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National Health Development Plan (NHDP) 2021-2025

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AIDS	Acquired Immune Deficiency Syndrome	**GDSN**	General Delegation of National Security
ART	Antiretroviral Treatment	**GESP**	Growth and Employment Strategy Paper
AWP	Annual Work Plan	**HC**	Health Centre
BHP	Basic Health Package	**HIV**	Human Immunodeficiency Virus
CBO	Community-Based Organisation	**HT**	Hypertension
CENAME	National Essential Drug Procurement Centre	**HRDP**	Human Resources Development Plan
CHP	Complementary Health Package	**HSS**	Health Sector Strategy
CHRACERH	Research Hospital Centre on Human Reproduction and Endoscopic Surgery	**IDSR**	Integrated Disease Surveillance and Response
CHS	Community Household Survey	**IHC**	Integrated Health Centre
CICRB	Chantal Biya International Reference Centre	**IMCI**	Integrated Management of Childhood Illnesses
CLTS	Community Led Total Sanitation	**NIS**	National Institute of Statistics
CEmONC	Comprehensive Emergency Obstetric and neonatal Care	**IPT**	Intermittent Preventive Treatment
CORECSES	Regional Committee for the Coordination and Monitoring/Evaluation of NHDP implementation	**LANACOME**	National Laboratory for the Quality Control of Drugs and Valuation
COCSES	Operational Committee for Coordination and Monitoring/Evaluation of NHDP implementation	**LLIN**	Long Lasting Insecticide Treated Net
CSM	Community Self-Monitoring	**MC**	Management Committee
CSO	Civil Society Organization	**MHC**	Medicalized Health Centre
DHC	District Health Committee	**MICS**	Multiple Indicators Cluster Survey
DHDP	District Health Development Plan	**MINAC**	Ministry of Arts and Culture
DHS	Demographic and Health Survey	**MINADER**	Ministry of Agriculture and Rural Development
DLMEP	Department of Disease, Epidemics and Pandemics Control	**MINAS**	Ministry of Social Affairs
DMC	District Management Committee	**MINRESI**	Ministry of Scientific Research and Innovation
DTC	Diagnostic and Treatment Centre	**MOH**	Ministry of Public Health
EmONC	Emergency obstetric and neonatal care	**MINTP**	Ministry of Public Works
EPD	Epidemic-Prone Diseases	**MINTSS**	Ministry of Labour and Social Security
EPI	Expanded Programme on Immunization	**MTEF**	Mid-Term Expenditure Framework
FCFA	Franc of the Financial Community in Africa	**NACC**	National AIDS Control Committee
FINEX	External Funding	**NCD**	Non Communicable Diseases
FP	Family Planning	**NGO**	Non-Governmental Organisation
FTP	Financial and Technical Partner	**NHA**	National Health Accounts
GAVI	Global Alliance for Vaccines and Immunization	**NDRA**	National Drug Regulation Authority
GDP	Gross Domestic Product	**NDS30**	National Development Strategy 2020-2030

NHIS	National Health Information System	**RMNCAH**	Reproductive, Maternal, New-born, Child, and Adolescent Health
NIS	National Institute of Statistics	**RPPC**	Regional Pharmaceutical Procurement Centre
NMCP	National Malaria Control Programme	**SC/TS-HSS**	Steering Committee of the Technical Secretariat of the Health Sector Strategy
NPHO	National Public Health Observatory	**SDG**	Sustainable Development Goal
NTD	Neglected Tropical Diseases	**STI**	Sexually Transmitted Infection
PAC	Post Abortion Care	**SONU**	Emergency Obstetrical and Neonatal Care
PETS	Public Expenditure Tracking Survey	**SONUC**	Obstetric and Neonatal Care
PMCT/PM	Prevention of Mother-to-Child Transmission (of HIV)/Paediatric Management	**SWAP**	Sector-Wide Approach
PHC	Primary Health Care	**SYNAME**	National Essential Drug and Medical Supplies Procurement System
PLWHA	People living with HIV/ AIDS	**UNDP**	United Nations Development Programme
PMTCT/PC	Prevention of Mother-to-Child Transmission of HIV/ Pediatric care	**UNFPA**	United Nations Fund for Population Advancement
RANC	Refocused Antenatal Consultation	**UNICEF**	United Nations International Children's Emergency Fund
RCHDP	Regional Consolidated Health Development Plan	**UNITAID**	International Drug Purchasing Facility
RDPH	Regional Delegation of Public Health	**WASH**	Water, Sanitation and Hygiene
RLA	Regional and Local Authorities	**WHO**	World Health Organisation
RPSC	Regional Pharmaceutical Supply Centre		

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PREFACE

The implementation of the Health Sector Strategy (HSS) 2020-2030 brainchild of the NDS30 shall be carried out during the next five-years. The epidemiological context is marked by a predominance of communicable diseases, with HIV/AIDS, malaria and tuberculosis being the main. Other emerging diseases such as the COVID-19 pandemic, also poses a real public health challenge. To date, it is observed that non-communicable diseases are experiencing a significant increase with cardiovascular diseases, diabetes, cancers and road accidents being predominant.

In order to reverse the current epidemiological trends, the government will do more to "*ensure universal access to quality health services and care for all social strata by 2035, with the full participation of communities*". The National Health Development Plan (NHDP) 2021-2025, which is an instrument for the implementation of the Health Sector Strategy (HSS) 2020-2030, is the first step towards achieving this ambition. It sets out the guidelines for the operationalization of this reference document. Emphasis shall be laid on high-impact interventions in the following priority areas: (i) maternal, newborn, child and adolescent health; (ii) control of priority communicable diseases and the most common non-communicable diseases, through the strengthening of community partnership; (iii) the development of priority secondary and tertiary health care as well as (iv) the strengthening of the pillars of the health system.

The National Health Development Plan (NHDP) 2021-2025 is the compass that will guide the implementation of health actions during the next five years. In order to ensure effective monitoring of planned interventions at all levels of the health pyramid, an Integrated Monitoring and Evaluation Plan (IMEP) 2021-2025 has been developed. It provides details of the monitoring and evaluation activities of the implementation of the NHDP and will allow in appropriate time, to assess the evolution of the performances achieved in the short and mid-term in the health sector. This IMEP is a useful milestone for monitoring the implementation of the Government's health commitments, with a view to achieving Universal Health Coverage (UHC), achieving the Sustainable Development Goals (SDGs) and Cameroon's Development Vision.

Therefore, we invite all health stakeholders at the different levels of the health pyramid, Technical and Financial Partners, Partner Ministries, Professional Orders and civil society actors concerned with the achievement of the objectives projected in the HSS 2020-2030, to appropriate the effective implementation of these instruments.

The Minister of Public Health

EXECUTIVE SUMMARY

The National Health Development Plan (NHDP) 2021-2025, is the first operational plan of the revised Health Sector Strategy (HSS) 2020-2030. The development process of this NHDP 2021-2025 was inclusive and participatory, involving all stakeholders in the sector (service and care providers from MOH and partner ministries, TFPs from the health sector, civil society, and others).

This reference document will allow all actors, each according to their realities and in conformity with the provisions of the NDS30 and the HSS 2020-2030 to carry out their operations in the health sector. In other words, it will be the tool on which the processes for developing annual or pluriannual plans anchor on. Pluriannual plans developed at the operational level known as District Health Development Plans (DHDPs), shall be consolidated at the regional level and will serve as a working document for the development of Consolidated Regional Health Development Plans (CRHDP) at the level of the regions, effective levers for the evolution towards the sustainability of health districts.

The priority areas of the NHDP 2021-2025 are:

(i) maternal, newborn, child and adolescent health,
(ii) control of major communicable diseases and the most frequent non-communicable diseases (diabetes, hypertension) through the revitalization of primary health care (PHC);
(iii) the development of priority specialized health care;
(iv) the strengthening of the pillars of the health system, hospital governance and especially the implementation of Universal Health Coverage.

NATIONAL CONTEXT

Economic growth increased significantly between 2010-2019 from 3% to 4.5%. This average growth, although it did not reach the target of 5.5% set in the GESP, nevertheless testifies to the resilience of the Cameroonian economy in the face of various economic and security shocks. The inflation rate, meanwhile, has remained under control at around 2% on average per year, below the CEMAC convergence threshold of 3%.[1]

With regard to poverty, there was a slight decrease in the poverty rate, which fell by 2.4 points to 37.5% in 2014 against 39.9% in 2007. However, this performance is below the expectations of the GESP which projected a poverty rate of 28.7% in 2020.

Depending on the place of residence, the poverty rate decreased significantly in urban areas from 12.2% in 2007 to 8.9% in 2014, while it increased in rural areas, from 55.7% to 56.8% over the same period. In addition, nine (9) out of ten (10) poor people reside in rural areas. In a regional dimension, the Far North (74.3%), North (67.9%), North-West (55.3%) and Adamawa (47.1%) regions are the poorest. The data also reveal that inequality as measured by the GINI index has increased. The value of this index increased from 39% in 2007 to 44% in 2014; reflecting an increasing gap between rich and poor[2].

HEALTH SITUATION

Between 1990 and 2019, life expectancy at birth in Cameroon increased from 53.4 years to 59.3, an increase of 5.9 years over the period. If this trend is maintained, life expectancy at birth would change considerably and could reach the target set in the NDS30 of 62.1 years in 2030. Achieving this performance implies maintaining the efforts made to ensure good universal health coverage and, overall, strengthening the health system[345].

For people between the exact ages of 15 and 50, the mortality rate is 4.81 deaths per 1,000 for men, and 4.18 deaths per 1,000 for women. Compared to the period 2004-2011, the probability of dying between the exact ages of 15 and 50 decreased for both women (from 228 ‰ to 155 ‰ for the period 2012 to 2018) and men (respectively 232 ‰ to 185 ‰). Maternal mortality decreased by 40%, from 782 maternal deaths per 100,000 live births in 2011 to 406 deaths per 100,000 live births in 2018.[67]

In terms of disease burden, the prevention and management of communicable and non-communicable diseases improved overall in the country over the period 2016-2020. This registered performance could be explained by the efforts made by the government and technical partners to improve the technical platforms of health facilities. To this can be added the gratuity measures instituted to ensure access to health care and services for certain target populations (pregnant women, children under 5 years old, people living with HIV (PLHIV), tuberculosis patients and patients with Covid-19, etc.).

One of the major innovations of HSS 2020-2030 is the important role it attributes to health promotion and nutrition. Its orientation is to act sufficiently upstream in the resolution of health problems. The strategic challenge is to have a system that is sufficiently proactive and faintly focused on case management.

However, the country remains ranked 164th among 191 countries, according to an assessment carried out by the WHO in 2011, the Cameroonian health system is fragile and therefore does not respond effectively to the needs of the populations.[8]

OBJECTIVES AND OVERALL STRATEGIC FRAMEWORK OF THE 2021-2025 NHDP:

Make priority quality essential and specialized health care and services accessible to at least 50% of the population ". This is a variation of the general objective of the HSS 2020-2030 which is to contribute to the development of healthy, productive human capital capable of supporting strong, inclusive and sustainable growth.

INTERVENTION FRAMEWORK

The analysis of the health situation in the health sector has made it possible to develop an intervention framework that includes 5 strategic axes: (i) Health promotion and nutrition that will aim at the adoption by populations of healthy and health-promoting behaviours; (ii) disease prevention, which will focus on scaling up interventions to reduce premature mortality from major preventable communicable and non communicable diseases; (iii) case management that will focus on the implementation of integrated intervention packages with

high impact on the health of populations; (iv) the strengthening of the health system, which will give priority not only to the implementation of a health financing strategy oriented towards Universal Health Coverage (UHC), but also to the construction, maintenance, rehabilitation and equipping of health structures. The health system strengthening axis will also concern the retention of HRH at duty posts in hard-to-reach areas and the motivation of Community Health Workers (CHWs). Still in this axis, the permanent supply of essential drugs, vaccines, consumables and reagents to health structures will be achieved through the strengthening of logistics and stock management; (v) finally, the strengthening of governance, strategic management and leadership at all levels of the health system, which is the fifth strategic axis, will be based on more efficient management of financial resources, consolidation of the monitoring and evaluation system, contracting with the private subsector and community actors, strengthening supervision; planning at the operational level, and community participation.

The achievement of the objectives projected in the NHDP requires two major prerequisites: (i) the continuation of the reforms proposed in the HSS, and (ii) the strengthening of multisectoral actions within the framework of decentralization. For each strategic objective selected, targets have been identified. As a result, indicators were developed to measure progress and achievement of results.

IMPLEMENTATION FRAMEWORK

The priority of the central level will be to ensure, on the one hand, (i) the implementation of the reforms proposed in the HSS 2020-2030, which are essential to the achievement of the objectives of the NHDP 2021-2025, and on the other hand (ii) the alignment of the budgetary allocations of the MOH structures with the priorities defined in the NHDP. The partner ministries will intervene with targeted actions as part of their specific missions in the health sector. The regional public health delegations will provide technical and logistics support to the health districts in charge of implementing the planned interventions.

The implementation of the NHDP and its monitoring and evaluation will be carried out at all levels of the health pyramid (central, regional and district levels). Integrated operational and monitoring and evaluation work plans will be developed at all levels of the health system, and their objectives will be aligned with those of the HSS 2020-2030 and subsequent NDPs.

MONITORING AND EVALUATION FRAMEWORK

The development of the monitoring and evaluation plan will be guided by the objectives of the HSS 2020-2030 and the NHDP 2021-2025. Monitoring and evaluation will be implemented through supervision, routine data collection (in the health structures of MOH and in those of partner ministries carrying out health actions), studies, audits, evaluations and coordination meetings.

An inspection and control system will be put in place to verify: (i) that the tasks planned in the NHDP are actually carried out according to established standards; (ii) compliance with rules and procedures; (iii) the reliability of technical and financial reports at all levels of the health pyramid.

FINANCING OF THE NHDP

The estimated costs necessary for the implementation of the actions identified in the 2021-2025 NHDP was carried out using the One Health tool. Three scenarios have been proposed a Minimum (pessimistic); a Medium (Realistic) and a Maximum (optimistic). The medium scenario was retained and the cost amounts to CFA 2,764,912,565,105, i.e. an average financing per year of about 552.985 billion. A budget review over the last five financial years shows that the State has allocated to the Ministry of Public Health an average of 200.239 billion FCFA as a budget to finance health spending over the said period. This implies an annual gap of about 352.746 billion.

The One Health tool used baseline data and expected coverage projections to calculate the costs associated with the objectives set and to project the impact in terms of reducing maternal, newborn and child mortality. However, the trade-offs in the volume of funding for HSS interventions will have consequences for the expected results.

The financing of the various interventions selected in the NHDP will be mobilized in a concerted manner with the State, its development partners, NGOs and the private sector. The development of a mid-term expenditure framework for the health sector, to which the NATIONAL COMPACT will be based, will allow for greater mobilization of financial resources from national and international partners.

CHAPTER 1: BACKGROUND INFORMATION

1.1. GEOGRAPHICAL LOCATION

Cameroon, a Central African country, has a surface area of 475,650 km². 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 and to the north by Chad. The Country has two official languages: French and English.

1.1.1. NATURAL ENVIRONMENT, DIVERSITY OF LANDFORMS AND ECOSYSTEMS

The natural environment of Cameroon is characterized by the following elements: (i) the Western Highlands ; (ii) the Central and Eastern Lowlands; (iii) coastal plains, river basins and the Lake Chad basin. The country commonly called Africa in miniature has six main ecosystems (marine and coastal, dense and humid rainforest, highlands, wooded tropical savannah, fresh water and semi-arid)) explaining its diversity topography, vegetation and climatic conditions[9].

1.1.2. CLIMATE

Cameroon is divided into three major climatic zones which are:

- the humid equatorial zone, with an average annual temperature of 25°C, an annual difference of around 3°C and mixed annual rainfall, varying between 1500 mm in Yaoundé and 3000 mm in Douala;
- the Sudanese zone, characterized by an average annual rainfall of 1000 mm spread over two seasons (rainy and dry);
- the Sudano-Sahelian zone, characterized by low rainfall, with an annual average of 700 mm, spread over two seasons[6].

1.1.3. HYDROGRAPHY

Cameroon is endowed with many rivers, and lakes found in the 4 main basins: the Atlantic basin (Sanaga, Nyong, Wouri); the Congo Basin (Kadéï, Ngoko); The Niger Basin (Benoue) and the Chad Basin (Logone). The density of this river network is a major asset to facilitate access to potable water.

1.2. SOCIO-DEMOGRAPHIC AND CULTURAL SITUATION

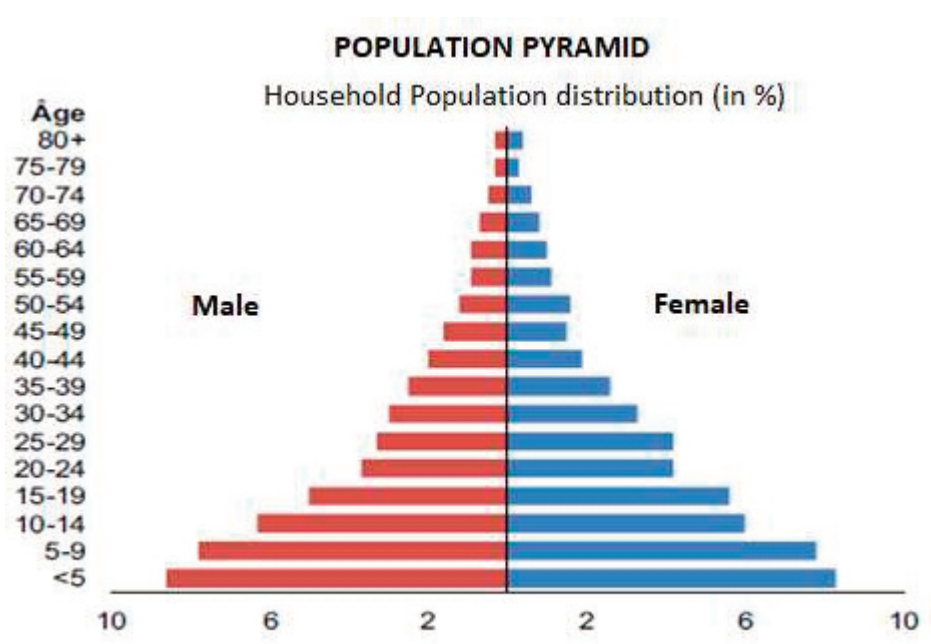
1.2.1. DEMOGRAPHY OF CAMEROON

The population of Cameroon is estimated at 23,248,044 inhabitants in 2017. It is growing by more than 33% [10]compared to its 2005 size of 17,463,836 inhabitants. The average annual growth rate has been 2.4% since 2005, implying that its size would double in about 29 years

from 2017 if it were to maintain the same dynamic. In other words, it could reach more than 46,496,000 inhabitants in 2046[11].

More than half of the population (53.2%) resides in urban areas. The regions with the highest demographic weights are the Centre (19.6%), the Far North (18%), the Littoral (15.2%), and the North (11%). The densely populated regions are Littoral (174.8 inhabitants/km2) and the West (142.9 inhabitants/^{km2}). The size of the populations of the Centre and Littoral regions is partly explained by the fact that they are respectively home to the political capital and the economic capital of the country[12]. The cities of Douala and Yaoundé are the largest agglomerations in Cameroon and alone are home to nearly 20% of the country's population (3 million inhabitants and 2.5 million inhabitants respectively).[13]

The Cameroonian population is 49% male and 51% female. The age pyramid has a broader base that shrinks rapidly and fairly steadily as one advances towards older ages (Figure 1). This shape of the age pyramid is characteristic of young, high-fertility and high-mortality populations. About 45% of the population is under the age of 15 and only 4% are 65 years of age or older. The presence of women is even more marked in rural areas, where they represent an even larger proportion[14,15].



Source: DHS 2018 P.24

The population is unevenly distributed across the national territory, however, Cameroon has not yet entered the demographic transition phase. Fertility remains high despite a slight decline between 1991 and 2018 when the total fertility rate fell from 5.8 to 4.8[16]. The

economic dependency ratio, which measures the average number of persons not employed per person employed (productive), is about 298 %. Thus, employed persons have, in addition to themselves, about three (03) persons on average not employed at their dependants. This population structure is not conducive to growth and economic development in that it does not give sufficient room for maneuver for the working population to save and undertake productive investments because of the large burdens (persons) for which they are responsible. The direct consequence is the high demand for basic social infrastructure and services such as education, health, access to energy and drinking water, food security and tenure security.

1.2.2. SOCIO-ECONOMIC SITUATION

Economic growth

Economic growth increased significantly between 2010-2019 from 3% to 4.5%. This average growth, although it did not reach the target of 5.5% set in the GESP, nevertheless testifies to the resilience of the Cameroonian economy in the face of various economic and security shocks. Meanwhile, the inflation rate, has remained under control at around 2% on average per year, below the CEMAC convergence threshold of 3%.[17]

Sectoral evolution of GDP

The overall structure of the distribution of GDP by sector has not changed favorably over the last decade. Indeed, the share of the primary sector, which was 26.8% and which was to rise to 33.2%, was less than 20%. At the same time, the secondary sector, which accounted for 33% in 2010, also experienced a significant decline to 28.2% in 2018. However, the tertiary sector is taking on increasingly important proportions, rising from 41.2% to 57.1% over the same period.[18]

Poverty and income inequality

With regard to poverty, there was a slight decrease in the poverty rate, which fell by 2.4 points to 37.5% in 2014 against 39.9% in 2007. However, this performance is below the expectations of the GESP which projected a poverty rate of 28.7% in 2020. Depending on the place of residence, the poverty rate decreased significantly in urban areas from 12.2% in 2007 to 8.9% in 2014, while it increased in rural areas, from 55.7% to 56.8% over the same period. In addition, nine (9) out of ten (10) poor people reside in rural areas. In a regional dimension, the Far North (74.3%), North (67.9%), North-West (55.3%) and Adamawa (47.1%) regions are the poorest. The data also reveal that inequality as measured by the GINI index has increased. The value of this index increased from 39% in 2007 to 44% in 2014; reflecting an increasing gap between rich and poor[19].

Employment

With the employment strategy contained in the GESP, the Government intended to reduce the share of the informal sector in national economic activity and generate tens of thousands

of jobs per year in the formal sector. However, the deployment of all these efforts has not led to an overall improvement in the employment situation. The underemployment rate has rather worsened from 75.8% in 2005 to 77% in 2014. [20]

As for the retraining of soldiers, it requires the implementation of solid partnerships with structures that offer training aimed at self-employment (agriculture, fish farming, etc.). To this end, several activities are carried out as part of this action to lead soldiers to a second life and allow them to have a decent life in retirement. The care of veterans and victims of war is carried out throughout the territory; both in the region and in each department. The territorial network of the units allows a better follow-up and supervision of veterans and victims of war.[21]

1.2.3. EDUCATION

Due to demographic pressure, demand is increasing at all levels of education. In basic education, the gross pre-school enrolment rate increased from 39% in 2017 to 36.8% in 2018. This decline is due, among other things, to the security instability in the North-West and South-West regions, which are experiencing significant disruptions in the operation of several schools[22].

In secondary education, the first-year admission rate grew almost linearly, from 52.4% in 2011 to 69.7% in 2016, before declining significantly in 2017 to 55.4%, due to the security crisis in some parts of the country, including the North-West, South-West and part of the Far North. The relative weight of technical and vocational education decreased from 22.2% in 2014 to 18.81% in 2017. Higher education has grown significantly since 2000; The number of staff increased from 196,461 in 2010/2011 to 353,840 in 2016/2017.[23]

School attendance rates are generally higher for boys than for girls. In Target 4.1, SDG Goal 4 is to ensure that, by 2030, all girls and boys complete free and quality primary and secondary education on an equal footing, leading to meaningful learning. This equality can be measured by the Gender Parity Index (GPI) which is the ratio between the school attendance rate of girls and boys. The closer the parity index is to 1, the smaller the gap between girls' and boys' school attendance rates.

In primary education, the completion rate in the cycle has increased from 73% in 2012 to 76.7% in 2016. This rate fell significantly in 2017 to 72.1%. In 2018, the universalization of the primary cycle resulted in the strengthening of the offer of education in the public primary cycle, support for the schooling of girls and the improvement of the quality of education in primary schools[24].

At primary level, the Gender Parity Index (GPI) is estimated at 0.95 for the net rate and 0.91 for the crude rate; at secondary level it is 0.91 and 0.88 respectively. This shows that in Cameroon, girls attend school less than boys, and that the gap is somewhat more pronounced at the secondary level than at the primary level.[25]

From 2004 to 2011, at the primary level, the net rate of the GPI increased from 0.90 to 0.94 respectively. From 2011 to 2018, this index was virtually unchanged (0.94 in 2011 and 0.95 in 2018). For secondary education, the index rose from 0.86 in 2004 to 0.96 in 2011. However, from 2011 to 2018, this trend reversed, with the index from 0.96 to 0.91.[26]

It can also be seen that the GPI varies by region, place of residence and household economic well-being quintile. At the primary level, the GPI for the net rate is only 0.88 in the North and Far North regions, while it exceeds 1 in the Centre region, including the cities of Yaoundé and Douala. At the secondary level, the parity index for the net rate is still at its lowest in the Northern (0.57) and Far North (0.62) regions. In addition, at both primary and secondary levels, the GPI is always lower in rural areas than in urban areas[27].

The figure below shows that the evolution of average and expected durations of education have been relatively stable since 2015.

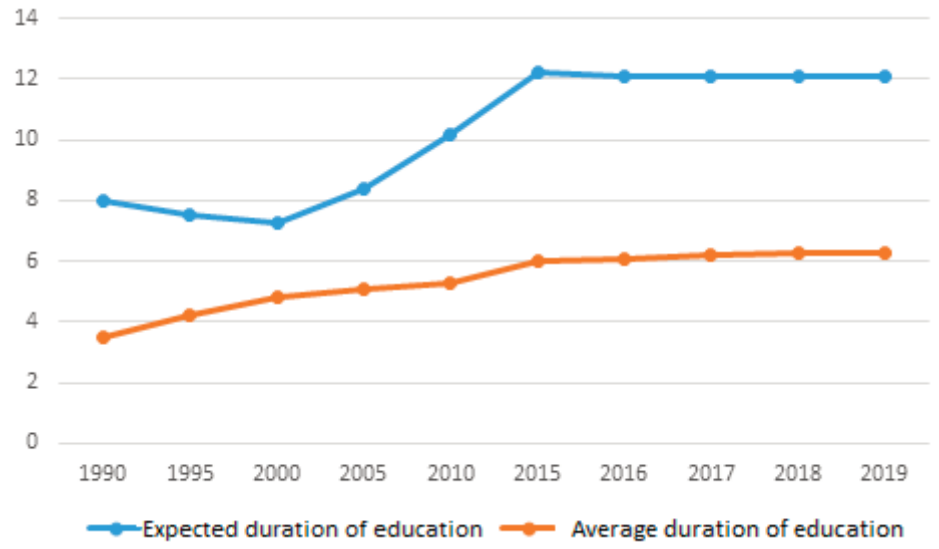


Figure 2: Evolution of the average duration of schooling and the expected duration of schooling in Cameroon from 1990 to 20192

Source: UNDP 2020, Human Development Report 2020

1.2.4. CULTURAL CONTEXT[28]

Due to its geographical position, Cameroon is at the crossroads of the centuries-old migratory flows of the Sudanese, Peuhl and Bantu peoples. The country has nearly 250 ethnic groups divided into five major cultural groups:

- The people of the semi-arid regions of the far north of the Sudanese, Hamite and Semitic types who are predominantly Muslim, Christian or animist;
- The people of the western plateaus (western and northwest regions) of the semi-Bantu type, generally Christianized or animist;

- The people of the coastal tropical forests (littoral, south-west and coast regions of the southern region), of the Bantu type, who are mostly Christians and animists;
- The people of the southern equatorial rainforest (central, southern and eastern regions), of the Bantu type on the one hand. Within these groups the predominant religions are Christianity and animism.
- Semi-Bantu, Sudanese or Pygmy peoples, who are mainly animist or Christian.

1.3. POLITICAL AND-ADMINISTRATIVE SITUATION

Cameroon has 10 regions, divided into 58 Divisions and 360 Subdivisions. Over the past decade, major advances have been made at the institutional level. Indeed, the Senate, the upper house of parliament, has been set up and is fully functional. The same applies to the Constitutional Council. In addition, several texts have been promulgated, including Law No. 2016/007 of 12 July 2016 on the Criminal Code and Law No. 2019/024 of 24 December 2019 on the General Code of Decentralized Territorial Collectivities. In terms of local governance, the first competences were transferred to the municipalities by the central State in 2010. In accordance with the principle of progressiveness, in 2018, 63 competences were transferred by 21 ministries. With regard to crimes against public wealth, the system was strengthened with the creation of the Special Criminal Court by Law No. 2011/028 of 14 December 2011, which has been operational since 2012.[29]

The framework law on decentralization of 22 July 2004 provides for the transfer of powers and resources to the municipalities. In the health sector, Decree No. 2010/0246/PM specifies the competences transferred to municipalities. This involves the construction, equipment and management of Integrated Health Centres (IHCs). In addition, the Mayors chair the management committees of the District Hospitals and the Medicalised Health Centres, while the city mayors chair that of the Regional and Central Hospitals. However, the administrative division does not always respect the limits of the health district, which is based on the number of inhabitants.

1.4. COMMUNICATION CHANNELS

Cameroon has a dense transport infrastructure integrating road and rail networks. The road network has grown considerably, reaching nearly 77,589 km in 2012, of which only 5,133 were paved. The road network is poorly maintained; consequently, [30]it has a negative impact on people's access to health care and services.

The country also has an air and a maritime network. The air network has (04) international airports (Douala, Yaoundé, Maroua, Garoua) which are being upgraded to standard, and several secondary airports, rarely used and facing depreciation. This poor utilization is partly explained by a national airline (CAMAIR-CO) that is under-equipped and whose performance

needs to be improved[31]. As for the maritime network, the country has 04 autonomous ports: Douala, Garoua, Kribi and Limbe.[32]

1.5. ACCESS AND USE OF INFORMATION AND COMMUNICATION TECHNOLOGIES

From 2005 to 2017, the proportion of households with a telephone (fixed and/or mobile) increased from 30.2% to 89.4%. Although the proportion of households with internet access at home is still low, it reached 15.6% in 2017. It is also noted that one in ten people have used a computer and less than one in two (47%) have used the Internet at home to check their emails, posts and instant messages. With a growing penetration rate from 77.0% in 2014 to 82.8% in 2016, the mobile phone has become the most used communication tool by the population. The number of subscribers increased from 15,895 million to 20,131 million between 2014 and 2015.[33]

However, it should be noted that the most used media remain television and radio. Indeed, regardless of gender, television is the most used media: 46% each of men and women watch television at least once a week. Radio is the second most listened media (18% of women and 28% of men). However, media exposure varies significantly depending on the place of residence. Indeed, nearly eight out of ten women (79%) living in rural areas are not regularly exposed to any media, compared to 26% of those living in urban areas. The situation is similar for men, with the percentages being 71% and 27% respectively[34].

A significant segment of the population is not exposed to the media. This figure increased between 2004 and 2018 from 45% to 50%for women, while for men, the figure doubled from 18% to 46% within the same period. The problem is common in several regions. Those in the Far North (88 % women and 76% %men), the North (83% %women and 76% %men) and Adamawa (68 % women and 57 % men) have the highest percentages. This percentage is significantly lower in the cities of Douala (10 % for women and 23 % for men) and Yaoundé (10 % for both women and men). There is also evidence that exposure to Information and Communication Technologies (ICTs) and the media increases with education and income levels. As a result, health information is not always accessible to the most disadvantaged groups[35;36].

1.6. EQUITY AND SOCIAL JUSTICE IN HEALTH

Cameroon's Human Development Index (HDI) for 2019 stands at 0.563, placing the country in the "average human development" category and 153rd among 189 countries and territories.

Between 1990 and 2019, Cameroon's HDI increased from 0.448 to 0.563 (an increase of 25.7%). This is explained by the evolution of the different components that make up this indicator. Indeed, between 1990 and 2019, life expectancy at birth in Cameroon increased by 5.9 years, the average duration of schooling increased by 2.8 years and the expected duration

of schooling increased by 4.1 years. Gross national income (GNI) per capita grew by almost 15.5% between 1990 and 2019. It can also be seen that Cameroon's HDI (0.563 in 2019) is lower than the average for countries in the medium human development group, set at 0.631, hence the need to continue the necessary efforts to improve the three fundamental dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living.[37]

It should be noted that, when the value of the 2019 HDI is revised downwards to account for inequality, it drops to 0.375, a loss of 33.4% due to inequalities in the distribution of indicators of the HDI dimensions. The 2019 Inequality-Adjusted Human Development Index (IHDI) clearly shows that inequalities in living standards, particularly in the areas of health, education and income, in Cameroon are still a matter of concern. Indeed, Cameroon's inequality coefficient (33.4%) is well above the average of countries with an average HDI (26.3%) and even the average of countries in the sub-Saharan Africa region (30.5%).[38]

Nearly 40% of women had problems accessing health care because of the distance between them and health facilities (HFs) and 68% because of lack of money. This problem has varied according to the level of poverty, with a greater impact on the poorest quintiles. The East, North and Far North regions are most affected. [39]

In addition, there are disparities in geographical accessibility to care depending on the area of residence (between rural and urban areas). For example, only 53% of births are assisted by skilled personnel in rural areas, compared to 90% in urban areas[40].

1.7. HUMANITARIAN AND SECURITY CONTEXT

The spread of conflicts and insecurity in eastern Nigeria and the Central African Republic (CAR) have repercussions on the security of people and property in the Far North and East regions respectively of Cameroon. Also, the spread of internal conflicts and insecurity are most commonly observed in the Adamawa, North-West and South-West regions.

Available statistics show that in 2019, Cameroon registered an estimated 1,214,714 persons of concern (POCs)to UNHCR, including 425,570 refugees and asylum-seekers, 683,238 internally displaced persons (IDPs) and 105,906 returnees (former IDPs). The numbers of refugees from Nigeria and the Central African Republic (CAR) were 136,399 and 256,100 respectively in 2019. The majority of CAR refugees are found in the East (174,076) and Adamawa (60,404) regions. Nigerian refugees are mainly found in the Far North (136,399).

The deterioration of the security situation in the North-West and South-West regions and part of the Far North has led to a considerable increase in IDPs. This situation is most felt in the South-West (246,119 IDPs) and Far North (245,725 IDPs) regions, thus increasing the need for human resources and social infrastructure, including health facilities.

The health problems of refugees and migrants are similar to those of the rest of the population, although the prevalence may be higher in specific groups such as new refugees,

migrant women, etc. The health problems frequently observed during crises are : injuries, measles, water-borne diseases (cholera, dysentery...), severe respiratory infections, malaria and malnutrition. Epidemics such as meningitis, yellow fever, viral hepatitis and typhoid occur in these emergencies, which also contribute to the emergence of psychiatric and psychosocial problems.[41]

During humanitarian crises, injuries and violent deaths resulting from armed combat and torture necessitate the provision of specialized care. In addition, the lack of condoms, laboratory tests, sexual and perinatal health services in conflict areas contribute to the proliferation of epidemics, specifically HIV/AIDS.The lack of social control, risky behaviour, rape and prostitution are also factors conducive to the spread of this pandemic.

Addressing these health needs for refugees, internally displaced persons, host communities and survivors is challenging. Most health workers responding to emergencies have not been trained to respond effectively and efficiently to the health needs of people in emergencies, either in terms of prevention or case management.

CHAPTER 2: HEALTH SITUATION

2.1. ORGANIZATION OF THE HEALTH SECTOR IN CAMEROON

In Cameroon, the health sector is structured at three levels (central, intermediate and peripheral) and comprises three sub-sectors: (i) a public sub-sector; (ii) a private sub-sector (nonprofit and profit); and (iii) a traditional subsector. Each level of the pyramid has administrative, health and dialogue structures (see Table 1).

Table 11: Different levels of the health pyramid and their functions

Level	Administrative structures	Duties	Health facilities	Dialogue structures
Central	- Minister's office, , - Secretary of State in charge of Epidemics and Pandemics -General Secretariat Technical departments and their equivalence	- Policy development -Coordination -Regulation -Supervision	- General Hospitals, University teaching Hospitals, Central Hospitals and their equivalence and other specialized technical facilities (CENAME, CPC, - CHRACERH, LANACOME, CIRCB, ONSP, LNSP)	- National health Council of Hygiene and Social Affairs
Intermediary	- 10 Regional delegations of public health	- Regional coordination -Technical support to Health Districts - -Regulation -Supervision	- Regional hospitals and equivalence	- Regional Funds for Health Promotion
Peripheral	- 199 Health Districts	- District Coordination - -Regulation -Supervision -Care Services	- District Hospitals -Clinics -SDMHC - IHC, dispensary, mobile dispensaries	- COSADI; COGEDI - COSA; COGE

Source: MOH. Health Sector Strategy 2020-2030. Completed from the 2020 health card

The health sector has been segmented into five components. Three verticals, namely: (i) health promotion; (ii) disease prevention; (iii) case management; and two horizontal or cross-cutting: (iv) health system strengthening and (v) governance (standardization, regulation and accountability) and strategic management (planning, supervision, coordination and strategic and health monitoring).

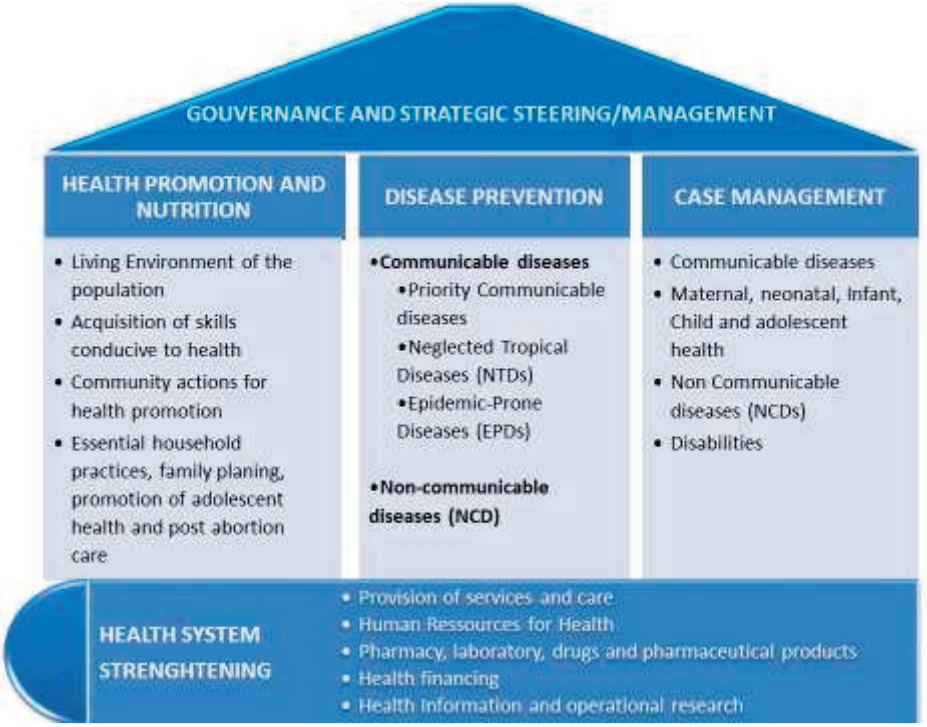


Figure 3: Health Sector Segmentation into Components and Sub-Components

Source: MOH, HSS 2020-2030

2.2. HEALTH SITUATION OF THE POPULATION

2.2.1. LIFE EXPECTANCY

Between 1990 and 2019, life expectancy at birth in Cameroon increased from 53.4 to 59.3 years, an increase of 5.9 years over the period. However, it should be noted that, during the decade 1990-2000, marked by the economic recession and the implementation of structural adjustment programmes, life expectancy at birth fell significantly [42] from 53.4 to 51 years. It is from the early 2000s, as illustrated in Figure 3 below, that life expectancy at birth has continued to increase. This situation reflects the Government's significant efforts to ensure a long, healthy life. If this trend is maintained, life expectancy at birth would change considerably and could reach the target set in the NDS30 of 62.1 years in 2030. Achieving[43] this performance implies maintaining the efforts made to ensure good universal health coverage and subsequently, strengthening the health system[44].

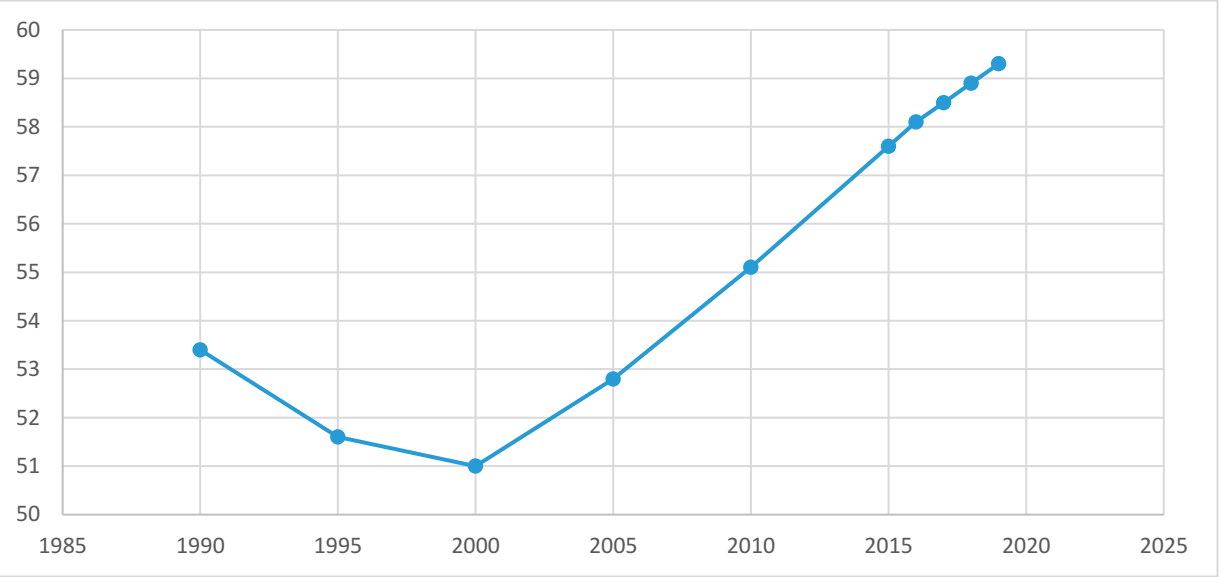


Figure 4: Evolution of life expectancy at birth from 1990 to 20194

Source: UNDP, Human Development Report 2020

Table II below shows, however, that, despite the above-mentioned improvements, the life expectancy of the Cameroonian population remains below the overall situation of the countries of sub-Saharan Africa and even that of the countries of the group with medium human development.

Table 22: Life expectancy at birth in Cameroon in 2019 by sex, compared to sub-Saharan African countries

	Life expectancy at birth		
	Both sexes	**F**	**H**
Cameroon	59,3	60,6	58
Sub-Saharan Africa	61,5	63,3	59,8
Average of countries in the medium human development group	69,3	70,8	67,9

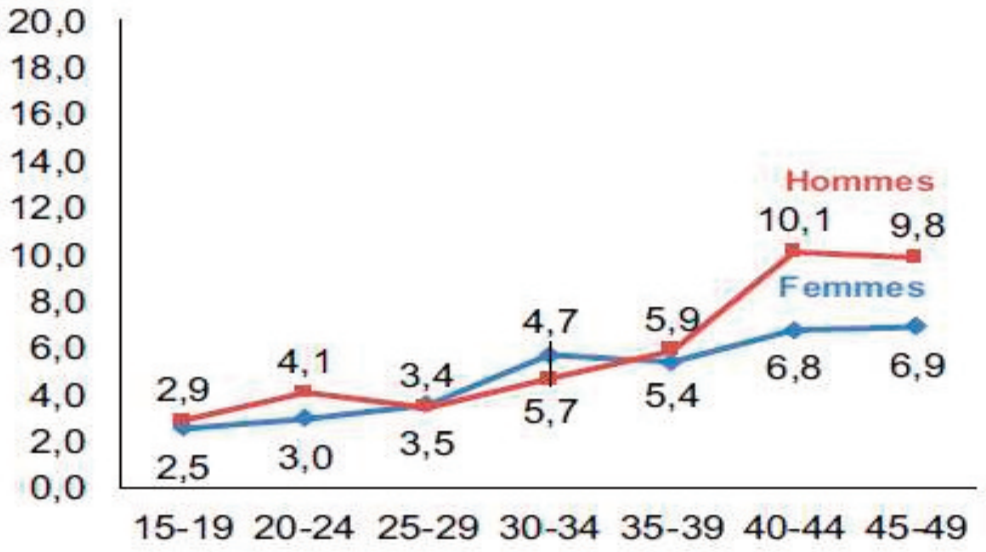
Source: UNDP, Human Development Report 2020

2.2.2. GENERAL MORTALITY AND TARGET POPULATIONS

2.2.2.1. General mortality

For people between the exact ages of 15 and 50, the mortality rate is 4.81 deaths per 1,000 for men, and 4.18 deaths per 1,000 for women. Figure 4 below shows that the mortality rate increases with age for both women and men. The mortality rate increases quite rapidly among women aged 15-19 and 30-34, reaching a maximum of 6.9‰ among those aged 45-49. However, among men, the variations are more irregular with higher mortality rates after the age of 40 (10.1 ‰ at 40-44 years and 9.8 ‰).[45]

Compared to the period 2004-2011, the probability of dying between the exact ages 15 and 50 decreased for both women (from 228 ‰ to 155 ‰ for the period 2012 to 2018) and men (respectively 232 ‰ to 185 ‰).[46]



Fiure 5: Adult mortality rate, by 5age group for the period 2012-2018 (Deaths per 1000 people)

Source: DHS 2018 Page 379

The epidemiological profile of Cameroon continues to be marked by a high prevalence of communicable diseases, although these are decreasing (see Figure 6). The most important are still HIV/AIDS and malaria. These two pathologies have occupied a prominent place among the leading causes of death for more than 10 years. These are complemented by water-borne diseases, respiratory infections and neonatal diseases. Tuberculosis, which was one of the leading causes of death, has declined significantly and now ranks 9th.

Non-communicable diseases have witnessed an upward trend in recent years. This translates into an increase in the number of deaths caused by stroke (21.7%) and ischemic heart disease (32.8%). There has also been a sharp increase in deaths due to diabetes (34.8%) and those attributable to road traffic accidents (19%). (See Figure 6)

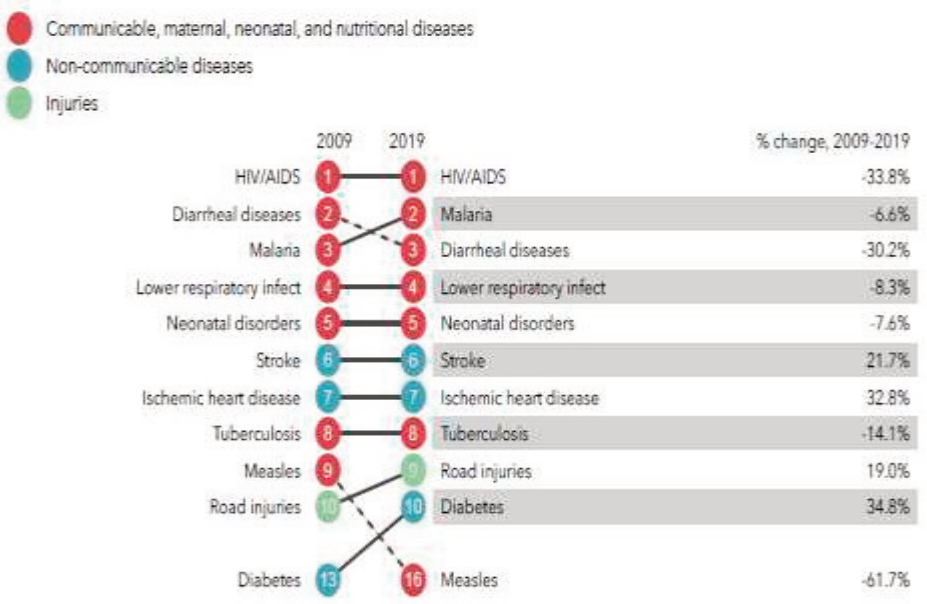


Figure 6: Top 10 causes of death in Cameroon in 2019

Source: Obtained from IHME data use 47

2.2.2.2. Neonatal, infant and maternal mortality

Maternal mortality and morbidity

Nationally, maternal mortality increased from 669 to 782 maternal deaths per 100,000 live births between 2004 and 2011. Among the factors that explain this situation are: (i) the low rate of births assisted by qualified health personnel (64.7% in 2014), (ii) the inadequate financial and geographical accessibility to health services, (iii) the insufficiency of blood products; (iv) the poor implementation of high-impact interventions on maternal health, including: family planning, the establishment of the [48;49] SONU network, the training and deployment of midwives and the Surveillance of Perinatal Maternal Deaths and Response (RMNCAH).

The Government's efforts to address this situation have reduced the maternal mortality ratio to 406 deaths per 100,000 live births in 2018, a decrease of 40%. In the same vein, the intra-hospital obstetric case fatality rate decreased from 1.50% to 0.11% during the period 2015-2020. Nevertheless, it is imperative to maintain these efforts in order to get as close as possible to SDG target 3.1: which is to reduce the global maternal mortality ratio below 70 per 100,000 live births by 2030.

It is well established that more than half of maternal deaths (69%) are due to direct preventable obstetric causes, namely: hemorrhage (41.9%), severe pre-eclampsia and eclampsia (16.7%), severe postpartum infection (4.4%) and serious complications of abortion

(4.1%). [50]These causes could be avoided if the provision of maternal health services and care were strengthened, especially at the operational level.

The establishment of the National Basic Emergency Obstetric and Neonatal Care (SONUB) and Complementary Emergency Obstetric and Neonatal Care (SONUC) networks could also reduce the problem of obstetric fistula that still exists. Indeed, early reproduction and barriers to accessing health services have contributed significantly to the occurrence of obstetric fistula. Despite the efforts made to care for the latter, many women still do not have access to care. The 2018 DHS estimates 17,721 cases of obstetric fistula.

Table 33: Evolution of the maternal mortality ratio per 100,000 live births in Cameroon between 1998 and 2018

P eriodes	**1991-1998**	**1997-2004**	**2004-2011**	**2012-2018**
Ratio	511	669	782	467* 406**
Spring	ESDC 1998	ESDC 2004	ESDC-MICS 2011	ESDC 2018

* : Old calculation method corresponding to the results of previous DHS surveys in Cameroon

**: New calculation method corresponding to WHO definition

Source: Monitoring report of 100 health indicators in Cameroon

Neonatal mortality and morbidity

Neonatal mortality decreased from 31 to 28 deaths per 1,000 live births from 2011 to 2018. It is important to note that this indicator has stagnated since 2014 at 28 deaths per 1,000 live births.

Table 44: Evolution of neonatal mortality per 1000 live births, from 1991 to 2018 in Cameroon

Period	1991	1998	2004	2011	2014	2018
Neonatal mortality	33	37	29	31	28	28
Spring	ESDC 1991	ESDC, 1998	ESDC 2004	ESDC-MICS 2011	MICS, 2014	EDS 2018

Source: Monitoring report of 100 health indicators in Cameroon

The SDG target is to achieve 12 per 1,000 live births by 2030. But the country is still far from this performance despite the efforts made by MOH as part of the implementation of some innovative actions such as the Kangaroo mother method through the Kangaroo Mother Care Development Impact Bound project (KMC-DIB) covering 6 regions (Littoral, Adamawa, Centre, North, South-West and East).

At the national, institutional and community levels, the regions concerned have also been supported for the development of kangaroo method manuals, guides and standards for newborn care, the promotion of exclusive breastfeeding, and the adoption of good practices for health of the newborn.

Infant and child mortality and morbidity

Between 2015 and 2020, infant and child mortality decreased from 103‰ to 80‰. The same is true of the infant mortality rate, from 60‰ to 48‰ over the same period. In children aged 2 months to 5 years, [51]pathologies such as: malaria (21%), diarrhea (17%), pneumonia (17%) and HIV/AIDS (7%) are the main causes of mortality. In addition, chronic malnutrition is the cause of 14.7% of deaths among children under 5 years of age. However, essential family practices and high-impact child health interventions (immunization, exclusive breastfeeding, etc.) are not sufficiently implemented to reverse the trend of the above-mentioned figures.[5253]

Table 55: Trends in selected child health indicators

Performance indicators	Baseline in 2015	Results in 2020	Comments
Malaria-specific mortality rate in children under 5 years of age	45%	35,7% SNIS (DHIS-2)	Improvement
Infant mortality rate	60 / 1 000 MICS 5 Page 28	48/1000 EDS 2018 Page 157	Improvement
Infant and child mortality rate	103/1000 MICS 5 Page 28	80/1000 EDS 2018 Page 157	Improvement

Source: Final Evaluation Report of the NHDP 2016-2020

Table V above shows a considerable improvement in child health indicators. This downward trend could be the result of government measures making the health of children under 5 a top priority in the health sector. This was materialized by the creation of a National Programme for the fight against maternal and infant mortality (PLMI) in 2014, the adoption of the implementation of the Integrated Management of Childhood Illnesses (IMCI, 2014) between 2014 and 2015 at national level. The same applies to campaigns to intensify immunization against child-killing diseases (polio, measles, etc.) and to prevent malaria among them.

Morbidity and mortality in adolescents and young people

Mortality among adolescents aged 15 to 19 increased in Cameroon between the periods 1991-1997 and 2004-2011, from 2.4 to 2.98 per 1000 for women and from 2.18 to 3.2 per 1000 for men, respectively.

Table 66: Situation of the main mortality indicators in Cameroon in 2019

Indicators	Value	Data source	Author
Maternal mortality ratio - SDG 3.1.1	406 per 100,000 births	EDS 2018	MOH/INS Cameroon
Mortality rate due to Tuberculosis	31 per 100,000 population	Global Tuberculosis Report	WHO
AIDS-related mortality rate	112 per 100,000 population	EDS 2018	MOH/INS Cameroon

Malaria mortality rate/ 100,000 population	17.7 per 100,000 population	PNLP ANNUAL REPORT 2019	WHO
Mortality among 30-70 year olds due to cardiovascular diseases, cancer, diabetes or chronic respiratory diseases - SDG 3.4.1	22%	COUNTRY PROFILE OF NONCOMMUNICABLE DISEASES CAMEROON 2018	WHO
Mortality rates from indoor air pollution and ambient air pollution - SDG 3.9.1.	208 per 100,000 population	WORLD HEALTH STATISTICS 2019	WHO
Mortality rates due to unsafe water, poor sanitation and poor hygiene (Access to inadequate WASH services) - SDG 3.9.2	45.2 per 100,000 population	WORLD HEALTH STATISTICS 2019	WHO
Mortality rate due to accidental stocking - SDG 3.9.3	3.1 per 100,000 population	WORLD HEALTH STATISTICS 2019	WHO
Suicide mortality rate - SDG 3.4.2	12.2 per 100,000 population	WORLD HEALTH STATISTICS 2019	WHO
Road traffic mortality rate - SDG 3.6.1	30.1 per 100,000 population	STATISTICAL YEARBOOK 2015	INS Cameroon
Number of people killed, missing or directly affected by disasters - SDG 1,5.1; 11.5.1 13.1.1	254 dead, 3 missing, 1200 directly affected	MINAT/DPC REPORT 2019	MINAT/CPD
Number of homicide victims, by sex and age - SDG 16.1.1	11.6 per 100,000 population	WORLD HEALTH STATISTICS 2019	WHO

Source: NPHO 2022

Surveillance of perinatal maternal deaths and response

Surveillance of perinatal maternal deaths and response as a high-impact intervention in the fight against maternal mortality has been effective in Cameroon since 2014 through the introduction of maternal and perinatal deaths in the Integrated Diseases Surveillance and Response and constitutes a reportable event. To date, this monitoring has increased awareness and support among stakeholders in the fight against maternal mortality in Cameroon. It also strengthened the review of maternal deaths. However, some challenges still exist, such as:

- improving the timeliness and completeness of data;
- the development of active research mechanisms to fill the data gap of silent health districts;
- improving the quality of reviews of maternal deaths at all levels;
- strengthening the Surveillance of Perinatal Maternal Deaths and Response at the community level;
- systematizing the inclusion of perinatal deaths in Surveillance of Perinatal Maternal Deaths and Response;
- the effective implementation of response plans following reviews.

2.3. DISEASE BURDEN

Prevention and management of communicable and non-communicable diseases improved overall in the country over the period 2016-2020. The registered performance could be explained by the efforts made by the government and technical partners to improve the technical platforms of health facilities. To this can be added the free measures established to ensure access to health care and services for certain targets (pregnant women, children under 5 years of age, people living with HIV (PLHIV), tuberculosis patients and patients with Covid-19, etc.).

2.3.1. COMMUNICABLE DISEASES

2.3.1.1. Major communicable diseases

Malaria

Malaria remains an endemic disease in Cameroon and is a major concern for national authorities. The country's efforts to combat this disease have improved access to malaria prevention and management services among the general population, including target groups such as pregnant women and children under 5 years of age. Thanks to these efforts, the prevalence rate decreased from 30% to 24% between 2011 and 2018 (ESDC-V). However, since 2016 there has been an increase in the incidence rate from 75.7/1000 inhabitants to 101.2/1000 inhabitants and proportional morbidity in HFs has increased from 23.6% to 29.1% within the same period.

The death rate increased from 11.2/100,000 inhabitants to 15.8/100,000 inhabitants between 2016 and 2020. This translates into an average of 6000,000 cases and 4,000 deaths each year. In addition, children under 5 years of age account for 69.1% of hospitalizations and 64% of malaria-related deaths (NMCP 2020 report). Also, malaria represents a great danger for pregnant women and newborns. In response to this situation, the government has adopted a fifth National Plan against Malaria whose objective is in line with that of the 2020-2030 Health Sector Strategy of reducing malaria-related morbidity and mortality by 60% by 2023.

The main challenges facing the program are:

- low coverage in preventive intervention (IPT and LLINs);
- high resistance of vectors to insecticides;
- poor access to quality curative services;
- low availability of prevention and case management services at the community level; (Insufficient coverage of interventions under Community directives);
- low ownership of control interventions by Decentralized Territorial Communities (DTCs);
- Inadequate input supply system (frequent disruptions);
- Insufficient quality of data;
- Inadequate surveillance of the disease at all levels.

To reverse this trend, the country has aligned itself with the HIGH BURDEN TO HIGH IMPACT initiative advocated by the WHO which aims to improve the health situation of the countries most affected by this disease through four pillars :

- strengthening political will;
- strategic use of information;
- the adoption and implementation of the best strategies to control the disease and;
- coordination of the national response.

HIV/AIDS and STIs

The HIV prevalence rate among people aged 15 to 49 years decreased from 4.3% in 2011 to 2.7% in 2018 in Cameroon. [54] Women aged 15-49 (3.4%) are more exposed than men in the same age group (1.9%). The number of new HIV-related infections was estimated at 58,757 in 2014. It has risen to 31,000 new HIV cases per year, an incidence of 0.24% in adults. The populations most exposed to HIV and other STIs are: sex workers (36%), Men [55,56]*Having Sex with Men* (MSM) (24-44%), truck drivers (16%). Other vulnerable populations are: prisoners, adolescents and youths, refugees and workers in economic hubs. HIV prevalence is very high among widows (17.9%), divorced/separated women (15.7%), and widowers (10.6%). [57]

In addition, the epidemic has become more feminized among the age group of15-19 and 20-24. In fact, the incidence of HIV is 9 times higher among girls than among boys in these age groups. The epidemiological distribution also shows a disparity between urban and rural areas as well as between regions. The south (6.3 %) and east (5.9 %) regions have the highest prevalence, while HIV prevalence are lowest in the Far North (1.5 %), North (1.6 %) and West (2.7 %) regions. [58]

HIV prevalence among women aged 15-49 is higher in urban areas than in rural areas (3.9 % against 2.9 %). Among men aged 15-49, on the other hand, there is no difference, with HIV prevalence being 1.9% in both urban and rural areas (DHS 2018).

The most important determinants that sustain the epidemic in Cameroon are: the multiplicity of sexual partners over time, the number of sexual partners in the last 12 months, the early sexual activity of young girls with older partners, high and highly mobile prostitution, reluctance to use condoms, stigmatization and discrimination of people living with HIV (PLHIV) and blood transfusions. [59]

According to the United Nations initiative, better known as the 90-90-90 strategy, which outlines ways in which the three preliminary goals could be achieved by 2020, namely: identifying 90% of people living with HIV through expanded testing; placing 90% of individuals identified as positive for HIV on antiretroviral therapy (ART), and ensure that 90% of people on treatment are able to achieve undetectable viral loads indicative of treatment success.

According to the CAMPHIA 2018 survey, Cameroon recorded 55.6% of PLHIV who know their status, of which 93.1% are on ART and 80.1% of them have an undetectable viral load. These results could be explained by the Government's efforts to make the care of PLHIV in HFs accessible and free of charge through the User-Fees initiative, which is a system of purchase of benefits by the State. In addition, there are still inequalities in the response to HIV, which can hinder progress towards the goals. They are more noticeable in key populations that are not sufficiently taken into account. [60]

PMTCT

According to the CNLS 2014 Annual Progress Report on Prevention of Mother-to-Child Transmission (PMTCT) of HIV/AIDS, out of 825,150 expected pregnancies, 573,793 women (69.5%) were seen in ANC and 493,510 (86% of ANCs and 60% of expected pregnancies) had access to HIV testing, of which 31,112 (6.3%) were found to be positive. This HIV status ranges from 12.2% in the Central region to 2.2% in the North region. A total of 10,599 (34%) of the 31,112 HIV-positive pregnant women screened were on ART, or 25% of the expected HIV-positive pregnant women. [61,62]

The goal of eliminating mother-to-child transmission of HIV by 2015 has therefore not been achieved. Although the number of health facilities offering PMTCT services increased between 2010 and 2014, from 2067 to 3466 of the 3990 functional HFs in the country at that time, this rate is still very low. [63]

Option B+ of "Putting all HIV-positive pregnant women on treatment without waiting for CD4 results" was adopted by the country in 2012. In 2014, out of 41,684 HIV-positive pregnant women expected, 31,112 (74%) were tested for HIV and 11,698 (71%) were put on ART prophylaxis. The integration of PMTCT into ANC activities is effective in all regions, although the coverage of this ANC is not always satisfactory.[64]

Limiting factors that contribute to the system's poor response to PMTCT include:

- insufficient provision of PMTCT services in rural areas (insufficient trained staff and commodities not available in some HFs);
- insufficient access to services in rural areas;
- recurrent stock-outs in screening tests and ART.[65]

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 10.5%. That of viral hepatitis C is 1.03% and is higher in those aged 50 and above. The HIV-viral hepatitis B co-morbidity of 1.5% is low. A large proportion of viral hepatitis is due to blood transfusion.

The country does not have data on mother-to-child transmission of HBV. Vaccination at birth of newborns exposed to viral hepatitis B is not routine. However, a prevalence study in a population of children vaccinated according to the current schedule that does not include the dose at birth found a prevalence of 0.7% attributable in part to vertical transmission. Modelling based on the prevalence of viral markers AgHbS and AgHBe in pregnant women estimated the number of perinatal infections at 24.3 per 1000 live births in the absence of a specific prevention strategy for vertical transmission of viral hepatitis B.

Universal vaccination at birth of all newborns and targeted antiviral prophylaxis in infected pregnant women are strategies envisaged to significantly reduce the epidemiological burden of this vertical transmission by 2030.[66]

Tuberculosis

According to WHO, the TB mortality rate (excluding HIV/TB co-infection) was estimated at 30 per 100,000 population in 2017. For deaths from this disease (only among HIV/TB co-infection cases), the mortality rate is estimated at 25 per 100,000 population. Also in 2017, the number of incident cases (including HIV/TB co-infections) was estimated at 47,000 people on average, resulting in an incidence rate (including HIV-TB) of 194 per 100,000 population.

Analysis of the incidence of tuberculosis by age group shows that the incidence is highest in people over 14 years of age.

In 2019, 24582 cases of tuberculosis of all forms were detected in all Diagnosis and Treatment Centers (DTC) in the country. Men (61%) are more affected than women (31%). The most affected age group is 25-44 years. Among these cases, 1273 children are screened or 5.2% of cases. Active case finding with target populations is effective. Community activities are visible and well followed by all stakeholders. There is also an increase in suspected cases referred by community workers and an increased demand for laboratory tests leading to a reduction in the positivity rate (PNLT Annual Activity Report 2019).

The acceptance rate of HIV testing was 91% in all TB cases, of which 29% tested positive for HIV (TB/HIV co-infection rate). The results show that TB/HIV co-infection is higher in the North-West region (45%).While the north (14%) and Far North (11%) regions are the least affected. Vulnerable people are prisoners, refugees and immunocompromised people, including people living with HIV. There are 28 functional TB screening and treatment centres in Cameroon. In addition to these 28 DTC, there are 11 functional multidrug-resistant TB (MDR-TB) management centres.

The therapeutic success rate of TB patients has improved slightly from 84% in 2015 to 86% in 2020 (PNLT 2020 Report). The proportion of lost-to-find in 2018 in Cameroon remains high (6%), the same is true for the proportion of deaths which remains around 6%.

The incidence of tuberculosis is higher in men than that observed in women regardless of age group. Under universal health coverage and social protection, an estimated 52% of notified cases received TB treatment coverage in 2017. Among these, the TB case fatality rate recorded in 2017 was 0.29%.

From 2014 to 2015, the number of new cases of pulmonary microscopy-positive tuberculosis increased by 4353 cases (from 11,655 cases in 2014 to 16008 cases in 2015) with a cure rate of 85%. The main obstacles in the health system that have been identified are: the absence of an integrated monitoring and evaluation plan, the lack of accountability mechanisms, the mismatch between expected results [67]and available resources.

In its 2014 report, WHO estimated that the number of incident cases varied between 47,000 and 49,000, a rate between 210 and 265 per 100,000 inhabitants. The East region saw a 35% increase in cases between 2013 and 2014 due to the influx of refugees from the Central African Republic.[68]

2.3.1.2. Epidemic Prone Diseases (EPDs) and Emergencies

Over the past five years, the epidemiological landscape (see Table VII) has been particularly marked by the occurrence of the following epidemics: (i) cholera (23152 cases were suspected in 2011, and preventive measures have reduced the occurrence of other epidemics); (ii) bacterial meningitis (the most frequent serogroups were A and MenAfricaW135 whose epidemics subsided with the introduction of the meningococcal vaccine); (iii) Influenza: The period from 2008 to 2012 was marked by the occurrence of pandemic influenza. The fight against these epidemics has been achieved by strengthening the surveillance system at all levels and strengthening hospital infrastructures (creation of specialized centers for the management of cases). In addition, the "One Health" concept was born through the establishment of a collaboration between MOH and MINEPA; (iv) measles with 45 health districts affected in 2018, 61 in 2019 and 79 in 2020, the incidence during the last outbreak was 44 per 100,000 inhabitants with a case fatality rate of 7 deaths per 1000 cases) and ([69]vi) poliomyelitis (Cameroon has been certified free of wild poliovirus since 18 June 2020. However, the country continues to face outbreaks of circulating vaccine- -derived poliovirus (cVDPV2) with 4 confirmed cases in 2019 and 15 in 2020.

With regard to zoonosis and epizootic diseases, the country has experienced several zoonotic episodes over the last decade, including yellow fever in humans, anthrax in cattle and primates, H5N1 avian influenza in domestic poultry and avifauna, pandemic influenza A (H1N1) in 2009 in pigs, Rift Valley fever in ruminants and humans, monkey pox in chimpanzees. Endogenous or import risks of Ebola virus disease cases continue to be present.

Vaccine-preventable diseases (VPDs)

Till date, 13 diseases are targeted by the routine Expanded Programme on Immunization (EPI): tuberculosis, poliomyelitis, diphtheria, neonatal tetanus, pertussis, viral hepatitis B,

Haemophilus type B infection, pneumococcal infection, rotavirus diarrhea, yellow fever, measles and rubella and Human Papilloma Virus (HPV) infections. The difficulties encountered in the implementation of this program are of several kinds:[70,71]

- the lack of human resources trained on vaccination in practice (12.2%[72]);
- coverage of rolling stock needs is insufficient (36% for motorcycles in health areas, 54% for vehicles in health districts and 40% for outboards);[73]
- the coverage of health facilities in cold chain equipment is 75% (the national standard being 80%);[74]
- poor implementation of advanced/mobile strategies in several health districts;
- low quality and use of routine data for decision-making;
- insufficient capacity for the service offer, particularly functional cold chain equipment (14% of HFs covered in standardized equipment, 53% implementing immunization without cold chain equipment), rolling stock (36% of health area having a motorcycle) and human resources trained on vaccination in practice (12.2%);[75]
- the difficult accessibility of a large part of the target population due to geographical and climatic conditions, insecurity and high mobility of the population;
- the decline in confidence in vaccines in a context of spreading rumors and misinformation during the Covid-19 pandemic that impacted the generation of demand for services;
- the inadequacy of current strategies to the new challenges posed by urbanization, health and humanitarian emergencies and high mobility;
- low quality and use of routine data for decision-making.

Currently, 7 vaccine-preventable diseases are under surveillance. These are: yellow fever, measles, neonatal tetanus, poliomyelitis, congenital rubella syndrome, meningococcal meningitis and rotavirus diarrhea. The last 3 are subject to sentinel surveillance. Despite the surveillance system put in place (management tools, telephone fleet, internet, notification circuit, etc.), collaboration and multidisciplinary and multisectoral coordination of integrated disease surveillance is not optimal. Currently, there is a multi-hazard plan for preparedness and response to health emergencies in Cameroon. This covers the period 2022-2024 and could guarantee, through dedicated strategies, the punctual and effective response to any epidemic declared throughout the country. The laboratories are not yet net worked. The Centre Pasteur du Cameroun in Yaoundé and its Garoua annex, the Global Viral Cameroon laboratory, the National Public Health Laboratory (LNSP), the Research Center for Emerging and Re-emerging Diseases (CREMER) and the National Veterinary Laboratory (LANAVET) are currently the only reference laboratories. However, the delivery of samples to them is not yet optimal. Table 7 below summarizes the history of selected Surveillance Based on Data from 2016 to 2020.[76]

Community supervision is passive. It is done by CHWs, some community leaders and dialogue structures. However, weekly reports are not yet produced. This is because this activity is

voluntary and unpaid. However, a non-functional early warning system leads to a late response in the event of an epidemic.

COVID-19 pandemic

The first two cases of COVID-19 were identified in Cameroon on 06 March 2020 and the COVID-19 Incident Management System (IMS) was activated at the Public Health Emergency Operations Coordination Centre (PHEOCC). On November 3, 2021, there were 105,719 positive cases of COVID-19 with 1758 deaths , a case fatality rate of 1.7%. In general, people aged 60 and above died the most. The most infected age group are those between 30 to 39 years, with men being more infected.

Health workers are paying a heavy price in the face of this pandemic with 57 deaths. Out of 3,569 positive cases, 545 pregnant women were infected, including 6 deaths.

Vaccination against COVID-19 was introduced on 12 April 2021. But vaccination coverage remains low, at 4.1% of the target population. The COVID-19 delta variant was isolated in Cameroon in May 2021. (SITREP COVID19 of 18-24/11/2021). Two response plans have already been developed and implemented in Cameroon. The strategic axes of the response are: i) coordination; ii) risk communication and community engagement; (iii) surveillance and investigation; (iv) treatment; (v) infection prevention and control; (vi) logistics; and (vii) immunization and continuity of essential services. The preventive measures enacted by the Government, including: distancing, wearing masks, washing hands, limiting gatherings of more than 50 people, etc., is not effectively respected by the population. The implementation of the second response plan at the operational level faces bottlenecks in some pillars of the response, namely:

- **management:** disruption of certain commodities of the treatment protocol;
- **Infection Prevention and Control (IPC):** insufficient Personal Protective Equipment (PPE), hospital waste management in HFs;
- **logistics**: inadequacy/insufficiency in the majority of Health Districts which does not cover the needs expected
- **Immunization**: insufficient resources, and low adherence to COVID-19 vaccination.

Preparedness for the management of epidemics and zoonosis

The experiences of previous epidemics have not made it possible to set up a sustainable response structure as recommended in the National Technical Guide for Integrated Disease Surveillance and Response (management committees, rapid response teams, etc.). Beyond the threat of Ebola, there have been no further needs assessments or pre-positioning of stocks of products and equipment. There is no integrated outbreak management plan or high-biosafety laboratories (BLIS4: Biosecurity Level 4).

In addition, a national programme for the prevention and control of emerging and re-emerging zoonosis was created and organized in April 2014. This structure is lodged in the Prime Minister's Office and its action plan was elaborated in December 2015.

Table 77: History of some AEDs in Cameroon from 2016 to 2020

MAPE	2016			2017			2018			2019			2020 (SE 50)		
	Suspected cases	Death	Lethality (%)	Suspected cases	Death	Lethality (%)	Suspected cases	Death	Lethality (%)	Suspected cases	Death	Lethality (%)	Suspected cases	Death	Lethality (%)
Cholera	78	1	1,3	20	0	0	993	58	5,8	1168	114	9,8	1885	80	4,2
Meningitis	1366	58	4,2	1349	66	4,9	1060	88	8,3	2034	16	0,8	1300	38	2,9
Measles	1669	2	0,1	1142	3	0,3	1316	286	21,7	8742	204	2,3	5596	91	1,6
Severe acute gastroenteritis*	62048	99	0,2	54083	74	0,1	63112	562	0,9	110590	389	0,4	112641	242	0,2
Bloody diarrhea	14065	1	0,0	12750	6	0,0	11034	246	2,2	12778	157	1,2	11634	108	0,9
Typhoid fever	275950	16	0,0	249811	7	0,0	341246	1460	0,4	595620	739	0,1	554476	521	0,1
Influenza-like illness	107334	20	0,0	84591	55	0,1	138941	749	0,5	228397	464	0,2	162090	175	0,1
Poliomyelitis**	779	1	0,1	598	0	0,0	1046	31	2,9	1176	8	0,7	569	46	8,1
Malaria	1400113	1150	0,1	1130067	1036	0,1	1694216	5538	0,3	2610539	4210	0,2	2388369	3542	0,1
COVID-19	-	-	-	-	-	-	-	-	-	-	-	-	25449***	447	1,8

*: surveillance for diarrhea with dehydration in children under 5 years of age

**: monitoring of Acute Flaccid Paralysis

: Number of confirmed cases in week 50

Sources: History of some MAPE, 2016-2020. (DLMEP, unpublished data)

2.3.1.3. Neglected Tropical Diseases

The main Neglected Tropical Diseases (NTDs) are the subject of priority health programmes. These are:

Onchocerciasis

According to initial mapping surveys conducted in 2020, the prevalence of onchocerciasis is estimated at 40% in Cameroon. This disease remains endemic in the ten regions of the country, with more than eighteen million people exposed (62% of the total population) and five million infected people (64% of the population at risk).

In the same year, it was estimated that more than 32,000 people were infected with blindness and more than 1,500,000 infected people with severe skin lesions. Of the total number of existing districts, 128 are endemic to loasis, including 103 co-endemic to onchocerciasis. All hyper- and meso health districts endemic to onchocerciasis are under "Community-directed Ivermectin Treatment (CDIT) ". In 2020, the treatment coverage rate for Ivermectin was 71.74% and the geographical coverage rate was 89.03%.

Lymphatic filariasis

The prevalence of lymphatic filariasis remains high and ranges from 6% in the northwest to 1.1% in the west. In 2020, after 6 years of mass treatments with Ivermectin and Albendazole, most HDs, with the exception of AKWAYAHD, met the discontinuation criterion and are in the monitoring phase. (Source: Survey Report 2018, 2019, 2020)[77] .

Schistosomiasis and intestinal helminthiasis (geohelminthiasis)

Schistosomiasis currently affects more than 2 million Cameroonians. School-aged children (5-14 years) are the most vulnerable and affected group by this parasitic infection and represent 50% of those infected. One third of the general population is exposed to risk factors of this disease. The three northern regions of Cameroon are the most affected, some health districts in the South-West, North-West, Littoral, East, West and Centre regions are also affected.

As for helminthiasis, they currently affect more than 10 million Cameroonians. School-aged children (5-14 years) are the most vulnerable and affected group. The 10 regions of Cameroon are affected by intestinal worms and almost the entire population is at risk of infection with this disease. The fight against soil-transmitted helminthiasis is integrated with that against schistosomiasis, and 122 million cumulative treatments were administered for these two diseases between 2006 and 2019.

From 2003 to 2021, the strategy to combat schistosomiasis and intestinal helminthiasis was based on the annual deworming of school-aged children and at-risk groups. In 2021, a new roadmap 2021-2030 for the elimination of schistosomiasis in Cameroon was adopted.[78]

Buruli ulcer

It occurs mainly in the Nyong Valley (Centre), in the Bankim Basin (Adamawa) and in the Mbonge area (South-West). The number of endemic health districts increased from 5 in 2005 to nearly 30 in 2015, despite free treatment. However, the number of Buruli Ulcer Treatment Centres (DTC-BU) is stagnating. Studies have shown that the indirect costs inherent in its management constitute a significant burden for patients and their families. The lack of data at the national level is a weakness for national coordination[79,80].

Human African trypanosomiasis[81]

There are currently five active outbreaks of HAT in Cameroon, namely: Campo and Bipindi in the South region, Doume and Yokadouma in the East, and Santchou in the West. The former outbreaks of Mamfe and Fontem in the South-west require reassessment to determine their current status. The at-risk population in these homes is currently estimated at 52,000. The above-mentioned active households benefit annually from integrated training supervision activities, awareness-raising campaigns and population screening with treatment of positive cases. During 2021, all of these homes were supervised; prospecting campaigns were organized in the homes of Bipindi and Campo. Regarding vector control, anti-tsetse fly traps have been installed at the Campo home. For the introduction of the new protocol of HAT in Gambiense based on Flexinidazole, it is planned to train actors directly involved in the management of cases of HAT in homes. Ad hoc awareness-raising, mobilization, screening and free treatment activities are organized annually in these homes.

Trachoma

Trachoma is endemic in 21 health districts. The most affected regions are the Far North (14 health districts) and the North (3 health districts). In 2014, nearly 1,156,483 patients were treated and 3,889 cases of trichiasis were operated. Following the implementation of the WHO SAFE strategy, impact surveys were conducted. They resulted in the cessation of mass treatments in all HDs. A survey conducted in 2019, at least two years after the last impact survey, showed the resurgence of the disease in the HDs of Goulfey 6.9% and Makary 10.01%. The WHO recommends in this case to repeat the mass treatments, one round for a prevalence between 5 and 9.9%, and 3 rounds for a prevalence between 10 and 30%.

In the districts undergoing treatment, an impact survey is planned for the end of 2022. As for the complication of trachoma, which is trichiasis, surgeons have been trained and community scouts equipped to detect cases. Most districts have entered the process of developing transition plans. They define the modalities of management of trichiasis once foreign donors have withdrawn from the fight against trachoma.

2.3.2. NON-COMMUNICABLE DISEASES

Overall, the epidemiological situation of Non-Communicable Diseases (NCDs) is still poorly elucidated, as is the prevalence of their risk factors. Weaknesses in NCD management are noticeable, including the poor consideration of NCD variables in the routine data collection system and the absence of a strategic plan for NCDs. In addition, the majority of health facilities at the operational level do not have the appropriate technical platforms to offer quality services and care in line with the expectations of the population. It could nevertheless be noted that the main NCDs recorded in Cameroon are: cardiovascular diseases, cancers and road traffic accidents.

High blood pressure

High blood pressure (hypertension) increases the risk of stroke, heart failure, kidney failure and cognitive impairment. In 2018, about two in three women aged 15-49 (68%) reported having their blood pressure measured. Of these, 6% were informed that they had high blood pressure and of these, 55% were informed in the 12 months prior to the 2018 DHS survey. Among men aged 15-49, 41% had had their blood pressure measured and 4% had been informed that they had hypertension. Of these, 67% had been informed of their health status in the past 12 months.

Among women aged 15-49 who learned from a health care provider that they had hypertension, the percentage of those prescribed antihypertensive drugs was 56%. However, only 22% of women were on at least one treatment compared to 15% of men. Among men aged 15-49 who had been told by a health care provider that their blood pressure was too high, the percentage of those prescribed antihypertensive drugs was 51%compared to women, whose percentage was significantly lower (15%).

Whether among women or men aged 15-49, the percentages of those who had their blood pressure measured increased overall with age, rising in women from 59% for ages 15-29 years to 79% for ages 40-49 years and in men from 34% for ages 15-29 years to 54% for ages 40-49 years. The percentages of those informed that they had high blood pressure also increased with age, from 5% (15-29 years) to 10% (40-49 years) in women and from 3% (15-29 years) to 6% (40-49 years) in men.

The percentages of respondents who had their blood pressure measured by a health provider increased with educational attainment, from 59% among women with no education to 85% among those with higher education; for men, this percentage varies from 18% to 70% respectively. The percentages of respondents who had their blood pressure measured by a health provider increased with the level of economic well-being, rising among women from 55% among those whose households are classified in the lowest quintile to 73% among those whose households are classified in the last two quintiles. Among men, the percentage increases from 15% in the lowest quintile to 58% in the highest.

Diabetes

More than one in three women aged 15-49 (35%) had a blood glucose test with a doctor or other healthcare professionals and 1% were informed by the provider that they had hyperglycemia. Among men aged 15-49, the percentage of those who took a blood glucose test was half as low (17%). About 1% were informed that they had hyperglycemia.

Among women aged 15-49 who learned from a healthcare provider or doctor that they had hyperglycemia or diabetes, 57% were informed in the 12 months prior to the survey, 43% were prescribed medication to control blood sugar, and 33% were undergoing treatment in 2018. In men aged 15-49 years, who have been informed by a health care provider or doctor that they have hyperglycemia, these percentages are respectively 60%, 45% and 34%.

The percentages of women and men who had their blood glucose levels measured are higher in urban areas than in rural areas (respectively 43% compared to 24% for women and 24% compared to 9% for men). The percentages of women and men who had their blood glucose levels measured increased from the lowest quintile (15% and 3%, respectively) to the highest quintile (50% and 31%, respectively).

Chronic heart disease

Almost all women and men aged 15-49 were never told by a healthcare provider that they had heart disease or chronic heart failure (99% and 97%, respectively). In addition, of those who learned they had a heart problem, less than one percent were on treatment.

Chronic lung failure

Almost all women and men aged 15 to 49 were never told by a health provider that they had lung disease or chronic lung failure (99% and 98%, respectively). Of those who learned they had a lung problem, less than one % were on treatment.

Cancers[82]

Cancers are becoming a growing concern in Cameroon. According to the National Strategic Plan for Cancer Prevention and Control (PSNPLCa)-2020 –2024, more than 15,700 new cases are diagnosed each year. In terms of incidence, women are the most affected with 9,335 new cases each year, representing a standardized risk of 116.9 cases per 100,000 women compared to a standardized risk of 100.5 per 100,000 men (incidence of 6,434 new cases each year). People aged 15 and over are the most affected with 15,262 new cases. About one-fifth of cases occur in patients over the age of 65.

In terms of annual incidence, the top five cancers are: (i) breast cancer (3,265 new cases); (ii) cervical cancer (2,349 new cases); (iii) prostate cancer (2,064 new cases); (iv) liver cancer (919 new cases); (v) colorectal cancers (832 new cases).

In Cameroon, 43% of the population is under 15 years of age. Pediatric cancers account for 1 to 2% of all cancers. The expected number of incident cases annually is approximately 900 new cases. In 2018, the pediatric oncology department of the Mother and Child Center of the Chantal Biya Foundation recorded 150 new cases of cancer. This number of cases does not reflect the reality of the situation of pediatric cancers in Cameroon, because some patients do not arrive in Yaoundé for various reasons: poverty, distance, lack of diagnosis etc. In this age group, hematological malignancies account for 50% of diagnosed cancers. Although 90% of cancers are curable, more than 80% of patients reach an advanced stage with a high case fatality rate (40%).

Mental illness

The burden of mental illness is 3.5% while its contribution to death is 0.9% in 2013. Strengthening government action to limit the abuse of illicit and harmful substances is fully aligned with national guidelines, including SDG 3.9, which aims to reduce deaths and illnesses from hazardous chemicals and pollution and contamination of air, water and soil. [83]

Rheumatic diseases

Rheumatic diseases are the second leading cause of invalidity after cardiovascular disease. They are the first reason for consultation in medicine by the pain felt in the joints: Rheumatic diseases are also the first cause of work stoppage according to specialists in this field. The most common diseases are: osteoarthritis affecting the limbs and spine; gout, connective tissue (rheumatoid arthritis, systemic lupus erythematosis, dermatomyositis, scleroderma, Sjogren's syndrome, osteoporosis and weakening osteopathy, juvenile idiopathic arthritis). Rheumatism is generally the risk factor for hypertension, diabetes, fractures ...

At the diagnostic level, there is a lack of technical platform for the diagnosis of connective tissue and on the therapeutic level inadequate management by insufficient staff.

Other chronic diseases

About 4% of women and 9% of men aged 15-49 reported being told by a doctor or health provider that they had a chronic condition other than those mentioned above. About 2% of women and 7% of men who knew their health condition reported not taking any treatment. In addition, 2% of women and 2% of men informed of their problem are on treatment.[84]

With regard to disability, the World Report on Disability published in 2010 jointly by the World Health Organization and the World Bank estimates that more than one billion people live with

a disability. This represents nearly 15% of the population (World Report on Disability). In Cameroon, about 5.4% of the population suffer from at least one disability. Sensory impairments (3.5%) are the most frequently encountered, followed by motor impairments (1.5%). [85]According to these same surveys, the disease turns out to be the main cause of disability. It is thus at the origin of 44% of cases of hearing loss, 45% of cases of visual impairment. Prevention and adequate management of these diseases can reduce the prevalence of disability. Some health facilities have physiotherapy and functional rehabilitation services, but overall, the aspects of prevention and management of disabilities are not sufficiently taken into account in the health system.

2.4. RISK FACTORS

One of the major innovations of HSS 2020-2030 is the important role it attributes to health promotion and nutrition. Its orientation is to act sufficiently upstream in the resolution of health problems. The strategic challenge is to have a system that is sufficiently proactive and weakly focused on case management.

The situational analysis of risk factors will be based on the sub-components defined in the health promotion and nutrition axis defined in the HSS 2020-2030, namely: (i) Institutional, community and coordination capacities for health promotion; (ii) Living environment of the populations; (iii) Strengthening health-promoting skills; (iv) Essential family practices and family planning, adolescent health promotion and post abortion care.

2.4.1. INSTITUTIONAL, COMMUNITY AND COORDINATION CAPACITIES FOR HEALTH PROMOTION AND NUTRITION

The capacity of communities to address health issues has not improved significantly in recent years. This problem is particularly highlighted through their insufficient leadership. This should be driven by the Regional Fund for Health Promotion and the Regional Delegation for Public Health, particularly in the implementation of Initiatives under Community Directives, both from their conception, and in co-financing and co-management. Indeed, communities are usually contented to align themselves with the state's health policies or simply take a back seat in activities to ensure their participation. In the majority of health districts, their representatives struggle to express their views or exchange with them as true partners. In addition, the activities implemented by the community are poorly documented, despite an existing legal framework.

Indeed, communities are generally contented to align themselves with the State's health policies or simply put themselves in the background in activities that imperatively require their participation. In the majority of Health Districts, their representatives struggle to express their views or exchange with them as true partners. In addition, the activities implemented by the community are poorly documented, despite an existing legal framework.

Despite the existence of the Guide to Community-Directed Interventions and the Community Health Strategic Plan with its investment case, the situation of CHWs remains problematic. Indeed, the country has about 10,000 multi-purpose CHWs for more than 1,600 health areas, which is insufficient in relation to needs. In addition, the motivational guidelines of these CHWs are poorly and variedly applied. The institutionalization of the latter has been slow to take shape.

As regards the coordination of Community activities, several measures have been implemented over the last five (05) years, in particular those aimed at revitalizing the Health Districts Committee (COSADI). These will have mainly increased the proportion of functional COSADIs from 65% in 2015 to 95% in 2020. The functionality of COSADIs is a strong point that has militated for the effectiveness of advocacy, communication and social mobilization actions at the operational level of the health pyramid. This performance varies from region to region. It ranges from 13% in the Center region to 100% in the north and west regions (see Table 8 below) [86]. Despite this performance, much remains to be done to enable Community action to be more effective.

Table 88: Distribution of the proportion of functional COSADIs by region in 2020

REGION	%	REGION	%	REGION	%
EXTREME-NORD	16,66%	South	90%	East	86%
NORTH	100%	LITTORAL	73%	CENTER	13%
ADAMAWA	90%	SOUTH WEST	72,2%	WEST	100%
				NORTH WEST	Nd

Source: Final Evaluation Report of the NHDP 2016-2020

2.4.2. LIVING ENVIRONMENT OF THE POPULATIONS

The living environment of the population has remained without improvement despite Government's efforts. For example, the use of solid fuels as an energy source for cooking has remained stable at about 78%. This situation shows that a significant segment of the population remains exposed to respiratory diseases and infections. One of the root causes of this problem is the insufficient consultation between MOH and partner administrations. Indeed, MOH has not sufficiently promoted the ONE HEALTH approach in the health sector, hence the lack of ownership of the "one plan, one budget and one evaluation framework" approach.[87]

The NHDP 2016-2020 which had this vocation was not accompanied by a National Compact. As a result, interventions requiring strong coordination between MOH and other stakeholders have been poorly implemented. They have not been jointly planned, coordinated, monitored and evaluated. The few initiatives implemented have therefore been dispersed and the

problems ineffectively addressed. By way of illustration, tables 9 and 10 below show how problems of access to safe drinking water and improved sanitation facilities remain quite worrying in some regions despite overall progress.

Table 9: Proportion (in %) of the population with access to safe drinking water

REGION	Situation in 2014*	Situation in 2020**	Growth rate
Adamawa	72,7	61	-16,09%
Centre (without Yaoundé)	77,4	64	-17,31%
East	67,9	68	0,15%
Far North	63,7	76	19,31%
Coastline (without Douala)	77,8	87	11,83%
North	56,7	43	-24,16%
Northwest	71,9	80	11,27%
West	69,1	76	9,99%
South	75,2	80	6,38%
Southwest	66,6	98	47,15%
Yaoundé	95,7	99	3,45%
Douala	99	99	0,0%
Urban	93,2	96	3,00%
Rural	54,2	43	-20,66%
TOGETHER	**72,9**	**74,9**	**+2,74%**

Data source: *MICS 4; **EDS 2018

About 75% of households consume drinking water from an improved source in 2020. According to DHS 2018, these are mainly water from a pump/borehole well (30%), taps in their home/concession/yard/plot (15%) and public taps or by a standpipe (11%). The table above shows that the proportion of households with access to drinking water varies from one region to another (43% in the North and 87% in the Littoral without Douala). However, it should be noted that some regions have made enormous progress despite their relatively weak performance. The regions that have made the most progress are: the South-West and the Far North, which have growth rates of 47.15% and 19.31% respectively during the period 2016-2020. Although this indicator has improved overall, [88]we can observe a depreciation in the Centre (without Yaoundé) Adamawa and the North regions. In addition, this problem, which was more acute in rural areas, has worsened in recent years with a decrease of 20.66%. Rural populations are more exposed to the risk of waterborne diseases.

Table 1010: Proportion (in %) of the population living in dwellings with improved non-shared sanitation facilities

REGION	Situation in 2014*	Situation in 2020**	Growth rate
Adamawa	49,5	40,3	-19%
Centre (without Yaoundé)	38,5	54,4	41%
East	30	40	33%
Far North	12,2	33,7	176%
Coastline (without Douala)	54,2	69	27%
North	30	41,8	39%
Northwest	27,9	44,4	59%
West	41	75	83%
South	25	53,6	114%
Southwest	37,5	96	156%
Yaoundé	55,2	89,5	62%
Duala	57,9	93,2	61%
Cameroon	**34,9**	**57,9**	**+66%**

Data source: *MICS 4; **EDS 2018

The proportion of households with improved toilets increased from 35% in 2014 to 56% in 2020, an increase of 21%. This performance varies by region (33.7% in the Far North and 69% in the Littoral without the city of Douala). It is important to note that the Far North remains the region where the problem of improved access to toilets is most acute, however, there has been great progress over the period 2016-2020 (+176%). It is followed by the South-West (+156%), South (+114%) and West (+83%) regions. On the other hand, the indicator has rather deteriorated in the Adamawa region, from 49.5% to 40.3% over the same period, exposing populations to the risk of water-borne-diseases.

The above figures show that much more needs to be done to support the achievement of SDG 6.2, which aims to ensure equitable access to adequate sanitation and hygiene for all and to end open defecation.

2.4.3. STRENGTHENING HEALTH-PROMOTING SKILLS

The evaluation report of the 2016-2020 NHDP shows that indicators to measure the level of acquisition of healthy and health-promoting skills by individuals and communities have improved. However, not all programmatic targets were met. This is particularly the case for the prevalence of teenage pregnancies, which fell slightly by 1.6 and failed to meet the planned target of 14%. The prevalence of smoking among subjects aged 15 years and above

decreased significantly more than expected, reaching 4.3% instead of 5% as targeted (see Table XI).

Table 1111: Trends in the prevalence of teenage pregnancy and smoking among persons aged 15 years and above

Performance indicators	Baseline in 2015	Results in 2020	Comments
Prevalence of teenage pregnancies	25,6% MICS 5 Page 125	24% EDS 2018 Page 105	Stabilization
Prevalence of smoking among individuals aged 15 years and older	6%	4,3% (EDS 2018 P.xxxix)	Improvement

Source: Final Evaluation Report of the NHDP 2016-2020

Assisted deliveries

The rate of births assisted by trained staff decreased from 63.6% to 61.3% between 2011 and 2014, leading to a reduction of 2.3%. This figure has improved over the 2016-2020 period and now stands at 69%. The weakest performances were recorded in the north (40%); Far North (40%) and Adamawa (47.4%) regions[89,90].

In the same trend, nearly seven out of ten deliveries (67%) took place in a health facility. Public health facilities (45 %) remain the most frequented. However, a relatively large proportion of births took place at home (33 %), exposing women in labour to the risk of maternal mortality. Indeed, assisted delivery in a health facility is one of the four pillars of reducing maternal mortality. RMNCR and ANC services are available in most HFs across the country. Gratuity efforts are effective and promote the use of health care and services by these targets.[91]

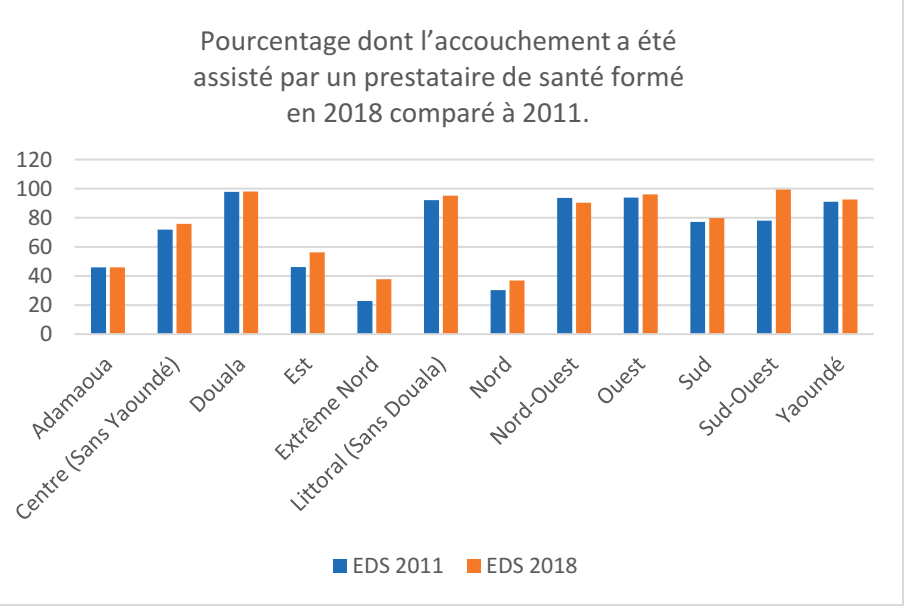


Figure 7: Fertility of adolescent girls 15-19 years. 7Women who have had a live birth

Source: DHS 2011 and DHS 2018

In the Figures above, it is worth noting the evolution of the situation of live births that took place in a HFs in 2018 compared to 2011. The Adamawa, East, Far North and North regions have the lowest rates, but the trend is increasing.

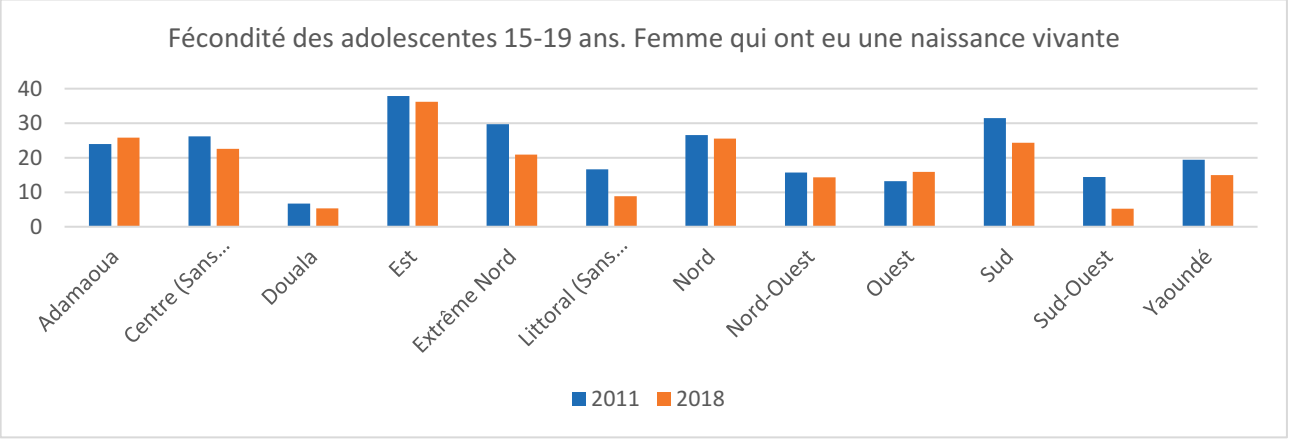


Figure 8: Fertility of adolescent girls aged 15-19. 8Females who have had a live birth

Source: DHS 2011 and DHS 2018

The total fertility rate decreased slightly from 5.1 to 4.9. About 25% of adolescents aged 15 to 19 years have already started childbearing with regional variations. Indeed, this fertility rate of adolescents aged between 15 and 19 years reduces from 38% to 36.2% in the East region, from 32% to 24.3% in the South region, from 30% to 20.9% in the Far North region and from 27% to 25.5% in the North region.

Table 1212: Status of assisted childbirth and contraceptive prevalence in 2018

REGIONS	Births Assisted by a trained provider	Modern Contraceptive Prevalence	Unmet family planning needs
Adamawa	47,4	6,0	28,3
Center (without Yaoundé)	80,4	22,4	28,0
Douala	97,4	26,0	22,0
East	58,2	42,0	13,4
Far North	40,0	7,1	22,1
Coastline (without Douala)	96,2	25,4	29,9
North	39,6	8,0	19,7
Northwest	90,9	24,3	26,0
West	97,0	25,4	21,3
South	83,3	14,9	34,2

Southwest	99,4	23,3	23,8
Yaoundé	93,7	31,5	22,4
Together	69	15,4	23

Source: DHS 2018

Prenatal consultation

Antenatal care coverage by trained staff has steadily increased from 78% in 1991 to 87% in 2018. On the other hand, the percentage of women who had attended at least four antenatal visits increased by 16 percentage points over the same period. It should also be noted that the proportion of women who made a prenatal visit in the first term after remaining stable at around 34% between 2004 and 2011, increased to 41% in 2018. Antenatal care coverage by a trained provider is much lower in rural areas (79%) than in urban areas (95%). It is lower in Adamawa (70%) and the North (73%) than elsewhere. As a result, women in these regions do not take sufficient advantage of the opportunities offered by the postnatal period. Indeed, the ANC provides pregnant women with a number of interventions essential to their health and well-being, and that of their infants. It provides them with a better understanding of fetal growth, development and its relationship to maternal health, and leads to increased attention to antenatal care as interventions to improve maternal and newborn health. It is also an important lever in the prevention of mother-to-child transmission of HIV. [92]

Postnatal consultation

Between 2011 and 2018, the percentage of women who received a postnatal check-up within two days of the birth increased from 37% to 59%. This implies that 41% of women are at risk of maternal mortality. Indeed, a significant proportion of maternal deaths and newborn deaths that occur in the neonatal period occur within 48 hours of delivery. It is therefore strongly recommended that women receive a postnatal check-up within 6 hours, 6 days and 6 weeks after delivery[93]. It can be seen that this recommendation is much more implemented in urban areas (72%) than in rural areas (49%) and varies by region. The highest level is recorded in the West (85%) while the lowest percentages are in the Far North (40%) and the North (42%). [94]

Other aspects selected by the HSS 2020-2030 to describe the state of acquisition of healthy and health-promoting behaviors include: (1) food and nutrition; (2) road safety in urban and interurban areas; (3) physical activities and sports; (4) abstention from the misuse of illicit or harmful substances.

Food and nutrition

The double burden of malnutrition remains a public health problem in Cameroon. This problem mainly affects vulnerable groups such as children under 5 years of age, pregnant and

lactating women. It is the result of inadequate nutrition (inappropriate feeding practices due to a lack of nutritional education) or food unavailability (undernutrition and overnutrition) and the persistence of infectious or parasitic diseases that develop in poor conditions of environmental hygiene, individual and collective. Similarly, malnourished children are more likely than others to contract infectious or non-communicable diseases and therefore more at risk of death. To this end, the situational analysis of food and nutrition has focused more on the vulnerable targets of women and children under five.

- *Nutritional status of children*

In 2018, nearly three in ten children under 5 years (29%) are stunted, 4% are wasted, 11% are underweight and 11% are overweight. These figures are down from 31.7%, 5.2% and 14.8% respectively in 2014[95,96.] The same is true for anemia in children aged 6 to 59 months, which decreased from 68% to 57% in 2018. In general, this problem remains a concern throughout the country. The results of a survey by region show that the Centre (excluding Yaoundé) and the East (65%), as well as the Far North (64%) have the highest percentages of anemic children aged 6-59 months. On the other hand, the North-West Region (44%) and Yaoundé (43%) have the lowest percentages.[97]

Some breastfeeding indicators have seen improvements over the 2016-2020 period. Indeed, nearly one in two children (48%) has been breastfed within one hour of birth and 40% of children aged 0-5 months are exclusively breastfed. In 2014, these indicators stood at 31.2% and 28% respectively.

Overall, the percentage of breastfed children decreased slightly from 95.8% to 92% between 2016 and 2020. This is also the case for the proportion of children aged 6-23 months who received a minimum acceptable dietary intake, as defined by the WHO. This reduced from 20.9% to 11% over the period 2014-2020. [98,99]

From 2011 to 2018, the percentage of children aged 6-23 months who consumed foods rich in vitamin A increased from 73% to 76%. In contrast, for the consumption of iron-rich foods in the last 24 hours, the percentage decreased from 61% to 56%. There was a stable percentage of children aged 6-23 months who received vitamin A supplements in 2018 (55%). However, there was an increase in the percentages of children aged 6-59 months who received iron supplements and those who were dewormed in the same year. Indeed, these percentages have increased from 9% to 18% and from 51% to 53% respectively.[100]

- *Nutritional status of women*

Nearly two in five women aged 15 to 49 (40%) are anemic. Among women aged 15-49, 6% have a body mass index (BMI) of less than 18.5 and are therefore chronically energy-deficient. In contrast, 37% are overweight/obese (BMI equal to or greater than 25). The nutritional status of women of childbearing age is one of the determining factors in the success of pregnancies, their outcome and maternal mortality. In addition, it affects morbidity and

mortality of young children. The above figures demonstrate the need to improve women's access to a balanced diet.

In addition, 97 % of women live in households with iodized salt for cooking. The consumption of iodized salt in the general population increased between 2011 and 2018 from 90.9% to 93%. This increase could be attributable to the implementation of Order No. 0113/A/MSP/SG/DSFM of 29 May 1991 instituting compulsory salt iodization throughout the national territory.

In terms of micronutrient supplementation, iron supplementation of at least 90 days during pregnancy is more common in urban areas (60%) than in rural areas (39%). Deworming during pregnancy is also more common in urban areas (37%) than in rural areas (26%).

In general, there is a need for Cameroon to do more to improve the diet and nutrition of vulnerable targets, women and children under five. Indeed, these efforts could eventually bring us closer to SDG 2.2, which is to end all forms of malnutrition, and to meet the nutritional needs of adolescent girls, pregnant and lactating women and older people in terms of nutrition. However, it is necessary to take into account the security crisis that prevails in some parts of the country and which constitutes a threat to the food security of the populations.

Practice of physical activities and sports

The regular practice of Physical Activity and Sports (PSA) helps prevent obesity, cardiovascular disease and stress, among other things. In order to promote the adoption of these practices on a daily basis by the population, the orientations of the HSS 2020-2030 are to accentuate advocacy in favor of: (i) the construction and rehabilitation of local sports infrastructures for the practice of physical exercise; (ii) training and recruitment of human resources in DPA and; (iii) increasing financial resources for the development of infrastructure in prisons, education and vocational settings.

- *The construction and rehabilitation of local sports infrastructures for the practice of physical exercise*

The efforts made in the context of the development of local infrastructures for the practice of physical and sports activities remain insufficient. The main government initiative is the construction of 10 sports infrastructures s, four (4) track and field sporting grounds(Yaoundé, Douala, Bamenda, Ngaoundéré) and sports complexes in some cities (Bertoua, Bafoussam, Maroua, Ebolowa etc.), as well as their rehabilitation for the organization of school and university games, but these are not properly maintained. [101]

Government action also provides for the construction/rehabilitation of local sports infrastructures according to a National Sports Infrastructure Development Program (PNDIS), but this is insufficiently implemented. Indeed, very few sports infrastructures have been set up in recent years in prison, educational and professional settings. The main current

achievements concern the development of sports infrastructure for elite sports. These include: the rehabilitation of the Yaoundé sports stadium and military stadium, the Roumdé-adja stadium in Garoua; the launch of several projects of support structures as a prelude to the organization of the AFCON 2020 such as the [102] OLEMBE sports complex (Yaoundé), JAPOMA (Douala), the municipal stadium of Bafoussam and the stadium of Limbe, etc.[103]

- *Training and recruitment of human resources in Sports and Physical Activities (SPA)*

The number of people trained and recruited in SPA did not increase significantly over the period 2016-2020. This is explained by the number of places offered in the INJS and CENAJES competitive entrance exams, which is decreasing over time. Faced with this problem, one of the solutions adopted by MINSEP is to increase the number of free auditors in training schools (INJS, CENAJES and ANAFOOT), in order to provide the population with qualified supervisors. To complement this palliative measure, MINSEP is currently implementing PROGRAMME 007: DEVELOPMENT OF PHYSICAL EDUCATION. It aims to increase the healthy, methodical and supervised practice of Physical and Sports Activities (SPA); Hence its articulation around the 04 actions that are: the teaching of physical education and sports; promotion and popularization of SPAs; boosting the implementation of decentralization in the physical education sub-sector; and the development and monitoring of the training of institutional actors in physical education. As a result of this program, the number of SPA practitioners, the number of educational and regulatory instruments available, the number of volunteer physical educators per 100,000 inhabitants and the number of functional mass sports facilities and infrastructure are expected to increase by 2024. [104,105]

Misuse of illicit or harmful substances

- *The rate of tobacco consumption*

The rate of tobacco consumption between 2016 and 2020 reduced from 6% to 4.3%, a difference of 1.7 points. However, the abuse of illicit substances, psychotropic painkillers (Tramadol and Cannabis) remain a concern in all regions of the country. To remedy this, several awareness-raising and advocacy interventions are carried out within the framework of the National Committee for the Fight against Drugs created in 1992. However, there are no appropriate structures to fight against addictions to accompany withdrawal. [106,107]

- *Alcohol consumption*

Alcohol consumption is estimated at 8.4 liters pure per person per year among those over 15 years of age. The prevalence of alcoholism is 4% among men compared to 0.9% among women. That of alcohol-related diseases is estimated at 9.5% in men against 1.9% in women.[108,109]

Occupational Health and Safety

The problem of insufficient social security coverage remains topical in Cameroon. It is the result of the inadequacy of the current system and the absence of a comprehensive social security strategy. Indeed, the current social security system seems to have exhausted its potential, both in terms of its configuration and its management. On the first point, the fields covered do not include all branches of International Labor Organization Convention 102, in particular health insurance, nor all strata of the population. In addition, the levels and modalities of benefits, both in the public and private sectors, remain unsatisfactory. For example, it can be noted that the proportion of companies subject to the obligation to have an established and functional Health and Safety Committee is only 25%; and only one company in 5 (20%) has a medical service (autonomous services, inter-company services, visiting and care agreements). These figures clearly show that the prevention of occupational risks and the monitoring of the protection of workers against these risks are insufficiently carried out. [110]

However, social dialogue is a reality in Cameroon. Although the country has not ratified Convention No. 144 of 1976, it has adopted its provisions through the adoption of Act No. 92/007 of 14 August 1992 establishing the Labour Code, which establishes a National Labour Advisory Commission (CNCT) and a National Commission on Health and Safety at Work (CNSST). In the same vein, Order No. 039/MTPS/IMT of 26 November 1984 laying down general health and safety measures at work is available. The Government's efforts in this area have continued through the development of a Decent Work Country Programme (DWCP). Among the health guidelines contained in this document are: (i) the strengthening of the Hygiene and Sanitation Committees (ii) the development of a national policy to combat HIV/AIDS in the workplace. Currently, the MINTSS provides for the implementation of the action Promotion of the principles of health, safety, humanization and well-being in the workplace. The objective of this is to strengthen the health and safety system in the workplace.[111]

2.4.4. ESSENTIAL FAMILY PRACTICES AND FAMILY PLANNING, ADOLESCENT HEALTH PROMOTION AND POSTABORTION CARE

Family planning

Tracking indicators for access to family planning have not improved despite the many interventions implemented in this framework. There is a lack of services dedicated to adolescent girls and a weak creation of demand that take into account the specificities of this target in terms of Sexual and Reproductive Health. Indeed, the modern contraceptive prevalence rate among women of reproductive age decreased by 6%, while the proportion of unmet need for family planning worsened by 5% increase. [112]

This performance both moves the country away from SDG target 3.7 to ensure universal access to sexual and reproductive health care services, including family planning, information and education, and the integration of reproductive health into national strategies and programmes by 2030. However, it is important that all couples have access to information and services to prevent pregnancies that are too early, too close, too late or too numerous. Voluntary family planning is important for the health of women and children because it can: 1) prevent pregnancies that are too early or too late; 2) extension of the interval between births; (3) limiting the total number of children, taking into account their needs and means.

The performances recorded in 2018 show that many women were exposed to many risks. This problem was most felt in the South, Littoral, Central and Adamawa regions where the proportion of unmet needs for FP is: 34.2%, 29.9%, 28.3% and 28% respectively. Indeed, short inter-reproductive intervals (less than 24 months) can have adverse effects on newborns and their mothers, including preterm births, low birth weights and deaths. In addition, motherhood at a very young age (before 18 years), at an advanced age (from 35 years) is associated with an increased risk of complications during pregnancy and the birth of the child.

Table 13: Status of selected family planning indicators

Performance indicators	Baseline in 2015	Results in 2020	Comments
Modern contraceptive prevalence rates among women of childbearing age	21%	15% (DHS 2018 P.129)	Drop
Proportion of unmet FP needs	18% MICS 5 Page 133	23% (DHS 2018 P.129)	Drop

Source: Final evaluation report of the 2016-2020 NSDP.

Birth Registration

There is a particular problem with the implementation of one of the most important EFPs, namely birth registration. The aim of this EFPs is to guarantee all newborns a legal identity. In fact, a person who is not registered in the civil registry has no legal existence. Civil registration is therefore the only way to determine and protect identities, citizenship and access to other rights. According to the 2018 DHS, around a third of children are not registered in the civil registry in Cameroon, leading to a “scandal of invisibility” associated with increased risks of poverty, vulnerability, marginalization and exclusion from development. health, social, economic and political. To remedy this, systematic birth registration is essential. As the primary entity responsible for reporting births and deaths, the role of health is essential to the development of birth and death registration. Also, the Ministry of Public Health and the National Civil Status Office have strengthened interoperability between health services and civil status services by signing a Memorandum of Understanding on February 18, 2020. It

contributed to develop awareness of civil status during ANC, childbirth, vaccination and CPON, to make the use of harmonized birth and death declaration forms obligatory and to open a civil status page in the DHIS2 to that health facilities declare all births and deaths that occur there. The installation of civil registration offices in health facilities has also greatly contributed to improving the registration of births and deaths. The expected performance is 90% for births registered by 2026. The adoption of this EFPs will allow children to benefit from a good start in life.

Other Essential Family Practices

Essential Family Practices (EFPs) are a priority area of intervention for MOH and MINPROFF in achieving programmatic targets. As for MINPROFF, community mobilization for the adoption of EFPs and the demand for health services were developed in the Strategic Performance Framework 2020-2030. Through this action, it is for this structure to strengthen the use of Essential Family Practices (EFPs) in families and to contribute to improving the attendance rate of health facilities. The expected performance by 2024 is respectively: the percentage of families who knows, have the skills and practice EFPs is 75% and the attendance rate of health facilities is 80%. [113]

At MOH, EFPs are taken into account through the health promotion programme where a specific action is dedicated to maternal, child and adolescent health issues. The implementation of EFPs -related interventions in a dispersed manner raises the problem of appropriation of the "One Heath" concept. Indeed, it is illustrated on the ground by the non-coordination of interventions, the irregularity of meetings of multisectoral committees in favor of health promotion, disease prevention and case management at the regional, divisional and subdivisional levels.

Adolescent Health Promotion

The population of Cameroon is predominantly young, more than 65% of the population is under 25 years old and 43.6% is under 15 years old (RGPH 2010). Adolescents and young people (10-24 years) constitute 34.1% of the general population of Cameroon and adolescents (10-19 years) 24%. Young people aged 15-24 are a population at risk of contracting STIs. Indeed, at this time of life, sexual relations are generally unstable and the practice of multi sexual partnership quite frequent. Current indicators of sexual and reproductive health among young people are of concern (Nsangou et al, 2018). They face several sexual and reproductive health problems such as: early sexuality, early pregnancy and related consequences, STIs and HIV/AIDS, Gender-Based Violence (GBV) and harmful cultural practices including early marriage. Several factors contribute to these problems, including: poor access to quality information, poor access to health services and lack of counseling services. Factors such as poverty, loose family support, poor reception of health personnel

and non-confidentiality of information are aggravating factors (Jaffre and O. de Sardan, 2003). The various factors mentioned above pose threats to the health of adolescents. The total fertility rate decreased slightly from 5.1 to 4.9. About 25% of adolescents aged 15 to 19 have already started childbearing (DHS 2018).

Indeed, 24% of adolescent girls aged 15-19 had already started their reproductive life in 2018, either because she was already a mother (19%) or because she was already pregnant (5%), thus contributing to the national maternal mortality rate estimated at 406/100,000 live births in 2018. In addition, contraceptive prevalence among 15-19 year olds remains low compared to the national average of 10.3% (DHS 2018). It made it possible to understand the extent of Reproductive Health for Adolescence and Youths (RHAY) problems and to find possible solutions.

The establishment of Adolescent Reproductive Health Units has ensured appropriate information, including comprehensive sexuality education, specific to their age and access to quality reproductive health services for adolescents and young people while respecting their rights. These units must offer a harmonized minimum package of activities) in accordance with norms and standards. The RHAY units are functional in all regions, but there are weaknesses that need to be addressed: insufficient personnel trained in RHAY, the need for infrastructure and physical equipment, the limited number of Reproductive Health for Adolescence and Youths units and their low attendance.

CHAPTER 3: HEALTH SYSTEM PERFORMANCE ANALYSIS

Ranked 164th out of 191 countries, according to a WHO assessment in 2011, Cameroon's health system is fragile and therefore does not respond effectively to the needs of populations. In order to describe this health system and assess the impact of each of the pillars of the health system on overall performance, our analysis will focus on the following 6 points: (i) health financing; (ii) provision of health care and services; (iii) pharmacy, laboratory, medicines and other pharmaceutical products; (iv) human resources; (v) health information system and health research; (vi) governance and strategic steering.[114]

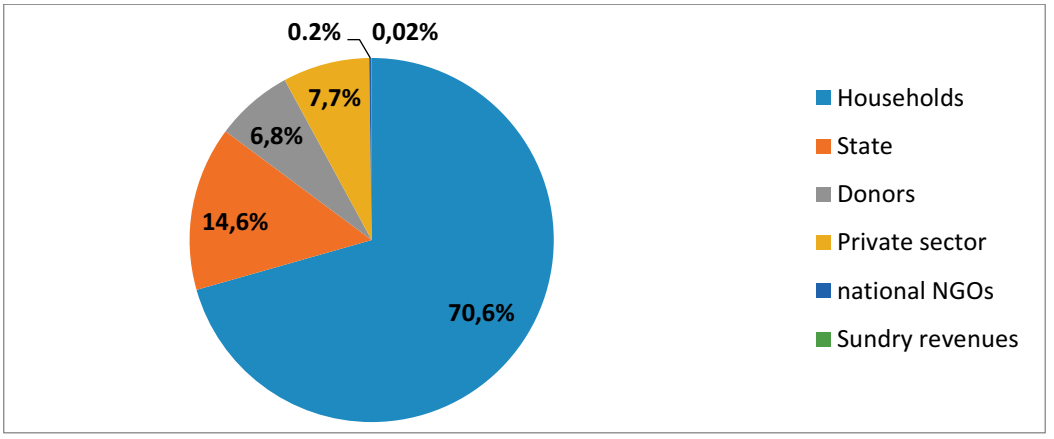
3.1. HEALTH FINANCING

Cameroon has a national health financing strategy document that is neither validated nor implemented. The various functions of health financing (resource collection, pooling of resources, mechanisms for sharing disease risk, and purchase of health services) therefore do not respond to a national framework. Thus, health financing will be presented through its three functions: (i) resource collection; (ii) pooling of resources and (iii) purchase of services.

3.1.1. RESOURCE COLLECTION

According to the 2012 National Health Accounts, the total volume of health financing was CFAF 728 billion, or 5.4% of GDP. The main sources of financing (Figure 4) were: households (70.6%), the Government (14.6%), the private sector (7.7%) and donors (6.9%).[115]

Figure 9: Distribution of health financing in Cameroon by type of source (2012)9



Source: National Health Accounts 2012.

Government funding

The exact share of the state budget allocated to health is not known. The only information available to date is the proportion of the national budget allocated to the Ministry of Public Health. A study of the various Mid-term Medium-~~Term~~ Expenditure Frameworks (MTFs) or settlement laws would make it possible to determine with accuracy the real share of the State budget allocated to the administrations of the health sector. In the absence of this information, it is not possible to comment on the effectiveness of the Abuja declaration where African heads of state had made the commitment to allocate 15% of their national budget to health. It is nevertheless possible to observe that the proportion of the national budget allocated to MOH since 2005 has never reached 6%. It has even been below 5% in the last four years.

Public financial resources allocated to health are insufficient. This favours dependence on external financing. In addition, it should be noted that public health policies based on free or subsidized commodities and services are mainly supported by FINEX. However, FINEX lacks visibility in its mid-term forecast (3-5 years).

In addition, the multiplicity of procedures and coordination bodies, the fragmentation of health financing and the low pooling of FINEX le~~a~~d to a loss of effectiveness and efficiency in their use. As a result, they contribute little to strengthening the health system. For example, in 2014, 63% of FINEX covered the fight against communicable diseases (Malaria 51%, HIV/AIDS 12% and Tuberculosis 0.3%), 27% were allocated to maternal and child health interventions, and only 5% were allocated to health system strengthening.[116]

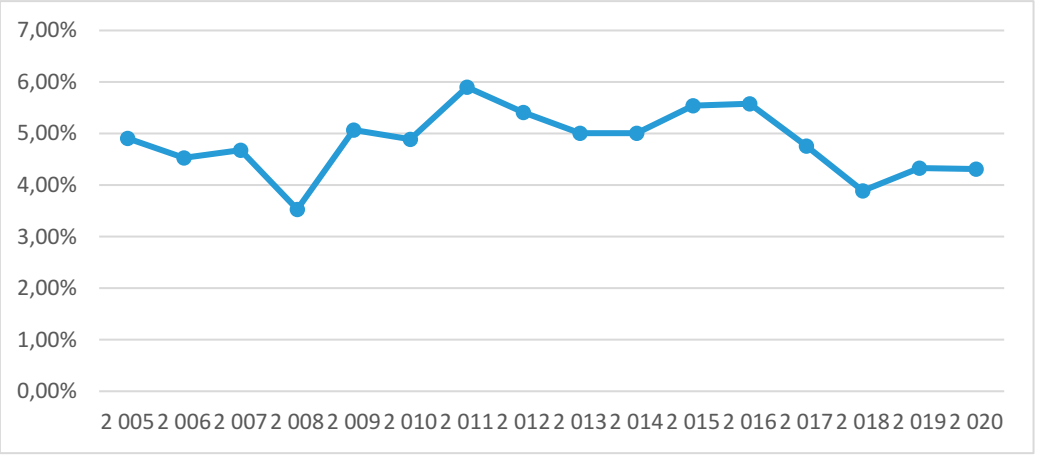


Figure 10: Evolution of the budget allocated to MOH and its implementation since 2005 (proposal 2010-2020)10

Source: Finance Act 2005-2020.

Financing from households

According to the National Health Accounts (NHA) 2012, households contributed 70.6% to the financing of their health. In addition, the household contribution accounted for nearly 76% of total health expenditure in 2018, one of the largest in Sub-Saharan[Africa.54]

National resources outside the State budget

In addition to the State budget, many national actors are involved, on a charitable and humanitarian basis, to support health actions. These actions are reflected in particular in health campaigns, whether they fall within the framework of the instruments of the partnership strategy. In the absence of an integrated monitoring mechanism, the financial impact of these interventions cannot easily be assessed.

Innovative financing

MOH and its technical and financial partners are engaged in innovative strategies to mobilize additional resources. One example is participation in the global UNITAID initiative through funds from a 10% quota of the airport tax levied on airline tickets for international flights. Discussions are under way on the development of para-taxation in order to increase health financing.

Private funding

Access to private finance and its efficient use is an important issue and a source with high potential for health financing. They are an opportunity to diversify funding sources in the face of budgetary constraints related to public funding.

3.1.2. POOLING RESOURCES AND SHARING DISEASE RISK

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

First, the financial contribution of patients to health facilities represents about 90% of the financing of their activities. However, only 10% of this contribution goes to the solidarity fund at the national level, dedicated to the equitable support of disadvantaged public health facilities.

Secondly, prepayment systems are poorly developed and fragmented. Indeed, nearly 99% of household health expenditure is made up of direct payments at the point of contact with the care services ~~offer~~ and only 1% of this expenditure goes through risk pooling or third-party mechanisms. In 2014, there were 43 active mutual covering 63,000 people, or 0.2% of the national population. Membership of a mutual society is voluntary[117118] for an annual contribution ranging from CFAF 3 000 to CFAF 5 000 per person. A co-payment of 10 to 50% of the costs of health services and care remains the responsibility of the patient.

Other private non-profit initiatives have provided financial protection for patients. This is the case of Bamenda Ecclesiastical Province Health Assistance (BEPHA) in the South-West and North-West regions. Membership was not individual and contribution was voluntary per household to avoid reverse selection. In 2013, BEPHA had 30,000 members and planned to reach 80,000 by 2017. With regard to private insurance, in 2014 there were 16 insurance companies offering health risk coverage for an average subscription of 155,000 FCFA per adult per year.[119120121]

In 2011, it was estimated that less than 3% of the population was covered by a disease risk protection mechanism[122]. On his inaugural speech to the supreme office in November 2011, the Head of State already noted the need to set up a system within the framework of the social security system, a device that will facilitate access to care for the least privileged.

The recommendations of the 2015 Inter-ministerial Programme Review Committee (IMPRC) recommend the development of a strategy for the implementation of Universal Health Coverage (UHC) in Cameroon. A national cross-sectoral technical group responsible for the implementation of UHC has been created, actors have been trained and the various analytical and reflection work is underway. [123]In 2017, the Head of State in his message to the nation laid emphasis to complete the implementation of Universal Health Coverage.

In short, the pooling of health resources remains a major challenge to be met at all levels of the health pyramid. Priority health programs operate in strongly verticalized and in most cases, on the same targets. This situation is amplified by weak coordination of interventions at central level and insufficient pooling of resources allocated to the different Regional Technical Groups (RTGs) of the programs.

3.1.3. PURCHASE OF SERVICES

Several payment mechanisms exist in the health sector, namely:

- *Direct payment for care by households*

The majority of health care costs (70.6%) are borne by households that pay directly for these services at the level of health facilities. The direct payment system creates inequity in the use of health services. It exposes households to very high expenditures, leads to the risks of impoverishment due to care, and constitutes a barrier to access for health services. This can be explained, on the one hand, by the [124] inadequacy of funding from the State and, on the other hand, by the weak development of mechanisms for sharing the risk of illness.

- *Reimbursement of healthcare costs by mutual insurance companies for insured persons with co-payment*

The majority of mutuals are bankrupt and cannot pay for health facilities for the services offered to their members. The reasons for this failure are linked to:

(i) a lack of design of mutual based on volunteerism (approach limiting risk sharing between rich and poor and between sick and healthy people);

(ii) the low premium not compensated by an external contribution and,

(iii) poor management of the resources collected.

- *Subsidy for free healthcare*

For several years, certain services and care have been offered free of charge or at subsidized prices to the population. These include: immunization, malaria management for children under 5 years of age, dispensing of anti-tuberculosis drugs and dispensing of antiretroviral for PLHIV, hemodialysis, treatment of hepatitis, etc. However, economic laws show that widespread free access without an adequate financial compensation mechanism for health facilities is not sustainable and viable in the long term. The perverse effects include: the deterioration of the quality of care, stock-outs and the increase in illicit practices. These free policies were not preceded by reliable economic feasibility and sustainability studies before their implementation. Yet these numerous free efforts have been made by the State to promote access to health services and care for vulnerable targets. However, it is regrettable that they are not always implemented as planned. By way of illustration, if the effectiveness of free vaccination for children aged 0-59 months is no longer to be demonstrated, the policy of free malaria care for children is struggling to be effective.

- *Experimentation with Results-Based Financing (RBF/PBF)*

The objectives of Results-Based Financing are to improve access to quality services and care, with an emphasis on efficiency and equity. This approach has been implemented in Cameroon since 2006. In 2020, following the internal mid-term review of the pilot phase of the project (2013) which showed satisfactory results, RBF/PBF scaled up and is being implemented in all regions of the country.

However, the implementation of RBF/PBF good practices faces some obstacles, including the contextualization of this initiative. In addition, the financial sustainability of the national scale-up of this new approach represents a major challenge.

- *Experimentation with Health Vouchers*

The Health Check is a subsidized prepayment mechanism for the care of pregnant women and children from 0 to 42 days. It is available in accredited public and private non-profit health facilities in some Northern Health Districts. The SONUB and SONUC structures previously accredited offer the following services: pregnancy care, simple and complicated deliveries, postpartum care and family planning, transfer care and neonatal care until the 42nd day. The remuneration of service providers is made according to two complementary modes:

I-A fixed remuneration corresponding to the tariffs of services (medical acts and commodities) adopted by the MOH.

ii-A variable remuneration granted to service providers after auditing the quality criteria and checking compliance with the management procedures associated with the third-party payer. The health voucher uses the mechanisms of accreditation of HFs and payment of providers that could inspire the ongoing reflections around UHC.

State subsidy for the operation of health facilities

- *Resource allocation*

Resources are allocated based on the Mid-Term Evaluation Framework (MTEF) on the economic situation and broken down at the initial level into the Mid-Term Expenditure Framework (MTEF). There is little data to measure the performance of health budget allocation in Cameroon. However, the implementation of the programme budget since 2013 aims to improve the management of State financial resources and the effectiveness of health interventions. It should be noted that from 2020 onwards, these budget allocations were converted into subsidies as part of the scaling up of RBF/PBF. This reform of health financing has two main bottlenecks:

(i) delays in paying bills;
(ii) the failure to take into account certain items of incompressible expenditure.

Despite the ongoing decentralization policy, there is still significant centralization of budget allocation because decentralized funds represented less than 3% (6 billion) of the MINSANTÉ budget in 2015. Although this figure has increased to €6.7 billion in 2020, further efforts are needed in the area of fiscal decentralization.

Deconcentration, on the other hand, has improved in recent years with a breakdown of budget envelopes increasingly targeting the peripheral level.

Budget formulation is done vertically following the strategic and operational plans of the various health programmes. These plans are budgeted on the basis of available inputs and not on the real needs of the populations covered by the health structures. Budget formulation at peripheral level is almost non-existent and when it is done, the budgets prepared are not always consolidated at the regional level. However, the budgets of health districts and regions should be the pillars of national budgeting, in a bottom-up logic. In most of the structures at the decentralized levels of the health pyramid, there is a great discrepancy between the needs expressed in the Annual Work Plan (AWPs) and the funds allocated to the structures.

The problem generally stems from the inconsistency between the budget nomenclature allocated and these needs. PBF is an attempt to address this problem, but this initiative is struggling to produce the expected results because of delays in paying bills to health care and service providers. These delays could be largely explained by resistance to the availability of funds.

It is therefore essential to:

(i) conduct studies to assess the resources needed to deliver a quality care package through health training to a given population;
(ii) train actors at the operational level in the planning and budgeting of interventions and,

(iii) allocate resources according to validated priorities.

- *Budget implementation*

In 2019, the budget execution rate (commitment basis) is 96.2%, an increase of 8% compared to 2014, However, due to cash flow tensions at the level of the [125][126] Ministry of Finance, it is sometimes difficult to know the real level of spending made by the various ministerial departments. In addition, the calculation of the implementation rate is made difficult by the absence of a system for collecting and analyzing financial information. Also, cumbersome public spending procedures do not guarantee the visibility and predictability of the expenditure chain.

Table 14: Implementation rate (commitment basis) of the 2019 MINSANTÉ budget

Budget	Allocation 2019 (CFA billion)	Amount committed 2019 (billion FCFA)	Budget commitment rate
Operation	104 074	98 540	94,68%
Investment	103 869	102 100	98,30%
TOTAL	207 943	200 640	96,49%

Source: DRFP, MOH

- *Monitoring and evaluation of budget implementation:*

The system for global real-time information and monitoring of budget implementation exists but should be improved. In effect the software used for budgeting (PROBMIS) does not allow prompt monitoring of resource utilization at the borough level. It should nevertheless be recognized that this monitoring is possible from the central level to the ~~departmental~~ Divisional/District level. [127]

There is also a body of consolidated procedures governing the management of resources (national budget and external financing) of the sector.

The management control and internal control put in place in 2015 to improve the monitoring and evaluation of budget implementation are effective. However, their implementation remains unsatisfactory. In addition, there are recurrent governance problems on the ground and little reporting of supporting documents, particularly with regard to external financing, resources transferred to DTCs and grants.

In conclusion, on health financing, it appears that the level of efficiency of health spending is low. For example, in 2012, Cameroon spent $61 (USD) per capita and had results comparable to countries spending between $10 (USD) and $15 (USD) per capita[128].

3.2. PROVISION OF HEALTH CARE AND SERVICES

The description of the inventory relating to the provision of services and care concerns the following aspects:

- Types of services and care provided:
  - Primary Health Care (MPA,CPA);
  - Secondary health care;
  - Tertiary health care;
  - Other types of care (traditional medicine and alternative medicine/alternative medicine);
- care delivery strategies (fixed, outreached activities, health campaigns);
- the modalities of health care provision (referral and counter-referral system, telemedicine, etc.);
- informal remedy of populations to health care (automedication, roadsides medications);
- initiatives to improve the supply of services and care (quality competitions);
- strategies to stimulate demand.

3.2.1. TYPES OF SERVICE AND HEALTH CARE PROVISION

Primary Health Care (PHC)

In accordance with the strategic orientation validated by the African Heads of State during the Bamako Conference, Primary Health Care is the recommended strategy for meeting the health needs of the majority of the population. The principles adopted for this purpose are: (i) enhanced community participation,

(iii) More effective intersectoral action,

(iv) availability of appropriate technologies,

(v) equity and social justice.

On analysis, the level of coverage of certain interventions is acceptable but the population do not yet benefit from all the services. Indeed, they still have difficulty accessing all the interventions of the Minimum Package of Activities (MPA) delivered by first-level health facilities. The Complementary Package of Activities (CPA) is issued at District Hospitals.

The level of patient perception of the quality of health care and services is not satisfactory. Indeed, the main reasons for dissatisfaction cited by the latter are the poor reception, waiting times, poor orientation, and unavailability of information on the provision of services and health care as well as the related costs.

The integration of care delivery at the level of multi-purpose Community Health Workers (CHWs) has strengthened community-directed interventions. Indeed, in 2021, the country has adopted a National Strategic Plan for Community Health (NSPCH) 2021-2025 with an Investment Case and has developed the Monthly Report of Community Activities (MRCA) which will now be integrated into the DHIS2 platform. Their dissemination and the strengthening of the capacities of actors in their use is underway. However, the quota of multi-purpose CHWs per health area is still insufficient. Moreover, the latter are not selected based

on objective criteria known to all. Finally, it can be noted that the elements of their motivation are insufficient, in particular the unavailability of finances to ensure their motivation.

To ensure greater coverage of interventions, the majority of IHCs and MHCs regularly plan outreached activities and health campaign strategies. Nevertheless, their implementation remains weak because of the division of health areas that does not take into account distances and relief. Also because of the lack of resources (human and financial) and the weak organization of CHWs at the health area level.

Specialized health care and services (secondary and tertiary)

The health facilities of 1st, 2nd and 3rd categories offer specialized care (surgery, pediatrics, gynecology-obstetrics, medical imaging, oral care, hemodialysis, psychiatry, etc.). However, highly specialized care (radiotherapy, cardiac surgery, interventional cardiology, etc.) are offered by 1st category hospitals.

Access to specialized care is low due to the low socio-economic level of users, poor financial protection in health and the dysfunction of the referral and counter-referral system. However, some treatments such as hemodialysis, radiotherapy and chemotherapy are subsidized, though, the quality of care remains suboptimal due to the inadequacy of infrastructure and technical platforms (equipment and human resources) on the one hand, and poor compliance with norms and standards, on the other.

Other types of care (traditional, parallel and alternative medicine

Traditional and alternative medicine remain the first option to care for the population. Traditional medicine is the sum total of knowledge, skills and practices that are rationally based on or not on cultural specific theories, beliefs and experiences and that are used to maintain healthy human beings and to prevent, diagnose, treat and cure physical and mental illnesses. Alternative medicine, on the other hand, refers to all health practices that are not part of the country's tradition or conventional medicine and are not fully integrated into its predominant health system.

MOH does not have control over the activities of traditional health practitioners although there is a service dedicated to the development of traditional medicine at the central level (DOSTS). Moreover, the formalization of these practices, although recognized, is not yet legally regulated. The process of drafting a draft law on traditional medicine is under way.

Informal use of health care by populations (home care, self-medication, street medication).

It is important to note that the informal health care network is expanding and gaining ground. This is manifested in particular by the low attendance of conventional health facilities, the increase in the illicit sale of medicines and the proliferation of informal structures for the

provision of health care and services. This situation, mainly caused by socio-cultural barriers and insufficient health care, has negative consequences for the health of populations.

Despite the efforts made by the government and its partners, low household incomes do not allow them to access health care and services. Indeed, a greater part of the Cameroonian population continues to live below the poverty line and the majority of health expenditure continues to be financed by direct household payments. In some cases, this expenditure is likely to impoverish households and is therefore referred to as "catastrophic expenditure".

It should be noted, however, that some HFs have a social service in charge of the paupers. Nevertheless, very often these are not functional because of the lack of funds and qualified personnel.

However, the reform of Results-Based Financing provided mechanisms for identifying paupers in communities to ensure their free care. In addition, provision is made for free health care for health personnel, but its application is not always effective.

3.2.2. TERMS AND CONDITIONS OF HEALTH SERVICE PROVISION

Fixed and Outreached strategies

The minimum and complementary packages of activities (MPA, and CPA) are most often delivered in fixed strategy (within HFs). Outreached strategies aim to reach population that live beyond 5 kilometers or an hour's walk from HFs while mobile ones are for populations living beyond 15 kilometers from HFs. The latter two are also used in non-epidemic disasters and emergencies.

However, these strategies are poorly implemented due to insufficient financial resources, including the lack of an executable budget line at the district health level dedicated to the management of outreached strategies, disasters and public health emergencies.

A major study should be conducted to determine the proportion of population not served by the IHC and MHC which have not yet benefited from the MPAs.

The referral and counter referral system

The referral system establishes an operational link between two levels of the health categories. The referral is to send a patient from a lower level to the higher level. The counter-referral sends the patient's feedback from the higher to the lower levels. This system improves appropriate access and continuum of care. Continuity of care is the management from the beginning to the end of the episode of the disease with or without referral[129]. There are few specific studies on the functionality of the referral and counter-referral system in Cameroon, but it has been described several times as inefficient[130,131,132]

Integration of health care and services

The Integration of care and services is a crosscutting concept or issue in health. At the operational level, it consists of the provision of preventive, promotional, curative and rehabilitation care in the same health facility. It is commonly practiced in supervision, coordination and care activities in the health system but remains inefficient, undocumented and the expected effects are not always visible in terms of rationalization of interventions, efficiency in achieving results, quality in the implementation of activities. [133]

Also, in terms of reducing the workload on the actors and finally it is a factor in improving good governance in the health sector to name but a few. It would be appropriate to define a minimum set of interventions to accompany the process of implementing the concept of integration of services and health care by actors at all levels of the health pyramid.

3.2.3. INITIATIVES TO IMPROVE THE PROVISION OF HEALTH CARE AND SERVICES

New initiatives to improve the provision of health care and services have recently emerged in the health system. These include performance-based financing (PBF), results-based management (RBM), strengthening public-private partnership, quality approach, social marketing, community involvement especially Decentralized Local Authorities, telemedicine, delegation of tasks as well as competitive approaches to performance improvement.

3.2.4. STRATEGIES TO STIMULATE DEMAND

There is no comprehensive strategy to stimulate demand for health services and care. Nevertheless, several types of innovative mechanisms for financing health demand are implemented in health districts: health vouchers, obstetric kits, health insurance, free treatment of malaria for children under five and pregnant women, etc. However, these experiments are very limited in space and the results obtained are not sufficiently disseminated.

3.3. INFRASTRUCTURE AND EQUIPMENT

In 2020, there were 6202 public and private health facilities (Table 11). The same table shows that the majority of health facilities that exist in the country are private-secular institutions (41%). Added to private-religious institutions (12.40%), it appears that the proportion of health facilities in the private subsector represents more than half of the country's HFs (53%).

In some regions, such as the Centre, Littoral and West, the private subsector constitutes the bulk of the supply of health care and services. This situation could partly be explained by an uncontrolled proliferation of private health facilities in the urban districts of these regions. Indeed, most of these health facilities have neither authorization to create nor to open by the MOH and thus escape its control.

In addition, in some cases, applications are not processed within the time required by MOH, while the control of the creation or opening authorizations granted is not always effective.

These HFs offer specialized care without differentiation and in competition, but are not regularly supervised. Moreover, the role of support and reference structures that they are supposed to play for other health facilities in lower categories is only weakly assured. Finally, reference laboratories are insufficient, although their accreditation procedures have recently been defined.

The geographical distribution of health facilities at the operational level in the country is not equitable. There is a concentration of HFs in the Center and Littoral regions respectively 1580 and 1297, while the Adamawa and East regions have only 184 and 263 respectively. The situation in the Far North is particularly serious with 444 HFs for 30 Health Districts, 86% of which are Integrated Health Centres.

In addition, there is a qualitative and quantitative shortage of human resources specialized in biomedical maintenance, as well as a low availability of materials and equipment, thus rendering most existing HFs non-functional. The preventive and curative maintenance strategy needs to be upgraded and implemented. The diversity of brands of medical equipment, the energy fluctuation and the state of obsolescence of said equipment do not facilitate the monitoring of their maintenance.

15: Distribution of health facilities by status and region in 2020

Region	Public	Private-secular	Private-denominational	TOTAL
South West	234	65	37	336
Center	475	933	172	1580
North West	247	76	86	409
North	267	23	23	313
West	430	299	102	831
East	187	31	45	263
South	209	45	55	309
Littoral	223	923	151	1297
Far North	384	24	36	444
Adamawa	132	19	33	184
National	2788	2438	740	5966

Source: DHIS-2

Table 16 shows the distribution of regional health facilities by category. In general, the number of health facilities at the operational level is satisfactory, but their geographical distribution in the country is inequitable.

Table 1616: Distribution of health facilities by category and region in Cameroon in 2020

Region	Population 2020	CSI	CMA	HD & Assimilated	HR	HC & HG	Grand total
Southwest	1 899 941	276	26	32	2	0	336
Center	4 965 861	1425	95	49	1	10	1580
Northwest	1 868 031	346	32	30	1	0	409
North	2 996 271	287	9	16	1	0	313
West	2 327 807	727	68	35	1	0	831
East	1 360 451	220	21	21	1	0	263
South	894 878	260	34	13	1	1	309
Littoral	4 277 464	1159	79	53	2	4	1297
Far North	4 967 788	384	27	30	3	0	444
Adamawa	1 518 189	154	17	12	1	0	184
Grand total	27 076 681	5328	408	291	14	15	5966

Source: DHIS-2 and target population 2020, Health facility density

At the national level, whatever the status, the density of health facilities is one health facility for 4274 inhabitants. The region with the lowest density of health facilities is the Far North with nearly one health facility per 10,000 inhabitants, followed by the North with about one health facility per 9,523 inhabitants. The south and west regions are the regions with the highest densities of health facilities in the country: one health facility per 2602 inhabitants and one health facility per 4274 inhabitants respectively (Table XVI).

The analysis focusing on public sector health facilities shows that at the national level, the density of public health facilities is one health facility per 8690 inhabitants. The Littoral region is the least furnished with one health facility per 17,071 inhabitants, followed by the Far North (one health facility per 11,706 inhabitants) and the North (one health facility per 10,965 inhabitants). The regions with an acceptable density are the South (i.e. one health facility per 3798 inhabitants) and the West (one health facility per 4,704 inhabitants).

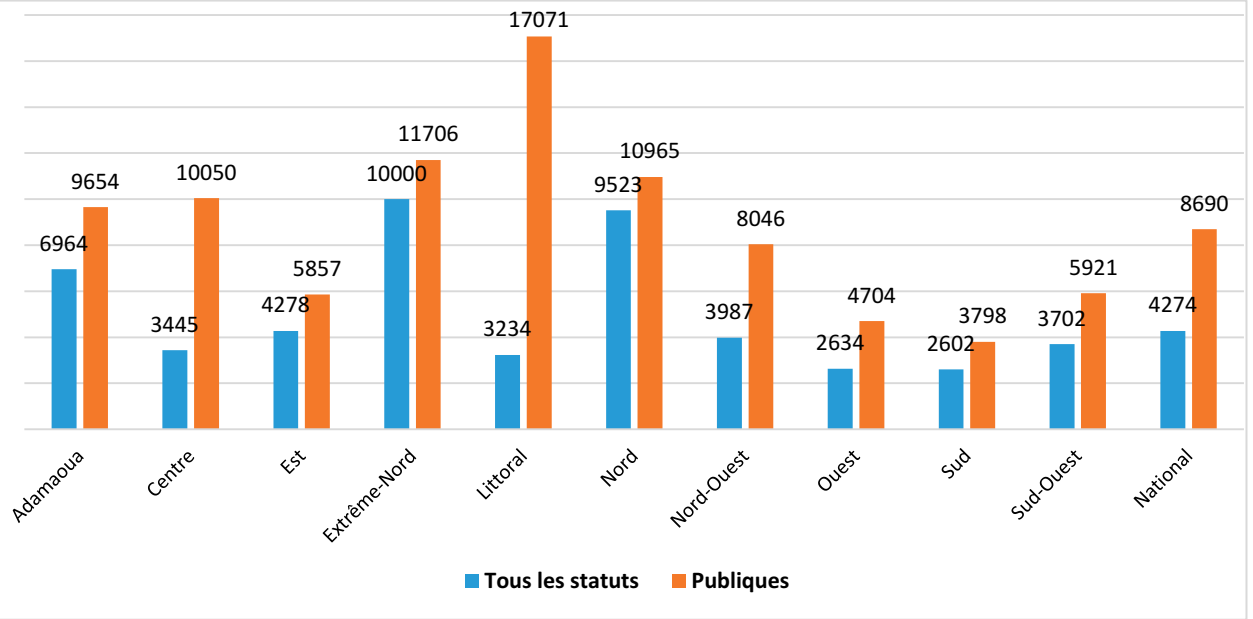


Figure 11: Population Ratio to Health Facility by Region11

Source: CIS/DHIS2

3.3.1. EQUIPMENT

The functionality of a HFs is conditioned not only by the presence of an infrastructure, but also by the presence of a functional technical platform (equipment) meeting the MPA and CPA. In addition, the equipment of these HFs is mostly in a state of degradation due to lack of maintenance. The situational analysis in 2009 revealed that 50% and 80% of regional and district hospitals respectively did not have a maintenance service. Also, no region has an equipment maintenance service to meet the needs of 5th and 6th category HFss. On the other hand, the HFs of 1st and 2nd category have a technical service (management and maintenance of equipment) although not adapted to all the required specialties (biomedical, non-medical equipment, etc.).

Overall, the difficulty of equipment maintenance is due to the lack of a strategy for depreciation and maintenance of equipment, the diversity of brands for the same type of equipment and the absence of the harmonized standard operating procedure to ensure the follow-up of the optimal management of the equipment.

3.4. PHARMACY, LABORATORY, DRUGS AND OTHER PHARMACEUTICAL PRODUCTS

Despite the legal framework put in place by the government to improve people's access to safe, effective and quality drugs, the population's needs are not fully met.

3.4.1. SUPPLY AND DISTRIBUTION

The National System for the Supply of drugs and Other Pharmaceutical Products is a set of structures, actors and procedures aimed at ensuring the availability and continuous accessibility of drugs and other quality pharmaceutical products throughout the national territory.

It includes drugs manufacturing, distribution/wholesale, dispensing or retail, and drug regulatory structures.

For instance, the pharmaceutical sector, is organized into two sub-sectors: (i) the public sub-sector (CENAME, RFPS and HFs), and (ii) the private sub-sector (profit and non-profit).

This situational analysis relates to pharmaceutical structures in the public subsector, namely CENAME, RFPH and health facilities.

The supply of drugs is organized in a pyramidal manner, from top to bottom and around the CENAME. The latter is the main supplier of the RFPH, whose missions include the management and distribution of drugs and other pharmaceutical products on behalf of the health facilities in their area of competence.

Because of the financial difficulties that CENAME has been facing in recent years, which is reflected by its inability to fully meet the drug needs expressed by the RFHPPH, these structures regularly call on other suppliers approved by MOH.

Also, thanks to the introduction of PBF in the health sector and its principle of free competition, health facilities have been allowed to obtain supplies directly from authorized distributors when the RFHP are unable to meet their needs.

Indeed, the insufficient of drugs and other pharmaceutical products in public distribution structures, the low level of ownership by certain actors of supply procedures and the insufficient regulation of the activities of the various SYNAME structures contribute to dysfunctions both in terms of traceability of stocks of pharmaceutical products acquired and as regards compliance with the selling prices of those products to the public. Indeed, it has become common for RFHP and Health Facilities to receive their supplies from the same approved wholesale distribution structures.

In addition, donations of drugs and other pharmaceutical products are a significant source of supply, the data of which are not always captured by the information system. Donation regulations are not always respected.

Some administrations other than MOH have networks of health facilities that may be clients of CENAME. The stock management data of these health facilities also deserve to be tracked.

These dysfunctions of SYNAME and other external causes to the Health System explain the persistence or even the increase of the illicit supply chain of drugs and pharmaceutical products, which supplies the street market and which could have connections with the licit sector.

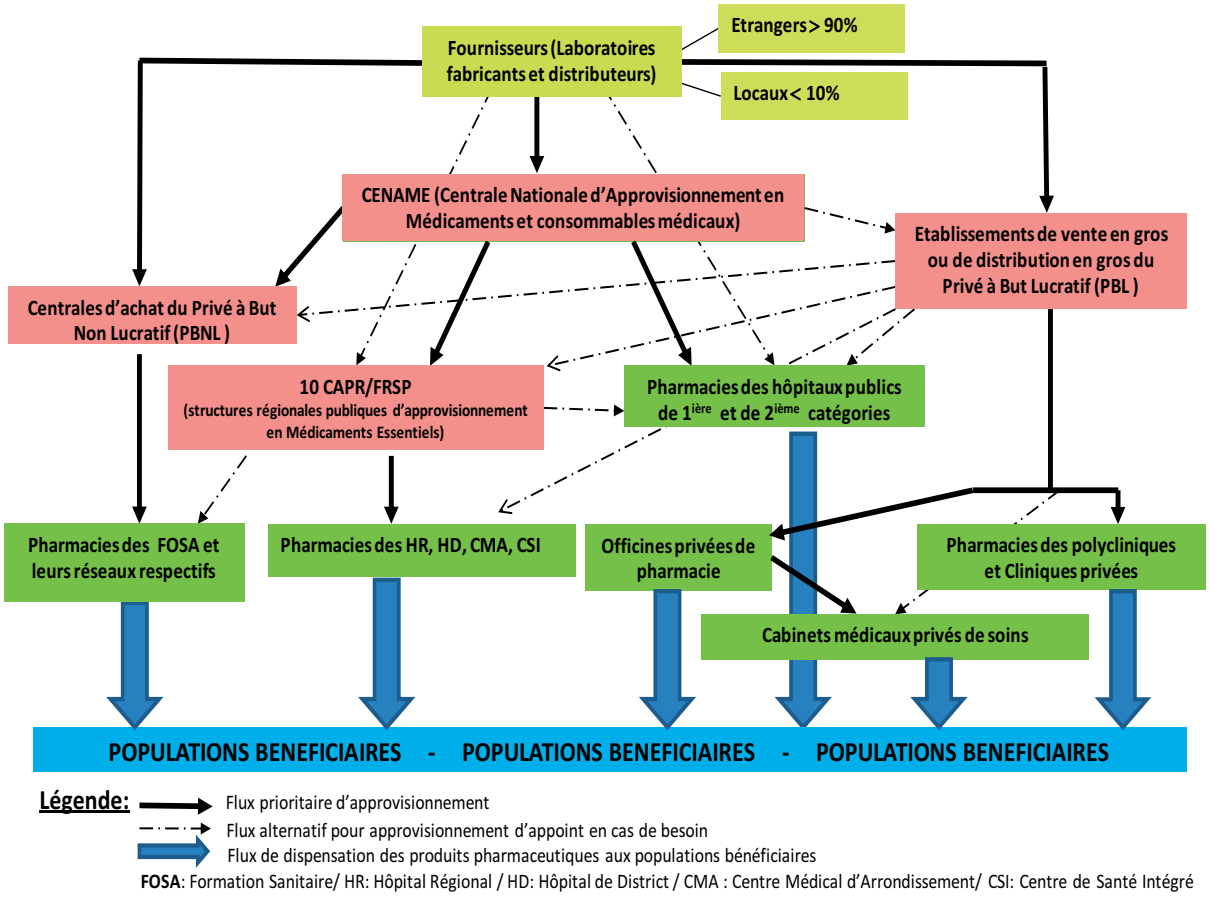


Figure 12: Organization of the National Drug Supply System (SYNAME).12

Source: MOH/General Inspectorate of Pharmaceutical Services and Laboratories - January 2016 version

The ratio of pharmacists per inhabitant varies between one per 6920 and one per 177,051 inhabitants with an unequal distribution between rural and urban areas. In general, the purchase of drugs and medical consumables represents nearly 40% of current health expenditure. However, it is observed that local pharmaceutical industries are still in an embryonic state. [134]

3.4.2. GEOGRAPHICAL AND FINANCIAL ACCESSIBILITY

In 2003, geographical access to drugs was estimated at 66% and the level of availability of basic drugs the estimation was 86% in 2008. Regarding the average number of days of stock-outs of basic drugs, this figure increased from 21 days in 2012, to 14 days in 2015 indicating an improvement in the availability of drugs in health facilities till date this figure stands at 10 days. Although there is improvement in this indicator, the average number of days of stock-outs of essential basic drugs remains a concern[135,136,137]. This is very often due to shortcomings in the quantification and forecasting of stocks. In addition, we can also note the difficulties of access to areas affected by security crises, which do not promote the regular supply of HFs with commodities. To this can be added the problem of insufficient measures against fake drugs and the illicit trafficking of pharmaceutical products, which continues to flourish.[138]

Thanks to the support of the various partners and State subsidies, certain therapeutic classes are delivered free of charge (anti-tuberculosis drugs, 1st and 2nd line antiretrovirals, certain ACT antimalarial combinations, injectable artemisinin derivatives for children from 0 to 5 years, anti-lepromatous, etc.). Other classes are available at a lower cost (obstetric kits, contraceptives, insulins, antimalarials, etc.).

An effort to regulate prices is made during the drug approval process. This makes it possible to obtain significant price reductions from generic and specialty manufacturers.

drugs benefit from an exemption on custom duties, VAT and computer tax but the SGS tax which is of the order of 1% remains applied. Local production of drugs is low. Despite the efforts, a significant part of the population buy drugs from the street.[139]

3.4.3. REGULATION OF DRUGS AND OTHER PHARMACEUTICALS

There is a coordination platform of the structures of the National Drugs Regulatory Authority (IGSPL, DPML, DSF, DROS and LANACOME...) on the one hand, and the other major players in the pharmaceutical sector (CENAME, National Order of Pharmacists of Cameroon, Development Partners), for the exchange of information and a better application of the guidelines for the regulation of the pharmaceutical sector.

The prices of drugs in the public subsector is harmonized throughout the national territory, but the prices displayed are not always respected, in particular because of the diversification of sources of supply. In the private non-profit subsector, approved structures have their own pricing system. They are, under certain conditions, authorized to access all CENAME products through their supply chains.

At the national level, the process of setting up a harmonized Electronic Logistics Management Information System (SIGLe/eLMIS) is effective at the Central level, with the networking of the

DPML, CENAME and the 10 GIP-FRPS. This process is being implemented at the operational level, through the deployment of an eSIGL at the level of health facilities. In the meantime, DHIS-2 tracks certain basic indicators for drug management.

However, in the context of decentralization and the need to capture the flow of drug circulation from partner administrations, it is important to update the DHIS2 parameters, particularly those relating to the integration of HFs data belonging to other sectors as well as those resulting from the transfer of skills.

3.4.4. QUALITY ASSURANCE OF DRUGS AND OTHER PHARMACEUTICAL PRODUCTS

The quality assurance system for drugs and other pharmaceutical products is based on several pillars namely: (i) licensing, (ii) quality control, (iii) pharmaceutical inspection and market surveillance, (iv) pharmacovigilance.

There has been a marked improvement in the drug approval process with regular sessions of the National Drugs Commission and its Specialized Commissions, responsible for providing technical advice to the Minister of Public Health on the homologation for the marketing of pharmaceutical products. This process includes laboratory quality control of sample batches submitted for registration.

On the other hand, the process of the dematerialization of external trade operations through the Single Window platform (eGUCE), rapidity , visibility and traceability of stocks of imported drugs and other pharmaceutical products is made possible.

In addition to the verification of documentary packages relating to imports, a physical conformity check is now carried out at certain ports of entry (port of Douala and airports, in particular). This import control should be extended to all entry channels for more rigorous screening.

The National Laboratory for Quality Control of drugs and Valuation (LANACOME) is responsible, among other things, for the quality control of batches of drugs submitted for approval, and those circulating on the market. It can be seen that the quality control activity in post-marketing (after obtaining the Marketing Authorization) is not systematic, due in particular to the absence of a formalized regulatory framework for the surveillance of the pharmaceutical market and the insufficient financial resources necessary to carry out these activities.

Thus, the counterfeiting of drugs and other pharmaceutical products has increased and the illicit pharmaceutical sector represents about 30% of the pharmaceutical market in African countries and Cameroon. The inspection of pharmaceutical structures remains irregular due to a lack of logistical and financial resources.

3.4.5. LOCAL PHARMACEUTICAL INDUSTRIES

During the first phase of implementation of the NHDP, salutary initiatives and measures aimed at the development and promotion of the local pharmaceutical industry were taken, including the extension of the measure of exemption from customs duties and taxes to pharmaceutical commodities used for production and the issuing of an interministerial committee responsible for monitoring the development of the local pharmaceutical industry. Drugs benefiting from an exemption from customs duties, VAT and computer tax but the SGS tax which accounts for 1% remains applied. Local production of drugs remains low[140] in order to remedy this, the Government is resolutely committed to promoting local industry as part of its import-substitution policy backed by the SDG30.

Also, support efforts are made for the promotion of traditional medicine with translation, approval and marketing of a number of Enhanced Traditional Medicines (ETMs) in recent years.

Despite these advances, local production remains largely insufficient (absorption of less than 5% of the requirement) and not very competitive. In addition, it is still observed that most of the ETMs circulating are produced and placed on the market outside the regulations in force.

3.4.6. MEDICAL LABORATORIES AND BLOOD TRANSFUSION

MOH developed and adopted in 2009 a national health technology policy document that defines laboratory equipment by category of health facility. The practice of medical biology and the modalities of organization and operation of private medical analysis laboratories are regulated by Decree No. 90/1465 of 9 November 1990.

At the institutional level, several bodies are responsible for the implementation and regulation of laboratory policy. Decree No. 2013/093 of 3 April 2013 on the organization of the Ministry of Public Health, provides for a Sub-Directorate in charge of Laboratories and Blood Transfusion which is responsible for organizing the national laboratory system. However, it does not have sufficient autonomy to carry out its missions. The General Inspectorate of Pharmaceutical Services and Laboratories, which has a role in controlling laboratories, does not always carry out its missions because of the legal vacuum observed. In addition, Order No. 2964/MINSANTÉ of 9 October 2013, on the creation, organization and functioning of the National Public Health Laboratory (LNSP) places this structure under the coordination of the Directorate for pharmacy medecine and laboratories (DPML). This legal text does not allow it to optimally fulfill the missions incumbent on a Public Health Laboratory. There is not yet an accreditation body for medical biology analysis laboratories. There is neither a national network of laboratories nor a functional referral and counter-referral system for laboratories.

Structurally, the national laboratory system is organized in the public and private sectors. This is how a distinction is made between laboratories logded in public or private health facilities, autonomous laboratories and research centers. In the public sector, health laboratories (HFs) are organized according to the health pyramid. Although there is a text specifying the content

of the minimum package of laboratory activities, it does not take into account all categories of HFs. In the private sector, laboratories with an adequate and sometimes state-of-the-art technical platform are generally concentrated in large cities. In general, we observe:

- the inadequate distribution of laboratories on the national territory;
- the absence of text categorizing laboratories by level;
- a proliferation of unauthorized laboratories;
- poor practices that are not in accordance with professional ethics and professional conduct.

In terms of human resources, laboratory staff are trained in public and private academic and professional institutions. In public health facilities, there is an inequitable distribution of human resources, varying from one training to another. The situational analysis of laboratories carried out in 2014 in 756 laboratories shows a deficit of laboratory staff profiles at different levels.

The heterogeneity of laboratory equipment brands and technologies reflects the non-harmonization of laboratory equipment by level. There is also the absence of a maintenance and monitoring plan for equipment and maintenance contracts signed for most equipment.

Despite the requirement of approval procedures, most reagents and medical devices used do not justify a Marketing Authorization (MA) which does not guarantee the quality and reliability of the analysis results.

Blood transfusion is governed by Act No. 2003/014 of 23 December 2003, which establishes the National Blood Transfusion Centre (NBTC). In addition to the existence of a service specially dedicated to Blood Transfusion at MOH, Decree No. 2019/067 of 12 February 2019 governs the organization and functioning of the NBTC. Most general, central and regional hospitals have units responsible for blood collection, qualification and storage.

Although progress has been made in blood transfusion, there is a lack of inadequacy and obsolescence of the texts governing the practice of medical biology.

3.5. HUMAN RESOURCES IN HEALTH

3.5.1. SITUATION AND NEEDS OF THE SECTOR (STANDARDS AND NEEDS)

Despite the significant recruitment of health personnel over the past decade, the need for qualified human resources remains quite high in view of demographic dynamics. There is an insufficient number of qualified staff in the HFS and most of these staff are in a precarious situation and without a contract. In addition, the current management of personnel has limitations in the response to the demand for health services: Insufficient staff both in quantity and quality; poor distribution of health personnel throughout the national territory, lack of

information on staff active in the private sector and even in partner administrations in the health sector, etc.

While the number of staff recruited by the public service is not in line with retirement figures, at the operational level, the DTCs are very little involved in solving this problem. As a result, the gap between needs and assigned personnel continues to widen over time. The number of medical staff working at MOH is estimated at 38,207 in 2018 (Table 7). Based on these data and those of the 3 rd General and Physical Census of Human Resources (GPHR), the staff/population ratio in Cameroon remains well below the WHO standard of 2.3 per 1000 inhabitants.

Table 1717: Number of each category of public medical staff by region in 2018

QUALIFICATION	SERVICES CENTRAL	That	South	WEST	Ad	EAST	NO	N/A	E-N	BED	N-W	TOTAL
DOCTORS	99	619	113	180	88	99	71	143	93	535	116	2156
MEDICAL AND SANITARY **TECHNICIANS**	27	545	104	158	87	109	70	166	103	330	143	1842
PHARMACISTS	32	78	25	30	22	21	19	32	21	79	20	376
NURSES	76	2039	438	1030	487	449	707	744	774	1585	652	8981
SURGICAL DENTISTS	1	39	16	15	10	10	6	10	14	34	11	166
MAIEUTICIAN/ MIDWIFE	60	60	23	32	23	31	28	32	54	50	28	421
SANITARY GENIE-U	27	27	7	13	12	8	7	15	14	16	12	158
HOSPITAL ADMINISTRATION	70	26	12	8	12	8	8	9	6	21	8	188
TECHNIQUES -BIOMEDICAUX	9	9	3	2	8	3	1	10	1	9	5	60
OTHER	538	235	39	120	2019	102	156	180	82	414	157	4042
TOTAL	939	3677	780	1588	2768	840	1073	1341	1162	3073	1152	18390

Source: MOH, SIGIPES, 2019.

Analysis of the distribution of health personnel by region shows that the Central region has the largest number of public medical personnel, followed by the Littoral region. The south region, on the other hand, has the lowest number of public medical personnel. In addition, the composition of this public sector medical staff at national level shows that it is the nursing assistants who are the majority (7173), followed by nurses (IDE + IS) who are estimated at 5 261. Moreover, based on the 2011 RGPS data and the 2018 DHIS2 data, we note that the number of general practitioners decreased slightly between 2011 and 2018 (with 1420 general practitioners in 2011 against 1345 in 2019, a difference of 75 general practitioners), while the number of specialists increased over the same period (from 137 specialists with 559 specialists in 2019 and 422 in 2011).

Table 1818: Estimated human resource needs by level of the health pyramid for 2020

No.	OCCUPATIONAL CATEGORIES	PLANNED STAFFING (DH+SMH+IHC)
1	Specialists	512
2	General practitioners	155
3	Pharmacists	102
4	Dental surgeons	52
5	Medical and sanitary engineers	113
6	Midwives	538
7	Senior Nursing Technicians (Senior Nurses)	729
8	State registered Nurse (Senior nurses)	1437
9	Medical Laboratory Technicians	2074
10	Assistant Medical Laboratory Technicians	1088
11	Assistant Nurse	1645
12	Community Health Workers	115
TOTAL		**8560**

Source: MOH, 2019

In 2020, the need for technical, administrative and support staff at the health district level was estimated at about 8560 staff for the most commonly used occupational categories as distributed in Table 17 above. These needs do not take into account losses that are caused by pensions, deaths, migration of health professionals, etc.

3.5.2. PRODUCTION OF HUMAN RESOURCES

Initial training

There is a poor match between the initial training of health personnel and the needs of health facilities. This problem is mainly due to the weakness of regulation at the central level.

A strategic plan for the development of medical-surgical specialties was set up in 2010. The beginning of the implementation of this plan led to the production in 2014 of the first promotions of specialists in nephrology, neurology, pulmonology, hepato-gastroenterology, etc. To this it is important to include pharmacists and dental surgeons now trained locally. To date, the number of specialists is 626 including 5 psychiatrists and 09 nephrologists. Many other specialties remain underrepresented. This is the case of: geriatrics, interventional radiology, hematology, medical biology, infectiology, etc. (see Appendix 1). In 2014, there were 92 public and private schools for the training of medical and health personnel. The current rate of training of medical and paramedical personnel far exceeds the absorption capacity of the public subsector. [141]

Depending on the needs of the system, new sectors have emerged midwives / midwifery (238 + 183 trained since 2011 with an annual production rate of 250), Laboratory Technicians with option optics and refraction, community-nursing assistants, Laboratory Technicians, Assistant laboratory technician, mortuary attendants. A cycle of pharmacy assistant has been opened to gradually replace the current pharmacy clerks.

Continuing Education

Overall, continuous training is insufficient for all categories of staff. It is not in line with the needs of the sector due to a lack of precise multi-year planning and financial resources. Nevertheless, each year, a share of the funds of the State budget is allocated to scholarships and internships. This figure represented about 0.1% of the total budget of MOH in 2015 This figure concerns only the budget allocated to the Human Resources Directorate and does not take into account that of other directorates, projects and programs or specialized organizations. In addition, some development partners support this process of continuous training. However, this funding is mainly directed towards individual training demands rather than institutional needs.

Recruitment and Management of Human Resources for Health (HRH)

In 2018, there was an increase in health personnel with the recruitment of 460 graduate doctors, 16 senior health administrators, while on competition, 66 general practitioners, 10 pharmacists, 06 specialized doctors, 148 midwives, 50 nursing assistants, 05 senior technicians and 10 sanitary engineering technicians, 15 senior nurses, 18 state-certified nurses and 38 state-certified nurses and 38 nurses entered the civil service. In total, 1013 health personnel plus 97 support staff in the service of population health.

In quantitative terms, the minimum staffing requirements in 2005 were 49,074 in the public subsector. In 2010, only 19,709 were available, this figure reached 21567 in 2015 according to administrative data from the National Observatory of HHR. The economic crisis of 1986 and structural adjustment programmes led to a high emigration 142[143]of health professionals144.

Also, to the subsequent quantitative and qualitative deficit, there was a non-optimal management of personnel characterized by: non-control of staff, their underutilization, the mismatch between profiles and workstations, non-compliance with the career profile, and a high rate of absenteeism in public health facilities varying between 2 and 37%. It should be noted that this absenteeism is due, among other things, to the search for alternative income and insufficient staff retention mechanisms, particularly in difficult areas (basic infrastructure, specific bonuses, honours, health insurance, etc.). Moreover, assignments are centralized and often do not meet the needs of user structures. In the public subsector, there is a high attrition rate, which is slight balanced by recruitments that depend on the exclusive competence of MINFOPRA.[145,146]

3.6. NATIONAL HEALTH INFORMATION SYSTEM AND HEALTH RESEARCH

3.6.1. STATUS OF THE NATIONAL HEALTH INFORMATION SYSTEM (SNHIS)

A strategic plan to strengthen the NHIS for the period 2009-2015 was developed in 2008, but it has been poorly implemented. Until 2015, Cameroon's NHIS was characterized by a multitude of information subsystems depending on the different programs depending on the donors. Then, it underwent a transformation with the harmonization of the various data collection tools and acquired the District Health Information System 2 (DHIS2) software for the integrated monitoring of health sector activities (Circular Letter No. D36-59/L/MOH/SG/CIS of the Minister of Public Health of 22 November 2017). Due to the deployment of this platform at all levels of the health pyramid, validated data at the health district and regional levels are available. Thus, the completion rate of Monthly Activity Reports (MAR) increased from 11.4% in 2017 to 80.1% in 2020. The availability of data disaggregated by region and even by health district facilitates the identification of priority intervention areas.

However, it is regrettable that these MARs are not sufficiently used by the structures that develop them in order to make decisions locally. Some health facilities do not analyze the data they collect. Generally, the data collected by health facilities are systematically sent to higher levels through DHIS 2 in order to overcome the problem of promptness. Most district management staff (DMS) ~~ECDs~~ have been trained on the preparation of quarterly reports and related templates have been made available. However, they are still struggling to produce them due to overwork and overlap between planned activities that prevent proper monitoring and reporting. To this can be added the fact that the reports provided by the lower levels are rarely followed by feedback.

Table 1919: Overall completeness of MARs by Region from January 2017 to November 2020 in %

REGION	2017	2018	2019	2020
Adamawa	7,7	98,8	99	85
Center	3,8	83,3	98,2	85,8
East	90,5	95,2	95,6	85,5
FAR Nord	17,9	95,1	106,8	85,3
Littoral	3	42,7	87,3	65,1
North	7,6	91,3	100,1	91,8
North West	6,2	61,8	79,4	69,6
West	3,3	85,6	97,1	87,9
South	5,8	51,6	95,8	83,9
South West	32,3	61,9	80,2	74,8
National	11,4	72,8	93,9	80,1

Source: DHIS2 MOH

3.6.2. STATE OF HEALTH RESEARCH

Health research remains a sector of activity whose competences are divided between several ministerial departments (MOH, MINRESI and MINESUP etc.). According to Decree No. 2013/093 of 3 April 2013 on the organization of the Ministry of Public Health, the MOH has within it a Division of Operational Research in Health (DROS) whose main missions are the promotion of operational research, the production and publication of its results, the promotion of ethics and the monitoring of issues relating to bioethics. In 2013, the DROS coordinated the development of the National Strategic Plan for Operational Research in Health 2014-2018, which was done jointly with all stakeholders; The evaluation and updating of this plan is planned for 2022. Many problems have been identified in the area of health research.

- *Insufficient coordination*

With the variety of actors involved in research, it was set up by decision No. 0286/D/MSP/CAB of 5 July 2004 a Scientific and Strategic Advisory Commission on Health Research (SSACHR) at the Ministry of Public Health to discuss research issues and priorities according to health news. However, this commission has been operating irregularly since its creation. This situation leads to the fact that the research conducted focuses mainly on diseases to the detriment of other areas (health system and health promotion). The choice of research topics is left to the investigator, who in turn is influenced by the availability of funding and the requirements of the funder.

- *Insufficient legal framework on research*

Several regulatory instruments (such as Decision No. 0689/D/MOH/SG/DROS of 29 July 2009 on the conditions for issuing the Administrative Authorization for Human Health Research in Cameroon and Circular Letter No. D36-13/LC/MOH/SG/DROS/YC of 09 February 2011 on the Implementation of Operational Research in Health in Cameroon) are not observed and applied in the implementation of certain research projects. These texts stipulate, in particular, that all research must be carried out following the delivery of both the ethical clearance and administrative authorization. However, there is a mismatch between the number of Administrative Research Authorizations (on average 30 per year) issued by MOH and the number of ethical clearances (on average 80 per year) issued by the National Committee on Ethics for Human Health Research (DROS and CNERSH annual performance reports).

- *Insufficient legal and ethical framework*

Since health research is about people, it requires a rigorous ethical framework. To date, there is no law/decree specifically intended to regulate this field of activity: no code of ethics for health research, nor satisfactory legislative or regulatory texts on the subject.

- *Insufficient funding*

International recommendations require that at least 2% of the budgets of ministries in charge of health and at least 5% of development aid funds be allocated to health research. To date, this proportion is low (less than 1%). In 2020, health news revealed that 43% of research projects authorized by MOH focused on COVID-19 and all funded by external funds.

- *Low dissemination, and exploitation of results*

The evidence-based decision-making process in Cameroon is still maturing. This situation is explained by the weak national capacity from the design, implementation of research projects to the restitution and translation of their results into proposals for action (Strategic Information and policy Briefs, Policy briefs) or scientific articles. Also, recommendations made in research results are poorly considered in decision-making. Moreover, in the budgets of these projects, there is not systematically a budget line for the dissemination of their results.

Publishing research results

Several scientific meetings (fora, conferences, scientific days,) are organized routinely in order to restitute the results of research work conducted in Cameroon. As 2020 limited scientific meetings due to COVID-19 constraints, we went from 33% to 61% of authorized projects whose results were restituted respectively between 2020 and 2021 (DROS, 2020 and 2021 annual performance reports). Also, the existence of a virtual library allows the publication of scientific articles produced in the health sector, including research results. It is available at www.cdnss.minsante.cm.

Evidence generation from health research

The Center for the Development of Good Health Practices (CDBPS-H) is a research unit created in 2008 within the Central Hospital of Yaoundé that aims to contribute to informed decision-making by collecting, synthesizing, reformatting and communicating research evidence in an attractive and readable form for decision-makers. This unit, as well as the National Observatory of Public Health, works with the DROS for the production and use of evidence.

Strengthening Research Ethics Governance for Human Health

The BREEDSAFCA (Strengthening the regulatory framework on ethical review and drug safety monitoring in Cameroon) project funded by EDCTP and implemented between 2019 and 2021, enabled DROS to develop important documents:

(i) the "Guide to ethical and administrative review procedures for human health research protocols" and,

(ii) the texts creating, organization and functioning of research ethics committees for human health within the structures of the Ministry in charge of public health, fixing the amount of the costs of evaluation of research protocols, setting the modalities of organization and functioning of the technical secretariat of the National Committee on Research Ethics for Human Health, laying down the terms and conditions for carrying out research on human health in Cameroon.

Legal and ethical framework

Initiatives on the development of draft laws on research involving the human person and on medically assisted procreation have started since 2017 and are being finalized. We can also note the establishment of regional ethics committees in the West, Littoral and North.

Coordination and monitoring of health research activities

There is a growing collaboration between the DROS, the technical directorates and priority programs with dedicated research funding. A collaborative networking initiative with HIV TFPs (CAM–HERO 2020) was launched to coordinate HIV research. Systematic awareness-raising activities for investigators on the regulation of research are conducted routinely and during missions to monitor the implementation of research projects. At the operational level, data is collected, analyzed and transmitted to the higher level, but this is not subject to operational research. This is due to lack of financial means, motivation, technical competence and qualified human resources.

3.7. GOVERNANCE AND STRATEGIC STEERING

3.7.1. GOVERNANCE

Legislative and regulatory framework

In the absence of an integrated public health code, many legal texts regulate the main health functions and interventions. However, several areas of public health do not have an appropriate legal framework. These include : bioethics (medically assisted procreation, organ donation, transplantation, etc.); the practice of traditional medicine and the development of alternative medicine; ambulatory health care services, etc.

In addition, the pricing of medical acts and care is governed in the public and private subsectors respectively by two decrees: Decree No. 62/DF/62 of 1 March 1962 fixing for public health the fees for consultation, visits, deliveries, medical certificates as well as the value of the key letters of the nomenclature of professional acts for private medicine on the one hand, and Decree No. 63/DF/141 of 24 April 1963 fixing for public health the fees for consultation, visits, deliveries, medical certificates and the value of key letters of the nomenclature of professional acts. These legal instruments are obsolete and the prices charged no longer correspond to Cameroon's current socio-economic situation. This sometimes results in a violation by several actors of the provisions of these legal instruments, resulting in the disparity of prices charged in both the public and private subsectors.

The legal framework for interventions is also characterized by a multitude of regulatory acts with sometimes competing, discordant and obsolete provisions. This is due to:

- non-compliance with the process of drafting legal instruments by health system actors;
- lack of awareness of existing legal instruments.

The institutional, organizational and structural arrangements put in place to manage legal issues in the health sector (MOH) are available at the central level through the Legal Affairs and Litigation Division (DAJC) whose activities are not decentralized to the regional level, hence the bottleneck observed in this structure.

Audits and internal controls

At central level, there is a need for effective implementation of the regulatory, audit and control tasks assigned to the general inspectorates covering all aspects of the management of the sector. Audit and control actions are limited by insufficient logistical and financial resources, as well as by the lack of implementation of recommendations from inspection missions at all levels. To overcome this last difficulty, control brigades have been created and staffed in the Regional Public Health Delegations [147,148]. These Control Brigades remain very inactive and need capacity building.

Anti-corruption and accountability

The Government has adopted an anti-corruption strategy 2010-2017, the implementation of which covers all sectors. A roadmap based on the "PRECIS" approach (Prevention, Education, Conditions, Incitement and Sanctions) has been developed to accelerate the implementation of anti-corruption strategies, with accountability, transparency, consolidation of the rule of law and decentralization as conditions for success. Civil society organizations have been involved through several initiatives such as CHOC (Changing Attitudes, Opposition to Corruption).

There is a Ministerial Committee to Combat Corruption, coordinated by the Inspector General of Pharmaceutical Services and Laboratories. In addition, internal anti-corruption committees have been set up in public hospitals and transparency and denunciation materials (complaint and suggestion boxes, etc.) have been installed. The Anti-Corruption Quick Results Initiatives were implemented with the support of CONAC in hospitals. The milestones of these Anti-Corruption Quick Results Initiatives have been translated into measures to strengthen governance and secure hospital revenues and assets.

At the national level, accountability remains an important issue in the health system and represents an obstacle to the ownership of the implementation of HSS by all actors. To date, several institutional mechanisms (monthly activity report, annual activity reports, annual performance report, etc.) have been put in place so that health authorities, at all levels of the health pyramid, can report on the implementation of their activities. The establishment of exchange platforms (annual conference of officials, coordination meetings, steering and monitoring committees, CCIA, etc.) highlights the concern and willingness of the public authorities to involve all stakeholders in the implementation of HSS and decision-making. However, insufficient financial resources for the organization of coordination meetings, especially at decentralized level, limit their functionality.

Social control

Social control of health interventions, one of the modalities of which is community participation in the activities of the health system, is "quite weak". Dialogue structures exist at all levels of the health pyramid and should participate in co-financing and co-management interventions of health structures. But, they are not very functional for the most part. [149] However, it is worth noting the strong impact of civil society and patient associations in the control of health interventions.

3.7.2. STRATEGIC MANAGEMENT

Strategic steering/management consists of leading an organization towards achieving the objectives previously defined by making effective and efficient use of available resources. In

this document, the description and analysis of the strategic management of the health sector is structured around four main axes:

(i) strategic planning and coordination,

(ii) strategic monitoring ,

(iii) monitoring and evaluation of interventions,

(iv) partnership for health.

Health monitoring

In the health sector, the health monitoring system is organized around the National Observatory of Public Health (NPHO) created in 2010. One of its main missions is to ensure the surveillance of the health status of populations, cohorts of epidemiological interest in order to prevent the spread of epidemics and / or pandemics. However, the NPHO is faced with some difficulties to effectively implement this mission due to insufficient human, financial and technological resources.

Strategic planning, coordination and monitoring in the health sector

Strategic Planning

Strategic planning in the health sector has as reference framework, the Cameroon Vision 2035, declined in the GESP for the period 2010-2020 and the NDS 30 for the period 2020-2030. It has become operational in the health sector through the HSS 2001-2015, the 2016-2027 and the updated HSS 2020-2030. However, there is little implementation of these reference frameworks because of their insufficient publication, appropriation and use for planning at all levels of the health pyramid. Instead, the emphasis is on programming and budgeting to the detriment of operational planning and linkage to the health sector strategy set out in the NHDP.

In addition, at the regional and operational levels, there has been a low availability of health sector reference documents (HSS 2016-2027; NHDP 2016-2020, IMEP etc.) Hence, the lack of ownership of strategic orientations at these levels of the health pyramid. Indeed, the majority of the health districts surveyed claimed to have developed their District Health Development Plans, but these were insufficiently implemented and had low ownership. This problem was most acute in the Littoral region and part of the Central region where the development of DHDP did not take place during the 2016-2020 programme cycle.

Strategic Coordination

As far as coordination is concerned, the health sector continues to be characterized by a multiplicity of coordination bodies. Indeed, most health programs and projects have an intersectoral or interministerial steering and guidance body at the central level (Country Coordinating Mechanism for financing the Global Fund to fight TB, HIV, Malaria, the Inter-

Agency Coordination Committee, etc.). These vertical programme coordination bodies do not have a monitoring body. These problems of coordination and strategic steering have repercussions at the regional level. The majority of actors interviewed at the regional level stated that multisectoral coordination mechanisms were not adequate although they existed. The Administrative Coordination Committees (ACCs) led by the administrative authorities serve as a multisectoral consultation framework to discuss development issues at the regional and operational levels. But these do not sufficiently address health issues for their resolution.

For MINSANTE, an internal management committee for the Planning, Programming, Budgeting and Monitoring and Evaluation chain was set up in 2009. To ensure its annual functioning, an act signed by the Minister of Public Health updated the composition of the committee. However, related meetings are not frequently held. It should be noted that planning activities at the central level are not aggregations of needs expressed by the lower levels of the health pyramid. Consequently, budgetary allocations are made in an egalitarian manner without taking into account the specificities of the different regions and structures. With the budget reform in 2007 and revised in 2018, followed by the introduction of the programme budget in 2013, the role of the Planning, Programming, Budgeting and Monitoring and Evaluation Channel has been better defined and strengthened. A decree of the Head of State of 2018, sets the budgetary calendar and specifies for each stage (planning, programming, budgeting and monitoring and evaluation), the approach, activities, timetable, actors, expected results and deliverables.

Intelligence

Strategic intelligence in the health sector consists of foresight in order to collect the strategic information necessary to anticipate developments and innovations in the field of health. This is a continuous action aimed at actively monitoring the external environment in order to anticipate developments and ensure the flexibility of the health system. It is therefore a decision-making aid useful for strategic management and operational decision-making in the implementation of health interventions. This role should be carried out by the Technical Secretariat of the sectoral sub-committee of the health sector.

Monitoring and evaluation

The Integrated Monitoring and Evaluation Plan (IMEP) of the HSS 2016-2020 has been validated but its implementation has not yet been evaluated. In the majority of cases, annual reports are produced by health facilities and then transmitted to higher levels but are rarely shared with the general public. However, each structure should be able to disseminate the validated reports to the community.

It can also be noted that the structures of the higher levels do not systematically give feedback when they receive reports. In addition, the lower levels initiate very few reports spontaneously.

In addition, as a result of budgetary reform within Cameroon's administration, management control was instituted as a monitoring and evaluation mechanism and a tool to assist in performance management. Its deployment is gradual.

A major breakthrough has been achieved with the introduction of DHIS2 for the reporting of health data from the monthly activity report of HFs and other specific programmes. With a completeness of about 90%, DHIS2 allows the monthly collection of data from 6,202 enlisted HFs. It also allows the weekly reporting of epidemiological surveillance data. It is the main source of data for monitoring and evaluation of health activities and interventions.

Partnership for Health

The health sector has developed a real partnership dynamics, thanks to the expansion of its networks both nationally and internationally.

At the international level, Cameroon is a member of global partnerships for health, such as the International Health Partnership (IHP+); GAVI alliance, Global Health agenda etc. It also cooperates with bilateral and multilateral partners who support health internationally.

At the national level, the partnership portfolio includes several hundred actors: ministerial departments, institutions and organizations under supervision, public and private companies, decentralized local authorities, NGOs and associations.

The current institutional and technical framework for coordination requires reinforcement and multifaceted support to animate capitalize and make profitable this important partnership heritage. In addition, partnership research would benefit from being more offensive to anticipate the announced withdrawal of certain partners.

CHAPTER 4: PRIORITY PROBLEMS IN THE HEALTH SECTOR

The situational analysis that took into account the orientations of the NDS30, the HSS 2020-2030 and the recommendations of the evaluation of the implementation of the 2016-2020 NHDP expired made it possible to identify the priority problems of the health sector for the 2021-2025 cycle. These are articulated around the 5 strategic axes of the HSS 2020-2030.

4.1. HEALTH PROMOTION AND NUTRITION

- Low consideration of social determinants of health in the provision of health services and care and public policies (nutrition, sanitation, environmental health, etc.);
- Insufficient synergy of intersectoral intervention;
- Low involvement of decentralized local authorities in health promotion interventions;
- Low functionality of UHC adherence mechanisms.

4.2. DISEASE PREVENTION

- Underestimation by health sector actors of the comparative advantages of disease prevention compared to case management;
- Campaigns for the prevention and detection of diseases that are poorly executed, particularly in health areas;
- Low availability of data for better decision-making related to disease prevention;
- Low use of prevention services offered;
- Poor consideration of the prevention component when developing epidemic response strategies;
- Insufficient decentralization of the response to epidemics;
- Implementation of interventions has high impact on the health of the mother, child, newborn and adolescent insufficient.

4.3. CASE MANAGEMENT

- Insufficient development of the national network of SONUB and SONUC;
- Insufficient quality of care and health services (quality of diagnosis and curative management of cases, provision of MPA and CPA);
- Lateness in preparation, detection and response in the management of EPD cases;

- Poor organization of community case management;
- Insufficient compliance with national care guidelines;
- Inadequacy in the supply chain for commodities and stocks;
- Insufficiency in case management of emerging and re-emerging diseases including Neglected Tropical Diseases (NTDs),
- Inadequate consideration of non-communicable diseases in health policy;
- Delay in the management of correctable disabilities.

4.4. HEALTH SYSTEM STRENGTHENING

- Insufficient development of new funding mechanisms at the operational level, particularly those enabling dialogue structures to function effectively;
- Weak existence of mechanisms for pooling disease risk;
- Limited physical and financial accessibility to health facilities;
- Poor mechanisms for monitoring the resources allocated to health in the various partner administrations and decentralized local authorities. ;
- Low mobilization of resources allocated to the implementation of the NHDP for all strategic axes;
- Limited quality affordability to health care and services for vulnerable populations;
- Human resources quantitatively and qualitatively insufficient and unequitably distributed in the regions;
- Poor implementation of HRH motivation and retention mechanisms;
- Insufficient technical platform and health infrastructure at all levels of the health pyramid;
- Insufficient provision of four wheel drive vehicles to the District Health Services and the IHC/MHC of off-road motorcycles to regularly carry out supervision, including cold chain equipment;
- Weak evolution of Health Districts towards servicing;
- Low utilization of health facilities and services;
- Low use of quality medicines and pharmaceuticals
- Persistence of fake medicines and illicit trafficking in pharmaceutical products;
- Low valuation of local pharmaceutical potential;
    - Low development of health research and decision-making not always based on evidence.

4.5. GOVERNANCE AND STRATEGIC STEERING

- Shortcomings in the effective implementation of planning, coordination and monitoring and evaluation mechanisms for health sector interventions at all levels of the health pyramid;
- Weak enforcement of HFs's accountability, and audit mechanisms;
- Low dissemination and appropriation of reference documents at all levels of the health pyramid;
- Low involvement of key health sector stakeholders in planning, coordination and monitoring and evaluation activities.

CHAPTER 5: OBJECTIVES, TARGETS AND INTERVENTION FRAMEWORK OF THE NHDP

5.1. OBJECTIVES AND TARGETS OF THE NHDP 2021-2025

5.1.1. OVERALL OBJECTIVE OF THE NHDP

Overall objective of the PNDS: Improve population access to quality essential and specialized priority health services and care

In other words, Cameroon aims to offer universal access to quality essential health services, without any form of exclusion or discrimination. It is in this perspective that the PNDS 2021–2025 is resolutely committed, which favors strengthening the health system and governance for the optimal implementation of high-impact interventions, capable of significantly reducing mortality and morbidity among all targets. , with a particular emphasis on the most vulnerable (mother-child target).

The implementation of the PNDS will be structured around 3 vertical axes, namely (i) health promotion and nutrition, (ii) disease prevention, (iii) case management; and 2 transversal axes which are (iv) strengthening the health system and (v) governance and strategic management.

5.1.2. SPECIFIC OBJECTIVES AND TARGETS OF THE NHDP

The interventions developed in the intervention framework bellow are designed to ensure the realization of the priority targets for the 2021-2025 cycle. These are summarized in the table below

SPECIFIC OBJECTIVES	TARGETS
STRATEGIC AREA 1 : HEALTH PROMOTION AND NUTRITION	
Sub-strategic axis 1.1 Institutional and community capacity and coordination for health promotion	
Specific Objective1.1 : Strengthen institutional capacities, coordination and community participation in health promotioncommunauté dans	Increase the proportion of HD with functional DHC from 94.2% to 95%
	Increase the ratio of CHW per inhabitants to 1 per 1000 inhabitants
	Achieve a Community MAR completeness rate of 100%

le domaine de la promotion de la santé	Improve the proportion of the CTD budget allocated to FOSA within the framework of decentralization
	Improve by 30% 35% the rate of access of indigenous populations to basic social services (notably health) and to public life
	Improve the proportion of the FRPS budget allocated to support COSADI
Sub-strategic axis 1.2 : Living environment of the populations	
Specific Objective: **1.2** Improving the living environment of populations	Increase the percentage of households using improved toilets from 57.9% to 75%
	Reduce the proportion of households that use solid fuel as their primary source of domestic energy for cooking from 78% to 50%
	Improve the proportion of households with access to drinking water by increasing it from 79% to 90%
	Reduce the mortality rate attributable to unsafe water, sanitation system deficiencies and lack of hygiene (access to inadequate WASH services) (SDG 3.9.2.) by 45.2 per 100,000 inhabitants at 25 per 100,000 inhabitants
	Increase the proportion of health districts implementing Community-Led Total (CLTS) from 55% to 75%
	Improve the proportion of subject companies with a Health and Safety Committee (HSC) installed and functional from 25% to 40%
	Reduce the number of work accidents (fatal and non-fatal) from 684 to 382
	Improve the proportion of households living in decent housing from 35% to 35.5%
	Improve the proportion of households with access to a sanitation system from 2.5% to 3%
	Improve daily water production capacity by increasing it from 1,100,000m3/day to 1,600,000m3/day
	Increase the drinking water supply rate from 47% to 55%
	Increase the service rate of improved on-site sanitation infrastructure from 45% to 61%

	Increase the quantity of municipal solid waste disposed of adequately from 7,000 to 11,000 tonnes
	Reduce the percentage of people vulnerable to climate change from 1.3% to 1%
Sub-strategic axis 1.3: Strengthening health-promoting skills	
Sub-strategic axis 1.3 : Develop health promotion actions in in order to strengthen health promoting skills for individuals and communities	Reduce the prevalence of teenage pregnancies from 24% to 17%
	Reduce the prevalence of smoking among subjects aged 15 and over from 4.3% to 2%
	Reduce the chronic malnutrition rate of pregnant or lactating women from 39.4% to 20%
	Reduce the prevalence of food insecurity from 10 to 7%
	Increase from 50 to 70% the proportion of targets reached during awareness activities on the fight against drug consumption in school and out-of-school settings
	Reduce the number of deaths due to road accidents from 473 to 385
	Ensure the availability of a source of drinking water in 100% of educational establishments
	Reduce the chronic malnutrition rate among children under 5 years old from 29% to 26%
Sub-strategic axis 1.4 : Essential Family Practices and Family Planning, Promotion of adolescent health and Post-Abortion Care	
Specific Objective 1.4 : Lead out families to adopt essential family practices including family planning and birth registration	Improve modern contraceptive prevalence among women of childbearing age by increasing it from 15% to 30%
	Reduce the proportion of unmet FP needs from 23% to 13%
	Reduce the fertility rate among adolescent girls aged 15 to 19 from 24% to 15% per 1,000 adolescent girls
	Reduce the proportion of women aged 20 to 24 married or in a relationship before the age of 15 from 10.7% to 8%
	Reduce the proportion of women aged 20 to 24 married or in a relationship before the age of 18 from 29.8% to 20%
	Reduce from 31.5% to 25% the proportion of women and girls aged 15 or over who have lived as a couple who are victims of physical, sexual or psychological violence inflicted during the previous 12 months by their current partner or a former partner

	Reduce from 15 to 10% the proportion of children who have suffered at least one form of violence or abuse
	Ensure the establishment of a birth certificate for at least 95% of registered live births
AXE STRATEGIQUE 2 : DISEASE PREVENTION DE LA MALADIE	
Sub-strategic axis 2.1 : Prevention of communicable diseases	
Specific Objective 2.1 : reduce the incidence/prevalence of the main communicable diseases (HIV, malaria and tuberculosis) and eliminate some NTDs (lymphatic filariasis and HAT	Reduce HIV incidence from 40,000 to 1.7‰
	Reduce HIV prevalence from 2.70% to 3.7%
	Reduce the prevalence of viral hepatitis B from 8.30% to 6%
	Increase coverage of preventive chemotherapy for onchocerciasis from 81% to 86%
	Reduce the prevalence rate of malaria in children under 5 years old from 24% to 16%
	Increase the % of pregnant women infected with HIV and on ART from 63.91% to 95%
	Reduce the prevalence rate of communicable diseases in prisons from 20% to 14%
	Reduce the incidence of TPM+ tuberculosis from 194 new cases per 100,000 inhabitants to 1.7%
	Ensure the deworming of 100% of school-age children
Sub-strategic axis 2.2: EPDs and public health events, surveillance and response to epidemic-prone diseases, zoonosis and public health events	
Specific Objective2.2 : Reduce the risks of occurrence of major public health events and epidemic-prone diseases including zoonosis	Improve the proportion of measles epidemics notified and investigated from 61% to 90%
	Increase the proportion of the target population having received all the vaccines provided for by the national program from 52% to 90%
	Increase vaccination coverage with the reference antigen (Penta3) from 88% to 95%
	Improve vaccination coverage in RR1 from 73.9% to 85%
	Improve the Index of main capacities required according to the International Health Regulations (IHR) from 40% to 100%

Sub-strategic axis 2.3 : Maternal, Newborn, Child and Adolescent Health and PMTCT	
Specific Objective 2.3 : Increase the coverage of high-impact prevention interventions for the mother, newborn and child targets	Increase the ANC 4 coverage rate from 65% to 95%
	Reduce the rate of HIV transmission from mother to child from 3% to 1% (proportion of children exposed to HIV)
	Reduce the proportion of newborns weighing less than 2500 g from 7% to 5%
	Improve by 50% the proportion of pregnant women having received at least 3 doses of IPT during their pregnancy (% IPT3)
	Bring 100% of HD and assimilated DS to offer CESOM according to standards (9 functions)
Sub-strategic axis 2.4 : Prevention of non communicable diseases	
Specific Objective2.4 : Reduce the incidence/prevalence of the main non communicable diseases	Reduce the prevalence of type 2 diabetes in adults aged 18 and over from 2.85% to 1%
	Reduce the mortality rate attributable to cardiovascular diseases, cancer, diabetes or chronic respiratory diseases from 22% to 18%
	Reduce hospital prevalence of hypertension by 25%
	Reduce the incidence of cervical cancer from 21% to 12%
	Ensure 100% support and psychological assistance for soldiers returning from a SPO
	Reduce from 21 to 12% the percentage of targets reached during awareness campaigns on the prevention of disability and disabling illnesses in children
CASE MANAGEMENT	
Sub-strategic axis 3.1 : Curative management of communicable and non communicable diseases	
Specific Objective 3.1 : Ensure a curative management according to standards of the main communicable and non-communicable diseases as well as their complications	Increase the therapeutic success rate of smear-positive tuberculosis patients from 86% to 89%
	Reduce the specific mortality rate of malaria in children under 5 years old from 35.7 to 24%
	Improve the proportion of Buruli ulcer cases cured without complications from 82% to 98%
	Reduce the perioperative mortality rate from 20% to 10% in 4th category hospitals

	Reduce the direct intra-hospital obstetric fatality rate from 107 deaths per 100,000 to 96 deaths per 100,000
	Increase the percentage of elderly people who benefit from health and psychosocial assistance from 8,000 to 25,000
Sub-strategic axis 3.2 : Maternal, newborn, child and adolescent conditions	
Specific Objective3.2 : Ensure an overall management according to standards of the maternal, newborn, child and adolescent health issues at the community level	Improve from 60.4% to 90% the proportion of newborns who received postnatal care within 48 hours of birth
	Improve the proportion of repaired obstetric fistula cases from 9% to 25%
	Improve the cesarean delivery rate from 3.5% to 8%
	Reduce the maternal mortality rate from 406 to 300/100,000 NV
	Reduce the neonatal mortality rate from 28/1000NV to 17/1000 NV
	Reduce the infant mortality rate from 48/1000NV to 36/1000NV
	Reduce the infant and child mortality rate from 80/1000NV to 62/1000NV
	Increase from 35% to 100% the percentage of pregnant women diagnosed with syphilis in CPN and who receive treatment according to the standards
	Improve the proportion of deliveries attended by qualified personnel from 61.3% to 75%
	Increase the proportion of live births resulting in a birth declaration to 100%
Sub-strategic axis 3.3 : Emergencies and public health events	
Specific Objective3.3 : Ensure the management of medical and surgical emergencies, and public health events, according to standard operating procedures (SOPs)	Increase from 77% to 100% the proportion of public health emergencies for which the Incident Management System has been activated at the national level
	Increase the proportion of District Hospitals offering blood transfusion according to standards from 10% to 60%
	Achieve a proportion of 100% of DS with a medical ambulance and whose referral versus referral system is functional
	Achieve a 100% proportion of Regional Emergency Operations Centers that have the required HRS
Sub-strategic axis 3.4 : Management of Disability	

Specific Objective 3.4 : Reduce the proportion of the population with at least one correctable disability	Proportion of patients suffering from cataract and having regained visual acuity greater than 3/10 one week after surgical intervention
	Number of disabled people cared for in functional rehabilitation centers
AXE STRATEGIQUE 4: RENFORCEMENT DU SYSTEME DE SANTE	
Lead out 75% of HD to reach the consolidation phase	
Sub-strategic axis 4.1 : Health Financing	
reduce out-of-pocket payments from households through equitable and sustainable financing policy	Reduce the proportion of health expenses borne by households from 52% to 30%
	Improve the rate of people covered by a social health protection mechanism from 20% to 60%
	Increase the proportion of the health budget in the national budget to 15% (SND30)
	Increase from 45% to 65% the proportion of mutual social security companies covering at least three (03) risks
	Increase from 22.7% to 23% the proportion of the employed active population covered for at least three (03) risks
Sub-strategic axis 4.2 : Healthcare and service provision	
Ensure the harmonious development of infrastructure, equipment and the availability of healthcare and service packages according to standards in category 3, 4, 5 and 6 health facilities	Achieve a proportion of 100% of DHs built according to standards
	Achieve a percentage of 100% Health District Services built according to standards
	Increase to 100% the percentage of DH who deliver the full CAP
	Improve the number of patients cured in military medical structures from 253,478 patients to 260,000
	Increase from 20% to 33% the proportion of front-line health establishments (IHC and MHC) which deliver the complete MAP
Sub-strategic axis 4.3 : Drugs and other pharmaceutical products	
Increase the availability and use of quality drugs and pharmaceutical products in all HDs	Improve to 100% the proportion of health facilities that have a basic set of essential medicines available and affordable in a sustainable manner
	Reduce the share of street drugs in the total drug supply to 0%

	Increase the share of traditional medicines in the total supply of medicines to 25%
Sub-strategic axis 4.4 : Human Resources for Health	
Augmenter, selon les besoins priorisés, la disponibilité des RHS Increase the availability of HRH according to prioritized needs	Improve from 52% to 60% the percentage of health structures equipped with at least 50% of human resources according to standards
	Change the Number of medical doctors per inhabitant to 1 per 10,000 inhabitants
	Improve the number of students trained per year in human and animal health from 4,400 to 5,000
Sub-strategic axis 4.5 : **Health Information and Research in Health**	
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	Increase the MAR promptness rate in DHIS2 from 56.6% to 80%
	Increase the MAR completeness rate in DHIS2 to 80%
	Improve the proportion of search results that have been returned from 70% to 80%
	Improve the percentage of authorized research projects whose results have been published from 90% to 100%
	Increase to at least 70% the proportion of deaths occurring in health care settings that have been declared to the competent Civil Status Center
	Increase to at least 70% the proportion of deaths whose cause has been identified and documented
AXE STRATEGIQUE 5 : GOVERNANCE AND STRATEGIC STEERING	
Improve the rate of achievement of the 2020-2030 HSS objectives by increasing it from 32% to 80%	
Sub-strategic axis 5.1 : Gouvernance	
Specific Objective5.1: Improve governance in the sector through the strengthening of standardization, regulation and accountability	Improve the rate of achievement of the 2020-2030 HSS objectives from 32% to 80%
	Increase the proportion of the budget allocated to programmatic priorities from 0% to 100%
	Reduce by 50% the rate of loss of resources allocated to operational level structures
	Audit and control at least 60% of health structures per year
Sub-strategic axis 5.2 : Strategic steering	

Specific Objective5.2: Reinforce planning, supervision, coordination as well as strategic and health surveillance at all levels of the health pyramid	Improve the rate of completion of inspection missions (central level) and integrated supervision (RDPH and HD) to 100%
	Get 100% of DRSP to fill in the projected performance monitoring dashboard in the NHDP
	Produce 01 annual health sector review report
	Ensure the linkage 100% of the AWP of health sector structures to the NHDP

5.2. INTERVENTION FRAMEWORK OF THE NHDP 2021-2025

Overall objective of the HSS: Contribute to the development of healthy, productive human capital capable of supporting strong, inclusive and sustainable growth

Overall objective NHDP: Improve people's access to quality priority essential and specialized health services and care

Table 20: Framework for intervention

STRATEGIC AXIS 1: PROMOTION OF HEALTH AND NUTRITION							
Central problem of the component: Insufficient capacity of populations to adopt favourable behaviours to solve their health problems							
Strategic Outcome: Bring the populations to adopt healthy behaviours by 2025							
Strategic sub-axis 1.1: Institutional, community and coordination capacities in the field of health promotion							
Specific objective S.O 1.1: Strengthen institutional capacity, coordination and community participation in the field of health promotion in 80% of HDs							
TARGETS: • Increase the proportion of DS with functional Health District Committee (HDC) from 94.2% to 95% • Improve the ratio of CHW per inhabitants • Achieve a Community MAR completeness rate of 100% • Improve the proportion of the DTC budget allocated to Health Facilities within the framework of decentralization • Improve by 30% 35% the rate of access of indigenous populations to basic social services (notably health) and to public life • Improve the proportion of the RFHP budget allocated to support HDCs							
Implementation Strategy	**Interventions**	**Administration Responsible**	**Timeline**				
			2021	**2022**	**2023**	**2024**	**2025**
1.1.1 Providing technical expertise and transfer of competences to administrations of the health sector for an effective implementation of health promotion actions	1.1.1.1. Strengthen the availability of health promotion inputs (human resources, finance, medicines, awareness-raising materials, etc.) at all levels of the health pyramid.	MOH	X	X	X	X	X

	1.1.1.2 Strengthening the provision of initial training in community health	MOH	X	X	X	X	X
	1.1.1.3 Strengthen the capacity of RDPH/HD technical services in the area of health promotion	MOH	X	X	X	X	X
1.1.2 Transfer of competence to the community for an appropriation of health interventions	1.1.2.1. Provide technical support to community leaders and actors (CBO, CSO, CHW, and Dialogue Structures) in solving environmental health problems	MOH	X	X	X	X	X
1.1.3. Strengthening the legal framework for greater community participation							
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	1.1.4.1 Support DTCs in the development and implementation of health and nutrition promotion interventions	MOH	X	X	X	X	X
1.1.5 Improving the multi-sector coordination in the implementation of health promotion interventions	1.1.5.1. Develop and implement at all levels of the health pyramid, a multi-year and multisectoral Health Promotion and Nutrition Plan	MOH	X	X	X	X	X
1.1.6: Revising the training curricula to better take into account the socio- environmental approach in educational programs	1.1.6.1. Develop training curricula that take into account the socio-environmental approach in teaching programmes	MOH	X	X	X	X	X
1.1.7: Improving the provision of health promotion services that meet the needs of the individual as a whole	1.1.7.1. Develop a level of care and coordination of community service provision in the health district	MOH	X	X	X	X	X

Strategic sub-axis 1.2: Living environment of populations

Specific objective S.O 1.2: Improve the living environment of populations in at least 70% of health districts

Targets:
- Increase the percentage of households using improved toilets from 57.9% to 75%
- Reduce the proportion of households that use solid fuel as their primary source of domestic energy for cooking from 78% to 50%
- Improve the proportion of households with access to drinking water by increasing it from 79% to 90%
- Reduce the mortality rate attributable to unsafe water, sanitation system deficiencies and lack of hygiene (access to inadequate WASH services) (SDG 3.9.2.)from 45.2 per 100 000 inhabitants to 25 per 100,000 inhabitants
- Increase from 55% to 75% the proportion of health districts implementing Community-Led Total (CLTS)
- Improve the proportion of subject companies with a Health and Safety Committee (CHS) installed and functional from 25% to 40%
- Reduce the number of work accidents (fatal and non-fatal) from 684 to 382
- Improve the proportion of households living in decent housing from 35% to 35.5%
- Improve the proportion of households with access to a sanitation system from 2.5% to 3%
- Improve daily water production capacity by increasing it from 1,100,000m^3/day to 1,600,000m^3/day
- Increase the drinking water supply rate from 47% to 55%
- Increase the service rate of improved on-site sanitation infrastructure from 45% to 61%
- Increase the quantity of municipal solid waste disposed of adequately from 7,000 to 11,000 tonnes
- Reduce the percentage of people vulnerable to climate change from 1.3% to 1%

Implementation Strategy	Interventions	Administration Responsible	Timeline				
			2021	2022	2023	2024	2025
1.2.1: Improving environmental health (water, hygiene, and sanitation)	1.2.1.1.Continue scaling up community-led total sanitation (CLTS) in councils /HDs	MOH	X	X	X	X	X
	1.2.1.2.Ensure training and equitable deployment of sanitary engineering personnel in HDs	MOH	X	X	X	X	X
	1.2.1.3. Strengthening health and safety in the workplace	MINTSS	X	X	X	X	X
	1.2.1.4. Improving daily drinking water production capacity	MINEE	X	X	X	X	X

	1.2.1.5. Develop drinking water production, storage and distribution facilities with a daily production capacity of less than 100m^3	MINEE	X	X	X	X	X
	1.2.1.6. Strengthening hygiene and sanitation in prisons	MINJUSTICE	X	X	X	X	X
1.2.2: Promoting structured urban development and planning of slums	1.2.2.1 Improve people's access to decent housing	MINHDU	X	X	X	X	X
1.2.3: Strengthening preventive actions against soil, water and air pollution	1.2.3.1 Developing urban sanitation systems	MINHDU	X	X	X	X	X
	1.2.3.2 Improve access to sewage management	MINEE	X	X	X	X	X
1.2.4 Developing best practices for resilience and management of risks and disasters related to climate change	1.2.4.1 Strengthening the resilience of populations and production systems for adaptation to climate change	MINEPDED	X	X	X	X	X

Strategic sub-axis 1.3: Strengthening health-promoting skills

Specific objective S.O 1.3: Develop promotional actions in at least 80% of HDs, in order to strengthen the health-promoting skills of individuals and communities

Targets

- Reduce the prevalence of teenage pregnancies from 24% to 17%
- Reduce the prevalence of smoking among subjects aged 15 and over from 4.3% to 2%
- Reduce the chronic malnutrition rate of pregnant or lactating women from 39.4% to 20%
- Reduce the prevalence of food insecurity from 10 to 7%
- Increase from 50 to 70% the proportion of targets reached during awareness-raising activities on the fight against drug consumption in school and outside of school.
- Reduce the number of deaths due to road accidents from 473 to 385
- Ensure the availability of a source of drinking water in 100% of primary schools
- Reduce from 29% to 26% the rate of chronic malnutrition among under 5 years old children

Implementation Strategy	**Interventions**	**Administration Responsible**	**Timeline**				
			2021	2022	2023	2024	2025

1.3.1 Promoting healthy eating and nutrition habits	1.3.1.1. Developing C4D for the adoption of healthy behaviours in food/nutrition	MOH	X	X	X	X	X
	1.3.1.2.Developing a nutritional surveillance system	MOH	X	X	X	X	X
	1.3.1.3.Strengthening food and nutrition security for vulnerable populations	MINADER	X	X	X	X	X
	1.3.1.4. Establishment of a national plan to combat malnutrition (breastfeeding mothers and children under 5)	MOH	X	X	X	X	X
	1.3.1.5. Establishment of a price support system for access to nutrients and infant foods	MINCOMMERCE	X	X	X	X	X
	1.3.1.6. Strengthening food safety	MINCOMMERCE					
1.3.2: Control of smoking, alcohol abuse and consumption of illicit substances (modifiable risk factors for non-communicable diseases)	1.3.2.1. Strengthening mechanisms to control the use of tobacco, drugs and other illicit substances	MOH	X	X	X	X	X
	1.3.2.2. Strengthening the law against drug use in schools and out-of-school environment	MINAS	X	X	X	X	X
	1.3.2.3. Stepping up the fight against drugs and violence in schools	MINESEC	X	X	X	X	X
1.3.3 Reinforcing road safety	1.3.3.1. Developing mechanisms for reducing risks due to road users' behaviour	MINT	X	X	X	X	X
	1.3.3.2. Stepping up the fight against road safety and various types of traffic	MINDEF	X	X	X	X	X
1.3.4 Strengthening the practice of physical and sport activities	1.3.4.1. Promote and publicize physical and sports activities (PSA)	MINSEP	X	X	X	X	X

	1.3.4.2. Strengthening sports activities in schools	MINESEC	X	X	X	X	X
1.3.5. Strengthening Integrated Communication for Development (C4D) and social marketing	1.3.5.1. Develop and implement an integrated strategic communication plan for the adoption of healthy behaviours	MOH	X	X	X	X	X
	1.3.5.2. Improving health and psychological support in schools	MINESEC	X	X	X	X	X
	1.3.5.3. Health promotion in School	MINEDUB MINESEC	X	X	X	X	X
	1.3.5.4. Public assistance for the elderly	MINAS		X	X	X	
Strategic Sub-axis 4: Essential Family Practices, Family Planning, Adolescent Health Promotion and Post-abortion Care							
Specific objective S.O: 1.4: Bring 75% of families to adopt essential family practices, including family planning.							
Targets Improve modern contraceptive prevalence among women of childbearing age by increasing it from 15% to 30% Reduce the proportion of unmet FP needs from 23% to 13% Reduce the fertility rate among adolescent girls aged 15 to 19 from 24% to 15% per 1,000 adolescent girls Reduce the proportion of women aged 20 to 24 married or in a relationship before the age of 15 from 10.7% to 8% Reduce the proportion of women aged 20 to 24 married or in a relationship before the age of 18 from 29.8% to 20% Reduce from 31.5% to 25% the proportion of women and girls aged 15 or over who have lived as a couple who are victims of physical, sexual or psychological violence inflicted during the previous 12 months by their current partner or a former partner Reduce from 15 to 10% the proportion of children who have suffered at least one form of violence or abuse Improve the proportion of deliveries attended by qualified personnel from 61.3% to 75% Ensure the establishment of a birth certificate for at least 95% of registered live births							
Implementation Strategy	**Interventions**	**Administration Responsible**	**Timeline**				
			2021	**2022**	**2023**	**2024**	**2025**
1.4.1: Improving public policies in favour of Family planning (FP)	1.4.1.1 Develop FP repositioning mechanisms	MOH	X	X	X	X	X

1.4.2. Improving demand for FP services	1.4.2.1. Develop and implement an integrated strategic communication plan for the adoption of healthy and healthy behaviours (PM see 1.3.5.1.)	MOH	X	X	X	X	X
1.4.3 Improving FP service delivery and use	1.4.3.1. Expand and ensure availability of FP service provision in HFS and at community level (modern contraceptives, FP equipment, etc.)	MOH	X	X	X	X	X
	1.4.3.2. Developing FP services adapted to youth and adolescents	MOH	X	X	X	X	X
1.4.4. Strengthening the monitoring and coordination of RH/FP interventions	See the Governance and Strategic Management Axis		X	X	X	X	X
1.4.5. Strengthening the promotion, monitoring and coordination of birth registration	1.4.5.1. Develop integrated communication, awareness and training modules on birth registration	BUNEC		X	X	X	X
	1.4.5.2. Scale up the installation of civil status offices in health facilities	BUNEC MINSANTE		X	X	X	X
	1.4.5.3. Organize integrated BUNEC-MINSANTE campaigns	BUNEC MINSANTE		X	X	X	X
	1.4.5.4. Strengthen the interoperability of DHIS2 and SIGEC systems	BUNEC MINSANTE		X	X	X	X
1.4.6: Strengthening other essential household practices conducive to health	1.4.6.1.Develop information sharing mechanisms in communities (in family, prison, school, and specific groups) for the CTI	MOH	X	X	X	X	X
	1.4.6.2.Mobilizing communities for ITI uptake and demand for health services	MINPROFF	X	X	X	X	X
	1.4.6.3. Strengthening the fight against gender-based violence	MINPROFF	X	X	X	X	X
	1.4.6.4.Promoting mechanisms for the protection of children's rights	MINPROFF	X	X	X	X	X

STRATEGIC AXIS 2: DISEASE PREVENTION
Central component issue: Morbidity and mortality of communicable and non-communicable diseases remain high in Cameroon
Strategic goal: By 2025, reduce premature mortality from preventable diseases
Strategic Sub-axis 2.1: Prevention of Communicable Diseases
PREV Specific Objective 2.1: Reduce by at least 30% the incidence/prevalence of major communicable diseases (HIV, malaria and TB) and eradicate some NTDs (lymphatic filarioisis and HAT)
Targets 1. Reduce HIV incidence to 1.7‰ 2. Reduce HIV prevalence from 2.70% to 3.7% 3. Reduce the prevalence of viral hepatitis B from 8.30% to 6% 4. Increase coverage of preventive chemotherapy for onchocerciasis from 81% to 86% 5. Reduce the prevalence rate of malaria in children under 5 years old from 24% to 16% 6. Improve the percentage of Long-Lasting Insecticide-Impregnated Mosquito Nets (LLINs) distributed among those planned by increasing it from 77.3% to 100% 7. Increase the % of pregnant women infected with HIV and on ART from 63.91% to 95% 8. Reduce the prevalence rate of communicable diseases in prisons from 20% to 14% 9. Reduce the incidence of TPM+ tuberculosis from 194 new cases per 100,000 inhabitants to 1.7% 10. Ensure deworming of 100% of school-age children

Implementation Strategy	Interventions	Administration Responsible	Timeline				
			2021	2022	2023	2024	2025
2.1.1: Strengthening the coordination and integration of the preventive interventions of communicable diseases	2.1.1.1. Strengthening the technical skills of institutional and community actors	MOH	X	X	X	X	X
	2.1.1.2. Develop and implement an integrated communication strategy taking into account health promotion and disease prevention aspects (PM see 1.3.5.1.)	MOH	X	X	X	X	X
	2.1.1.3. Develop and implement integrated strategies for the effective use of health care and services at all levels	MOH		X	X	X	X
	2.1.2.1. Regularly supply HFS with prevention inputs for communicable diseases	MOH	X	X	X	X	X

2.1.2: Strengthening the prevention of HIV/AIDS, Tuberculosis, STIs and Viral Hepatitis especially for the most vulnerable groups	2.1.2.2. Organizing screening activities for the prevention of major communicable diseases	MOH	X	X	X	X	X
	2.1.2.3. Strengthening STI/AIDS prevention in young people	MINJEC	X	X	X	X	X
2.1.3 Strengthening Malaria Prevention	2.1.3.1 Regularly supply communities with malaria prevention inputs	MOH	X	X	X	X	X
	2.1.3.2 Develop multisectoral mechanisms for malaria prevention	MOH	X	X	X	X	X
	2.1.3.3. Organize chemo prevention campaigns for seasonal malaria	MOH	x	x	x	x	x
	2.1.3.4. Strengthening intermittent preventive treatment in pregnant women	MOH	x	x	x	x	x
2.1.4: Strengthening the prevention of NTDs and other communicable diseases	2.1.4.1 Strengthening Epidemiological Surveillance of Neglected Tropical Diseases	MOH	X	X	X	X	X
	2.1.4.2. Prevention of endemic diseases in prisons	MINJUSTICE	X	X	X	X	X
Strategic sub-axis 2.2: Surveillance and response to diseases with epidemic potential, zoonoses and public health events							
Specific objective PREV 2.2: Reduce the risk of the occurrence of major public health events, epidemic-prone diseases as well as Zoonoses in at least 90% of districts							
Targets: 1. Improve the proportion of measles epidemics notified and investigated from 61% to 90% 2. Increase the proportion of the target population having received all the vaccines provided for by the national program from 52% to 90% 3. Increase vaccination coverage with the reference antigen (Penta3) from 88% to 95% 4. Improve vaccination coverage in RR1 from 73.9% to 85% 5. Improve the Index of main capacities required according to the International Health Regulations (IHR) from 40% to 100%							
Implementation Strategy	Interventions	Administration Responsible	2021	2022	2023	2024	2025

2.2.1 Strengthening the epidemiological surveillance system	2.2.1.1. Strengthen the operational capacities of HDs in the prevention of epidemics and public health events	MOH	X	X	X	X	X
	2.2.1.2. Update annually the mapping of health risks in the RDPHHDs (HDs at risk of epidemics and health emergencies) and develop annual operational plans for appropriate responses to the health risks identified.	MOH	X	X	X	X	X
2.2.2: Improving the prevention of vaccine preventable diseases	2.2.2.1. Organize campaigns and additional intensified vaccination activities (Polio vaccination, deworming of children from 12 to 59 months during SASNIM) at the national level	MOH	X	X	X	X	X
	2.2.2.2. Strengthen routine immunization service provision (vaccine procurement, community linkages, micro-planning, advanced strategies) For the record	MOH	X	X	X	X	X
2.2.3: Improving the prevention of other EPDs not included in the EPI							
2.2.4 Strengthening preparedness and response to epidemics and major public health events	2.2.4.1. Ensure the continued supply of inputs to HDs needed to respond to epidemics and potential emerging diseases.	MOH	X	X	X	X	X
	2.2.4.2. Strengthening the Integrated Disease Surveillance and Response (IDSR)	MOH	X	X	X	X	X
	2.2.4.3. Strengthen implementation of the International Health Regulations (IHR) and preparedness for health emergencies (SDG 3.d.1)	MOH	X	X	X	X	X
Strategic Sub-Axis 2.3: RMNCAH and PMTCT							

Specific objective PREV 2.3: 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							
Targets: 1. Increase the ANC 4 coverage rate from 65% to 95% 2. Reduce the rate of HIV transmission from mother to child from 3% to 1% (proportion of children exposed to HIV) 3. Reduce the proportion of newborns weighing less than 2500g from 7% to 5% 4. Improve by 50% the proportion of pregnant women who received at least 3 doses of IPT during their pregnancy (% IPT3) 5. Bring 100% of HD and similar DS to offer CESOM according to standards (9 functions)							
Implementation Strategy	Interventions	Responsible	2021	2022	2023	2024	2025
2.3.1 Institutional Capacity Building (HFS) and Community Capacity Building in RMNCAH	2.3.1.1. Ensure in HFSs, the permanent availability of inputs for effective M&E interventions on maternal, newborn, child and adolescent targets (early HIV tests, PCR, maternity equipment, drugs for IPT, PMTCT, HIV, vaccines etc.)	MOH	X	X	X	X	X
	2.3.1.2. Strengthen the capacities of institutional and community providers of targeted HDs for a quality service offer in PMTCT, ANC, postnatal care, post-abortion care	MOH	X	X	X	X	X
	Extending SONU Monitoring to all health districts	MOH	X	X	X	X	X
2.3.2: Improved RMNCAH services and care	2.3.2.1. Gradually expand the offer of RMNCAH services and care nationwide (advanced strategy, telemedicine, subsidy or free for certain groups, etc.) While improving the quality of care offered (good reception, use of normative documents)	MOH	X	X	X	X	X

	2.3.2.2. Prevention of disability and disabling diseases in children	MINAS	X	X	X	X	X
2.3.3: Strengthening integrated communication at all levels for citizen mobilization around RMNCAH targets	2.3.3.1. Strengthen the use of C4D (advocacy, social mobilization, and community animation) in HFs care services	MOH	X	X	X	X	X
Strategic Sub-axis 2.4: Prevention of Non-communicable Diseases							
PREV Specific Objective 2.4: Reduce by at least 10% the incidence/prevalence of major non-communicable diseases							
Target 1. Reduce the prevalence of type 2 diabetes in adults at least 18 years old from 2.85% to 1% 2. Reduce the mortality rate attributable to cardiovascular diseases, cancer, diabetes or chronic respiratory diseases from 22% to 18% 3. Reduce hospital prevalence of hypertension by 25% 4. Reduce the incidence of cervical cancer from 21% to 12% 5. Ensure 100% support and psychological assistance for soldiers returning from an OPS 6. Reduce from 21 to 12% the percentage of targets reached during awareness campaigns on the prevention of disability and disabling illnesses in children							
Implementation Strategy	**Interventions**	**Administration Responsible**	**2021**	**2022**	**2023**	**2024**	**2025**
2.4.1: Strengthening coordination and integration of NCD prevention interventions	2.4.1.1. Develop and implement an integrated and multisectoral NCD strategy	MOH		X	X		
	2.4.1.2. Develop and implement a multisectoral coordination and monitoring and evaluation mechanism for Non Communicable Diseases prevention interventions	MOH			X	X	
2.4.2. Promotion of health research to reduce the incidence of NTDs	2.4.2.1. Strengthening the system for the suppression and marketing of fraudulent food products or smuggling	MINCOMMERCE	X	X	X	X	X
	2.4.2.2. Strengthening early intervention actions for the misuse of dependent substances	MOH		X	X	X	X
	2.4.2.3. Strengthen the support, monitoring and care of MINDEF staff in the field of health	MINDEF		X	X	X	X
2.4.2 Promoting Research to Reduce the Impact of NCDs							

2.4.3 Raising population awareness on non-communicable diseases and encouraging prevention	2.4.4.1. Develop an integrated communication strategy for the prevention of non-communicable diseases (For the record)	MOH	X	X	X	X	X
	2.4.4.2. Organize at least one annual prevention and screening campaign at regional level for NCDs (hypertension, diabetes, cancers, etc.)	MOH	X	X	X	X	X
2.4.4: Improved prevention of oral diseases, visual and hearing disorders							
2.4.5 Strengthening the prevention of sickle cell disease from other genetic and degenerative diseases	2.4.6.1. Increasing the availability of genetic disease prevention (sickle cell disease) services at the operational level	MOH	X	X	X	X	X
2.4.6: Strengthening the prevention of mental illness, epilepsy and other neurological conditions							
2.4.7: Strengthening the prevention of diabetes, hypertension, other cardiovascular diseases and kidney diseases							
2.4.8: Strengthening the prevention of cancer, asthma and other chronic respiratory diseases							
2.4.9:Strengthening the prevention of rare diseases							

STRATEGIC AXIS 3: CASE MANAGEMENT							
Central component issue: The quality of diagnosis and curative case management is insufficient							
Strategic goal: By 2025, reduce overall mortality and lethality in health facilities and in the community							
Strategic sub-axis 3.1: Curative management of communicable and non-communicable diseases							
Specific objective SO 3.1: 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							
Targets: 1. Increase the therapeutic success rate of smear-positive tuberculosis patients from 86% to 89% 2. Reduce the specific mortality rate of malaria in children under 5 years old from 35.7 to 24% 3. Improve the proportion of Buruli ulcer cases cured without complications by increasing it from 82% to 98% 4. Reduce the perioperative mortality rate from 20% to 10% in 1st, 2nd, 3rd and 4th category hospitals 5. Reduce the direct intra-hospital obstetric fatality rate from 107 deaths per 100,000 to 96 deaths per 100,000 6. Increase the percentage of elderly people who benefit from health and psychosocial assistance from 8,000 to 25,000							
Implementation Strategy	**Interventions**	**Administration Responsible**	**Timeline**				
			2021	**2022**	**2023**	**2024**	**2025**
3.1.1. Improving the quality of care and services in HFs through focusing on patients reception.	3.1.1.1. Develop mechanisms for continuous improvement of the quality of health care and services at all levels of the health pyramid	MOH	X	X	X	X	X
3.1.2 Improving diagnosis and curative management of HIV/AIDS, TB, STDs and Viral Hepatitis	3.1.2.1. Ensure the availability of inputs for the diagnosis and management of cases of communicable diseases (HIV, TB, STI and Viral Hepatitis)	MOH	X	X	X	X	X
3.1.3. Improving diagnosis and management of malaria cases and the main causes of fever (dengue, typhoid, influenza, etc.)	3.1.3.1. Systematize the use of validated operational procedures and protocols for the diagnosis and management of malaria cases	MOH	X	X	X	X	X

3.1.4: Improving the diagnosis and management of cases of Neglected Tropical Diseases	3.1.4.1. Systematize the use of validated operational procedures and protocols for the diagnosis and treatment of NTDs	MOH	X	X	X	X	X
3.1.5: Improving the diagnosis and management of cases of Non-communicable diseases	3.1.5.1. Decentralizing the case management for diabetes and hypertension through the creation of care units at the decentralized levels of the health pyramid	MOH	X	X	X	X	X
	3.1.5.2. Organize community-based Non communicable Diseases diagnostic activities	MOH	X	X	X	X	X
	3.1.5.3. Improve the diagnosis and management of mental illness and substance dependence	MOH	X	X	X	X	X
3.1.6: Improving the comprehensive (holistic) management of cases at all levels of the health pyramid	3.1.6.1 Build the capacity of health workers to use simplified guides and protocols for comprehensive disease management	MOH	X	X	X	X	X
	3.1.6.2. Ensure hospital case management for children under 5 years of age according to standards	MOH	X	X	X	X	X
	3.1.6.3. Improving health care for prisoners	MINJUSTICE	X	X	X	X	X
	3.1.6.4. Develop and implement palliative care protocols	MOH	X	X	X	X	X
	3.1.6.5. Providing appropriate health and psychosocial assistance to older people	MINAS	X	X	X	X	X

	3.1.6.6. Facilitating access to health for vulnerable indigenous populations	MINAS	X	X	X	X	X
Strategic sub-axis 3.2: Maternal, neonatal, infant and adolescent conditions and health							
Specific objective SO 3.2: Ensure the overall management and according the standards maternal, new-born, child and adolescent health problems at the level of the community and in at least 80% health facilities							
Targets 1. Improve from 60.4% to 90% the proportion of newborns who received postnatal care within 48 hours of birth 2. Improve the proportion of repaired obstetric fistula cases from 9% to 25% 3. Improve the cesarean delivery rate from 3.5% to 8% 4. Reduce the maternal mortality rate from 406 to 300/100,000 NV 5. Reduce the neonatal mortality rate from 28/1000NV to 17/1000NV 6. Reduce the infant mortality rate from 48/1000NV to 36/1000NV 7. Reduce the infant and child mortality rate from 80/1000NV to 62/1000NV 8. Increase the percentage of pregnant women diagnosed with syphilis in ANC from 35% to 100% and who receive treatment according to the standards 9. Increase the proportion of live births resulting in a birth declaration to 100%							
Implementation Strategy	Interventions	**Administration Responsible**	Timeline				
			2021	2022	2023	2024	2025

3.2.1 Improving financial and cultural accessibility to RMNCAH care	3.2.1.1. Strengthen the implementation of ongoing strategies to improve the geographical, cultural and financial accessibility of RMNCAH targets to quality health services and care	MOH	X	X	X	X	X
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)	3.2.2.1. Increasing the availability of PMTCT inputs	MOH	X	X	X	X	X
	3.2.2.2. Strengthen strategies aimed at reaching targets to PMTCT services and care, including in advanced strategies.	MOH	X	X	X	X	X
3.2.3 Improving the quality of the Integrated Management of Childhood Illness (clinical and community IMCI)	3.2.3.1. Providing health services and care to children under 5 years of age with IMCI in the 4th and 5th category HFs	MOH	X	X	X	X	X
3.2.4: Improving the availability of the provision of quality RMNCAH service and care package	3.2.4.1. Strengthen the provision of services for the adequate management of adolescent health problems in district hospitals.	MOH	X	X	X	X	X
	3.2.4.2. Ensure in the HDs, the availability of packages of interventions with high impact on the health of the mother, the newborn and the child	MOH	X	X	X	X	X
	3.2.4.3. Strengthen the capacities of Health Units to provide pregnant women with a package of care and services integrating aspects related to civil status	BUNEC	X	X	X	X	X
3.2.5 Strengthening the capacities of HFs and the community in RMNCAH	3.2.5.1. Implement innovative mechanisms to build the capacity of RMNCAH staff	MOH	X	X	X	X	X

3.2.6: Strengthening integrated communication at all levels for citizen mobilization for maternal, newborn and child health issues	SEE STRATEGIC AXIS: PROMOTING HEALTH AND NUTRITION		X	X	X	X	X
Strategic Sub-Axis 3.3: Public Health Emergencies and Events							
Specific objective OS 3.3: Ensure the management of medical and surgical emergencies, disasters and public health events in at least 80% of health facilities according to standard operating procedures							
Targets: Increase from 77% to 100% the proportion of public health emergencies for which the Incident Management System has been activated at the national level Increase the proportion of District Hospitals offering blood transfusion according to standards from 10% to 60% Achieve a proportion of 100% of DS with a medical ambulance and whose referral versus referral system is functional Achieve a 100% proportion of Regional Emergency Operations Centers that have the required HRS							
Implementation Strategy	Interventions	Responsible	Timeline				
			2021	2022	2023	2024	2025
3.3.1: Strengthening multi-sector coordination in the management of medical and surgical emergencies and public health events	3.3.1.1. Establish a support fund at all levels for the coordination of emergency management and public health events (For the record)	MOH	X	X	X	X	X
	3.3.1.2. Ensure the functioning of the National Emergency Operations Centre for effective management and coordination of field activities	MOH	X X	X X	X X	X X	X X

	3.3.1.3. Provide support for victims of security crises, disasters, natural disasters with a view to their rapid return to "normal" living conditions	MINAS					
3.3.2: Strengthening the resource management forecasting procecss	3.3.2.1 Regularly supply health facilities with inputs for the management of medical-surgical emergencies after assessment of their institutional, consumption and management capacities	MOH	X	X	X	X	X
	3.3.2.2. Enhance the functionality of the emergency response system (emergency situations; staffing of investigation and response teams)	MOH	X	X	X	X	X
	3.3.2.3. Establish multi-sectoral Investigation and Rapid Response Teams (RRTs) in the 10 regions	MOH	X	X	X	X	X
	3.3.2.4. Develop mechanisms for operationalizing the referral and counter referral mechanism in all regions						

3.3.3 Strengthening diagnosis and curative management of emergencies and public health events	3.3.3.1. Ensure pre-hospital management (first aid) of emergency cases with full community participation	MOH	X	X	X	X	X
	3.3.3.2. Strengthen the financial, infrastructural and technological capacities of CERPLE, the National Emergency Operations Centre and border health posts for a rapid and effective response in the event of epidemics or other public health emergencies	MOH	X	X	X	X	X
	3.3.3.3. Strengthen the technical capacities of HD/HR/Border Health Posts and community actors for an effective response in the event of epidemics or other public health emergencies	MOH	X	X	X	X	X
Strategic sub-axis 3.4: Disability care							
Specific objective OS 3.4 : Reduce by at least 20% the proportion of the population with at least one correctable disability							
Targets: Proportion of patients suffering from cataract and having regained visual acuity greater than 3/10 one week after surgical intervention Number of disabled people cared for in functional rehabilitation centers							
Implementation Strategy	Interventions	Responsible	Timeline				
			2021	2022	2023	2024	2025

3.4.1: Establishing an integrated and coordinated policy for disability management including mental disability	3.4.1.1 Ensure disability cares according to updated guidelines and standards	MOH	X	X	X	X	X
	3.4.1.2 Social protection of persons with disabilities	MINAS					
	3.4.1.3 Prevention of disability and disabling diseases in children	MINAS					
3.4.2: Decentralizing the management of disability interventions	3.4.2.1. Strengthen institutional capacities and those of actors responsible for the prevention and management of correctable disability	MOH	X	X	X	X	X
	3.4.2.2. Improving the offer of specialized rehabilitation services functional of Persons with Disabilities	MINAS	X	X	X	X	X
	3.4.2.2. Building and equipment of the Rehabiliation centre for the disabled persons (Centre de Réhabilitation des Personnes Handicapées : CRPH) in Maroua	MINAS	X	X	X	X	X
	3.4.2.3. Renovation of the Cardinal Paul Emile LEGER (CNRPH-CPEL) National Centre for the Rehabilitation of Persons with Disabilities in Yaoundé	MINAS	X	X	X	X	X

STRATEGIC AXIS 4: STRENGTHENING THE HEALTH SYSTEM							
Central problem of the component: Insufficient development of health system pillars							
Strategic objective: Increase the institutional capacities of health structures for equitable access of populations to quality health care and services							
Strategic sub-axis 4.1: Health financing							
Specific objective 4.1: reduce by at least 30% out-of-pocket payments from households through a fair and sustainable financing policy							
Targets: Reduce the proportion of health expenses borne by households from 52% to 30% Improve the rate of people covered by a social health protection mechanism from 20% to 60% Increase the proportion of the health budget in the national budget to 15% (SND30) Increase from 45% to 65% the proportion of mutual social security companies covering at least three (03) risks Increase from 22.7% to 23% the proportion of the employed active population covered for at least three (03) risks							
Implementation Strategy	**Interventions**	**Responsible Administration**	**2021**	**2022**	**2023**	**2024**	**2025**
4.1.1 Developing disease risk sharing mechanisms	4.1.1.1. Develop and implement a national UHC-oriented financing strategy	MOH DTC	X	X	X	X	X
	4.1.1.2. Reduce the share of household out-of-pocket payments in total health expenditure from 70% to 50%	MOH	X	X	X	X	X
	4.1.1.3. Strengthen financial risk protection mechanisms to improve access to care (health insurance, social security, health vouchers, mutual health insurance, etc.)	MINTSS	X	X	X	X	X
	4.1.1.4. Strengthening the social security system	MINTSS	X	X	X	X	X
	4.1.1.5. Extension of social security to the marginal layers	MINTSS	X	X	X	X	X
	4.1.1.6. Extension of social security to the material field (branches) of social security	MINTSS	X	X	X	X	X
	4.1.1.7. Operationalization of Universal Health Coverage						

4.1.2: Streamlining and strengthening institutional health financing mechanisms	4.1.2.1. Improving budget management and health financing	MOH	X	X	X	X	X
4.1.3 Strengthening financial resource mobilization	4.1.3.1. Update and disseminate a health financing strategy document	MOH			X	X	X
	4.2.3.2. Operationalizing the NATIONAL COMPACT	MOH			X	X	X
4.1.4: Strengthening autonomous financial management at the operational level	4.1.4.1.Develop framework texts granting more autonomy in the management of revenues allocated to HFS at the decentralized level in order to promote the match between the funding received and the problems identified in the HFS	MOH			X	X	X
4.1.5: Strengthening the performance and efficiency of the health system	4.1.5.1. Evaluate quarterly the performance of health structures at all levels of the health pyramid by integrating incentive mechanisms for positive competition between HFSs	MOH	X	X	X	X	X
	4.1.5.2.Develop the National Health Accounts on a triennial basis	MOH	X	X	X	X	X
	4.1.5.3. Introduce hospital performance contracts to promote quality of care and empowerment of HFS	MOH	X	X			
Strategic sub-axis 4.2: Provision of care and services							
Specific objective 4.2: 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							
Targets: Achieve a proportion of 100% of DHs built according to standards Achieve a percentage of 100% Health District Services built according to standards Increase to 100% the percentage of DH who deliver the full CAP Improve the number of patients cured in military medical structures from 253,478 patients to 260,000 Increase from 20% to 33% the proportion of front-line health establishments (IHC and MHC) which deliver the complete MAP							
Implementation Strategy	**Interventions**	**Responsible**	**2021**	**2022**	**2023**	**2024**	**2025**

4.2.1: Institutional capacity building of HFs for a better case management at all levels of the health pyramid	4.2.1.1. Update and implement the hospital reform taking into account the health card	MOH	X	X	X	X	X
	4.2.1.3 Develop mechanisms and tools for the evolution of SDs towards their servicing	MOH	X	X	X	X	X
	4.2.1.4 Institutionalizing traditional medicine	MOH	X	X	X	X	X
	4.2.1.5 Strengthening the technical platforms of reference hospital structures	MOH					
4.2.2 Improving infrastructure supply (construction / rehabilitation / expansion of health facilities according to standards)	4.2.2.1. Develop and implement health development plans at all levels that incorporate a coherent and realistic vision for infrastructure and equipment development	MOH	X	X	X	X	X
	4.2.2.2. Ensure the construction and equipment of prison health infrastructures	MINJUSTICE	X	X	X	X	X
4.2.3 Enhancing equipment in health services based on standards	4.2.3.1. Develop and implement a coherent plan for equipping health facilities at all levels according to prioritized needs	MOH	X	X	X	X	X
	4.2.3.2. Build, equip and make functional the National Centre and the approved Specialized Structures for blood transfusion at the deconcentrated level and ensure the permanent availability of blood products	MOH	X	X	X	X	X
	4.2.3.3. Strengthening the operational capabilities of hospital emergency departments	MOH					
4.2.4: Strenghtening community action and providing the community level with inputs according to standards and priorities (community healthcare and service provision)	4.2.4.1. Disseminate the National Strategic Plan for Community Health (PSNSC) and its investment case	MOH	X	X	X	X	X
	4.2.4.2 Establish mechanisms for capacity building of community actors	MOH					

4.2.5. Setting up a quality assurance system for health care and services	4.2.5.1 Strengthening mechanisms to ensure quality of health care and services	MOH	X	X	X	X	
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	4.2.6.1. Progressively strengthen the availability/accessibility of LDCs/BCPs in working-level HFS	MOH	X	X	X	X	
	4.2.6.2. Equipping schools and universities with first aid kits	MINEDUBMINESEC	X	X	X	X	X
	4.2.6.3. Increase the supervision and assistance of Veterans and War Victims	MINDEF	X	X	X		
	4.2.6.4. Improve the capacity of military health structures and formations to support national public health policy	MINDEF	X	X	X	X	X
4.2.7: Strengthening the referral/counter referral system	4.2.7.1 Update the Activities package for each services	MOH	X	X	X	X	X
Strategic Sub-Axis 4.3: Drugs and Other Pharmaceutical Products							
Specific Objective 4.3: Increase increase by 50% the availability and use of quality drugs and other pharmaceutical products in all HDs							
Targets: Improve to 100% the proportion of health facilities that have a basic set of essential medicines available and affordable in a sustainable manner Reduce the share of street drugs in the total drug supply to 0% Increase the share of traditional medicines in the total supply of medicines to 25%							

Implementation Strategy	Interventions	Responsible	2021	2022	2023	2024	2025
4.3.1: Reinforcing regulatory mechanisms in the pharmaceutical, medical analysis and blood transfusion sectors	4.3.1.1. Update and implement the National Pharmaceutical Master Plan at all levels (supply, quality assurance, access and rational use of medicines, pharmacovigilance, etc.)	MOH	X	X	X	X	X
	4.3.1.2. Organize and operate the National Network of Laboratories (RENALAB)	MOH					
4.3.2: Strengthening quality assurance mechanisms and the availability of drugs and other pharmaceutical products	4.3.2.1. Establish and operate an integrated pharmacovigilance center in each region	MOH	X	X	X	X	
	4.3.2.2. Strengthening the quality assurance system for medicinal products and pharmaceuticals	MOH	X	X	X	X	X
	4.3.2.3. Strengthen the supply chain of essential medicines and acquire a central warehouse, reagents, vaccines and other medical devices and cold chain logistics	MOH	X	X	X	X	X
4.3.3 Promoting the rational use of quality drugs	4.3.3.1. Strengthen medication management in health facilities (training in rational stock management, computerized stock monitoring, etc.)	MOH	X	X	X	X	X

	4.3.3.2. Step up the fight against the use of illicit medicines (street medicines, counterfeits, illegal laboratories, etc.)	MOH	X	X	X	X	X
4.3.4: Establishing sustainable financing mechanisms for drugs	4.3.4.1 Promotion of traditional pharmacopoeia	MOH	X	X	X	X	X
	4.3.4.2. Implement a plan to structure the traditional medicine sub-sector with a view to defining standards and Publishing the products derived from them.	MOH	X	X	X	X	X

HSS Strategic Sub-Axis 4.4: Health Human Resources							
Specific objective 4.4: increase the availability of HRH in at least 80% of HDs, RDPH and central services according to priority needs							
Targets: Improve from 52% to 60% the percentage of health structures equipped with at least 50% of human resources according to standards Change the Number of medical doctors per inhabitant to 1 per 10,000 inhabitants Improve the number of students trained per year in human and animal health from 4,400 to 5,000							
Implementation Strategy	**Interventions**	**Administration Responsible**	**Chronograms**				
			2021	**2022**	**2023**	**2024**	**2025**
4.4.1 Progressive staffing of structures according to the standards (quality and quantity)	4.4.1.1. Develop mechanisms to improve the managerial and technical capacities of health sector managers at all levels	MOH	X	X	X	X	X

	4.4.1.2. Recruit HRH in the following priority areas (midwives, psychiatry, emergency physicians, mortuary attendantss, etc.)	MOH	X	X	X	X	X
	4.4.1.3. Ensure the continuous updating of information on the HRH of MISANTE and health sector administrations and their geo-distribution*.	MOH	X	X	X	X	X
	4.4.1.4. Develop mechanisms for the equitable and rational deployment of HRH in accordance with the organic framework	MOH	X	X	X	X	X
	4.4.1.5. Ensuring the strengthening of the medical sector at the level of higher education	MINESUP	X	X	X	X	X
4.4.2: Improving the rational management of the health workforce	4.4.2.1. Strengthening mechanisms for decentralizing health human resources management	MOH	X	X	X	X	X
	4.4.2.2. Strengthen integrated mechanisms for continuous evaluation, supervision, monitoring and coaching of HRH at all levels of the health pyramid	MOH	X	X	X	X	X
	4.4.2.3. Develop mechanisms for motivating and retaining HRH, including those of the private sector and partner administrations.	MOH	X	X	X	X	X
HSS strategic sub-axis 4.5: Health information and health research							
Specific objective 4.5: 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							

Targets: Increase the MAR promptness rate in DHIS2 from 56.6% to 80% Increase the MAR completeness rate in DHIS2 to 80% Improve the proportion of search results that have been returned from 70% to 80% Improve the percentage of authorized research projects whose results have been published from 90% to 100% Increase to at least 70% the proportion of deaths occurring in health care settings that have been declared to the competent Civil Status Center Increase to at least 70% the proportion of deaths whose cause has been identified and documented							
Implementation Strategy	Interventions	Responsible	2021	2022	2023	2024	2025
4.5.1 Strengthening the national health information system	4.5.1.1. Conduct baseline surveys for the monitoring and evaluation of the NHDP and HSS	MOH	X	X	X	X	X
	4.5.1.2. Systematizing birth and death registration	BUNEC MOH	X	X	X	X	X
	4.5.1.3. Strengthen the governance of the health information system and make quality routine data available	MOH	X	X	X	X	X
4.5.2 Strengthening Health Research	4.5.2.1. Building the capacity of those responsible for decentralized levels in the field of health research	MOH	X	X	X	X	X
	4.5.2.2. Strengthening the governance of human health research ethics	MOH	X	X	X	X	X
4.5.3 Improving the use of health data for decision-making at all levels	4.5.3.1. Publish research results produced in the health system at all levels and promote the use of evidence for decision-making	MOH	X	X	X	X	X

	4.5.3.2. Valuing research results and the national therapeutic heritage within the pharmaceutical industry	MOH			X	X	X
4.5.4: Strengthening mechanisms for collecting and making civil status data available	4.5.4.1. Systematize the registration of births and deaths in Health Facilities	BUNEC MINSANTE	X	X	X	X	X
	4.5.4.2. Strengthen the entry and reporting of routine data from DHIS-2 to SIGEC	BUNEC MINSANTE	x	X	X	X	X
	4.5.4.2. Institutionalize joint civil status-health supervision	BUNEC MINSANTE	X	X	X	X	X

STRATEGIC AXIS 5: GOVERNANCE & STRATEGIC STEERING							
Central component problem: Poor health system performance							
Strategic Outcome: Increase health system performance at all levels							
Strategic sub-axis 5.1: Governance							
Specific objective 5.1: Improving governance in the sector through strengthening standardization, regulation and accountability							
Targets: Improve the rate of achievement of the 2020-2030 HSS objectives from 32% to 80% Increase the proportion of the budget allocated to programmatic priorities from 0% to 100% Reduce by 50% the rate of loss of resources allocated to operational level structures Audit and control at least 60% of health structures per year							
Implementation Strategy	**Interventions**	**Responsible administration**	**2021**	**2022**	**2023**	**2024**	**2025**
5.1.1. Strengthening the legislative and regulatory framework for the sector	5.1.1.1. Develop texts relating to the establishment of coordination and M/E bodies for the implementation of the HSS and the NHDP at all levels of the health pyramid	MOH	X	X	X	X	X
	5.1.1.2. Develop and disseminate care protocols and normative documents in specific targeted areas (mental health, SONEU and post abortion care (PAC)	MOH	X	X	X	X	X
	5.1.1.3. Establish a legal and regulatory framework for Universal Health Coverage	MOH					
	5.1.1.4. Establish a legal and regulatory framework for structuring the traditional medicine sub-sector with a view to standardizing and promote local medicines	MOH					
5.1.2. Improving transparency and accountability	5.1.2.1. Develop mechanisms to strengthen the logical link between Planning and Programming at all levels of the health pyramid	MOH	X	X	X	X	X

	5.1.2.2. Put in place mechanisms to ensure social control at all levels of the health pyramid	MOH	X	X	X	X	X
	5.1.2.3. Strengthen internal and external controls/audits at all levels of the health pyramid	MOH	X	X	X	X	X
	5.1.2.4. Developing a culture of accountability and accountability at all levels of the health pyramid	MOH	X	X	X	X	X
5.1.3. Strengthening the involvement of implementation beneficiaries and stakeholders in the management process	5.1.3.1. Support DTCs in taking ownership of their roles in the management process of health structures (HDs, HAS, HFs)	MOH	X	X	X	X	X
5.1.4. Building the managerial capacities of heads and managers of health facilities	See RSS axis (sub-axis 4.4)		X	X	X	X	X

5.1.5. Strengthening the logical link between strategic planning, preparation, allocation and monitoring the execution of the budget	5.1.5.1 Develop a consistent mechanisms in the planning process from the operational to the central level	MOH	X	X	X	X	X
5.1.6. Improving working conditions and computerizing the managerial process	5.1.6.1 Develop mechanisms to strengthen logistics and working conditions at all levels of the health pyramid	MOH	X	X	X	X	X
Strategic sub-axis 5.2: Strategic management							
Specific objective 5.2: strengthen planning, supervision and coordination of interventions and strategic and health surveillance at all levels of the health pyramid							
Targets: Improve the rate of completion of inspection missions (central level) and integrated supervision (RDPH and HD) to 100% Get 100% of DRSP to fill in the projected performance monitoring dashboard in the NHDP Produce 01 annual health sector review report Ensure the linkage 100% of the AWP of health sector structures to the NHDP							
Implementation Strategy	**Interventions**	**Responsible administration**	**2021**	**2022**	**2023**	**2024**	**2025**
5.2.1: Strengthening the institutional framework for strategic steering	5.2.1.1. Develop action plans linked to the NHDP at all levels of the health pyramid, including partner administrations	MOH	X	X	X	X	X

	5.2.1.2. Make operational the mechanism for steering, coordinating and Monitoring and implementing of the NHDP	MOH	X	X	X	X	X
	5.2.1.3. Organize an annual sectoral or thematic health review with all stakeholders	MOH	X	X	X	X	X
	5.2.1.4. Organize the final evaluation of the NHDP	MOH	X	X	X	X	X
	5.2.1.5. Edit, publish and disseminate the results of reviews and evaluations to all stakeholders (CSOs, TFPs, private sector, , professional orders, structures of MOH and partner ministries)	MOH	X	X	X	X	X
5.2.2 Strengthening the strategic surveillance unit							
5.2.3 Reinforcing décentralisation and devolution	5.2.3.1 Improve the partnership framework between health structures and DTCs	MOH	X	X	X	X	X
	5.2.3.2 Improve the partnership framework between the structures of MOH and those of other administrations in the health sector	MOH	X	X	X	X	X
5.2.4 Strengthening National Partnership	5.2.4.1. Strengthening partnership with private actors, civil society and community actors	MOH	X	X	X	X	X

5.2.5 Improving alignment and harmonization of TFP interventions	5.2.5.1. Develop and implement a National Compact around the health sector strategy	MOH	X	X	X	X	X

CHAPTER 6: ANCHORING, OBJECTIVES AND STRATEGIC FRAMEWORK OF THE 2021-2025 NHDP

6.1. INSTITUTIONAL ANCHORING OF THE 2021-2025 NHDP

In 2009, Cameroon adopted a vision for 2035: "Cameroon: an emerging, democratic country united in its diversity". In this vision, the country has set itself four general objectives, including "Reducing poverty to a socially acceptable level".

The Growth and Employment Strategy Paper 2010-2020, the instrument for implementing the first phase of this vision, identified improving the health status of populations as an objective of both social development and economic growth[150]. In the same vein, the NDS30 which is the implementation document of the 2nd phase of this vision makes the development of Human Capital one of the main priorities of the country for the next decade. The health guidelines stemming from this document are based on the three fundamental principles:

- improving the governance of the health system,
- strengthening the technical platform of central and reference hospitals
- the enhancement of local therapeutic potentials[151].

To achieve both national and international health goals (contained in the NDS30 and SDGs respectively) and move towards Universal Health Coverage, the strategic orientation of the health sector is to: "Ensure equitable and universal access to basic health services and care and quality priority specialized care, with the full participation of the community and the involvement of other related sectors". This choice will result in the implementation of the following intervention packages:

- **The extension of essential basic health services and care**: major interventions in this area will therefore be oriented towards Primary Health Care (health promotion, disease prevention, curative management of common diseases of the community as well as emerging diseases such as hypertension, COVID-19 etc ...). The aim here is to offer essential and complementary care service packages (MPA and CPA) to fight against the main communicable and non-communicable diseases, and to deal effectively with public health events.
- **Improving the supply of priority specialized health services and care**: this component aims to increase the supply of services for the management of priority chronic diseases and public health events requiring specialized care or measures;
- **The involvement of communities and partner administrations**:
- **It is important to prioritize a multisectoral approach (OneHealth)** by federating the efforts of all stakeholders for an efficient resolution of health issues.

To render effective access to primary and specialized health care , the NHDP 2021-2025 focuses mainly on nutrition, strengthening the health system, improving maternal, newborn and child health, the management of surgical emergencies and public health events.

6.2. OBJECTIVES OF THE HEALTH DEVELOPMENT PLAN (NHDP) 2021-2025

6.2.1. OVERALL OBJECTIVE

Overall objective of the NHDP: To improve people's access to quality priority essential and specialized health care and services

In other words, Cameroon aims to offer universal access to quality essential health services, without any form of exclusion or discrimination. It is in this perspective that the 2021–2025 NHDP is firmly in accordance, which focuses on strengthening the health system and governance for the optimal implementation of high-impact interventions, capable of significantly reducing mortality and morbidity among all targets, with a particular focus on the most vulnerable (mother-child target).

The implementation of the NHDP will revolve around 3 vertical axes, namely:

(i) health promotion and nutrition,

(ii) disease prevention,

(iii) case management; and

2 transversal axes which are:

(iv) strengthening the health system and,

(v) governance and strategic management.

Table 2120: Description of strategic axes

OVERALL HSS GOAL 2020-2030: Contribute to the development of healthy, productive human capital capable of supporting strong, inclusive and sustainable growth					
Strategic focus	Strategic Objectives	Performance indicators	Baseline (2021)	Targets (2025)	Audit Sources
Health Promotion and Nutrition	Engaging people in healthy and favourable behaviours by 2027	% of households using improved toilets	57,9% (DHS EDS 2018 page 36)	75%	DHS, MICS, ECAM, studies
		% of women aged 15-49 who are overweight	13,6 % (DHS 2018-Page 252)	20%	DHS, MICS, STEPS
		Prevalence of tobacco use among those over 15 years of age (SDG 3.a.1)	4,3% (DHS 2018 Page xxxix)	3%	Survey GATS, DHS, MICS,
		Proportion of companies subjected to the obligation to have an	25% (MINTSS 2021)	40%	RAP MINTSS

OVERALL HSS GOAL 2020-2030: Contribute to the development of healthy, productive human capital capable of supporting strong, inclusive and sustainable growth					
Strategic focus	Strategic Objectives	Performance indicators	Baseline (2021)	Targets (2025)	Audit Sources
		established and functional Health and Safety Committee (HSC)			
		Chronic malnutrition rates among children under 5 years (SDG 2.2.1)	29% (DHS 2018 Page 221)	20%	DHS, MICS, ECAM, studies
Prevention of the disease	Reducing premature mortality from preventable diseases	Prevalence of hypertension in urban areas	H: 68.4% F: 53.8% DHS 2018 Page 433 and 434	H: 27% F: 27%	STEPS, DHS, MICS
		% of children 0-5 years sleeping under LLINs.	59,8% (EPC MILDA 2018)	90%	DHS-MICS, EPC MILDA, NCP Reports
		% of HIV-infected pregnant women receiving ART	63,91% (CNLS Annual Report 2020)	95%	CNLS Report
Case Management	Reduce overall mortality and case fatality in health facilities and in the community	Perioperative mortality rate in hospitals of 1st, 2nd, 3rd and 4th category	20% (Monitoring report of the 100 key health indicators in Cameroon in 2019- Focus on the SDGs Page 110)	10%	Studies/ Investigations
		Maternal mortality ratio (SDG 3.1.1)	406/100 000 NV (DHS 2018 Page xxxix)	300 / 100 000	DHS MICS PLMI Report
		Infant mortality rate	48/1000 live births (DHS 2018 page 157)	36/1 000	DHS-MICS
		Neonatal mortality rate (SDG 3.2.2)	28/1000 live births (DHS 2018 page 157)	17/1000	DHS-MICS
		Infant and child mortality rate (SDG 3.2.1)	79/1000 live births (DHS 2018 page 157)	62/1000	DHS-MICS

OVERALL HSS GOAL 2020-2030: Contribute to the development of healthy, productive human capital capable of supporting strong, inclusive and sustainable growth					
Strategic focus	Strategic Objectives	Performance indicators	Baseline (2021)	Targets (2025)	Audit Sources
		Direct intra-hospital obstetric case fatality rate	107 Deaths per 100,000 deliveries (Monitoring report of the 100 key health indicators in Cameroon in 2019-Focus on the SDGs Page 110)	96 deaths per 100,000 deliveries	Studies/Surveys
Strengthening the Health System	Increase the institutional capacities of health structures for sustainable and equitable access of populations to quality health care and services	Proportion of HDs that have reached the consolidation phase	ND*	25%	Study
Governance and strategic management	Improve the performance of the health system at all levels.	Rate of achievement of HSS 2020-2030 targets	32%	80%	Study

*For indicators without reference values, actions will be carried out at the beginning of the implementation of the NHDP, in order to determine them as quickly as possible and at the end of this work, the projected targets can be refined.

6.2.2. SPECIFIC OBJECTIVES

Health Promotion and Nutrition

For the health promotion and nutrition axis, this will be by 2025:

- Strengthen institutional capacity, coordination and community participation in the field of health promotion in 80% of HDs;
- Improve the living environment of the population in at least 70% of health districts;
- Develop promotional actions in at least 80% of HDs, in order to strengthen the health-promoting skills of individuals and communities;
- Engage 75% of families in essential family practices, including family planning.

Prevention of diseases

Regarding the prevention strategic axis of diseases it will be a question by 2025 to :

- Reduce in about 30% the incidence/prevalence of major communicable diseases (HIV, malaria and tuberculosis) and eliminate some NTDs (lymphatic filariasis and HAT);

- Reduce in about 90% of health districts, the risk of major public health events and diseases with epidemic potential, including zoonoses ;
- Increase coverage of high-impact prevention interventions by at least 80% for mother, newborn, and child targets in at least 80% of HDs;
- Reduce the prevalence of major non-communicable diseases by at least 10%.

Case Management

As for the case management axis, by 2025 it will be important to :

- ensure curative management according to standards of communicable and non-communicable diseases, as well as their complications in at least 80% of health facilities;
- ensure comprehensive management of maternal, newborn, child and adolescent health problems, according to standards in at least 80 % of health facilities;
- ensure the management of surgical emergencies, disasters and humanitarian crises, according to standard operating procedures (SOPs) in at least 80% of health districts;
- reduce by at least 20% the proportion of the population with at least one correctable disability.

Strengthening the health system

For the health system-strengthening axis, five objectives have been set for 2025, these include:

- reduce direct payments by households by at least 30% through a fair and sustainable financing policy;
- ensure the harmonious development of infrastructure, equipment and the availability of health care and service packages, according to standards, in at least 80% of health facilities in categories 3, 4, 5^{and} 6;
- Increase the availability and use of quality drugs and other pharmaceuticals by 50% in all health districts;
- Increase, according to prioritize needs, the availability of HRH in at least 80% of HDs, RDPH and central directorates;
- 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.

Governance and strategic management

In this strategic axis, the following two objectives have been selected:

- Improve governance in the sector through strengthening standardization, regulation and accountability;

- Strengthen planning, supervision, coordination, strategic and health monitoring at all levels of the health pyramid.

6.3. ALIGNING THE NHDP OBJECTIVES WITH THE SDGS

The 2021-2025 NHDP is aligned with the Sustainable Development Goals to which Cameroon has subscribed. At the level of each strategic axis, there are strategic sub-axes that take into account the health-related Sustainable Development Goals.

6.3.1. HEALTH PROMOTION AND NUTRITION AXIS

STRATEGIC SUB-AXIS 1.2: LIVING ENVIRONMENT OF POPULATIONS ***SPECIFIC OBJECTIVE: Improve the living environment of populations***
SDG target 3.9. By 2030, significantly reduce deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination **SDG target 6.1.** By 2030, ensure universal and equitable access to safe and affordable drinking water. **SDG target 6.2.** By 2030, ensure equitable access to adequate sanitation and hygiene for all and end open defecation, paying particular attention to the needs of women and girls and people in vulnerable situations **SDG target 7.1.** By 2030, ensure access to affordable, reliable and modern energy for all **SDG target 8.8.** Defend workers' rights, promote workplace safety and ensure the protection of all workers, including migrants, especially women, and those in precarious employment **SDG target 11.5.** By 2030, significantly reduce the number of people killed and affected by disasters, including water-related disasters, and significantly reduce the share of global gross domestic product accounted for by economic losses directly attributable to such disasters, with a focus on protecting the poor and people in vulnerable situations **SDG target 11.6.** By 2030, reduce the negative environmental impact of cities per capita, including by paying particular attention to air quality and municipal waste management **SDG target 13.1.** Strengthen resilience and adaptive capacity to climate hazards and climate-related natural disasters in all countries
STRATEGIC SUB-PRIORITY 1.3: STRENGTHENING THE HEALTH-PROMOTING SKILLS OF INDIVIDUALS AND COMMUNITIES ***SPECIFIC OBJECTIVE: to develop health promotion actions in order to strengthen the health-promoting skills of individuals and communities***
SDG Target 2.1. By 2030, end hunger and ensure that everyone, in particular the poor and people in vulnerable situations, including infants, has access to safe, nutritious and adequate food all year round **SDG Target 2.2.** By 2030, end all forms of malnutrition, including by achieving by 2025 the internationally agreed targets on stunting and wasting in children under 5 years of age, and meet the nutritional needs of adolescent girls, pregnant and lactating women and older persons **SDG target 3.5.** Strengthening the prevention and treatment of substance abuse, including alcohol and alcohol **SDG target 3.6.** By 2020, halve the number of road traffic deaths and injuries nationally **SDG target 5.2.** Eliminate from public and private life all forms of violence against women and girls, including trafficking, sexual, and other types of exploitation

SDG target 5.3. Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

STRATEGIC SUB-AXIS 1.4: ESSENTIAL FAMILY PRACTICES, FAMILY PLANNING, ADOLESCENT HEALTH PROMOTION AND POSTABORTION CARE

SPECIFIC OBJECTIVE: Encourage families to adopt essential family practices, including family planning,

SDG target 3.7: By 2030, ensure universal access to sexual and reproductive health care services, including family planning, information and education, and ensure that reproductive health is integrated into national strategies and programmes

SDG target 5.6: Ensure universal access to sexual and reproductive health care and the enjoyment of reproductive rights for all, as decided in the Platform for Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of subsequent review conferences.

SDG target. 16.9: By 2030, guarantee legal identity for all, in particular through birth registration

6.3.2. DISEASE PREVENTION AXIS

STRATEGIC SUB-AXIS 2.1: PREVENTION OF COMMUNICABLE DISEASES

SPECIFIC OBJECTIVE: To reduce the incidence/prevalence of major communicable diseases (HIV, malaria and tuberculosis) and to eliminate certain NTDs (lymphatic filariasis and HAT)

SDG target **3.3.** By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne and other communicable diseases

STRATEGIC SUB-AXIS 2.2: MAPE AND PUBLIC HEALTH EVENTS SURVEILLANCE AND RESPONSE TO DISEASES WITH EPIDEMIC POTENTIAL, ZOONOSES AND PUBLIC HEALTH EVENTS

SPECIFIC OBJECTIVE: **To reduce the risk of major public health events and diseases with epidemic potential, including zoonoses**

SDG target **1.5.** By 2030, build resilience and vulnerability of the poor and people in vulnerable situations and reduce their exposure to and vulnerability to extreme weather events and other economic, social or environmental shocks and disasters

3.b.1 Proportion of target population that has received all national program vaccines

3.d.1 International Health Regulations (IHR) implementation and preparedness for health emergencies

STRATEGIC SUB-AXIS 2.4: PREVENTION OF NONCOMMUNICABLE DISEASES

SPECIFIC OBJECTIVE: Reduce the incidence/prevalence of major non-communicable diseases

SDG Target **3.4.** By 2030, reduce premature mortality from non-communicable diseases by one third through prevention and treatment and promote mental health and well-being

6.3.3. CASE MANAGEMENT AXIS

STRATEGIC SUB-AXIS 2.3: NERMS AND PMTCT

SPECIFIC OBJECTIVE: To increase coverage of high-impact prevention interventions for maternal, newborn and child targets

SDG Target **3.2.** By 2030, eliminate preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to no more than 12 per 1,000 live births and under-5 mortality to no more than 25 per 1,000 live births

STRATEGIC SUB-AXIS 3.2: MERMATERNAL, NEONATAL, INFANT AND ADOLESCENT HEALTH CONDITIONS
SPECIFIC OBJECTIVE: To provide comprehensive and standard-based care for maternal, newborn, child and adolescent health problems at the community level and in health facilities
Target 3.1. By 2030, reduce the global maternal mortality ratio to below 70 per 100,000 live births

6.3.4. AXIS STRENGTHENING THE HEALTH SYSTEM

STRATEGIC SUB-AXIS 4.1: FINANCING HEALTH
SPECIFIC OBJECTIVE: Reduce direct payments to households through a fair and sustainable financing policy
Target 3.8. Ensure universal health coverage for all, including protection against financial risks and access to quality essential health services and safe, effective, quality and affordable essential medicines and vaccines
STRATEGIC SUB-AXIS 4.3: MEDICINES AND OTHER PHARMACEUTICAL PRODUCTS
SPECIFIC OBJECTIVE: To increase the availability and use of quality medicines and other pharmaceuticals in all health districts
3.b.3 Proportion of health facilities with a consistently available package of affordable essential medicines
STRATEGIC SUB-AXIS: 4.4 HUMAN RESOURCES IN HEALTH
SPECIFIC OBJECTIVE: Increase the availability of HRH in health facilities
3.c.1 Health workforce density and distribution
STRATEGIC SUB-AXIS 4.5: HEALTH INFORMATION AND HEALTH RESEARCH
SPECIFIC OBJECTIVE: 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
3.b.2 Total net official development assistance for medical research and basic health care

CHAPTER 7: IMPLEMENTATION FRAMEWORK

The NHDP 2021-2025 is a variation of the Health Sector Strategy 2020-2030, which is an operationalization of the National Development Strategy 2020-2030.

The implementation of the NHDP 2021-2025 will be carried out according to a multisectoral approach (ministerial and interministerial) at all levels of the health pyramid (central, intermediate and peripheral), through the various coordination mechanisms of the health sector. The main topics will be:

(i) Strengthening the institutional and organizational framework for monitoring and evaluating the NHDP at the ministerial and interministerial levels and at all levels of the health pyramid;

(ii) strengthen partnership and coordinated resource mobilization around the implementation of the NHDP;

(iii) Make available the matrix of indicators, the performance framework, the dashboard for monitoring the implementation of the NHDP for each level of the health pyramid;

(iv) enable all actors in the health sector to measure progress;

(v) strengthen the alignment of partners with national priorities,

(vi) strengthen mutual accountability in achieving health outcomes.

7.1. INSTITUTIONAL FRAMEWORK FOR IMPLEMENTATION

The implementation of the NHDP 2021-2025 will be ensured in accordance with the guidelines of Law No. 2007/006 of 26 December 2007 on the financial regime of the State supplemented by Law No. 2018/012 of 11 July 2018 on the financial regime of the State and other public entities. This law institutionalizes program-based budgeting with clear objectives to be achieved after a set period. It focuses on performance and the effective, equitable and efficient use of public resources. Thus, in an economic context with limited resources, the transition from a logic of means to a logic of performance constitutes a lever to facilitate the achievement of the results of the NHDP. The same applies to Law No. 2019/024 of 24 December 2019 on the General Code of Decentralized Territorial Collectivities, which defines the general legal framework, the rules of organization and operation as well as the specific regime of local authorities in the health sector. The 1998 Framework Health Act completes this list.

The NHDP 2021-2025 will be coordinated, monitored and implemented in accordance with the guidelines of Decree No. 2021/1541/PM of 23 March 2021 on the creation, organization and functioning of the National Monitoring and Evaluation Committee for the implementation

of the NDS30. The structures in charge of the strategic management and operational monitoring of the HSS 2020-2030 and the NHDP 2021-2025 are: (i) the National Monitoring and Evaluation Committee for the implementation of the National Development Strategy 2020-2030 (NCME/NDS30);

(ii) the technical coordination unit;

(iii) the "Health" Sub-Committee of the National Monitoring and Evaluation Committee of the implementation of the National Development Strategy 2020-2030 and

(iv) the Technical Secretariat of the "Health" Sub-Commission.

The National Monitoring and Evaluation Committee for the implementation of the National Development Strategy 2020-2030 (NCMENDS30)

The National Monitoring and Evaluation Committee for the implementation of the National Development Strategy 2020-2030 (NCME/NDS30) is the main body responsible for monitoring as well as providing technical and operational supervision of all work relating to the implementation of the DS30. Chaired by the Minister in charge of planning, the NCME/NDS30mission is to support the various sectors in the development of their respective sectoral strategies, to ensure intersectoral collaboration, as well as the monitoring and evaluation of the NDS30 and sectoral strategies. It also ensures the implementation of the NDS30 and sectoral strategies within administrations through Strategic Performance Frameworks and strategic plans. The NCME/NDS30 is assisted by a technical coordination unit and sectoral secretariats. All of its missions are listed in Box 1 below [152].

Box 11: Missions of the National Monitoring and Evaluation Committee for the implementation of the National Development Strategy 2020-2030

The NCME/NDS30 ensures the follow-up and technical supervision of all work relating to the implementation of the NDS30. As such, it is responsible in particular for:

- ensuring the finalization of the projects and reforms initiated under the GESP, as well as the operationalization of the government's commitments working to achieve the objectives of the vision of emergence by 2035;
- monitoring the process of carrying out strategic studies for the operationalization of the NDS30 and in particular feasibility studies of the plans and reforms identified in the strategy;
- updating and monitoring the NDS30 and the sectoral strategies through, in particular, the production and validation of semi-annual and annual reports on the implementation of the sectoral strategies;
- Monitoring and optimizing collaboration with the administrations concerned the process of appropriation by Cameroon of the clauses of the major international agendas (SDGs, Agenda 2063, etc.);
- submitting to the Prime Minister, Head of Government, for arbitration proposals for prioritizing Government interventions in all sectors, with a view to ensuring the

intersectoral coherence of these interventions with the strategic objectives pursued by the NDS30;
- ensuring the implementation of the NDS30 and sectoral strategies within administrations through Strategic Performance Frameworks and strategic plans;
- Ensuring the consultation, mobilization and awareness raising, as appropriate, of all institutional actors directly concerned, including Development Partners, for the implementation of the NDS30.

Source: Article 2 of Decree No. 2021/1541/PM of 23 March 2021 on the establishment, organization and functioning of the National Monitoring and Evaluation Committee for the implementation of the NSDS30

The Technical Coordination Unit

The technical coordination unit is the linchpin that ensures the preparation of the NCME/NDS30 sessions. To this end, it is responsible for coordinating the activities of the sectoral secretariats and ensures the production of monitoring reports on the implementation of sectoral strategies. All of its missions are set out in Box 2 below.

Box 22: Mission of the technical unit coordinating the implementation of the National Development Strategy 2020-2030

The Technical Coordination Unit assists the NCME/NDS30 in carrying out its missions. As such, it is responsible for:

- Preparing the meetings of the Committee and drawing up minutes;
- Ensuring technical and operational monitoring of the implementation of the NDS30;
- Centralizing strategic studies for the operationalization of the NDS30;
- Preparing draft monitoring and evaluation reports on the implementation of the NSD30;
- Ensuring, together with the structures concerned, the production on the basis of the statistics necessary for the monitoring of the NSD30 in all sectors;
- ensuring the establishment of sectoral databases in liaison with the sectoral sub-commissions and the administrations directly concerned;
- Ensuring, in liaison with the structures concerned, the alignment of all interventions with the NSD30 and their coherence;
- Ensuring that sectoral and spatial planning instruments are aligned with the NSD30;
- Coordinating the activities of the Sectoral Technical Secretariats and ensuring in particular the production of Monitoring Reports on the implementation of sectoral strategies;
- Proposing to the NCME/NDS30 any measure likely to improve the implementation of the NSD30.
- Performing any other task prescribed by the NCME/NDS30 within the scope of its purpose.

Source: **Article 7.-(1) of Decree No. 2021/1541/PM of 23 March 2021 on the establishment, organization and functioning of the National Monitoring and Evaluation Committee for the implementation of the NDS30**

Sub-Committee on Health of the National Monitoring and Evaluation Committee of the implementation of the National Development Strategy 2020-2030

The main mission of the sectoral sub-committee "health" is the orientation, coordination, supervision, harmonization and supervision of the work relating to the Sectoral Health Strategy and the NHDP. It is coordinated by the Secretary General of MOH and the members who compose it are the Secretary General of the partner administrations namely: MINEPAT, MINFI, MINESUP, MINDEF, DGSN, MINRESI, MINJUSTICE, MINNAS, MINEE, MINEPDED, MINTSS, MINPROFF. In addition to the latter, there are representatives of the organizations under supervision: LANACOME, CENAME, ONSP, IMPM, CNPS. The list of members is completed by representatives of the private sector and civil society: the National Order of Physicians of Cameroon (ONMC), the National Order of Pharmacists of Cameroon (OANC), the National Order of Dental Surgeons of Cameroon (ONCDC), the Order of Medical and Health Professions (OPMS), the National Order of Opticians of Cameroon (ONOC). Reporting within this commission is provided by the Technical Secretariat of the Sub-Commission on Health (ST/HSS), the Strategic Planning and Forecast Division of MINEPAT (SPFD).

Technical Secretariat of the Sub-Committee on Health (ST/HSS).

The Technical Secretariat of the Health Subcommittee is responsible for producing monitoring reports on the implementation of the HSS 2020-2030. These follow-up reports will then be submitted to the CNSE/NHD30 "Health" sub-committee for validation, and may subsequently be used by the technical coordination unit as part of the preparation of the CNSE/NHD30 sessions. In detail, the missions of the Technical Secretariat of the Health Subcommittee (ST / HSS) are listed in Box 3 below

Box 3Health" Sub-Commission, a contextualization of Article 12.-(2) of Decree No. 2021/1541/PM of 23 March 2021 on the creation, organization and functioning of the National Monitoring and Evaluation Committee for the implementation of the NHD30

- Prepare the meetings of the health subcommittee and draw up the minutes
- identify and monitor health sector issues, reforms and flagship projects;
- ensure the coherence of interventions within the health sector;
- set up in collaboration with the actors concerned, a sectoral information system;
- prepare semi-annual and annual reports on the implementation of the health sector strategy / NHDP;
- prepare the technical tools necessary to carry out the missions of the CNSE/NDS30 in the Health sector;
- Carry out all other tasks entrusted to it by the Sub-Commission on Health.

In addition to the missions outlined above, the ST-HSS will pay particular attention to ensuring:

(i) technical support to health sector administrations in the areas of planning, coordination, monitoring and evaluation of the NHDP;

(ii) technical support to health sector administrations, including MOH, in the operationalization of the NHDP at all levels of the health pyramid;

(iii) the consolidation of the outputs of health sector administrations (journal reports, PPA, CDMT, PTA, RAP) with a view to producing sectoral information;

the alignment between the strategic orientations of the HSS/NHDP and the strategic performance frameworks of the health sector administrations;the implementation of the reforms essential to the achievement of the objectives, enlisted in the HSS and the NHDP.

7.2. COORDINATION AND IMPLEMENTATION MECHANISMS AT THE MINISTERIAL LEVEL

The NHDP 2021-2025 will be implemented in the country through operational plans developed at all levels of the health pyramid (central, intermediate and peripheral) with the full participation of all stakeholders.

Central level

At the central level, the structures in charge of planning and programming of health sector administrations will ensure the development of planning tools to implement NHDP interventions. The orientations of the NHDP resulting from the HSS are declined in the Strategic Performance Frameworks of the administrations of the health sector in Programs, Actions and Activities. The declination of activities into tasks with budgets is done on a three-year basis through the Mid-Term Expenditure Frameworks (MTEF). Each year, health administrations draw up a budgeted annual work plan (BAWP) which should form the basis for drawing up quarterly business plans.

The coordination mechanisms at this level will rely on the management and dialogue platforms of the different health sector administrations.

Deconcentrated levels

At the decentralized level of the health pyramid, each regulatory structure of the health sector should develop its document of contextualization and operationalization of the NHDP according to the one health logic. These are the District Health Development Plan (DHDP) at the peripheral level and the Consolidated Regional Health Development Plan (CRHDP) at the intermediate level. The goal is to federate the efforts of all stakeholders for more efficiency in the implementation of interventions. These documents must then be broken down into AWP. It should be noted that, as part of the health system strengthening project, Ministry of Health actors have adopted the performance-based financing approach for the implementation of NHDP interventions. Health structures at all levels of the pyramid are expected to draw up a performance contract with a business plan for the implementation of their activities. [153]

For the sake of efficiency, two bodies will ensure the coordination and monitoring and evaluation of the implementation of the HSS and the NHDP at the decentralized level. These are: the Regional Committee for Coordination and Monitoring and Evaluation of HSS Implementation (CORECSES) for the regional level and the Operational Committee for Coordination and Monitoring and Evaluation of HSS Implementation (COCSES) for the peripheral level.

- ***Intermediate level***

The regional delegations will have to ensure the coordination and monitoring and evaluation of the implementation of the HSS and the NHDP in their respective areas of competence through the PRCDS. This multisectoral document should allow PRSPs and their partners (partner administrations, DTCs, CSOs and TFPs), to have a common health monitoring and monitoring and evaluation framework for the region: this is the Regional Committee for Coordination and Monitoring and Evaluation of the implementation of HSS (CORECSES). It should be set up and chaired by the Governor of the region pending the effectiveness of the guidelines of the law on decentralization, which grants the President of the Region the mandate to develop health and social action in their DTCs. Its main missions will be:

(i) the validation of Regional Consolidated Health Development Plan (RCHDP) with all stakeholders under the coordination and supervision of ST/HSS;

(ii) multisectoral coordination and monitoring of the implementation of the NHDP 2021-2025 at the regional level;

(iii) validation of the RCHDP integrated Monitoring and Evaluation plan and the RDPH multisectoral monitoring dashboard.

The Regional Delegate of Public Health (RDPH) will act as Technical Secretary of this committee. The Technical Secretariat of CORECSES (ST/CORECSES) will also ensure:

(i) the compilation of data at the decentralized level for each strategic axis;

(ii) feedback from the regional level to health districts and,

(iii) validation and consolidation of HD progress reports.

For the sake of efficiency, the ST/CORECSES in collaboration with the Regional Delegation of Public Health will have to provide technical support to the Health Districts in the development of their Health Development Plans (HDPs), their AWPs and the monitoring dashboards of these AWPs by ensuring that the activities proposed in the different HDs and AWPs of the HD are coherent and convergent towards the achievement of the objectives of the NHDP.

All other key actors of the existing multisectoral thematic subcommittees in the region will be integrated into the regional committee for the coordination and monitoring of HSS implementation. The Chief of the RDPH Care Monitoring Brigade will work in synergy with the RFHP and the regional coordinators of priority programmes to this end. A text of the hierarchy

will specify the provisions inherent to the organization; the functioning and missions of CORECSES.

- *Peripheral level*

The District Health Development Plan will allow the district management team to bring together all the actors of the health sector around a single working and monitoring and evaluation platform, taking into account the orientations of the General Code of the DTCs. To this end, the Operational Committee for Coordination and Monitoring and Evaluation of the Implementation of the HSS (COCSES) should be set up and chaired by the Divisional and Sub-Divisional Officers pending the effectiveness of the guidelines of the law on decentralization, which grants mayors the mandate to develop health and social action in their communes. The Head of the Health District (HDs) will act as technical secretary of this committee. The mission of the Technical Secretariat of COCSES (ST/COCSES) will be to develop the DHDP and AWPs while ensuring that these two documents are aligned with the NHDP. The same is true of the DHDP follow-up plan, which will have to be anchored in the IEMP program. It will also ensure the operational monitoring of the indicators included in the HDs multisectoral scoreboard. In addition, it will periodically transmit information on the monitoring and evaluation indicators of its AWPs/DHDP to CORECSES. The ST/COCSES in collaboration with the District Health Service will mainly ensure the consolidation of the AWPs of the health areas as well as the organization of supervision missions and multisectoral coordination meetings in the HD. The Head of Health Office (HHO) of the DHS will work in synergy with CSOs and local actors.

Table 2222: Coordination structures for the implementation of the NHDP

LEVEL OF INTERVENTION	ORGANS/STRUCTURES AND FREQUENCY OF MEETINGS	COMPOSITION	
INTERMINISTERIAL	NATIONAL COMMITTEE FOR MONITORING AND EVALUATION OF THE IMPLEMENTATION OF THE NATIONAL DEVELOPMENT STRATEGY 2020-2030 (NCME/NDS30) **Meeting frequency:** Semi-annual	**President:** Minister in charge of Planning **Members:** - SG of ministerial departments - President of the Technical Committee for Monitoring the Programmes - SG National Commission for the Promotion of Bilingualism and Multiculturalism - PS of the Human Rights Commission of Cameroon - 02 representatives of the PM's services - the Director General of Planning and Regional Development (MINEPAT) - the Director General of Economy and Public Investment Planning of the Ministry in charge of public investment programming	**Members:** - Director General of the Budget of the Ministry in charge of Finance - Director General of Taxes of the Ministry in charge of Finance - Director General of Customs of the Ministry in charge of Finance - Director General of the National Institute of Statistics - DG of BUCREP - the SP of the Technical Committee for Monitoring the Programmes - PS of the National Council of Decentralization; - 05 DTC representatives - 03 representatives of representative organizations of the private sector - 05 representatives of civil society
	TECHNICAL COORDINATION UNIT **Frequency of meetings:** Quarterly	**President:** Director General of Planning and Regional Development (MINEPAT) **Technical Coordinator:** Head of the Division of Strategic Planning and Forecast Division **Members:** 01 PM Service Representative - Director of Spatial Planning and Development of	- Director of North-South Cooperation and Multilateral Organizations of the Ministry in charge of Technical Cooperation; - Head of Division and Forecasting and Preparation of Programs and Projects of the Ministry in charge of public investment programming - Head of Division of Economic Analysis and Policies at the Ministry

LEVEL OF INTERVENTION		ORGANS/STRUCTURES AND FREQUENCY OF MEETINGS	COMPOSITION	
			Border Areas of the Ministry in charge of Spatial Planning - Head of Division of Demographic Analysis and Migration of the Ministry in charge of spatial Planning - Director of Infrastructure and Support for Regional and Local Development of the Ministry in charge of Spatial Planning	in charge of the Economy; - Head of the Forecasting Division of the Ministry in charge of Finance; - Head of the Budgetary Reform Division of the Ministry of Finance; - Head of Department of Statistical Coordination of Cooperation and Research of the NIS - Head of Department of Economic Syntheses of the NIS
		SUBCOMMITTEE ON HEALTH **Frequency of meetings:** Quarterly	**President: SG MOH** **Members:** SG MINEPAT, MINFI, MINESUP, MINDEF, DGSN, MINRESI, MINJUSTICE, MINAS, MINEE, MINEPDED, MINTSS, MINPROFF, MINSEP	Representing LANACOME, CENAME, ONSP, IMPM, CNPS, private sector, OSC, ONMC, OANC, ONCDC, ONPMS and ONOC. **Rapporteurs:** ST/HSS (Technical Secretariat of the Health Sectoral Sub-Commission) DPPS representative at MINEPAT
		Technical Secretariat of the Health Sector (ST/HSS)	**COORDINATOR:** Public Health Expert	**TECHNICAL STAFF:** (i) a statistician; (ii) an accountant; (iii) a planning expert, (iv) a monitoring and evaluation expert; (v) Computer engineer; (vi) an expert in health economics; (vii) public finance expert; (viii) two public health physicians (epidemiology/health system option).
MINISTERIAL	**Central level**	Management Dialogue Platform **Frequency of meetings** Quarterly	President: Minister Vice President: SG Members Program Managers Responsible for actions	Rapporteurs Director of Financial Resources Head of Division of Studies and Projects

LEVEL OF INTERVENTION		ORGANS/STRUCTURES AND FREQUENCY OF MEETINGS	COMPOSITION	
			Coordinator of Management Control Management controllers HSS Technical Secretariat Other members	Head of the Monitoring Unit
	Regional level	CORECSES **Frequency of meetings:** Quarterly	**PRESIDENT**: Governor **TECHNICAL SECRETARIAT** : RDPH .	**MEMBERS**: Regional Delegates of partner ministries at MOH, (MINAS, MINPROFF, MINEDUB, MINESEC, MINADER, MINEPIA, MINEE, MINEPDED, MINJEC, MINTSS, MINSEP); responsible for the prison infirmary at the regional level; manager of the RFHP; Representative of the Regional CSO Platform
	Operational level	COCSES **Frequency of meetings:** Quarterly	**PRESIDENT:** **Prefect**/Sub-Prefect **TECHNICAL SECRETARIAT** : Head of Service of the Health District;	**MEMBERS** :(i) President of COSADI; (ii) Members of the ECD; (iii) divisional delegates of partner ministries; (iv) members of the District Framework Team; (v) heads of the DTCs and Civil society Organizations affiliated to the regional CSO platform.

CHAPTER 8: MONITORING AND EVALUATION FRAMEWORK

The final evaluation of the 2016-2020 NHDP highlighted the strengths and weaknesses in terms of monitoring and evaluation. With regard to the forces, the availability of the Integrated Monitoring and Evaluation Plan (IMEP) is noted. To this, we can add the use of DHIS-2 at all levels of the health pyramid as a tool for collecting and reporting routine data.

With regard to shortcomings, the following are deplored:

- the absence of a results chain that shows the link between results, effects and expected impacts;
- Non-compliance with the periodicity of epidemiological investigations;
- the multiplicity of data collection tools, which increases the burden of data exploitation;
- the poor implementation of mechanisms to ensure the validity and reliability of indicators;
- the lack of integrated reporting on progress against goals and targets and the fairness and effectiveness of the system.
- the lack of deployment and use of the monitoring and evaluation software for DHDPs and RHDP, although the latter has been developed;
- insufficient follow-up to recommendations emanating from monitoring and evaluation activities;
- lack of a methodology for assessing the performance of finance, human resources, procurement, M&E and other systems at all levels and at a well-defined periodicity;
- Insufficient mechanisms for the use of performance review results at the central level.

To compensate for these shortcomings, an Integrated Monitoring and Evaluation Plan (IMEP) accompanies the NHDP. These include: direct output indicators, outcome and impact indicators that will make it possible to gradually assess the levels of implementation of planned activities and achievement of the objectives of the NHDP. Implementation will be monitored both at the level of MOH and at the level of partner administrations. This situation requires strong intra- and inter-ministerial coordination. The indicators detailed in the IMEP are summarized in tables 23 and 24 below:

Tableau 23 : Indicateurs retenus dans le cadre du suivi-évalaution du PNDS 2021-2025

HEALTH PROMOTION AND NUTRITION		
1) Proportion of HDs with functional District Health Committee (DHC) 2) Number of CHWs per inhabitant 3) Community MAR completeness rate 4) Proportion of HDs which fill the community MAR 5) Proportion of DTC budget allocated to HFs as part of decentralization 6) Proportion of RFHP budget allocated in support of DHC 7) % of households using improved toilets 8) Proportion of households that use solid combustible as primary energy source for cooking 9) Proportion of households with access to safe drinking water 10) Mortality rates due to unsafe water, poor sanitation and poor hygiene (access to inadequate WASH services) (SDG 3.9.2.) 11) Proportion of HDs implementing CLTS 12) Proportion of companies that have a functional Health and Safety Committee	13) Frequency of fatal and non-fatal occupational accidents (SDG 8.8.1)) 14) Proportion of households living in decent housing 15) Proportion of households with access to sanitation 16) Daily production capacity (m^3/day) 17) Drinking water supply rate (%) 18) Sewage management infrastructure service rate 19) Proportion of municipal refuse regularly collected and adequately disposed of out of total municipal refuse generated (SDG 11.6.1) 20) % of vulnerable people who have adopted a climate change resilience mechanism 21) Prevalence of pregnancies among adolescents aged 15-19 years 22) Prevalence of smoking among individuals aged 15 years and older 23) Chronic malnutrition rate among pregnant and lactating women 24) Prevalence of food insecurity (SDG 2.1.2) 25) proportion of targets reached during awareness-raising activities on the fight against drug consumption in school and outside of school	26) Road traffic mortality rate (SDG 3.6.1) 27) Proportion of schools with potable water supply 28) Rate of chronic malnutrition among under 5 years old children 29) Modern contraceptive prevalence rates among women of childbearing age (15-49 years) (SDG 3.7.1.) 30) Proportion of unmet FP needs 31) Adolescent fertility rate 15-19 per 1,000 adolescent girls (SDG 3.7.2) 32) Proportion de femmes âgées de 20 à 24 ans mariées ou en couple avant l'âge de 15 ans 33) Proportion of women aged 20-24 who are married or in a couple before the age of 15 or 18 (SDG 5.3.1) 34) Proportion of women and girls aged 15 years and older who have been in a couple who have experienced physical, sexual or psychological violence inflicted in the past 12 months by their current or former partner (SDG 5.2.1.) 35) Proportion of children who have suffered at least one form of violence or abuses 36) % of live births occurred in HFs that resulted to the establishment of a birth certificate

DISEASE PREVENTION

1. HIV incidence
2. HIV prevalence
3. Prevalence of viral hepatitis B
4. Coverage of preventive chemotherapy for onchocerciasis
5. Malaria prevalence rate in children under 5 years old
6. % of pregnant women infected with HIV and on ART
7. Prevalence rate of communicable diseases in prisons
8. Incidence of tuberculosis
9. % of children of school age dewormed
10. Proportion of measles epidemics notified and investigated
11. Proportion of the target population having received all the vaccines provided for by the EPI
12. Vaccination coverage with the reference antigen (Penta3)
13. Vaccination coverage in RR1
14. Improve the Index of the main capacities required according to the International Health Regulations (IHR)
15. Coverage rate in ANC 4
16. Rate of mother-to-child HIV transmission (proportion of children exposed to HIV)
17. Proportion of newborns weighing less than 2500 g
18. Proportion of pregnant women who received at least 3 doses of IPT during their pregnancy (% IPT3)
19. % of DH and similar who offer CESOM according to standards (9 functions)
20. Prevalence of type 2 diabetes in adults aged 18 and over
21. Mortality rate attributable to cardiovascular diseases, cancer, diabetes or chronic respiratory diseases
22. Hospital prevalence of hypertension
23. Incidence of cervical cancer from 21% to 12%
24. % of soldiers returning from an OPS having benefited from support and psychological assistance
25. Percentage of targets reached during awareness campaigns on the prevention of disability and disabling illnesses in children

CASE MANAGEMENT

Therapeutic success rate for smear-positive tuberculosis patients
Malaria-specific mortality rate in children under 5 years old
Proportion of Buruli ulcer cases cured without complications
Perioperative mortality rate in 4th category hospitals
Proportion of live births resulting in the establishment of a birth declaration
Direct intra-hospital obstetric case fatality rate
Percentage of older people who benefit from health and psychosocial assistance
Proportion of newborns who received postnatal care within 48 hours of birth
Proportion of cases of obstetric fistulas repaired
Cesarean delivery rate
Maternal mortality rate
Neonatal mortality rate
Child mortality rate
Infant and child mortality rate
Percentage of pregnant women diagnosed with syphilis in ANC and who receive treatment according to the standards
Proportion of deliveries attended by qualified personnel
Proportion of live births resulting in a birth declaration
Proportion of public health emergencies for which the Incident Management System has been activated at the national level
Proportion of District Hospitals offering blood transfusion according to standards
Proportion of DS with a medical ambulance and whose referral versus referral system is functional
Proportion of Regional Emergency Operations Centers that have the required HRH
Proportion of patients suffering from cataract and having regained visual acuity greater than 3/10 one week after surgical intervention
Number of disabled people cared for in functional rehabilitation centers

HEALTH SYSTEM STRENGHTHENING		
Proportion of HD having reached the consolidation phase	Percentage of HD who deliver the full PAC	Percentage of health structures equipped with at least 50% of human resources according to standards
Proportion of health expenditure borne by households	Frequency of patients treated in military medical structures and training	Proportion of doctors per capita
Rate of people covered by a social health protection mechanism	Proportion of front-line health establishments (IHC and MHC) which issue the complete MAP	Number of students trained per year in human and animal health
Proportion of the health budget in the national budget (SND30)	Proportion of health facilities that have a basic set of essential medicines available and sustainably affordable	MAR promptness rate in DHIS2
Proportion of mutual social security companies covering at least three (03) risks	Share of street drugs in the total drug supply	Completion rate of RMAs in DHIS2
Proportion of the employed active population covered for at least three (03) risks	Share of traditional medicines in the total supply of medicines	Proportion of search results that have been returned
Proportion of HDs built to standards		Percentage of authorized research projects whose results have been published
Proportion of HDSs built to standards		Proportion of deaths occurring in healthcare settings and declared
		Proportion of deaths whose cause was identified and documented
GOVERNANCE AND STRATEGIC STEERING		
Rate of achievement of HSS 2020-2030 objectives	% of health structures audited and controlled per year	% of RDPH having completed the projected performance monitoring dashboard in the NHDP
Proportion of budget allocated to programmatic priorities	Rate of completion of inspection missions (central level) and integrated supervision (RDPH and HD)	Availability of annual health sector review reports
Rate of loss of resources allocated to operational level structures		% of AWP of health sector structures linked to the NHDP

CHAPTER 9: FUNDING OF THE NDSP

This chapter presents the funding forecasts for the implementation of the NHDP 2021-2025:

the projected costs of the NHDP 2021-2025,

the analysis of the funding gaps and,

the financial sustainability strategies and impact assessments.

9.1 PROJECTED COSTS OF THE 2016-2020 NHDP

9.1.1 ASSUMPTIONS AND ESTIMATION METHOD

The estimation of real health financing needs was carried out with the One Health tool on the same methodological basis as in the 2020-2030 Health Sector Strategy. This tool allows the estimation of the costs of interventions in the field of health, based on the targets set, and integrates the analysis of bottlenecks and the budgeting of corrective actions. This provides a holistic estimate of health financing needs. This cost estimate is based on programmatic data and existing targets.

Unit costs for each intervention were determined from the interventions selected in the plan, using the ingredients approach, or a standardized cost approach, applied to estimate direct input costs. The ingredients approach embodies a bottom-up method of calculating costs. It consists of first, isolating the interventions defining each activity, then identifying, quantifying and calculating the inputs necessary for the production of the target unit. This work is carried out through the average unit cost of each intervention. In addition to direct input costs for drugs and supplies, unit costs include a portion of programme costs. These costs are necessary to support the implementation of interventions (training, supervision, monitoring and evaluation, equipment, advocacy and communication, mass media and awareness-raising) that are not directly related to the number of people receiving care.
Input costs were obtained from market prices (taking into account inflation), information available in United Nations system supply databases and surveys.
This costing has taken into account an analysis of the determinants in terms of availability of essential inputs, human resources, accessibility, use of health services by the population, adequate coverage and effective coverage with a view to achieving the objectives set for the period 2021-2025 in the NDS30 and HSS 2020-2030.

On the one hand Budgeting takes into account the envisaged reforms in the health sector in terms of construction, rehabilitation and equipment of health infrastructure and, on the other hand, the government strategies adopted to deal with certain public health emergencies (Cameroon's COVID-19 Response Strategy economic and social resilience in the context of COVID-19) with a view to achieving the Sustainable Development Goals (SDGs) by 2030.

Also, this cost estimate is based on programmatic data and existing targets, as well as the expected coverage of the interventions selected as part of the implementation of the NHDP. The projections were made on the basis of the ordinary least squares method. The adjustment curve equation from which the values of the projection years will be determined are estimated. Depending on the trend, a linear, exponential, logarithmic, polynomial or power curve was used.[1]

9.1.2 NHDP Funding Scenarios

As part of the cost estimate for the 2021-2025 phase of the NHDP, three scenarios were proposed:

- A ***minimum scenario*** that is based on maintaining the gains in terms of coverage of interventions with a slight increase of around 5% on coverage.
- A ***medium scenario*** based on the expected coverage in the NHDP. Indeed, on the basis of existing data up to 2025, projections were made from the base year of the data to 2025 using the ordinary least squares method described above.
- A maximum ***scenario*** is based on maximum coverage projections, bringing to 100 % all expected coverage in 2025, which was 80%, and an increase of 20 points on intervention coverage between 0 and 79 %.

The cost per scenario is shown in the table below:

Table 24: Estimated 2021-2025 NHDP Budget by Scenario

SCENARIO	Cost in XAF	Cost in USD
Minimum (pessimistic)	**2,129,732,675,354**	**3 872 241 228**
Medium (tendential)	**2,764 912, 565, 105**	**5,027,113,755**
Maximum (optimistic)	**3,035,004,087,392**	**5,518,189,250**

From the analysis of the different scenarios, the minimum scenario tilt to the current economic constraints. As for the medium or trend scenario, it offers more realistic opportunities for resource mobilization. The maximum scenario is the ideal scenario requiring more resources. The latter scenario is often used when there is no resource problem in the country.

[1] The **ordinary least squares method** (**MCO**) is the technical name for the mathematical regression in Statistics, and more particularly linear regression. This is a commonly used model in Econometrics.
This involves adjusting a scatterplot $\{Y_i, X_i\}_{i=1,\dots,n}$ according to a linear relation, taking the form of the matrix relation $Y=X\beta+\varepsilon$where ε is an error term. The least squares method consists of minimizing the sum of the squares of the deviations, weighted deviations in the multidimensional case, between each point of the regression cloud and its projected, parallel to the y-axis, on the regression line.

When the matrix X breaks down into $[1, X_1]$, referred to as univariate linear regression (Linear regression). When there are several regressors in the matrix X, we are dealing with a Multiple linear regression.

The medium or trend scenario is chosen for the 2021-2025 NHDP because it is more realistic and achievable, subject to an acceptable effort to mobilize resources.

9.1.3 ANALYSIS OF THE ESTIMATED COST OF THE 2021-2025 NHDP

- **Distribution of the Budget by strategic axis and by year**

The programming is proposed according to the financing forecasts of the plan on the basis of the five (5) strategic axes. The estimated overall cost of implementing the NHDP 2021-2025 amounts to **2,764,912,565,105** FCFA or approximately **5,027,113,755 USD.**[2] The annual average is **XAF 552,982,513,021**.

***Table 25:* Annual budget by strategic axis**

Health Promotion and Nutrition	15,286,581,168	24,347,383,644	27,268,798,449	27,365,837,992	31,016,977,976	**125,285,579,229**
Prevention of the disease	58,598,877,386	84,767,144,676	129,270,519,103	129,686,901,648	149,547,777,619	**551,871,220,431**
Case Management	101,814,668,845	129,993,739,871	183,208,816,983	196,801,349,670	224,284,498,224	**836,103,073,592**
Strengthening the health system	161,257,078,381	217,225,864,136	254,820,155,654	177,646,128,094	208,892,174,321	**1,019,841,400,586**
Strategic Management and Governance	14,345,110,608	20,095,979,793	59,996,202,797	60,321,363,307	77,052,634,762	**231,811,291,267**
TOTAL	**351,302,316,388**	**476,430,112,119**	**654,564,492,986**	**591,821,580,711**	**690,794,062,901**	**2,764,912,565,105**

The figure below shows the annual evolution of the financing requirement for the 2021-2025 phase of the NHDP.

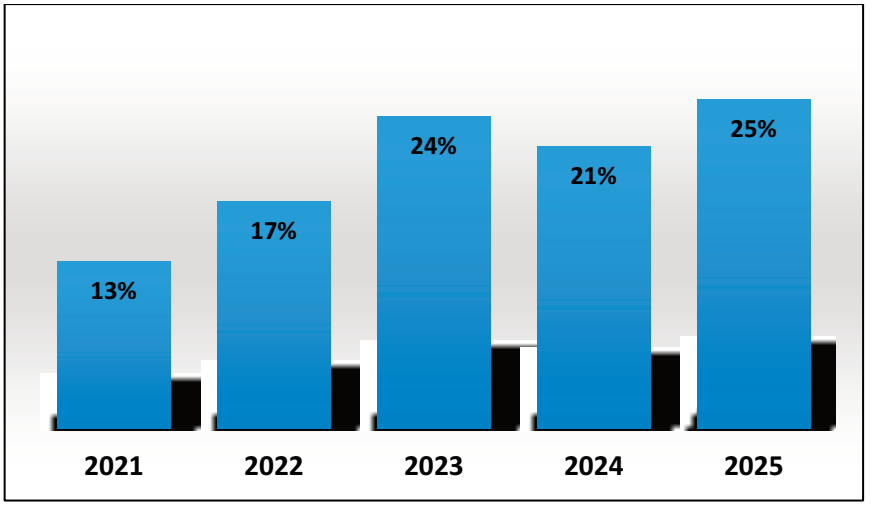


Figure 13: ***Proportion per year of the budget forecasts of the NHDP 2021-2025***

This figure shows an increasing evolution in the cost of interventions in 2021, 2022 and 2023 (respectively 13%, 17% and 24%), before slumping in 2024 (21%), then rising again in 2025 (25%).

The decrease in the budget in 2024 is explained by the end of the implementation of the National Response Plan against COVID-19 in 2023.

- **Analysis of the distribution of the Overall Cost by strategic axes**

The figure below shows the distribution of the budget by strategic axis of the NHDP.

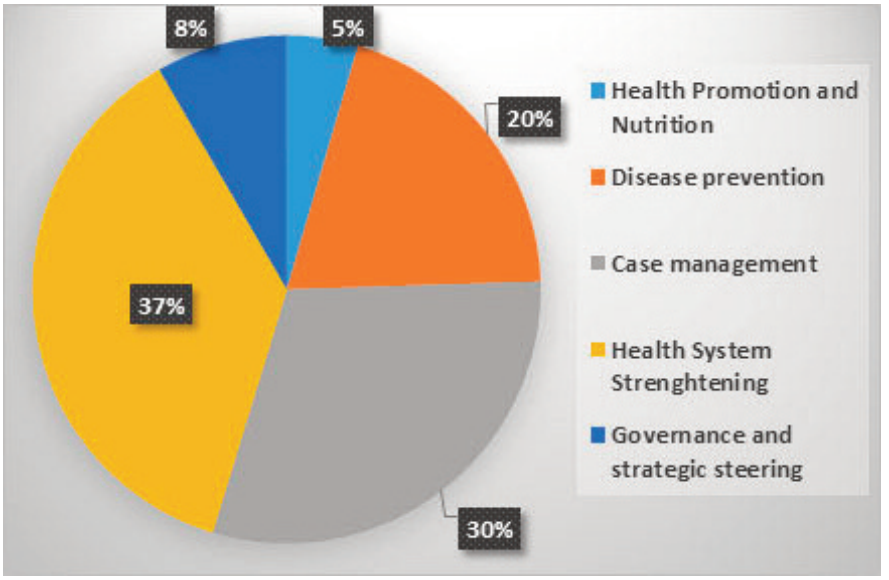


Figure 14: ***Budget Distribution by Strategic Axis***

It emerges from this figure above that the strategic axis "strengthening the health system" represents ***37%*** of the budget, which is explained by the fact that this axis includes all the major pillars of the health system: health infrastructure, medicines, human resources, health financing and the health information system. Faced with the increase in demand for health services and care and the improvement in geographical and financial accessibility to quality health care, the importance of the weight of this axis is explained.

The budgetary weight of the strategic axis "***case management***" is ***30%*** of the budget of the NHDP. This is justified by the fact that this component includes, among other things, the management of different pathologies (diagnosis and treatment): communicable and non-communicable diseases, high-impact interventions for maternal, newborn, child and adolescent health, etc.

The strategic axis "***disease prevention***" represents ***20%*** of the budget estimates, which is justified by taking into account current health concerns such as the prevention of communicable, non-communicable and vaccine-preventable diseases including COVID-19.

The strategic axes "steering and governance" and "***promotion of health*** and nutrition***"*** represent the rest of the projected budget ***(13%)*** with ***respectively 8%*** and ***5%.***

➢ **Breakdown of the overall cost by strategic sub-axis of the NHDP**

The table below shows the distribution and evolution of the shares of each sub-axis in the overall budget in absolute terms.

Table 26: Distribution of the 2021-2025 NHDP budget by strategic axes and sub-axes

STRATEGIC AXES	STRATEGIC SUB-AXES	2021	2022	2023	2024	2025	TOTAL	%
Health Promotion and Nutrition	Institutional, community and coordination capacities for health promotion	3 873 242 971	6 902 904 691	10 260 414 531	11 552 681 645	13 636 461 390	46 225 705 229	**2%**
	Living environment of the populations	4 320 302 944	4 746 556 044	5 203 899 778	5 694 108 997	6 219 047 654	26 183 915 417	**1%**
	Building health-promoting skills	5 362 591 682	10 747 003 329	9 613 531 394	7 667 240 789	8 426 597 804	41 816 964 997	**2%**
	Essential family practices and family planning, adolescent health promotion and post abortion care	1 730 443 571	1 950 919 581	2 190 952 746	2 451 806 561	2 734 871 128	11 058 993 586	**0,40%**
Prevention of the disease	Prevention of communicable diseases	12 504 415 380	14 848 690 026	54 970 600 093	57 576 916 638	73 255 656 520	213 156 278 658	**8%**
	Epidemic Prone Diseases and public health events surveillance and response to epidemic-prone diseases, zoonoses and public health events	7 389 425 791	23 475 695 296	16 418 850 478	8 916 462 532	7 774 403 469	63 974 837 564	**2%**
	RMNCAH/PMTCT	32 273 784 900	37 189 881 650	42 902 787 843	48 757 377 675	54 996 484 354	216 120 316 423	**8%**
	Prevention of non-communicable diseases	6 431 251 315	9 252 877 703	14 978 280 689	14 436 144 804	13 521 233 276	58 619 787 786	**2%**

Case Management	Curative management of communicable and non-communicable diseases	55 343 973 065	66 030 218 614	114 677 934 651	122 021 299 701	143 394 562 440	501 467 988 471	**18%**
	Maternal, neonatal, infant and adolescent conditions	22 701 383 630	27 429 857 629	32 462 198 696	37 786 602 818	43 364 314 855	163 744 357 629	**6%**
	Emergencies, disasters and humanitarian crises	2 909 198 403	14 491 705 360	12 789 481 327	12 419 501 981	11 597 297 510	54 207 184 581	**2%**
	Management of disability	20 860 113 746	22 041 958 267	23 279 202 309	24 573 945 170	25 928 323 418	116 683 542 911	**4%**
Strengthening the health system	Health financing	4 584 836 183	5 187 402 803	5 737 910 139	6 640 868 652	7 742 609 623	29 893 627 400	**1%**
	Provision of services and care	57 353 688 865	67 312 113 883	70 257 938 774	30 954 778 902	32 442 399 942	258 320 920 365	**9%**
	Drugs and other pharmaceutical products	36 814 226 718	58 443 371 039	90 250 794 057	67 076 126 665	83 924 510 843	336 509 029 324	**12%**
	Health Human Resources	46 758 638 662	65 219 919 168	65 584 346 237	55 883 914 000	59 183 078 659	292 629 896 726	**11%**
	Health Information and Health Research	15 745 687 953	21 063 057 244	22 989 166 447	17 090 439 873	25 599 575 255	102 487 926 771	**4%**
Strategic Management and Governance	Governance	14 187 444 545	19 872 097 933	59 820 493 366	60 148 820 353	76 876 708 361	230 905 564 558	**8%**
	Strategic management	157 666 062	223 881 860	175 709 431	172 542 955	175 926 401	905 726 709	**0,03%**
TOTAL BUDGET OF THE NDSP 2021-2025		**351 302 316 388**	**476 430 112 119**	**654 564 492 986**	**591 821 580 711**	**690 794 062 901**	**2 764 912 565 105**	**100%**

The table below shows the distribution and evolution of the shares of each sub-axis in the overall budget in relative terms.

Table 27: Distribution of budget weight by strategic axis and sub-axis

STRATEGIC AXES	STRATEGIC SUB-AXES	2021	2022	2023	2024	2025
Health Promotion and Nutrition	Institutional, community and coordination capacities for health promotion	25%	28%	38%	42%	44%
	Living environment of the populations	28%	19%	19%	21%	20%
	Building health-promoting skills	35%	44%	35%	28%	27%
	Essential family practices and family planning, adolescent health promotion and post abortion care	11%	8%	8%	9%	9%
Percentage *of "Health Promotion"* in the overall budget		**4%**	**5%**	**4%**	**5%**	**4%**
Prevention of the disease	Prevention of communicable diseases	21%	18%	43%	44%	49%
	Surveillance and response to EPD, zoonoses and public health events	13%	28%	13%	7%	5%
	RMNCAH/PMTCT	55%	44%	33%	38%	37%
	Prevention of non-communicable diseases	11%	11%	12%	11%	9%
Percentage *of "Disease Prevention"* in the overall budget		**17%**	**18%**	**20%**	**22%**	**22%**
Case Management	Curative management of communicable and non-communicable diseases	54%	51%	63%	62%	64%
	Maternal, neonatal, infant and adolescent conditions	22%	21%	18%	19%	19%
	Emergencies, disasters and humanitarian crises	3%	11%	7%	6%	5%
	Disability care	20%	17%	13%	12%	12%
Percentage of " *Case Management*" in the overall budget		**29%**	**27%**	**28%**	**33%**	**32%**
Strengthening the health system	Health financing	3%	2%	2%	4%	4%
	Provision of services and care	36%	31%	28%	17%	16%
	Drugs and other pharmaceutical products	23%	27%	35%	38%	40%
	Health Human Resources	29%	30%	26%	31%	28%
	Health Information and Health Research	10%	10%	9%	10%	12%
Percentage of " *Health System Strengthening*" on the overall budget		**46%**	**46%**	**39%**	**30%**	**30%**
Strategic Management and Governance	Governance	98,9%	98,9%	99,7%	99,7%	99,8%
	Strategic management	1,1%	1,1%	0,3%	0,3%	0,2%
Percentage of " *Strategic Management and Governance*" on the overall budget		**4%**	**4%**	**9%**	**10%**	**11%**

9.1.4 PROJECTED IMPACT

The OneHealth tool used baseline data and expected coverage projections to calculate the costs associated with the objectives set and to project the impact in terms of reducing maternal, newborn and child mortality. However, the trade-offs in the volume of funding for HSS interventions will have consequences for the expected results.

- **Neonatal mortality and additional lives saved**

According to the results of the Demographic and Health Survey (EDS-2018), the neonatal mortality rate was estimated at 28.02 deaths per 1000 live births (NV). Based on projected coverage and interventions to be implemented, the neonatal mortality rate will increase from 28.02 to 20.9 deaths per 1000 NV in 2025. The interventions to be implemented under the NHDP will prevent 7,188 additional deaths out of the 18,226 deaths expected, a reduction of 39.44%.

- **Under-5 mortality and additional lives saved**

In 2018, the infant and child mortality rate in Cameroon was estimated at 80 per thousand live births (DHS 2018). Based on projected coverage and interventions to be implemented, the under-5 mortality rate would increase from 80 to 51.61 deaths per 1000 NV in 2025. The interventions to be implemented under the NHDP will prevent 21,642 additional deaths out of the 50,226 deaths of children under 5 years of age expected, a reduction of 43.09%.

- **Maternal mortality and additional lives saved**

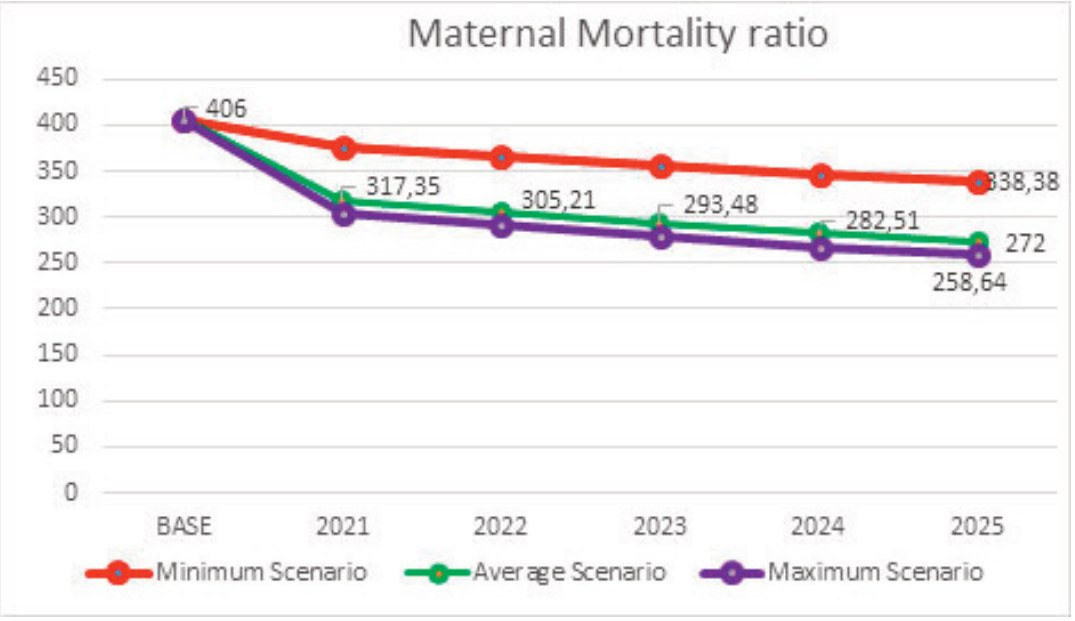
According to DHS 2018, the maternal mortality ratio was estimated at 406 deaths per 100,000 live births. Based on projected coverage and interventions to be implemented, the maternal mortality ratio would increase from 406 to 272 deaths per 100,000 live births in 2025. The interventions to be implemented under the NHDP will prevent 2,821 additional deaths out of the 13,086 deaths of women expected, a reduction of 49.25%.

***Table 28:* Number of lives saved (medium scenario)**

Additional lives saved from	2 021	2 022	2 023	2 024	2 025
Newborns	3 400	4 411	5 383	6 315	7 188
Children under 5 years old	7 165	9 405	11 363	12 963	14 455
Mothers	795	907	1 016	1 118	1 216

***Table 29:* Summary of mortality rates (medium scenario)**

Summary of mortality rates	Base	2021	2022	2023	2024	2025
Maternal mortality ratio (deaths per 100,000 live births)	**406**	317,4	305,2	293,5	282,5	272
Neonatal mortality rate (deaths per 1,000 births)	**28,02**	24,23	23,12	22,05	21,04	20,09
Infant mortality rate	**47,5**	40,46	38,5	36,69	35,05	33,49
Infant mortality rate (deaths per 1,000 births)	**80**	67,77	64,17	60,95	58,2	55,61



➢ **Estimating productivity gains from under-5 survival**

There is a relationship between child health and economic development. Indeed, a well-cared for (healthy) child will be better educated, and more productive in the future. On the other hand, poor health in childhood leads to a loss of productivity of parents at the time of illness, and in the long term leads to disorders in adulthood. In poor families, this contributes greatly to maintaining the vicious cycle of poverty in future generations. The implementation of the NHDP will reduce the under-5 mortality rate by 30.2% from 80 per 1000 to 55.61 per 1000.

Econometric analyses estimate that a 5% reduction in the child mortality rate leads to a 1% increase in productivity over [3] the average product (GDP). Cameroon's GDP is estimated in 2020 at 23,486.5 billion FCFA. The implementation of high-impact interventions on reducing under-5 mortality will enable the country to generate a productivity gain of about 1,432 billion FCFA during the 05 years of reduction in infant and child mortality.

9.2 ANALYSIS OF FUNDING GAPS

A budget review over the last five financial years shows that the State has allocated to the Ministry of Public Health an average of 200.239 billion FCFA as a budget to finance health spending over the said period. This average would be even higher if all the resources budgeted for health expenditure of other administrations and structures under trusteeship could be captured. However, the allocated budget for the MOH is as follows:.

Exercise	Budgetary resources allocated to MOH
2018	175 239 590 200
2019	207 943 062 000
2020	213 651 000 000
2021	197 121 500 000

[3] Wealthier is Healthier (Pritchett-Summers 1996)

2022	207 240 000 000

On the other hand, the average funding requirement per year for the NHDP is 552.985 billion per year if we refer to the table below summary by year of the resources expected to finance health spending from 2021 to 2025.

Exercise	Financing requirement
2021	**351 302 318 409**
2022	**476 430 114 141**
2023	**654 564 495 009**
2024	**591 821 582 735**
2025	**690 794 064 926**

More specifically, the funding gap is increasing from 2021 to 2025, compared to the average annual budget per fiscal year allocated to MOH, and is as follows:

Exercise	Financing requirement	Average budget MOH	Funding gap
2021	**351 302 318 409**	200 239 030 440	**- 151 063 287 969**
2022	**476 430 114 141**	200 239 030 440	**- 276 191 083 701**
2023	**654 564 495 009**	200 239 030 440	**- 454 325 464 569**
2024	**591 821 582 735**	200 239 030 440	**- 391 582 552 295**
2025	**690 794 064 926**	200 239 030 440	**- 490 555 034 486**

It is clear that the budgetary projection of Chapter 4 alone cannot make it possible to fill the funding gaps of the NHDP.

As a reminder, the history of budgeting shows us that for the last 5 financial years, the share of resources allocated to MOH is decreasing from year to year and is on average less than 5% compared to the overall budget of the State as follows.

Exercise	State budget	Budget du MOH	Share of the MOH budget in the overall State budget
2 018	4 513 500	173 239	3,84%
2 019	4 805 500	207 943	4,33%
2 020	4 951 700	213 651	4,31%
2 021	4 865 200	197 121	4,05%
2 022	5 752 400	207 240	3,60%

To remain in line with the commitments made in Abuja (15% of the national budget must be allocated to health financing), by increasing this budgetary proportion, the State would contribute significantly to closing the gaps thus identifying and reducing the direct contribution of households to health expenditure.

9.3 FINANCIAL SERVICING STRATEGY

The financing of the various interventions selected in the NHDP will be mobilized in a concerted manner with the State, its development partners, NGOs and the private sector. The development of a mid-term expenditure framework for the health sector, to which the

NATIONAL COMPACT will be based, will allow for greater mobilization of financial resources from national and international partners.

The updated health financing strategy will detail aspects related to revenue collection, pooling of resources and procurement of interventions. This process is backed by the ongoing multisectoral reflection on a Universal Health Coverage system. Ultimately, this strategy will ensure the financial sustainability of the health sector while reducing the direct participation of households and development partners in line with the guidelines of the NDS30.

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[152] Cf. Article 2 and 3 of Decree No. 2021/1541/PM of 23 March 2021 on the establishment, organization and functioning of the National Monitoring and Evaluation Committee for the implementation of the NSD30
[153] An approach that advocates the federation of the efforts of health sector actors for greater efficiency through a plan, a budget and a single monitoring and evaluation framework
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