). The specialization of these health facilities and the improvement of their technical platform will help reduce the number of medical evacuations in the long term. The organization of the 2016 and 2019 Africa football cups of Nations is equally an opportunity for strengthening the technical platform of hospitals in the regions concerned with the health coverage of this event.

As regards HFs providing primary health care (IHC, MHC, DH, RH and other hospitals ranking as such), the public-private partnership shall be reinforced. The Government will encourage private initiatives while strengthening their regulation. In big cities (Douala, Yaounde), where service delivery exceeds demand, economy will be made in terms of human, financial and infrastructural resources by closing down unproductive public health facilities. The saved money shall be reused either by subsidizing private health facilities or by investing it in areas not covered by the private sub-sector (subsidiarity).

Private health facilities that are unproductive shall equally be closed down. The control of licenses granted to health facilities in the private sub-sector will be organized with a view to reorganizing the health map. The renewal of licenses granted to private health facilities will take into account both the technical platforms and above all the benefits that the HF brings in the provision of quality healthcare services. Moreover, a health infrastructure development plan shall be developed indicating investment choices per region and per level of the health pyramid based on the health map and the specificities of each region. An architectural and technical programme for the rehabilitation/construction/expansion of health services at all levels, along with technical files for their execution according to standards shall be drafted and resources will be mobilized for its implementation. More specifically, this shall involve:

- Updating infrastructural standards for health units per level;
- Developing and monitoring the implementation of the national health infrastructure development plan;
- Preparing technical files for the rehabilitation/construction of health services based on predetermined standards;

- Conducting architectural, technical and financial studies of hospitals;
- Updating the mapping of health facilities,
- Constructing/rehabilitating and equipping administrative buildings, training schools for health personnel and other infrastructure;
- Monitoring the execution of investment projects.

Implementation strategy 4 2.3: Enhancing equipment in health services based on standards

The standards of equipment shall be updated taking into account job descriptions and essential needs. Moreover, it will (i) prioritize equipment needs per level of the health pyramid and per category of the health facility, (ii) establish a harmonized system for the acquisition of health technologies for all categories of health facilities (iii) provide health facilities with equipment according to prioritized needs (hospital equipment, computer equipment, office furniture and other technical equipment specific to the medical function, etc.) and based on available funds. In addition, an operational maintenance system will be set up to ensure optimal and long-term operation of the equipment (for example, a contract with two multi-purpose technicians per district to ensure preventive and corrective maintenance of equipment).

Implementation strategy 4 2.4: Strenghtening community action and providing the community level with inputs according to standards and priorities (community healthcare and service provision)

The health system is strongly directed towards a hospital pattern aiming at the provision of curative healthcare. This almost leaves no room for interventions related to promotion, prevention, rehabilitation and community management of cases.

To address this insufficiency, it will be necessary to: (i) define community healthcare and service packages based on the national guide for the integration of community-directed interventions; (ii) equipping HDs with required inputs according to established priorities.

Implementation strategy 4.2.5: Setting up a quality assurance system for health care and services

Norms in healthcare and services shall be defined per level and per HF category. These norms shall serve as a foundation for assessing the quality of health care and services provided and for accrediting health structures. Mechanisms for the regular monitoring

and evaluation of health structure performances including assessing their productivity shall be set up to foster excellence

Implementation strategy 4.2.6: Improving the availability of quality health care and service packages in health facilities at all levels: development of health districts and centres of excellence

Health district viability is a prerequisite for quality healthcare and service packages at the peripheral level of the health system. This is why it is important to assess the HD development level by focusing on their operational capacities.

The development of HDs will therefore be a key concern of this implementation strategy in order to ensure the availability of a quality MHP and CHP at the operational level. To achieve this great ambition and to improve healthcare and service delivery, (i) the partnership with the private sub-sector and community-based associations will be strengthened;(ii) the central and regional levels will provide the necessary institutional support for the development of HDs. This support will be gradually granted, taking into account both the mapping of the HDs, their current level of development and especially the resources available; (iii) the acquisition process of inputs needed to provide promotional, preventive and curative care will be reinforced. Priority specialized care will be provided in the pre-defined centres of excellence

Implementation strategy 4.2.7: Strengthening the referral/counter referral system

Developing a referral/counter referral system requires: a redefinition or an update of health facilities missions per category; the production and use of referral and counter referral related tools; and the setting up of the logistic and patient referral procedures. This will ensure continuity of care at all levels of the health pyramid.

6.2.4.3 Specific objective No. 4 3:"By 2027, increase by 50% the availability and use of quality drugs and pharmaceuticals products in all HDs"

The functioning of SYNAME and other structures in charge of quality assurance and pharmacovigilance is not optimum. Similarly, the quality assurance of medical analysis and blood safety procedures is inadequate. Furthermore, the phenomenon of illicit trafficking and circulation of fake drugs and laboratory reagents is deplorable. Stock

management is equally made difficult due to lack of an information and logistics management system.

Four implementation strategies were identified to address the above-mentioned issues:

Implementation strategy 4.3.1: Reinforcing regulatory mechanisms in the pharmaceutical, medical analysis and blood transfusion sectors

Implementing this strategy shall include actions relating to: (i) building the managerial capacities of managers in all domains (planning, supervision, coordination, monitoring-evaluation, audit/control and operational research on drugs and blood transfusion themes), (ii) develop/update drug and pharmacy-related regulatory instruments and aligning them to new reform principles, of which universal health coverage shall be a priority. The achievement of the above-mentioned activities shall require the setting up of an information and logistics management system as well as the effective implementation of the updated National Pharmaceutical Master Plan.

A reform of the National Drug Regulatory Authority (NDRA). Coupled with the coordination of blood transfusion activities shall be done for greater effectiveness. This will equally help move towards establishing an autonomous pharmaceutical regulatory agency. The provision of adequate human, financial, material and logistical resources at all levels will help the NDRA to better play its regulatory role in the pharmaceutical sector.

Implementation strategy 4.3.2: Strengthening quality assurance mechanisms and the availability of drugs and other pharmaceutical products

The availability of safe and quality drugs and other pharmaceutical products is far from being guaranteed. Similarly, blood and its derivatives are rare. To remedy this situation, this strategy will focus on : strengthening the drug management process (estimate of the needs, rate of incoming orders, purchasing and supply chains), entering drugs data in the NHIS for better monitoring and increase of financial resources allocated to l drugs for stocks to match the needs. This strategy shall equally ensure the establishment of specialized Blood Transfusion structures with regional branches while developing a network of voluntary non-remunerated blood donors, an operational qualification mechanism and a performant distribution system.

To ensure drug quality upon reception, the selection process of suppliers shall be strengthened with focus on selection criteria of the said suppliers on the one hand, and on the quality and pre-qualification of drugs to be acquired on the other.

Considering the danger posed by illicit trafficking and the sale of counterfeit drug as well as other pharmaceutical products on the health of the populations, control structures such as the Inspectorate General of Pharmaceutical Services and LANACOME, shall be technically, materially, logistically and financially reinforced for greater implementation of their missions.

Moreover, the fight against illicit drugs and fake and illicit products shall be stepped up thanks to greater collaboration among stakeholders such as law enforcement officers, customs and justice. The National Multi-sector Programme for the control of fake drugs and illicit trafficking of pharmaceutical products under creation shall coordinate a multi-sector and multidisciplinary approach, and help obtain better results. Opportunities to fight against fake drugs and illicit trafficking of pharmaceutical products shall be a combined effort at the sub-regional levels (including Nigeria) to ensure the safety of drugs sold to the population.

The national pharmacovigilance system shall be strengthened through sensitization and training of stakeholders, the operationalization of the reporting, accountability/causality and decision-making system.

Implementation strategy 4.3.3: Promoting the rational use of quality drugs

The rational use of drugs is a challenge for the health sector. To address this, guidelines on the rational use of drugs and pharmacovigilance procedures shall be revised and disseminated. The national list of essential drugs shall be revised periodically, too.

The prescription and use of essential drugs in their generic form shall be preferred. Related tools shall be developed and disseminated, including the national formulary. Health professionals shall be sensitized and trained to prescribe drugs under INN (International Non-proprietary Name) and to comply with national treatment regimens (national diagnostic and treatment guide). With a view of promoting universal access to health care, the prescription and reimbursement of drugs under their generic form shall

be encouraged. The promotion of drugs and pharmaceutical products shall be further regulated. Quality control of generic drugs shall particularly be strengthened to ensure their reliability to prescribers and beneficiaries. To promote the rational use of drugs, capacities of prescribers and the knowledge of the populations shall be strengthened essentially in rural health districts where the level of ignorance is higher. A policy for developing and promoting local pharmaceutical industries shall also be drawn up (valuing the national therapeutic heritage).Finally, measures shall be taken to reduce the cost of drugs and thus facilitate their affordability to the populations.

Implementation strategy 4.3.4: Establishing sustainable financing mechanisms for drugs

Mechanisms shall be established to reduce dependence on external funding (FINEX) and ensure the sustainability of regular supply of pharmaceutical products. Furthermore, measures shall be taken to better manage drug donations in order to align them with national priorities and integrate them into SYNAME.

6.2.4.4 Specific objective No. 4.4:"By 2027, increase according to priority needs the availability of HRH in at least 80% of HDs, RDPH and in central services")"

Building on guidelines contained in the GESP and the liberalization of university training, efforts are made by the government to provide health facilities with trained workforce, in quality and quantity. Despite these efforts, they remain insufficient especially in rural and remote areas difficult to reach. The management of these workers is not rational and therefore less optimal, reason why they are less motivated

Two strategies were identified to address this situation:

Implementation strategy 4.4.1: Progressive staffing of structures according to the standards (quality and quantity)

Health facilities staffing according to standards is a sine qua non condition for achieving the HSS targets. To this end, this strategy seeks to revise the standards developed in 2011 (see HRDP) to include new personnel profiles in the process (mortuary attendants, community health workers, etc.).

An inventory of health workforce needs shall be conducted with focus on the availability or not of the following profiles: Midwives/Maïeuticians and priority specialists (see table in appendix 1).

Thereafter, a plan for posting required staff at all levels of the pyramid, and monitoring health workforce performance shall be developed. One of the priorities in the recruitment of the health workforce shall be to increase the availability of versatile providers of preventive, promotional and curative care at the operational level, particularly in districts in dire need (Districts in rural areas). In the same vein, partnerships and collaboration among stakeholders of the public and private sub-sectors are to be encouraged. In administrative services, the enforcement of the 2013 organic framework shall help correct the mismatch between profiles and workposts.

Audits shall be conducted in training schools for health workforce under the supervision of the MOH/MINESUP/MINEFOP to harmonize curricula and improve the quality of training.

It will also involve building the capacities of of community healthcare and service providers, as well as HRH in other ministries that provide health promotion services. In addition, a multi-year continuing education plan will be developed and will take into account the training needs of all HRH.

Implementation strategy 4.4.2: Improving the rational management of the health workforce

Improving the sound management of human resources is another imperative for achieving the HSS targets. This strategy seeks to: (i) strengthen motivation and retention mechanisms of human resources at their duty posts, (ii) improve working conditions and (iii) strengthen incentive mechanisms for performance, particularly for health workforce transferred in rural areas (career planning guaranteed, promotions, allowances, building staff housing, etc.). In addition, deconcentration and decentralization of personnel management will be gradually strengthened for greater efficiency. Finally, intersector collaboration shall help to better identify the needs in human resources of partner administrations that implement prevention and health promotion activities.

6.2.4.5 Specific objective No. 4.5: "By 2027, ensure the development of health research and the availability of quality health information system for evidence-based decision-making at all levels of the health pyramid".

Quality health information is useful for decision-making. This shall involve reinforcing the national integrated health information system, improving the use of quality health data and, finally, developing health operation research. To do this, three strategies were identified:

Implementation strategy 4.5.1: Strengthening the national health information system

Strengthening the NHIS shall be based among others on improving its institutional coordination framework and on the creation of a database permanently accessible to stakeholders. It shall also rely on an integrated health data management system. There is therefore a need to harmonize tools for data collection, getting a consensus of the optimal number of indicators to document for an effective HSS monitoring.

Finally, NHIS computerization, the standardization of data collection tools, the strengthening of data security and quality assurance systems will be prioritized.

Implementation strategy 4.5.2: Strengthening health research

Strengthening health research shall require improving institutional capacities in regulating, coordinating and disseminating research results. Moreover, capacities of stakeholders shall also be strengthened, (especially at the operational level).

Besides, health research activities will be mainly focused on the pillars of the health system and medicinal plants to improve the local production of drugs.

Implementation strategy 4.5.3: Improving the use of health data for decision-making at all levels

Decision-making shall be based on quality evidence data from documents issued by the NHIS at all levels. To this end, the regular production of statistical yearbooks and annual reports on the health situation as well as their dissemination shall be ensured.

Table 20: Logical framework for health system strengthening

Global objective of the strategy	”Contribute to the development of a healthy, productive workforce capable of fostering a strong, inclusive and sustainable growth”.							
Core problem of the component	Low development of health system pillars							
Strategic objective	Increase institutional capacities of health facilities i for a sustainable and fair access of populations to health care and services							
	Number of health professionals (medical doctors, nurses and midwives/Maïeuticians) for 1000 inhabitants							
Tracer indicators	Global index on the availability of health care and services							
Specific objectives	**Indicators**	**Baseline**	**Source**	**Targets**				**Source of verification**
				2018	2020	2024	2027	
By 2027, reduce by at least 30% out-of-pocket payments from households through a fair and sustainable financing policy	% of public expenditure in health in the State budget	5.5%	Finance Law 2015, MOH	5.9%	6.6%	8.4%	10.1%	Finance Law
	% of health expenditure borne by households	70.68%	NIS, National Health Accounts 2012	65%	60%	50%	40%	National Health Accounts
	% of health districts under Performance-based Financing	13.6%	PBF Assessment	70%	100%	100%	100%	PAISS Performance report
	% of population covered by a disease risk sharing mechanism	3%	DHS-MICS 2011	5%	20%	30%	50%	DHS-MICS
By 2027, ensure the harmonious development of infrastructure, equipment and the availability of health care and service packages according to standards in at least 80% of category 3, 4, 5 and 6 health facilities	Proportion of the population living within a radius of less than 5 km of a health facility (IHC, MHC and HD)	80.6%	ECAM 3 (2007)	85%	90%	95%	100%	ECAM, MICS, NHIS, SARA
	Proportion of public IHC/MHC delivering contextualised CPA	ND	DOSTS Activity reports	80% by the deadline				DOSTS Activity reports
	Proportion of HDs delivering contextualised CPA	ND	DOSTS Activity reports	80% by the deadline				DOSTS Activity reports
	Proportion of HDs with consolidated development	ND	DOSTS Activity reports	25%	35%	65%	80%	DOSTS Activity reports
By 2027, increase by 50% the availability and use of quality drugs and other pharmaceutical products in all HDs	% of health facilities without stock-out of at least one tracer drug	6% (2003)	Situation analysis Pharma sector. 2008	50%	60%	70%	80%	Pharma sector audits, NHIS, SARA
	Average number of stock-out days of one tracer drug per quarter in health facilities	6 days	MOH Report 2015	4 days	2 days	1 day	0 day	DPML activity reports
	Proportion of blood transfusion needs met	12 % (2014)	WHO	40%	60%	70%	80%	APR of NBTP, SARA, WHO
By 2027, increase the availability of HRH in at least 80% of HDs, RDPH and central services according to priority needs	% of health facilities with at least 50% of health workforce based on standards	40%	Administrative data (2013 Roadmap)	45%	50%	55%	60%	Implemented annual reports HRDP,HRH Census

Global objective of the strategy	”Contribute to the development of a healthy, productive workforce capable of fostering a strong, inclusive and sustainable growth”.							
Core problem of the component	Low development of health system pillars							
Strategic objective	Increase institutional capacities of health facilities i for a sustainable and fair access of populations to health care and services							
	Number of health professionals (medical doctors, nurses and midwives/Maïeuticians) for 1000 inhabitants							
Tracer indicators	Global index on the availability of health care and services							
Specific objectives	**Indicators**	**Baseline**	**Source**	**Targets**				**Source of verification**
				2018	2020	2024	2027	
By 2027, ensure the development of health research and the availability of quality health information for evidence-based decision-making at all levels of the health pyramid	Completeness rate of monthly acitivity reports	0%	NHIS	50%	60%	70%	80%	HIU annual reports
	Proportion of research results reported	ND	DROS	10%	20%	30%	40%	DROS annual reports
	Proportion of research results that led to decision-making	ND	DROS	10%	20%	30%	40%	DROS annual reports

6.2.5 Governance and strategic management of the health system strategic axis:

Reminder on the diagnosis: Poor governance and weak strategic management of the health system were identified as the main bottlenecks in the Cameroon health system. Concerning governance, it is marked by: inadequate legislative and regulatory framework; poor transparency and accountability; low involvement of beneficiaries in the managerial process and inadequate management skills.

In terms of strategic steering, it is characterised by: inadequate institutional organisation; inadequate functioning of the "planning, programming, budgeting and monitoring-evaluation" chain; weakness in strategic surveillance; slow deconcentration/devolution process and non-optimal management of national and international partnership.

Strategic objective: "Increase the performance of the health system at all levels ".

Specific objectives:

- "Improve governance in the sector through strengthening standardisation, regulation and accountability by 2027";
- "Reinforce planning, supervision,coordination as well as strategic and health control at all levels of the health pyramid by 2027 "

6.2.5.1 Specific objective No. 5.1 : "Improving governance in the sector through strengthening standardisation, regulation and accountability by 2027"

Implementation strategy 5.1.1: Strengthening the legislative and regulatory framework of the sector

Strengthening the legislative and regulatory framework of the sector shall involve drawing up reforms, revising some existing texts and/or drafting new texts adapted to the context. These reforms shall concern: (i) health financing with the development of universal health coverage ; (ii) re-updating of hospital reform; (iii) strenghtening of the national pharmaceutical regulatory authority ; (iv) HD viability; (v) management of human resources; (vi) governance and strategic steering.

The legal framework shall be revised in order to fill the legal gaps and to update existing texts for the implementation of health interventions. Operational procedure manuals for health shall also be developed and disseminated, and specifications shall be assigned for each duty post. This shall ease the monitoring and sanctioning of health providers in the sector.

To complement this process, a quality assurance system shall be developed in HFs as concerns health care and services delivery.

Implementation strategy No. 5.1.2 : Improving transparency and accountability

Improving transparency and accountability shall require the promotion of the following basic principles:

Subsidiarity, which consists in sharing leadership among the various levels of an organisation, while ensuring decision-making at the lowest possible level of the hierarchy chain;

Participation involves the presence of actors other than the State, in the health sector governance at various levels of the health pyramid and within all processes, from designing policies to assessing them;

Imputability is equivalent to accountability and involves making each person accountable for their actions and performances;

Transparency: in this implementation strategy, it consists in developing mechanisms for beneficiaries' freedom of expression (telephone hotline, suggestion box) and incentive measures for relevant suggestions for better resource management. Moreover, participative management shall be promoted at all levels of the health pyramid in order to strengthen transparency as concerns administrative and financial management of health facilities.

Accountability: the culture of accountability of the health pyramid shall be developed. It enables the largest number of actors to have access to information on the technical and financial management of health facilities and to freely express themselves, through

meetings of dialogue structures, boards of directors of 1st, 2nd, 3rd category HFs, and finally through routine or multi-sector coordination meetings.

It shall also be necessary to strengthen audit and control missions at all levels of the health pyramid. These controls and audits shall be carried out in the domain of service delivery (technical audit) and financial and administrative management.

Implementation strategy 5.1.3: Strengthening the involvement of implementation beneficiaries and stakeholders in the management process

The involvement of beneficiaries and healthcare and service providers in the management process (planning, organization, implementation, and control) is an important prerequisite for the appropriation of health actions and improvement of performance in the sector. Thus, in the coming years, it will be necessary to (i) create community dynamics to strengthen the involvement of dialogue structures in the co-management of HFs; (ii) involve beneficiaries and stakeholders of the implementation of health interventions in the planning and monitoring of health actions.

Implementation strategy 5.1.4: Building the managerial capacities of heads and managers of health facilities

Building the managerial capacities of heads and managers of health facilities facilitates the adequate implementation of the HSS. To do this, continuing training in management and leadership shalll be organized for officials of health structures. In the long run, health facility managers should be able to efficiently implement the management procedure.

Implementation strategy 5.1.5: Strengthening the logical link between strategic planning, preparation, allocation and monitoring the execution of the budget

The development of AWPs in health facilities shall enable to operationalize the health sector strategy and the NHDP. As such, to provide health structures with this important working document (AWPs), it is important to organise planning workshops at all levels of the health pyramid. This shall enable them to ensure better coherence between these AWPs and the health sector strategy on the one hand, and increase efficiency and effectiveness in the health sector in the medium and long term, on the other hand.

This strategy shall involve strengthening the capacities of health facility heads in strategic and operational planning, and monitoring of guidelines. These heads shall also be

"assisted" in drafting their health development plans, annual work plans and annual performance reports.

To ensure effective resource allocation in the sector, it is important to strengthen the logical link between the different strategic planning, programming, budgeting and monitoring operations (missions of PPBS ministerial committees). Doing this shall require systematizing the drawing up and monitoring of the implementation of the budgeted operational plans at all levels, ensuring coherence and alignment of these budgeted plans to that of the health sector srategy and the NHDP; and developing an information and monitoring system for the budget execution of all interventions implemented in the public sub-sector.

Implementation strategy 5.1.6: Improving working conditions and computerizing the managerial process

In order to optimize the performance of health facilities, it will be necessary to improve the working conditions of health care and service providers. This will include among others : (i) increase the number of vehicles; (ii) building staff houses by prioritizing HDs in rural areas; (iii) equiping the facilities with technical equipment, logistics, etc., by taking into account the HDs with high development potential. This strategy also aims at automating administrative management procedures and strengthening the IT system in health facilities.

6.2.5.2 Specific objective No. 5.2 : "Strengthening planning, supervision and coordination, as well as strategic and health surveillance at all levels of the health pyramid, by 2027".

Given the large number of stakeholders in the sector and the requirement of achieving the overall objective which is to contribute to the development of a healthy and productive manpower, capable of promoting strong, inclusive and sustainable growth, strategic planning and coordination in the sector should help ensure greater cohesion in interventions and increase the level of achievement of HSS objectives.

Operationnally, it will be necessary to: (i) acquire updated and effective management tools in order to get relevant information and ease decision-making; (ii) strengthen mechanisms for coordination and inter-sector collaboration at all levels by avoiding (1)

overlapping of competences, and (2) duplication of interventions that undermine the efficiency of the system.

In order to assess progress towards universal health coverage, the NHIS should be strengthened to provide quality coverage data per district and per region.

It will also be necessary to: (i) strengthen the functioning of coordination structures at all levels (multisector steering committees), reduce their number at the central and regional levels in order to achieve economies of scale and improve the overall coherence of the system. Substantial support shall be provided to operational level structures for: (i) the logistical organization of supervisory activities and coordination meetings, and (ii) the monitoring of the implementation of the HSS.

Implementation Strategy 5.2.1: Strengthening the institutional framework of strategic steering

For better coordination and cohesion in the implementation of HSS interventions, it is essential to strengthen the institutional framework of the strategic steering. Hence, the setting up of a coordination and follow-up committee of the HSS implementation at the regional level is required. Chaired by the Governor, this committee will be extended to the existing multi-sector subcommittees.

In addition, it will be necessary to set up, in accordance with the requirements of the planning guide in Cameroon, a technical follow-up committee which will facilitate the implementation of the decisions taken by COPIL. This committee will also validate technical documents developed by the TS/ST-HSS before submission to the COPIL. The TS/ST-HSS will ensure the technical and operational coordination of the HSS implementation.Therefore, a prerequisite for the successful implementation of this strategy is the revision of instruments governing the various steering frameworks at all levels of the health pyramid. Subsequently, this reorganization shall allow for integrating activities. To fully perform their tasks (see Implementation and monitoring/evaluation framework of the HSS), adequate financial and logistical support shall be provided to these coordination bodies.

Implementation strategy 5.2.2 : Strengthening the strategic surveillance unit

Strategic surveillance is essential for developing collective intelligence, prospection and strategic planning. These functions allow the health system to strengthen its resilience to internal and external changes in the environment. In this strategy, the sector steering structures (National Observatory of Public Health, Technical Secretariat of the steering committee, Health Information Unit, etc.) should be fully operational to fulfill the main strategic observation missions including: defining the scope or areas of strategic surveillance; developping a database from internal and external sources to the health sector; collecting and analysing data for the production and dissemination of strategic information and disseminating the information produced.

Implementation strategy 5.2.3: Reinforcing decentralisation and devolution

Decentralization is the transfer of specific competence and means by the State to RLAs[199]. As a fundamental pillar to promote development, democracy and good governance at the local level, it obeys the principles of subsidiarity, progressiveness and complementarity. As part of its implementation, Circular No. 001/CAB/PM of 11 January 2008 on the consideration of decentralization in sector strategies prescribes: (i) to train personnel of central and external services to understand decentralization and devolution issues; and (ii) to strengthen the involvement of RLAs in the management of health facilities.

Therefore, this shall involve speedy implementation of Order No. 0821/A/MINSANTE of 1 April 2011 to specify the conditions and technical arrangements for exercising the powers devolved by the State to municipalities in the areas of construction, equipment, maintenance and management of integrated health centres and medicalised health centres.

Implementation strategy 5.2.4 : Strengthening national partnership

Setting up an effective national health system, which offers fair chances of access to health care and services to the entire population, involves developing a partnership between the various stakeholders. This first requires that interactions and interrelations between these different actors and their roles, functions and contractual obligations be clearly defined. In this perspective, participatory development and adoption by the Government of the partnership strategy of the health sector, which lays down the

collaboration framework among all health actors is a good stride. In the coming years, this shall involve:

- Creating an appropriate legal and institutional environment for the expression of partnership and contractual relationships;

- Revising the legal framework of the partnership strategy and building the capacities of the actors in promoting and monitoring the contractual approach;
- Encouraging the mechanisms for signing agreements with private companies to mobilize additional financing and secure their contributions in implementing the sector strategy;

- Strengthening the sustainability of health care delivery of the private non-profit sub-sector through implementing contractual approach with the State. This shall be done through: stepping up dialogue between MOH officials and managers of denominational health facilities of the private sub-sector and implementing framework agreements based on the commitments agreed by all partners.

Implementation strategy 5.2.5 : Improving alignment and harmonization of TFP interventions

In a resource-limited environment where needs and challenges are countless, it is imperative for the health sector to ensure a consistent and efficient management of resources. This strategy shall involve aligning with the principles of the Paris Declaration. All stakeholders in the sector should be involved in the development of the 2016- 2027 HSS, the subsequent NHDPs and, the multi-annual plan and AWP of each health facility. As for TFPs, they shall support the implementation of the strategy developed and align with the national management procedures for the management of financial resources (alignment). The government and its partners shall both be responsible for reaching set goals (mutual accountability).

Finally, a national compact around the implementation of the health sector strategy shall be developed and implemented to ensure greater coherence and coordination of interventions.

Table 21: Logical framework for governance and strategic steering of the health system

GLOBAL OBJECTIVE STRATEGY	" Contribute to the development of a healthy, productive manpower capable of fostering strong, inclusive and sustainable growth "							
STRATEGIC AXIS	STEERING AND GOVERNANCE							
CORE PROBLEM	Low performances of the health system							
STRATEGIC OBJECTIVE	Improve the global performance of the health system							
TRACER INDICATORS	Achievement rate of HSS goals							
	Productivity of HDs							
Specific objectives	Tracers Indicators	Baseline	Source	Targets				sources of verification
				2018	2020	2024	2027	
By 2027, improving governance in the sector through strengthening standardization, regulation and accountability	Perception index of corruption in the health sector	7.56/10	2010-2015 National Anti-corruption Strategy	7%	6%	5%	4%	HD audit reports Professional practices assessment report
	% of inspected health facilities	3%	MOH Report	10%	15% %	20%	25 %	APR-MOH
	Proportion of category 4,5,6 hospitalks managing HBP and diabetes cases according to standards	ND		30% increase by deadline				External audit report
By 2027 strengthen planning, supervision and coordination of interventions and strategic and health surveillance at all levels of the health pyramid	% of resolutions of coordination bodies implemented at the central level	70%	Minutes of 2015 coordination meetings	80%	85%	90%	95%	Minutes of coordination meetings

6.3 Prioritizing the 2016-2027 HSS objectives

The health sector strategy is divided into five components: health promotion, disease prevention, case management, health system strengthening, governance and strategic steering. In principle, the implementation of the various activities selected in each component should ultimately help achieve the objective assigned to the sector which is "**to have a healthy and productive manpower, capable to foster a strong, inclusive and sustainable growth.**" However, due to resource constraints, 19 objectives were prioritized in this strategy. . The prioritization criteria used are as follows:

(C1) consistency of the specific objective with the sector guidelines;

(C2) capacity of the stakeholders to achieve the specific objective with regard to the system's Strengths, Weaknesses, Opportunities and Threats;

(C3) the contribution level of the specific objective in achieving the overall objective;

(C4) the deadline for reaching the specific objective;

(C5) the operational cost for the implemention of the specific objective.

Scores given to each criterion (see Table 22 below) and strategic guidelines in the health sector ("Strategic choices of the Health Sector" document) were taken into account in selecting priorities.

6.3.1 Priorities for the 2016-2020 planning cycle (NHDP 1)

During the first five years of the implementation of the 2016-2027 HSS (2016-2020 planning cycle), improving health system strengthening pillars and governance in the sector are prerequisites for achieving the projected results, and therefore remain the priorities of this planning cycle.

As concerns infrastructure, apart from the implementation of the Three-Year Emergency Plan, health district viability shall be a major intervention axis of this cycle and shall be done progressively according to the level of development of these health districts.

Finally, particular emphasis shall be laid on: (i) the implementation of high-impact interventions to control maternal and infant mortality, and (ii) the implementation of the Universal Health coverage.

6.3.2 2021-2027 2nd planning cycle (NHDP 2)

This cycle shall focus on:

Consolidating the assets of the implementation of NHDP 1 (2016-2020 NHDP);

Continuing with the activities for strengthening the health system pillars (construction/rehabilitation and equipment of health facilities, staffing with quality health workforce, etc.);

This cycle will also include:

- Strengthening specialized care delivery;
- Strengthening the mobilization of health financial resources with a view to effectively pursue the implementation of UHC ;
- Strengthening the implementation of other interventions not prioritized in the 2016-2020 NHDP.

Table 22: Prioritization of the 2016-2027 HSS objectives

SO	Specific objectives	C1	C2	C3	C4	C5	TOTAL	Priority implementing strategies for the 2016-2020 cycle	Priority implementing strategies for the 2021-2027 cycle
SO-4.5	By 2027, ensure the development of health research and the availability of quality health information for evidence-based decision-making at all levels of the health pyramid.	10	6	10	9	10	45	-Strengthening the NHIS - Strengthening health research -Improving the use of quality health information for decision-making	-Consolidation of first cycle achievements
SO-1.1	By 2027, strengthen institutional capacities, coordination and community participation in the area of health promotion in 80% of HDs	9	8	9	9	9	44	- Making technical expertise available and competence transfer to health sector administrations, for an efficient implementation of health promotion actions - Transfer of skills to community actors for an appropriation of health interventions - Improving multi-sector coordination of health promotion interventions - Improving the delivery of health promotion services that meet the needs of the individual as a whole - Strengthening the legal framework for a better community involvement	Consolidation of first cycle achievements Making technical expertise available and competence transfer to RLAs and community-based organizations (Dialogue Structures, Civil Society Organizations, Non-Governmental Organizations) in the field of health promotion - Updatingtraining curricula to better take into account the socio-environmental approach in the syllabus
SO-5.2	By 2027 reinforce the planning, supervision and coordination of stakeholders interventions, and the strategic and health surveillance at all levels of the health pyramid	10	7	9	9	9	44	-Reinforcing the institutional framework of strategic steering -Strengthening the strategic surveillance mechanism - Stepping up national partnership -Improving the alignment and harmonisation of TFPs interventions	-Consolidation of first cycle achievements - Strengthening devolution and decentralisation
SO-4.3	By 2027, increase by 50% the availability of quality drugs and other pharmaceuticals and their use in all HDs	10	8	9	9	7	43	-Strengthening regulatory mechanisms in the pharmaceutical sector, medical analysis and blood transfusion - Strengthening the quality assurance mechanisms and the availability of drugs and other pharmaceutical products - Promoting the rational use of quality drugs	- Consolidating the first cycle achievements - Reinforcing the local production of drugs - Setting up sustainable financing mechanisms for drugs
SO-5.1	Improve governance in the sector through strengthening standardisation, regulation and accountability by 2027	10	5	10	8	10	43	- Improving transparency and accountability -	- Consolidating the achievements of the first cycle - Strengthening the involvement of beneficiaries and actors in the management process - Building managerial capacities of heads of health facilities - Strengthening the logical link between strategic planning, preparation, allocation and monitoring

SO	Specific objectives	C1	C2	C3	C4	C5	TOTAL	Priority implementing strategies for the 2016-2020 cycle	Priority implementing strategies for the 2021-2027 cycle
									the execution of the budget - Improving the working environment and computerization of the management process
SO-2.2	BY 2027, reduce the occurrence risks of major public health events, epidemic-prone diseases including zoonoses in at least 90% of districts	10	8	8	8	7	41	-- Strengthening the epidemiological surveillance system -Improving the prevention of vaccine preventable diseases - Strengthening preparation and response to epidemics and major public health events	- Consolidating the first cycle achievements - Improving the prevention of other EPDs not included in the EPI
SO-3.2	By 2027, ensure the comprehensive management of maternal, newborn, child and adolescent health problems according to standards in at least 80% of health facilities	10	8	10	7	6	41	Building institutional (HFs) and community capacities in the area of RMNCAH - Improving financial and cultural access to RMNCAHservices by targeting the most vulnerable people and the most disadvantaged districts - Improving the integrated management of childhood illnesses (clinical and community IMCI) -- Improving the provision of quality RMNCAHcare -	-- Consolidating the achievements of the first cycle - Improving access to prevention services of mother-to-child vertical transmission of HIV and viral hepatitis B (scaling up PMTCT in all operational HFs) - Strengthening the availability of the MHP - Strengthening integrated communication at all levels for citizen mobilization around RMNCAHtargets
SO-4.2	By 2027, ensure the availability of infrastructure, equipment and health care and service packages based on standards in at least 80% of category 3 4 5, and 6^{t}HFs	10	9	6	9	7	41	- Improving provision of infrastructure (construction/rehabilitation/extension of health facilities based on standards) - Strengthening the equipment of health services based on standards - Improving the availability of quality health care and servicepackages in health facilities at all levels : development of health districts and centres of excellence	- Consolidating first cycle achievements - Strengthening community action and providing the community level with inputs based on standards and priorities - Setting up a quality assurance system for health care and services - Strengthening the referral-counter referral system
SO-2.1	Reducing by at least30% the incidence/prevalence of main communicable diseases (HIV, malaria, and TB) and eradicate certain NTDs (lymphatic filiariosis and HAT) by 2027	10	8	9	6	7	40	- Strenghtening the coordination and integration of interventions in the prevention of communicable diseases - Improving HIV/AIDS, TB, STIs and viral hepatitis prevention in the most vulnerable groups - Strengthening malaria prevention - Strenghtening the prevention of NTDs and other communicable diseases	- Consolidating first cycle achievements
SO-1.3	Reinforcing health promoting skills for individuals and communities in at least 80% of HDs by 2027	10	7	9	6	7	39	- Promotion of good feeding and nutritional habits - Controlling the abuse of tobacco, alcohol and illicit substances	- Consolidating first cycle achievements - Strengthening integrated communication for development(C4D) and social marketing

SO	Specific objectives	C1	C2	C3	C4	C5	TOTAL	Priority implementing strategies for the 2016-2020 cycle	Priority implementing strategies for the 2021-2027 cycle
								- Strengthening the practice of physical and sporting activities - Reinforcing road safety	
SO-3.1	By 2027, ensure the curative management of communicable and non-communicable diseases based on standards as well as their complications in at least 80% of health facilities	10	8	9	8	4	39	- Building institutional capacities of HDs focused on the development of HFs for case management at all levels of the health system - Improving the diagnostic and curative management of HIV/AIDS, TB, STIs and viral hepatitis cases - Improving the diagnosis and management of cases of Non-Communicable Diseases - Improving the integrated management of cases at all levels of the health pyramid	- Consolidating first cycle achievements - Improving the quality of health care and services in HDs in their 8 dimensions. - Improving the diagnostic and curative management of cases of Malaria and major causes of fever (Dengue, Typhoid, Influenza…) - Improving the diagnostic and curative management of Neglected Tropical Diseases cases
SO-3.3	By 2027, ensure the management of medical and surgical emergencies, disasters and humanitarian crisis in at least 80% health facilities based on standard operational procedures (SOPs)	10	8	9	8	4	39	- Reinforcing multi-sector coordination in emergency management. - Strengthening the resource planning process - Strengthening diagnosis and curative management of emergency cases and public health events	--Consolidating first cycle achievements
SO-4.4	By 2027, increase the availability of qualified health workforce in at least 80% of health facilities (Health Districts, RDPH), and at the Central level)	10	7	9	7	6	39	- Providing health structures in human resources based on standards (quality and quantity) - Improving the rational use of human resources for health	-Consolidating first cycle achievements
SO-4.1	Reduce by at least 30% out-of-pocket payments of households through a fair and sustainable financing policy by 2027	10	4	10	7	7	38	- Developing health risk sharing mechanisms - Rationalising and strengthening the institutional mechanisms of health financing -Strengthening financial resource mobilisation --Reinforcing autonomy in the management of financial resources at the operational level - Strengthening the performance and efficiency of the health system	- Consolidating first cycle achievements -Reinforcing autonomy in the management of financial resources at the operational level
SO-1.4	By 2027, bring 75 % families to adopt	8	7	7	6	7	35	- Improving supply in FP services	- Consolidating first cycle achievements

SO	Specific objectives	C1	C2	C3	C4	C5	TOTAL	Priority implementing strategies for the 2016-2020 cycle	Priority implementing strategies for the 2021-2027 cycle
	essential family practices including FP							- - Strengthening other health-promoting essential family practices	- Improving public policies for FP - Improving demand in FP services - Reinforcing the monitoring and coordination of FP interventions
SO-2.3	By 2027, increase by at least 80% the coverage in high impact preventive interventions in RMNCAH/PMTCT in at least 80% of HDs	9	6	6	6	7	34	- Extending PMTCT/eMTCT with option B+ - Extending PMTCT and eMTCT of hepatitis B	- Consolidating first cycle achievements -
SO-2.4	Reduce by at least 10% the prevalence of main non-communicable diseases (diabetes and HBP) by 2027	10	6	7	4	5	32	-- Promoting interventions to reduce modifiable risks factors of non-communicable diseases : tobacco use, poor feeding, sedentary lifestyle and abuse of alcohol - Communicating on non-communicable diseases and encouraging prevention - Strenghtening the prevention of Sickle cell disease and other genetic and degenerative diseases	- Consolidating first cycle achievements; - Reinforcing the coordination and integration of NCD preventive interventions -- Promoting research to reduce NCD incidence -- Improving the prevention of oral infections, visual and hearing disorders Strenghtening the prevention of mental diseases, epilepsy and neurological diseases - Reinforcing the prevention of Diabetes, HBP, and other cardiovascular and renal diseases - Strengthening the prevention of cancer, asthma and other chronic respiratory diseases - Reinforcing the prevention of rare diseases
SO-1.2	Improve the living environment of populations in at least 70% of health districts by 2027	10	5	9	3	3	30	- Improving environmental hygiene (Water, hygiene, and sanitation) - Promoting the structured urbanisation of towns and the development of slumps	- Consolidating first cycle achievements - Reinforcing preventive actions against land, water and air pollution - Developing best practices for resilience and the management of climate- related risks and disasters -
SO-3.4	By 2027, reduce by at least 20% the proportion of the population with at least one correctable disability	7	4	7	3	3	24	- Setting up an integrated and coordinated policy for disability management, including mental disorder - Decentralising interventions for disability management	- Consolidating first cycle achievements -

Part IV:
IMPLEMENTATION AND MONITORING-EVALUATION FRAMEWORK

Chapter 7:
IMPLEMENTATION AND MONITORING-EVALUATION SYSTEMS

This section presents the institutional and organizational framework, actors and their roles, implementation and monitoring-evaluation modalities as well as the conditions for a successful implementation of the 2016-2027 HSS.

7.1 Institutional and organizational framework for the implementation and monitoring-evaluation of the HSS

The 2016-2027 Health Sector Strategy shall be implemented within a new legal public finance framework, characterized by the entry into force of Law No. 2007/006 of 26 December 2007 to lay down the financial regime of the State. This law establishes the concept of the programme budget as the preparation, presentation, execution and control framework of the State budget.

The monitoring of the Health Sector Strategy implementation shall be carried out at all levels of the health pyramid. During the validity period of this HSS, health and operational development plans shall be drawn up by all health facilities and their objectives will be respectively consistent with those of the various NHDPs developed (2016-2020 NHDP and 2021-2027 NHDP).

In addition, the different M/E plans developed by health facilities will always be aligned with the Integrated Monitoring and Evaluation Plan (IMEP) in force.

7.1.1 Implementation and Monitoring/Evaluation bodies and structures

HSS implementation and monitoring-evaluation shall be conducted at all levels of the health pyramid.

7.1.1.1 Central level:

The Health Sector Steering Committee: the steering and monitoring-evaluation of the HSS implementation at the central level shall be ensured by an interministerial committee

set up by the Prime Minister. This steering committee shall be chaired by the Minister of Public Health, although the achievement of the HSS objectives depends on the synergies of the actions of other ministeries. Beyond this responsibility, it is necessary that the leadership and the M/E steering committee of the HSS be ensured by the MOH for more efficiency and consistency with its attributions and its field of competences.

Moreover, in order to improve the implementation of the decisions taken by the HSS steering committee, the profile of its members must be defined. The commitments made by high-level decision-makers are likely to be more easily implemented by heads of decentralized service facilities.

A Prime Ministererial Order shall define the profile of members of all coordination bodies, their mandates, powers and functioning. This Steering and Follow-up Committee for the implementation of the HSS shall be assisted by a Technical Follow-up Committee and a Technical Secretariat. This committee will ensure the synergy of the activities, contributing to the development of health, carried out by the various ministries involved in the implementation activities in this sector.

The Technical Monitoring Committee: It shall be responsible for the strategic coordination of interventions in the sector. As such, it shall moderate and coordinate interventions as well as the technical validation of planning documents and performance reports prepared by the Technical Secretariat before forwarding them to the Steering Committee. It is mainly concerned with cross-cutting aspects in various ministries and shall facilitate the elimination of technical bottlenecks, identified by the TS/ST-HSS, and that could impede the achievement of the HSS projected results. The Technical Follow-up Committee (TFC) shall be chaired by the Secretary General of the Ministry of Public Health. It should include, among other members (i) those responsible for the planning in the various MOH partner ministries, (ii) the ten (10) RDPH, (iii) the representative of the Director General of the National Institute of Statistics, (iv) representatives of the TFPs, and (v) Coordinator of the Technical Secretariat of the Steering Committee.

The Technical Secretariat of the Steering Committee: It shall be responsible for (i) the operational coordination and the monitoring/evaluation of the HSS implementation through supervison, and the organization of thematic or sector reviews. (ii) the

strengthening of the sector approach and the introduction of a compact; (iii) preparation of the tools to develop AWPs and the pluriannual plans of devolved and central level health facilities, (iv) technical support to the RDPH and HDs to prepare their annual or multi-annual multi-sector work plans and related monitoring and evaluation plans; (v) suggestions of corrective measures for any observed low performance; (vi) participation in the preparation of data collection, analysis and dissemination tools in close collaboration with the Health Information Unit; (vii) feedback to the actors in the sector on performance achieved; (viii) monitoring of the 2016-2020 NHDP performance framework at the MOH and partner administrations; (ix) the mid-term and final evaluation of the HSS implementation; (x) the development of a new HSS; (xi) the strategic and logistical support to the functioning of thematic groups and existing multi-sector sub-committees in the sector; and (xii) the drafting of minutes of meetings.

The TS/ST-HSS- shall also ensure strategic alignment of the various programmatic documents produced (Programme review document, MTEF, Programme Budget, AWP, MOH Roadmap, etc.) with HSS, and propose adjustments for a good synergy of the interventions in the sector.For greater efficiency and coherence, the Technical Secretariat of the Steering Committee shall be extended to other existing multisector subcommittees in the sector, which may be needed where necessary. The number of these subcommittees will be gradually reduced as programme integration takes place.

7.1.1.2 Intermediate and operational levels

In order to facilitate the multi-sector mobilization of actors around the HSS objectives and for greater coherence and efficiency, the coordination and monitoring committee for the implementation of the HSS at the decentralized level will be chaired by the Governor of the Region, Representative of the Minister of Public Health. The Regional Delegate of Public Health shall act as technical secretary of the committee.

The Regional Delegations of Public Health (RDPH) shall develop Regional Health Development Plans (RHDP) with support from the Technical Monitoring Committee and the TS/SC-HSS. The RDPH shall support health districts in drafting their Health District Development Plans (HDDP), their AWPs and their monitoring/evaluation plans. These

plans shall be developed in collaboration with regional and local authorities and other stakeholders in the Health District.

All the coordination and steering bodies of central and decentralized levels shall ensure that civil society organizations and associations, stakeholders in the private health sector and TFPs are involved in planning and monitoring activities for the implementation of their plans. This will enable collaborative decision making on all health issues. As part of the implementation and monitoring/evaluation of the HSS, regulatory instruments shall be revised or developed to ensure the effectiveness of the sector-wide approach, transparency and participation of all stakeholders in health development.

7.1.2 Key actors and their role

7.1.2.1 Role of the Government

Government is responsible for achieving the objectives of this sector strategy. It shall approve, adopt and ensure its implementation under the leadership of MOH who is the project manager. It must mobilize annual internal and external funding required for implementing the sector strategy.

The MOH shall manage the resources at its disposal to achieve the objectives of the HSS in conjunction with MINEPAT, MINFI, other partner ministries, health care and services providers, local offices of aid development agencies and other stakeholders. The MOH, in its role as regulator and leader in the sector, shall coordinate all health sector interventions.

The Minister of Public Health shall keep the Government informed of the evolution of the HSS implementation, through the Annual Performance Report of the Steering Committee.

7.1.2.2 Role of other stakeholders in the health system

Other stakeholders in the health system are organizations or individuals whose main objective is to improve the health of the populations. Among these actors, there are: beneficiaries of health interventions, civil society organizations, professional organizations, health professionals, health facilities (public, private profit-making and private non-profit making) and TFPs.

Technical structures of the central level, RDPH and Health Districts play a key role in mobilizing all stakeholders and resources for the implementation and monitoring of plans developed. They shall also ensure the consistency and alignment of developed plans with the HSS and the NHDP.

The multiple health determinants require a multi-sector approach in addressing health issues. In this regard, partner Ministries in the "One health" approach shall intervene as part of their specific missions in implementing activities to achieve the projected results. Civil Society Organizations shall be involved in capacity building of communities and social control.

TFPs, representations of global health initiatives, CSOs and NGOs shall financially and technically support the development and implementation of plans. They support Government's efforts in developing the health sector in accordance with its strategic orientations. In the spirit of the Paris Declaration, they must provide information on their planned assistance to the sector, on a multiannual basis for better planning of actions to be conducted.

The private sector, in the context of corporate social responsibility, shall be involved and shall support government structures in implementing the HSS. It shall also work directly in service and health care provision, through contracting.

Local and Regional Authorities, with support from decentralized structures of the State and in collaboration with other stakeholders, shall work at the operational level to develop and implement the District Health Development Plan.

7.2 Implementation tools and Monitoring/Evaluation procedures

HSS shall be implemented through three (3) major tools, including: (1) The National Health Development Plan (NHDP), (2) multiannual plans, and (3) Annual Work Plans (AWPs) elaborated at all levels of the health pyramid.

7.2.1 HSS implementation tools

- The NHDP

The HSS will be operationalized through 2 or 3 consecutive NHDPs that will be reference documents for planning at all levels of the health system and for advocacy and mobilization of funds. These documents will sets out the objectives to be achieved, priority activities and the expected results in the short and medium terms.

- Multiannual Plans and Annual Work Plans (AWPs)

From its multiannual action plan derived from the NHDP, each structure shall develop its AWP in a participatory manner. Districts AWPs shall be consolidated at the regional level. The budget of these AWPs shall be reflected in the each administration programme budget. The latter shall be drafted taking into account the needs expressed in the various AWPs and the provisions of the financial regime in force.

7.2.2 Monitoring/Evaluation of the implementation

The monitoring/evaluation shall be provided through a strategic results framework presenting the goals and objectives to achieve in a measurable approach.

7.2.3 HSS implementation monitoring/evaluation procedures

Many working procedures will be used for the M/E of the implementation of the HSS: sector and thematic reviews, supervisions, monitoring, coordination meetings and those of the steering committee.

Sector and thematic reviews

Reviews (semi-annual, annual) shall be organized to serve as a participatory critical reflection framework to continuously ensure effective implementation of the HSS.

Supervision, monitoring, coordination meetings and steering committee

The supervision of actors in the implementation of the work plans developed will be done in series: the central level will supervise actors of the regional health delegations, who will supervise the district management teams (EDCs). The latter will in turn supervise the HF care providers in the health areas.

Monitoring shall be decentralized and shall take place at the level of HAs under the supervision of the DMTs with the support of the regional level.

Multi-sector or routine coordination meetings will be opportunities for sharing and evaluating progress made.

At all levels of the pyramid, the HSS monitoring shall consist of following up: (i) resource mobilization and their allocation, (ii) effective implementation of the five components of the HSS (see NHDP interventions), (iii) objectives achievement by following the evolution of indicators selected in the PISE and (iv) the level of the gaps that enables a good preparation of the mid-term evaluation. Several follow-up tools will be used to collect, process, analyze and interpret data: registers, DHIS (2), guidelines or follow-up matrices, study and survey forms (questionnaires).

7.2.3.1 Evaluating the HSS

HSS evaluation shall be carried out through the following three processes: monitoring of the implementation of interventions, mid-term and final evaluations.

Monitoring the implementation of interventions.

Monitoring the implementation of interventions shall be carried out every 6 months and will allow to assess performance trends achieved in order to adjust planned strategies/interventions if necessary. During this monitoring, internal evaluation will be done based on: (i) implementation reports of plans at all levels of the health pyramid (central, regional and operational level), (ii) periodic supervision reports at each level of the health pyramid, (iii) technical, financial and accounting audits.

7.2.3.2 Mid-term evaluation

After 72 months of the HSS implementation, a mid-term evaluation will be done to assess the level of achievement of the impact indicators and to readjust the strategies if necessary.

7.2.3.3 Final evaluation

The final evaluation will be done in 2028, following the implementation of the HSS. It will assess the level of achievement of the objectives of the Strategy and the impact of the implemented plans and then draw lessons for the development of the new HSS. The final

evaluation will also assess the management aspects (administrative, financial and technical implementation of the plans).

7.3 Conditions for a successful implementation

For the proper implementation of this sector strategy, many reforms are needed.

7.3.1 Reforms

The reforms envisaged involve a significant change in the institutional organization of the health system with a view to improve its functioning and effectiveness.

The condition for the effective implementation of this strategy depends on the adoption of some reforms in the following areas: (i) health financing including the development of universal health coverage; (ii) updating hospital reforms; (iii) strengthening of the national drug regulatory authority; (iv) health district viability; (v) health workforce management (vi) governance and strategic steering.

Concerning health financing, the reform envisaged is the gradual putting in place of a UHC system. Indeed, the establishment of a national health care and services prepayment system is necessary in order to improve access to care for all segments of the population, including the most deprived. This system will be put in place on the principles of national solidarity, universality, obligatory affiliation and general responsibility of the State. In order to ensure the sustainability of such a system, a health financing strategy shall be developed. This will define the strategic axes that will make it possible to: (i) ensure the sustainability of funding allocated to health, (ii) increase efficiency in the use of resources. A major reform will therefore consist in empowering health facilities so that they can use their own revenues to solve their problems and carry out the activities defined in their respective plans (without prior scale up).

With regard to the updating of hospital reform, the instruments governing the organization and functioning of the HFs and that set the costs of service and health care provision are obsolete; it will therefore be necessary to update them. With a view to the viability of the HD, this reform will ultimately aim at ensuring hospitals technical and financial management autonomy.

With regards to the management of pharmacy and drugs, the main innovation will consist in giving autonomy to the national pharmaceutical regulatory authority. This shall enable it, among others, to improve the availability and use of quality essential drugs and to strengthen the fight against counterfeit and street drugs.

In terms of the viability of HDs, two major prerequisites need to be considered here: (i) a review of the current partitioning of HDs (grouping of those with a small population and splitting those that are overcrowded); (ii) recruitment of human resources based on need. Moreover, due to the absence of a suitable legal and regulatory framework for community actors, they were not able to properly fulfill their tasks with all the necessary guarantees of legal certainty. Updating of the regulatory texts of community participation is therefore an important prerequisite for the secured implementation of the 2016-2027 HSS.

In terms of governance and strategic steering, in accordance with the requirements of the planning guide in Cameroon, a technical follow-up committee will be set up at the central level to carry out the technical pre-validation of the proposals made by the TS/SC-HSS before submission to the Steering committee. It will concentrate on the cross-cutting aspects of the various ministries and facilitate the multi-sector mobilization of actors.

At the decentralized level, coordination and monitoring committees of the implementation of the HSS, Steering committee branches will be created and put in place. Chaired by the Governor, these will be expanded to existing multi-sector health sub-committees in the regions to avoid fragmentation and scattering of coordination activities. The secretariat of this regional committee will be provided by the regional health delegate.

7.3.2 Risk management plan

The effectiveness of HSS implementation will be linked to the proactivity of the system. On the one hand, it will be necessary for implementing actors to be able to anticipate structural and organizational bottlenecks that may hinder the achievement of the objectives set out in this strategy. On the other hand, the latter must be able to seize the opportunities that could facilitate the achievement of the set objectives. Hence, the need to integrate risk management at all levels of the health pyramid.

Table 23: Anticipation plan of negative events

HEALTH PROMOTION	Objective of the strategic axis : make the population to adopt health-promoting behaviours		
IDENTIFIED RISKS	**ANTICIPATION STRATEGY**	**EXPECTED RESULTS**	**PERSON IN CHARGE**
The low interest for health promotion issues may lead to weak resource allocation for this component, thus to poor implementation of health promotion interventions	Organising the close monitoring of selected advocacy activities for health promotion planned in the 2016-2027 HSS	Advocacy activities for health promotion are carefully implemented and thoroughly monitored	DPS MOH
	Developing strategies for continuing knowledge improvement of HRH, community stakeholders and target populations on health promotion issues	Targeted populations take ownership of the health promotion, financing issues	DPS MOH
HEALTH SYSTEM STRENGTHENING	Objective of the strategic axis: Build institutional capacities for sustainable and fair access of populations to health care and services		
IDENTIFIED RISKS	**ANTICIPATION MEASURES**	**EXPECTED RESULTS**	**PERSON IN CHARGE**
Without universal health coverage, health provision packages to the most vulnerable segments might remain unaffordable despite efforts to subsidize or render them free of charge.	. Strengthening advocacy for health financing and health risk sharing mechanism with companies	Improved access of the most vulnerable segments of the population to health care and services	DOSTS
Poor implementation of mechanisms to retain staff in difficult to access areas might lead to unequal availability of service delivery.	- Strengthening advocacy actions to mobilize financial resources needed to retain staff posted in difficult to access areas	Health workforce are fairly distributed on the national territory	MOH/DHR
	Apply measures provided for HRH retention		
Difficulties related to the recruitment of healthcare providers in the public sub-sector may render curative management of cases based on standards difficult.	Continuous advocacy with the ministry of public service for the recruitment of HRH	The health sector has enough HRH	DHR
	Signing contracts with staff at the operational level		DHR/DCOOP
	Identify and set up mechanisms to absorb HRH		DHR/DCOOP
GOVERNANCE AND STEERING	Objective of the strategic axis: Increase the performance of the health system at all levels		

IDENTIFIED RISKS	ANTICIPATION MEASURES	EXPECTED RESULTS	PERSON IN CHARGE
The slow adoption of reforms may hinder the achievement of the targeted objectives.	Developing management mechanisms for change	The necessary reforms for effective implementation of the strategy are developed	Secretariat General TS/SC-HSS
	Accelerating the implementation of reforms		Technical follow-up committee
The persistence of corruption in public services remains an obstacle which limits access of poor people to health care and services.	sensitizing users and beneficiaries of health care and services on their rights and duties.	The perception index of corruption in the sector is reduced	Inspectors General
	Strengthening the implementation of Rapid Response Initiatives (RRIs)		
The central level is involved in operational activities to the detriment of its strategic missions. This is likely to weaken the health system performance	Developing mechanisms for performance-based management at all levels	Central structures improve their performances and enable lower level structures to fully play their role.	Secretariat General
Difficulty of partners to be integrated in a sector approach	Strengthening MOH leadership in the sector and dialogue through a national compact	Interventions of all stakeholders in the sector are directed towards national priorities	Technical Secretariat of the Health Sector Strategy steering committee

Table 24: Anticipation plan of positive events

GOVERNANCE AND STEERING	Objective of the strategic axis : Increase the performance of the health system at all levels		
IDENTIFIED OPPORTUNITIES	**ANTICIPATION STRATEGY**	**EXPECTED RESULTS**	**PERSON IN CHARGE**
Conferences of external and central services regularly organised may serve as an exchange platform between stakeholders in the health sector at all levels of the health pyramid	Using these conference recommendations to fine-tune strategic brainstorming, the monitoring and implementation of the HSS	Conferences bringing together stakeholders in the sector are better organised and their results are used to improve strategic management	Secretariat General
Organization of the 2016 and 2019 Africa Cups of Nation will trigger a surge in demand for health care and services.	High level advocacy so that technical platforms are improved in HDs in regions that will host these competitions.	Health facilities in the towns concerned by these competitions receive new quality equipment	DRFP/DEP/DRH

Chapter 8:
FINANCING OF THE 2016-2027 HEALTH SECTOR STRATEGY

This chapter presents the overall vision of health financing over the 2016-2027 period: (i) the budgetary framework, (ii) estimated cost for the HSS, (iii) analysis of the funding gap, and (iv) projected impact of the 2016-2027 Health Sector Strategy.

8.1 Budgetary framework

Funding projections were done based on existing national strategic commitment documents and hypotheses were formulated in order to do the projections until 2027. On the one hand, a continuous and growing flow of funding for the MOH and partner ministries between 2016 and 2027 is planned. On the other hand, the hypothesis envisages a decrease in external resources from 2020, reflecting the possible disengagement of some multilateral partners while bilateral partners continue to support the health sector (table 25).

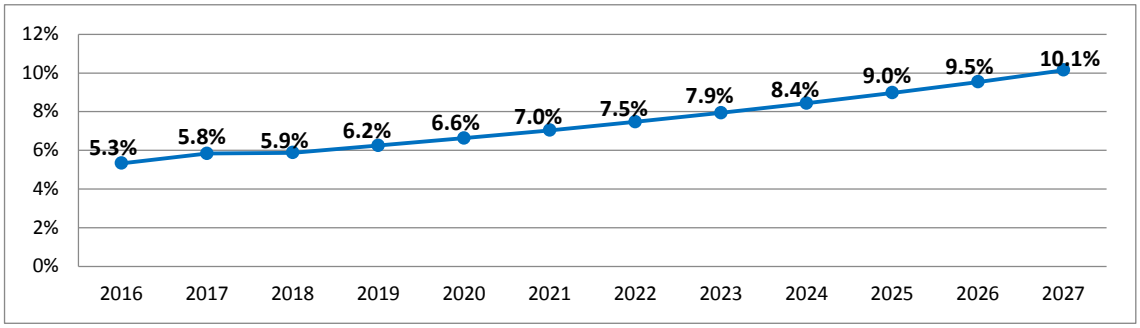
Table 25: Funding projections (amounts in billions of FCFA)

	2016 -2020					TOTAL 2016-2027
YEAR	**2016**	**2017**	**2018**	**2019**	**2020**	
MOH (MTBF)	143. 6	179. 4	200. 9	227. 0	256. 5	4. 023. 9
RELATED MINISTRIES	15. 4	14. 3	14. 1	15. 1	15. 5	194. 3
MULTILATERAL PARTNERS (GLOBAL FUND, GAVI, BM, WHO, UNICEF, UNFPA, UNAIDS, HKI, SABIN VACCINE)	93. 3	98. 6	108. 4	62. 9	62. 9	658. 3
BILATERAL PARTNERS (USA, Germany, France)	12. 4	12. 4	11. 6	11.6	11.6	140. 8
Three-year National Emergency Plan	41. 0	50. 0	59. 0			150. 0
ESTIMATED FUNDS	**306.0**	**354.7**	**394. 0**	**316. 6**	**346. 5**	**5. 23 2**

Source: 2015-2018 CBMT MOH, 2015-2018 MTEF of health related ministries, 2015-2019 PPAC of the EPI, 2016 -2018 concept note of Malaria, HIV/TB. Hypothesis: average growth of Cameroon at 5.9%, MOH budget growth at 13%, other health related ministries 2-5%, decrease by 15% of multilateral partners' contribution from 2020, constant contribution of bilateral partners.

Based on the ministerial allocation projections of the MTBF, the curve in figure 10 below shows the evolution of the health budget compared to the national budget for 2016 - 2027. Through this graph, there is progression towards the commitment of the African Heads of States in Abuja which stipulates that 15% of the national budget is allocated to health. In order to achieve this level of funding, strong advocacy with the stakeholders in charge of the national budget framework is necessary.

Figure 10: Evolution of the health budget compared to the national budget



Source : projections based on the 2016-2018 MTBF

8.2 Estimated cost of the Health Sector Strategy

8.2.1 Hypothesis

An estimate of the real needs for health financing was made using the One Health Tool. This tool allows for estimating the costs of health interventions based on the targets set. The following parameters were instrumental in estimating the overall cost of the strategy :

- Annual targets of each health programme, and system for 2016- 2027;
- Unit costs extracted from the plans of the various programmes, the 2015 official price list, or estimates using the qualitative method;
- Strategies defined by the 2016-2027 HSS and priority interventions for achieving the overall objective of the strategy.

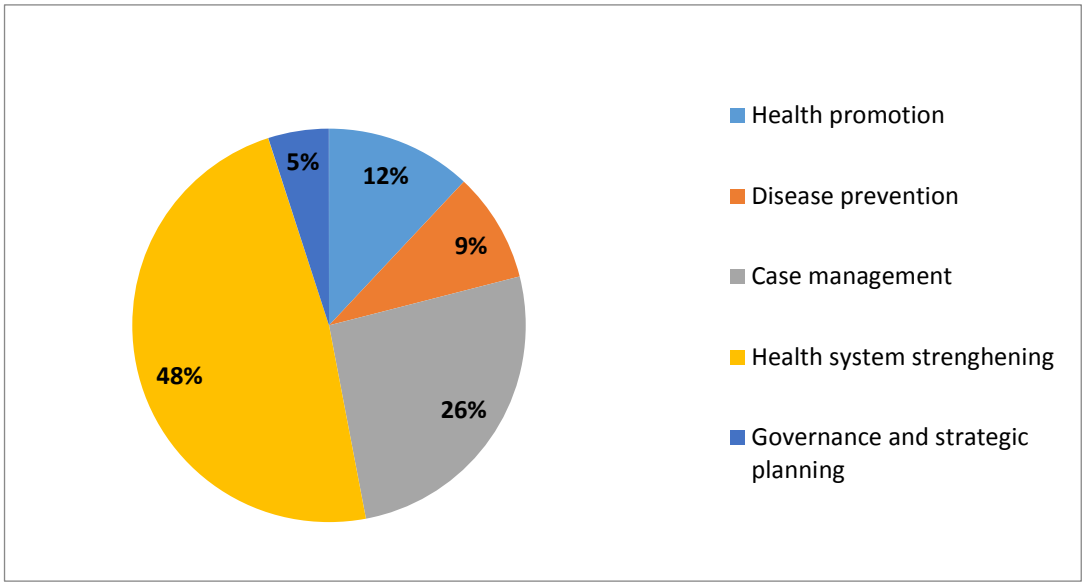
Furthermore, the tool includes the analysis of bottlenecks and the budgeting of corrective actions needed to upset the identified bottlenecks thereby giving a true estimate of health financing needs.

8.2.2 Analysis of the estimated cost

The total cost of implementing the 2016-2027 HSS was estimated at **FCFA 5 824 billion** for a twelve year period, for an average annual cost of FCFA 485 billion. In conformity with

the strategy orientations, health system strengthening shall absorb a substantial portion of resources, representing 48% of ressources (figure 11).

Figure 11: Costs 2016-2027 HSS per component (in percent of total cost)



Source: One health tool analysis

The interventions that would require the most ressources are: (i) improvement of the living environment of the population in view of health promotion; (ii) prevention of communicable diseases; (iii) management of communicable diseases; and (iv) human resource development (Table 26).

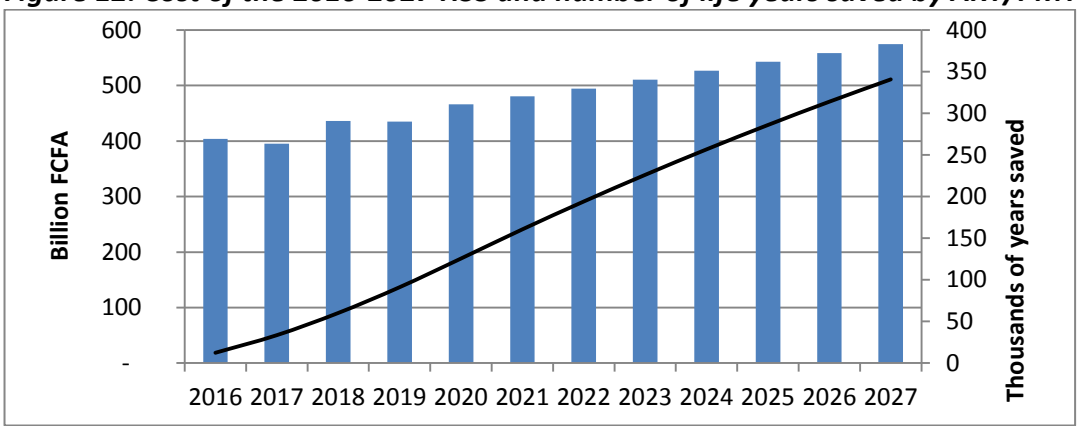
Table 26: Breakdown of costs of the HSS per sub-component for 2016-2027 (in billion FCFA)

COMPONENT	SUB-COMPONENT	TOTAL COSTS (FCFA)
Component 1 Health promotion	1.1. Institutional and community capacity and coordination for health promotion 1.2. Living environment of the population	48.0 137.5
	1.3. Reinforcing skills conducive to health	108.4
	1.4. Essential family practices and, family planning, promotion of adolescent health and post abortion care	69.0
	Total Component 1	**362.8**
Component 2 Disease prevention	2.1. Prevention of communicable diseases	461.3
	2.2. Epidemic-prone diseases (EPDs) and public health events:surveillance and response to epidemic-prone diseases, zoonosis and public health events	119.1
	2.3. RMNCAH/PMTCT	57. 8
	2.4. Prevention of non-communicable diseases	44.0
	Total Component 2	**682.2**
Component 3 Case management	3.1. Treatment (curative) of communicable and non communicable diseases	1112.9
	3.2. Maternal, newborn, child and adolescent health	265.1
	3.3. Emergencies, catastrophies and humanitarian crisis	4.0
	3.4. Management of disabilities	3.8
	Total Component 3	**1 385.6**
Component 4 Health system strenghening	4.1. Health financing	219.7
	4.2. Healthcare and service delivery	712.2
	4.3. Drugs and other pharmaceutical products	495.2
	4.4. Human ressources for health	1668.9
	4.5. Health information system and research	5.7
	Total Component 4	**3 101.6**
Component 5 Governance and strategic steering	5.1. Governance	158.5
	5.2. Strategic steering	133.4
	Total Component 5	**291.9**
TOTAL COST OF THE HSS		**5 824.0**

Source: one Health tool analysis

The arbitration of the volume of funding for HSS interventions will have direct impact on the level of achievement of key health indicators. The graph below shows the evolution of the number of life years saved by ART/PMTCT if the Health Sector Strategy is adequately financed (figure 12). This direct correlation means that if funding is not sufficient, it will have a negative impact on the evolution of indicators.

Figure 12: Cost of the 2016-2027 HSS and number of life years saved by ART/PMTCT



Source : Analysis of one health tool projections

8.2.3. Financing gap analysis

Funding projections available over the strategy period estimate the resources likely to be raised for health at FCFA 5 230 billion (table 27). From this, we note a health financing gap over 2016 – 2027 of FCFA 594 billion (table 27), corresponding to an average annual amount of approximately 50 billion FCFA.

Table 27: Comparison between real needs and available funds (billion FCFA)

	2016-2020 period	2021-2027 period	Total 2016-2027
PROJECTED FUNDING	1 717.8	3 512.4	5 230.2
HEALTH SECTOR STRATEGY COST	2 135.7	3 688.3	5 824.0
FUNDING GAP	**417.9**	**175.9**	**594**

This funding gap reveals the insufficient amount of resources allocated to health. In order to bridge this gap, advocacy shall be conducted towards MINEPAT and MINFI to increase the State budget allocated for health and/or institute innovative sources of health financing.

It is worth noting here that household contribution is not considered in this gap analysis. Yet, a large part of household financing not captured in the health system constitutes a non negligeable source of funding. . However, this household financing cannot be used to bridge the above mentioned gap, considering the current efforts towards universal health coverage.

In order to mobilize funding for health in a sustainable manner, a national health financing strategy will be elaborated. It will also advocate for a more efficient use of available resources which shall help improve program performance in order to achieve the strategic objectives of the sector.

APPENDICES

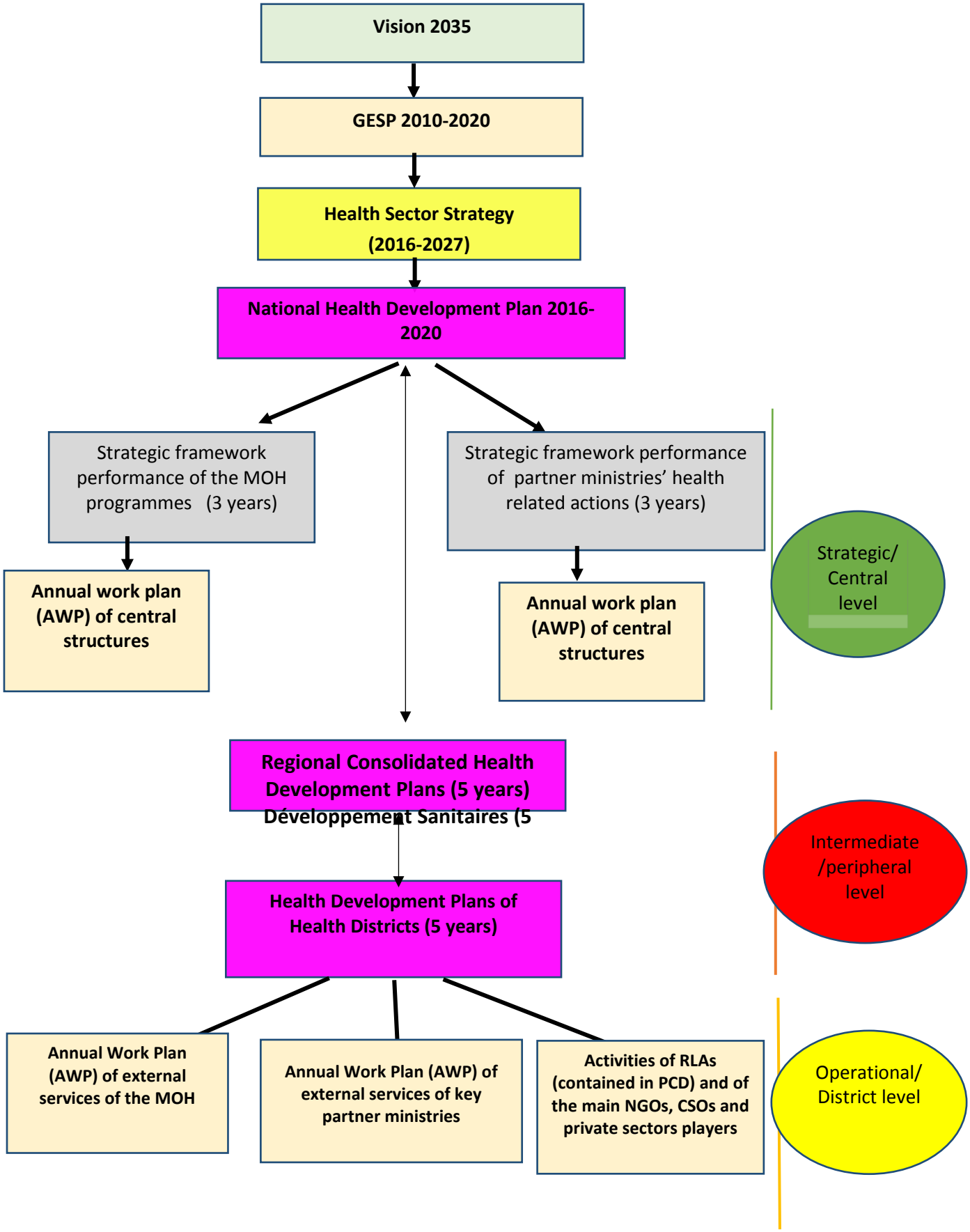
1. Table showing the evolution of MOH human resources (specialists) from 2009 to 2011
2. Operationalization scheme of the 2016-2027 HSS
3. Summary diagram of the steering mechanism
4. References

APPENDIX 1: Evolution of the MOH human resources (specialists) between 2009 and 2015

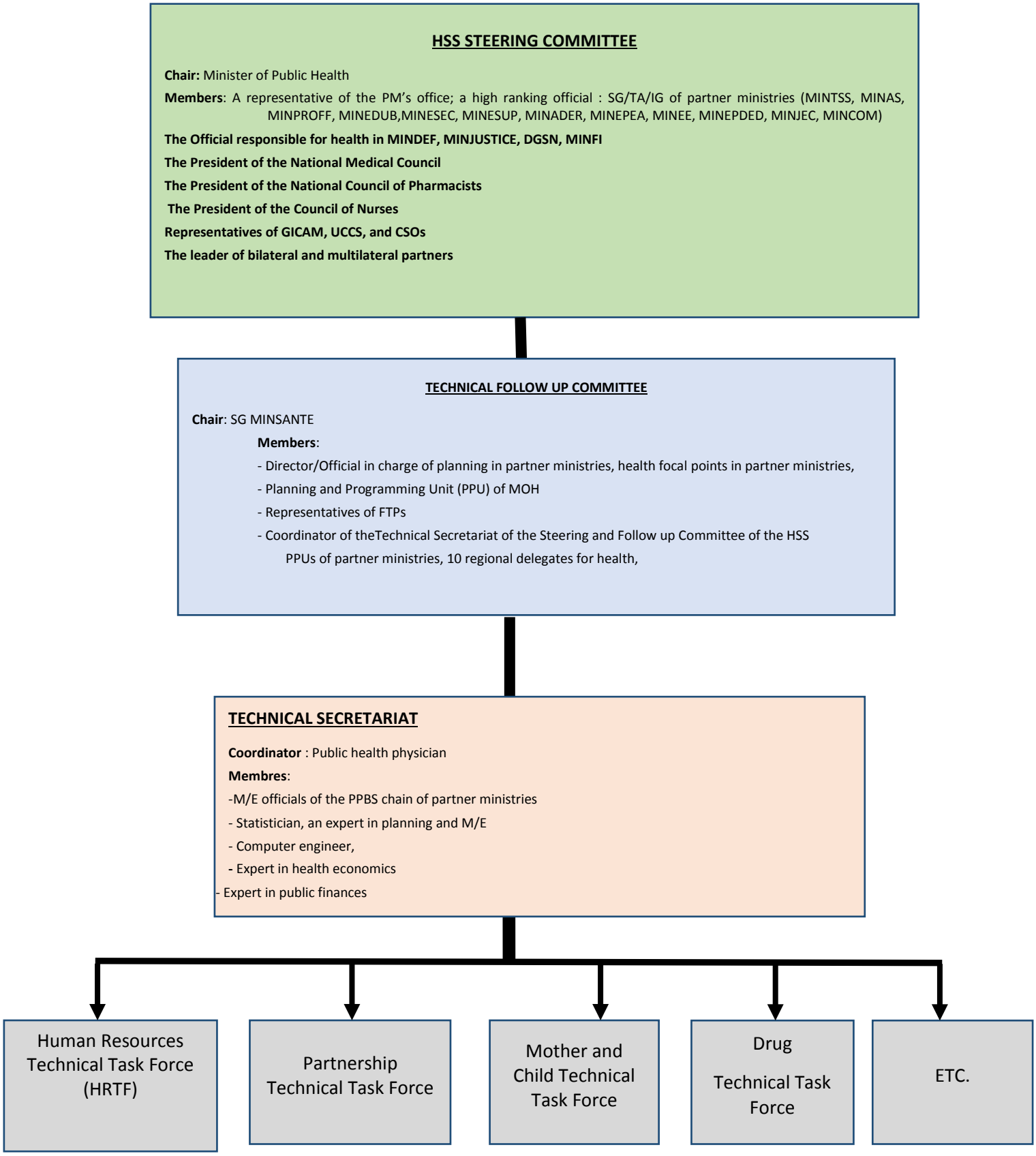
#	Speciality	2009*	2015**	Annual evolution
1	Anaesthesiology	12	31	+3.2
2	Cancerology	4	4	0.,0
3	Cardiology	12	38	+4.3
4	General surgery	25	13	-2.0
5	Specialized surgery	18	31	+2.2
6	Dermatology	10	4	-1.0
7	Endocrinology	6	13	+1.2
8	Health economics	2	ND	ND
9	Gynaecology and Obstetrics	36	97	+10.2
10	Immunology	ND	1	ND
11	Infectiology	4	5	+0.,2
12	Emergency medicine	2	3	+0.2
13	Internal medecine	ND	11	ND
14	Nephrology	4	9	+0.8
15	ENT	11	28	+2.8
16	Ophthalmology	11	36	+4.2
17	Pediatrics	24	76	+8.7
18	Pharmacy	17	161	+24.0
19	Psychiatry	8	5	-0.5
20	Rheumatology	1	14	+2.2
21	Toxicology	0	0	0.0
22	Public Health	108	ND	ND

*Source : * Report on the situation analysis of human resources for health in Cameroon 2009*
*** Unpublished data of the Observatory of Human Resources for Health (September 2015)*

APPENDIX 2: Operationalization diagram of the 2016-2027 HSS



APPENDIX 3: Summary diagram of the steering mechanism



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