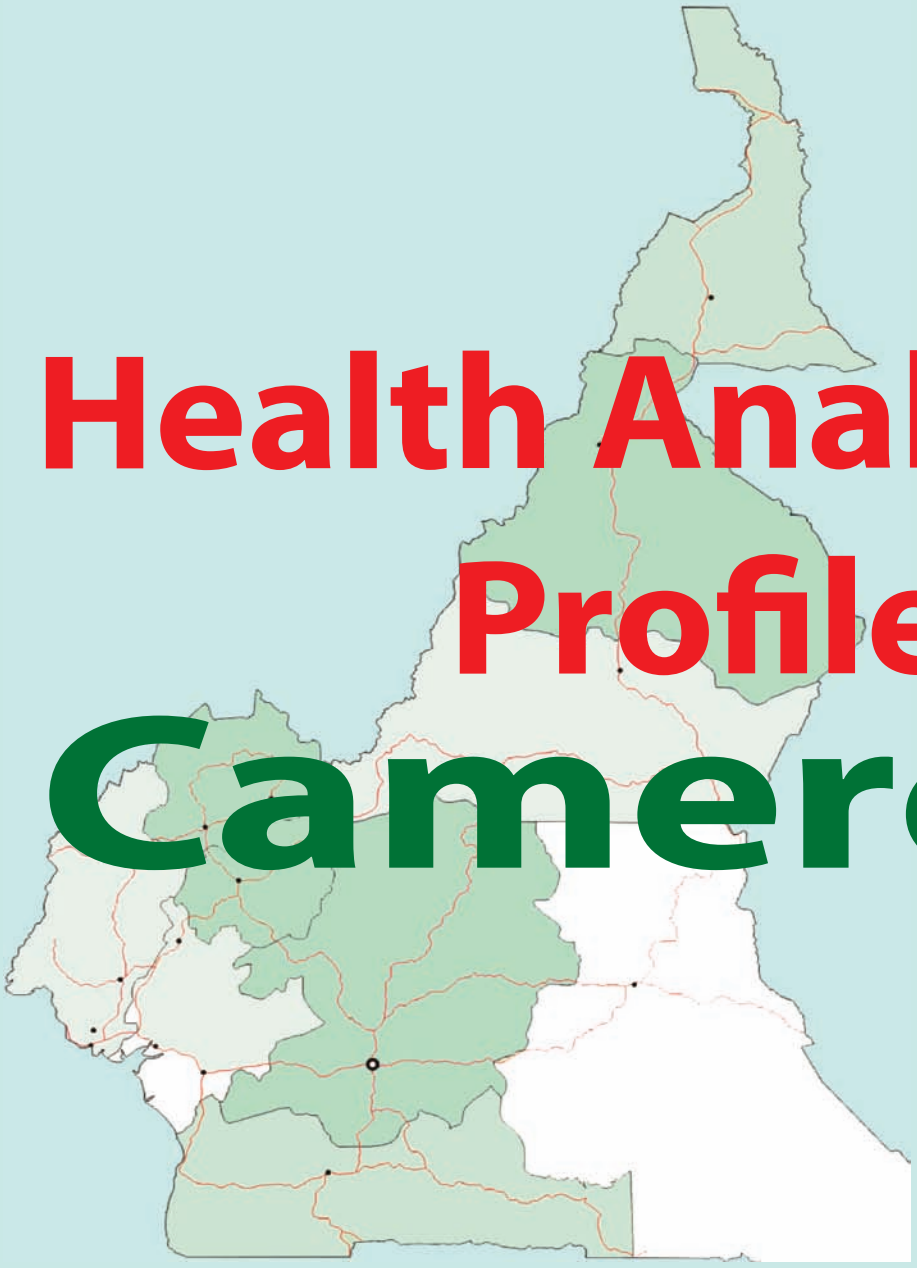
Ministry of the Public Health

OBSERVATOIRE NATIONAL DE LA SANTE PUBLIQUE

Health Analytical Profile

Cameroon



2016

World Health Organization

African Health Observatory

Better information, better action on health

Ministry of the Public Health

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Foreword by the Minister of Public Health

Our goal to protect and improve on the health of our people must be based on a set of specific and relevant information that allow us to measure the progress, to appreciate the work to do and adjust our strategies.

Knowledge is an indispensable guide to action. If we want to be efficient, all our decisions relating to health and well-being should be based on current information, which reflect the current situation, with its nuances and its specificities.

Given that we are in a transition period between the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SGDs), the Cameroon Analytical Health Profile 2016, which I am pleased to publish has a twofold interest. First of all, it enables us to see the major achievements of the MDGs and also serves as Baseline for measuring progress in the SDGs.

As the portrait of the health of Cameroon's population, the Analytical Health Profile of Cameroon shows a large number of indicators affecting both health issues and their determining factors.

Through approximately thirty topics, the Profile proposes a description of the different health problems in the population of Cameroon as well as analyses and hightly relevant statistics. These analyses emerge from the main priorities which must serve as benchmarks on which we must base our judgements to carry out our individual and collective actions in order to improve on the health and well-being of the population of Cameroon.

The Minister of Public Health

André MAMA FOUDA

Word from the WHO Representative

The transition from MDGs to SDGs, the recent deadly epidemics such as Ebola, as well as terrorist attacks and disasters, force us to build functional, resilient and highly responsive health systems to promote sustainable development, anticipate and minimize risks and make a much better contribution to the protection of the populations. Effective results require the collection of effective information to produce the knowledge needed to make decisions. Better still, the need is expressed more acutely in a follow-up tale of interventions related to the Sustainable Development Goals (SDGs), including the universal health coverage.

Improving health information systems and increasing the scope of reliable and accurate data are key factors in implementing the "transformation agenda of the World Health Organization secretariat in the African region". To this end, Cameroon Analytical Health Profile 2016 is a major tool for monitoring the country's health situation, which should serve as a reference for monitoring the progress of goals agreed internationally.

The health profile is the fruit of a harmonious work done between WHO and the National Public Health Observatory (NHO) with the contributions and active collaboration of most of the Departments and programmes of the Ministry of Public Health. I would like to thank all those who have contributed to it through their work. I hope that everyone will find a useful reference source in health in Cameroon.

WHO Representative

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The development of the Health Analytical Profile 2016 would have not been achieved without the impetus and the decisive involvement of the highest authorities of the Ministry of Public Health, notably Mr André MAMA FOUDA, the Minister of Public Health, his close collaborators, who have worked, among other things, in favour of a fruitful dialogue with the technical and financial partners mobilized for this project. We would like to express our profound gratitude to them.

It is also an occasion to express our gratitude to the entire team of the WHO, the National Health Observatory (NHO) of the Ministry of Public Health whose availability and efficiency have contributed to producing this document.
We also thank heads of the various departments and structures of the Ministry of Public Health, that, in various way, have significantly contributed to this activity, which involves sharing and disseminating health information for an evidence-based decision-making.

We finally express our gratitude to WHO-AFRO, to the Resident Representative of WHO in Cameroon and to his collaborators, whose valuable assistance has helped to realize the efforts made by the Ministry of Public Health and other stakeholders. We would like to particularly emphasized, as a sign of recognition, the very active contribution of Dr Serge BATALIACK, the National Advisor Strategic Information System and Health Observatory, WHO-Cameroon, as well as the contribution of Dr David YONDO as WHO consultant to support the development of this health profile.

Executive summary

Cameroon Health Profile combines the most recent validated data and information on populations health. The document includes an introduction, the methodological note and the following six chapters:

(i) Introduction to the context ;

(ii) Health status and emerging trends ;

(iii) Overall progress in achieving Millennium Development Goals and the transition to Sustainable Development Goals;

(iv) The health system, specifically the results of the system, governance, the health information system, as well as evidence and knowledge, research , health financing, provision of services, health human resources, medical products including vaccines, equipment and universal health coverage ;

(v) Specific health programs, as well as noncommunicable diseases and neglected tropical diseases ; and finally

(vi) Determinants, including health risk factors, physical environment, food security and nutrition, and social aspects.

The main steps below were followed:

(i) Working sessions between the AHO-rSIS focal point, the NHO Coordinator and the research team set up by the Consultant recruited by WHO;

(ii) Identification of domestic data sources in the following order: surveys, publications produced from surveys and administrative data with a minimized risk of conflict of interest, and finally those that have a possible conflict of interest;

(iii) Identification of international data sources: global and specialized international and / or UN system databases including those of WHO, UNICEF, UNFPA, the World Bank, etc.;

(iv) Development of the structure of the Health Analytical Profile 2016, based on the profile model proposed by the WHO Regional Office;

(v) Development of data collection matrices on Excel spreadsheet, for the production of charts and tables;

(vi) Extraction of data from the sources mentioned above;

(vii) Production of the preliminary report;

(ix) Review and finalization of the document at a participatory workshop;

(x) Production of the final document for validation by the Scientific Council and adoption by the Steering Committee of the NHO;

(xi) Dissemination of the final report by the NHO.

Cameroon has 10 regions, 360 districts, 360 municipalities and 14 urban communities and an estimated global population of 22,179,707 in 2015. Life expectancy at birth has increased from 51 years in 2000 to 57.3 years in 2015. The country faces the double burden of communicable and noncommunicable diseases.

Executive summary

Progress have been made on some of the Millennium Development Goals indicators, but only the trend in HIV prevalence has been reversed.The number of new HIV infections increased from 47,958 in 2008 to 44,477 new cases in 2015 (CNLS, 2016). The HIV / AIDS prevalence rate among adults aged 15-49 has declined sharply since 2004, from 5.5% to 4.3% in 2011. The number of people under ARVs treatment increased from 17,156 in 2005 to 168,249 in 2015. However, the active list remains low compared to ARV needs estimated at about 650,000 people in 2016.

Infant and child mortality increased from 144 deaths (1990-2004) to 103 deaths (2011-2014) per 1,000 live births for a target of 76 deaths per 1,000 live births by 2015. The maternal mortality ratio has increased from 430 deaths to 782 deaths per 100,000 live births between 1990 and 2011.

The proportion of children under five years of age, sleeping under an LLIN has reached 54.8% in 2014. The free care of simple and severe malaria in children under five years of age has been introduced since 2011 and 2014 respectively. Hospital malaria morbidity increased from 40.6% in 2008 to 30.1% in 2014. The number of new positive microscopic pulmonary tuberculosis cases rose from 11,655 cases in 2004 to 16,008 cases in 2015 with cure rates of about 85%. The main bottlenecks in the health system are: (i) the lack of an Integrated Monitoring and Evaluation Plan, (ii) the inadequacy of the expected results with available resources, and (iii) the deficit in accountability mechanisms .There is a partnership strategy (Order No. 1433 / A / MSP / DCOOP / CPAT of 16 August 2007) which organizes the national and international partnership. However, community participation is poor.

The health information system is characterized by a multitude of non-integrated subsystems and non-harmonized data collection tools. The DHIS 2 and the Cameroon Health Data Collaborative are being implemented. An average of 21 research authorizations are issued each year and few reports of this research are transmitted to MINSANTE by the researchers. As far as health financing is concerned, in 2012, 70.42% (474.5 billion CFA francs) of health expenditure came from households, 14.54% from the State, 7.7% from companies and 7.11% from TFPs.

Health facilities are organized into seven categories: (i) general hospitals, (ii) central hospitals, (iii) regional hospitals, (iv) district hospitals, (v) district medical centers,(vi) Integrated health centers and (vii) ambulatory health centers. In 2011, the ratio of health personnel (physician, midwife, nurse, pharmacist) / population was 1.07 per 1000 population.The PHC Reorientation policy was adopted in 1993 and the health system was organized into districts in 1995. In 2001, the country developed its first Health Sector Strategy 2001-2010, which was updated to cover the period 2001-2015. A new strategy 2016-2027 and theNational Health Development Plan 2016-2020 were developed in 2016.
Non-communicable diseases (NCDs) are on the rise and accounted for 31% of all deaths in 2014.

In Cameroon Health Analytical Profile 2016, three trends emerge from health indicators:

(i) Improvement of indicators: these are mainly interventions related to vertical programs such as malaria, HIV / AIDS, tuberculosis and immunization;

(ii) Stagnation: life expectancy, public funding and development of health districts are found here;

(iii) Regression: mostly maternal mortality, family planning, and disease coverage.

Executive summary

In general, the health system performance is poor and inadequate with available resources. There are many opportunities for a more significant improvement in of the populations' health. Efforts should be made to implement the new 2016-2027 Health Sector Strategy and its first 2016-2020 Health Development Plan.

For this reason, we suggest that:

(i) Development of the stewardship (strategic management) at all levels of the system so that each actor follows the logic of learning and continuous improvement of performance;

(ii) Update and dissemination of regulatory texts and putting in place mechanisms and strategies for their effective implementation;

(iii) Strengthening of action and operational research in order to identify bottlenecks and operational challenges for the implementation of specific health interventions;

(iv) Development of routine National Health Information System to ensure effective follow-up of health interventions and evidence-based decision-making;

Acronyms and abbreviations

Acronyms and Abbreviations	Signification
AAR	Administrative Research Autorisation
AFD	French Development Agency
AHO-rSIS	African Health Observatory – real time Strategic information system
IYCF	Infant and Young Child Feeding
ANRS	National AIDS and Hepatitis Research Agency
ANTIC	National Agency of information technology and communication
ART	Telecommunications Regulatory Board of Cameroon
ARV	Anti-retro-viral drugs
AVS	Additional Vaccination Activities
BCG	Bacillus Calmette-Guérin
WB	World Bank
BUCREP	Central Bureau of the Census and Population Studies
BUNEC	The National Registration Bureau
C2D	Debit Reduction-Development Contract
CAB/MINSANTE	Office of the Minister of Public Health
CAMNAFAW	Cameroon National Association for Family Welfare
CAP	Knowledge Practical Skills
CAPP	Main Procurement Centers
CAPR	Regional Pharmaceutical Supply Centers
CARMMA	Accelerated Campaign for Reducing Maternal Mortality
CCIA	Inter-Agency Coordination Committee
CDBPS	Centre for the Development of Best Pratices in Health
CDC	Centers for Disease Control and Prevention
CDMT	Medium-Term Expenditure Framework
CDNSS	Documentation Centre of Digital Health Sector
ECCAS	Economic Community of Central African States
CEPCA	Council of Protestant Churches of Cameroon
CERPLE	Regional Centers for Epidemics Prevention and Control
CHRACERH	Endoscopic Surgery and Human Reproduction Research and Application Centre
CIM	International Classification of Diseases
CIRCS	Chantal BIYA International Reference Centre for Research on HIV/AIDS Prevention and Management

Acronyms and Abbreviations	Signification
CIS	Health Information Unit
CMA	District Medical Centre
CNCC	National Committee for the Fight Against Cancer
CNERSH	National Ethics for Human Health Research
NACC	National AIDS Control Committee
NHA	National Health Account
CNTI	InternalTherapeutic Nutritional Centers
COSA	Health Area Commitee
COSADI	Health District Commitee
CPC	Centre Pasteur of Cameroon
CPI	International Partnership Cell
ANC	Antenatal Care
CPNAT	National Partnership Cell
CSAR	Risky Sexual Behaviour
CSI	Integrated Health Centers
CTA	Approved treatment Centers
DTU	Decentralized Territorial Units
CURY	Centre des Urgences de Yaoundé
CUSS	University Center for Health Sciences
UCCC	Union of Cities and Councils of Cameroon
DCOOP	Division of Cooperation
DRP	Division of Research and Projects
DLMEP	Directorate for the Fight against Disease, Epidemics and Pandemics
DOSTS	Directorate of the Organization of Health Care and Technology
DOT	Treatment Directly Observed
DPML	Directorate of Pharmacy, Medicine and laboratories
DPNP	National population policy declaration
DPS	Directorate of health promotion
DRFP	Directorate of Financial ressources and assets
DRH	Directorate of Human ressources
DROS	Division of Operational Research
DRSP	Regional Delegation for Public Health
DS	Health District
GESP	Growth and Employment Strategy Paper
DSF	Directorate for Family Health

Acronyms and abbreviations

Acronyms and Abbreviations	Signification
ECAM	National Household Survey in Cameroon
DHS	Demographic and Health Survey
FALC	The AD LUCEM Fondation in Cameroon
FAO	Food and Agriculture Organization of the United Nations
CFAF	Franc of the French Colonies of Africa
FEICOM	Funds of Equipment and Inter municipal Intervention
FMSB	Faculty of Medicine and Biomedical Sciences
FOSA	Health Facility
FS	Health Facility
FSPS	Special Fund for Health Promotion
FUAR	University Fund for Research Support
GAVI	Global Alliance for Vaccines and Immunisation
GIC	Common Initiative Group
GIP	Public Interest Groups
GIZ	Gesellschaft für Internationale Zusammenarbeit
GNDT	National Guide for Diagnosis and Treatment
GRESAC	Research Group on Human Resources for Health
GTC	Central Technical Groups
GTN	Nutrition Working Group
GTR	Regional Technical Groups
GWP	Global Water Partnership
HCY	Central Hospital of Yaoundé
DH	District Hospital
HG	General Hospital
HGOPD	Gyneco-obstetric and Paediatric Hospital of Douala
HKI	Helen Keller International
HR	Regional Hospital
IFORD	Institute for Demographic Training and Research
IHP+	International Health Partnership
IMPACT	International Medical Product Anticounterfeit Taskforce
IMPM	Institute of Medical Research and Medicinal Plant

Acronyms and Abbreviations	Signification
NIS	National Institute of Statistics
IRAD	Institute of Agricultural Research for Development
IRD	Institute for Research and Dvelopment
IRESCO	Institute for Research, Socio-economic Development and Communication.
RRI	Rapid Results Initiative
GHRI	Global Health Research Initiative
ISSEA	Sub-Regional Institute of Statistics and Applied Economics
STI	Sexually Transmitted Infection
JICA	Japan International Cooperation Agency
NIDs	National Immunization Days
KfW	Kreditanstalt für Wiederaufbau
KOICA	Korea International Cooperation Agency
LANACOME	National Laboratory for Quality Control of Medicine and Expertise
LMD	Bachelor-Master-Doctorat
LME	National Essential Drugs List
GAM	Global Acute Malnutrition
LAM	Lactational Amenorrhea Method (Contraceptive)
MARP	Accelerated Method for Participatory Reasearch
MBB	Marginal Budgeting for Bottleneck
CNCD	Chronic Non-Communicable Disease
MICS	Multiple Indicator Cluster Survey
MINADER	Ministry of Agriculture and Local developement
MINAS	Ministry of Social Affairs
MINATD	Ministry of Territorial Administration and Decentralization
MINCOMMERCE	Ministry of Commerce
MINDEF	Ministry of Defence
MINEDUB	Ministry of Basic Education
MINEE	Ministry of Water and Energy
MINEFOP	Ministry of Employment and Vocational Training
MINEP	Ministry of the Environment, Nature Conservation and Sustainable Development
MINEPAT	Ministry of the Economy, Planning and Regional Development

Acronyms and abbreviations

Acronyms and Abbreviations	Signification
MINEPIA	Ministry of Livestock, Fisheries and Animal Industries
MINESEC	Ministry of Secondary Education
MINFI	Ministry of Finance
MINFOPRA	Minister of the Public Service and Administrative Reform
MINRESI	Ministry of Scientific Research and Innovation
MINSANTE	Ministry of Public Health
MMCNT	Drugs for Chronic Non Communicable Diseases
NCD	Non Communicable Diseases
STD	Sexually Transmitted Disease
NTDs	Neglected Tropical Diseases
NHIS	National Health Information System
OCAS	Cantonal Social Security Office
OCASC	Catholic Health Service of Cameroon
OCDE	Organisation for Economic Co-operation and Development
OCEAC	Coordination and Organization for the Fight against Great Endemics in Central Africa
OCSC	Catholic Health Service of Cameroon
SDGs	Sustainable Development Goals
OVC	Orphan and Vulnarable Children
MDGs	Millenium Development Goals
NGO	Non-Gouvernemental Organization
NHO	National Health Observatory
WFP	World Food Programme
PANGIRE	National Fund for Integrated Water Resource Management.
PAP	Priority Action Plan
PAQUEB	Project for Improving the quality of Basic Education.
PAWD	Partnership for Africas Water Development
IMCI	Integrated Management of Childhood Illnesses
PCR	Polymerase Chain Reaction
PCV	Cervico-Vaginal Swab
PNDI	Plan national de Développement Institutionnel
PDRH	Human Resources Development Plan

Acronyms and Abbreviations	Signification
PEPFAR	President's Emergency Plan for AIDS Relief
PETS	Public Expenditure Tracking Survey
EPI	Expanded Program on Immunization
GDP	Gross Domestic Product
PME	Mother and Child Pavilions
PMSC	Social Marketing Program in Cameroon
PNB	Gross National Product
PNDP	National Program for Participatory Development
PNDS	National Health Development Plan
PNG	Programme National de Gouvernance
PNLC	National Blindness Prevention Program
PNLO	National Onchocerciasis Control Programme
PNLP	National Malaria Control Program
PNLSHI	National Program for the Control of Schistosomiasis and Intestinal Helminthiasis
PNLT	National Tuberculosis Control Programme
NDTP	National Blood Transfusion Programme
UNDP	United Nations Development Program
PPA	Performance Plan for Administrations
PPAC	Comprehensive Multi-year Plan
PPSAC	AIDS Prevention Project in Central Africa
HIPC	Heavily indebted poor countries
PRECC	Program for the Rehabilitation of Cameroonian Civil Status
PTA	Annual Work Plan
PTAC	Consolidated Annual Work Plan
PTME	Prevention of Mother-to-Child Transmission of HIV
PLHIV	People Living with HIV
CAR	Centralafrican Republic
DRC	Democratic Republic of Congo
REOSSP	Reorientation of Primary Health Care
RGE	General Business Census
GPHC	General Population and Housing Census
HR	Human Resources
HHR	Health Human Resources
GNI	Gross National Income

Acronyms and abbreviations

Acronyms and Abbreviations	Signification
IHR	International Health Regulations
MHN	Migrant Health Network
SAILD	Support Service for Local Development Initiatives
SASNIM	Action Weeks for Infant and Maternal Health and Nutrition
SAU	Reception and Emergency Service
AVW	African Vaccination Week
SFPS	Family Health and AIDS Prevention
SG	General Secretary
AIDS	Acquired Immunodeficiency Syndrome
EIS	Energy information systems
IDSR	Integrated Disease Surveillance and Response
HIS	Health Information System
SLIPTA	Stepwise Laboratory Improvement Process Towards Accreditation
WSSD	World Summit on Sustainable Development
WIW	World Immunization Week
SNIS	National Health Information System
SODECOTON	Society for the development of cotton in Cameroon
SRAS	Severe acute respiratory syndrome
PHC	Primary Health Care
PHS	Public Health Service
SSS	Health Sector Strategy
SUN	Salin Up Nutrition
SURVAC	Epidemiologic Surveillance in Central Africa
SWAp	Sector Wide Approach
SYNAME	National Essential Medicines Procurement System
TB	Tuberculosis
THA	African Human Trypanosomiasis
ICT	Information and Communication Technology
TIDC	Treatment with Ivermectin under Community Directives
IPT	Intermittent Preventive Treatment
TPM+	Pulmonary Tuberculosis with Positive Microscopy
AU	African Union
EU	European Union

Acronyms and Abbreviations	Signification
UNDAF	United Nations Development Action Framework
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UPEC	Care Unit
UYI	The University of Yaoundé I
VAR	Anti-Measles Vaccine
HBV	Hepatitis B Vaccine
HCV	Hepatitis C Vaccin
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
IPV	Inactivated Polio Vaccine
OPV	Oral Polio Vaccine
WASH	Water Sanitation Hygiene
WHO	World Health Organization

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The realization of the Cameroon Health Analytical Profile 2016 made it possible to collect all the data and information relating to the population's health in a single document and to set up evidence that are useful for decision-making.

In the midst of the transition from the Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs), the National Public Health Observatory (NHO), with the support of WHO, produced the Country health profile. This evidence-based profile describes in detail and analytically the health situation of Cameroon as it stands for 2016 and the years before and proposes analytical summaries.

This production is a basis for sharing evidence and knowledge. It is (i) a warning mechanism, (ii) a compendium of information for decision-making and development of health public policies in Cameroon, (iii) a tool for the monitoring and evaluation of ongoing reforms.

This profile has six (6) chapters according to the taxonomy of the African Health Observatory. These chapters are:

(i) Introduction to the context ;

(ii) Health status and emerging trends ;

(iii) Overall progress in achieving the Millennium Development Goals and the transition to Sustainable Development Goals;

(iv) The health system, specifically, system performance, governance, health information system, as well as evidence and knowledge, research , health financing, provision of services, health human resources, medical products including vaccines, equipment and universal health coverage ;

(v) Specific health programs, as well as non-communicable diseases and neglected tropical diseases ; and finally,

(vi) Determinants, specifically risk factors for health, physical environment, food security and nutrition, and social aspects.

These six chapters are preceded by a methodology that describes the sources and of data extraction technics as well as the limits of the document.

Preamble

To develop the 2016 Analytical Health Profile of Cameroon, the NHO mobilized some officials of the Ministry of Public Health (MOH) and a consultant recruited by WHO.

Moreover, the NHO received technical and financial support from WHO through the National Advisor on Strategic Information System and Health Observatory (AHO-rSIS).

The development of the 2016 Health Profile was facilitated in Cameroon by the exploitation of the following documents (i) the evaluation report of the Sectoral Health Strategy 2001-2015, (ii) the Sectoral Health Strategy 2016 -2027, (iii) The MDG 2015 Report, (iv) the MICS 2014 Report, (v) the annual reports of the Programs and Specialized Directorates and their detachments, and (vi) the results of the Demographic and Health Survey (DHS). Moreover, the 2016 Health Statistics Atlas of the African Region produced by the African Health Observatory allowed to compare some indicators with those of neighbouring countries and of the various Regions.

Procedures :

The following methods were used.:

1. Working sessions between the AHO-rSIS focal point, the NHO Coordinator and the research team set up by the Consultant: Contact, briefing and discussion on the terms of reference and on the expected output. The discussion consisted of a continuous interaction between the various stakeholders.
2. Identification of data sources: In terms of objectives and expected results, domestic sources and international sources were exploited:

    - **The main selected domestic sources in order are:**

        - Any official document produced by the Government and / or the Ministry of Public Health of Cameroon;
        - Documents produced under the supervision of MOH or other state structures;
        - Documents produced by the National Institute of Statistics (INS), the Central Bureau of Population Census and Surveys (BUCREP);
        - Any research report produced by institutes, centres or local research organizations, such as the Centre Pasteur du Cameroun, the Centre for the Development of Good Practices in Health (CDBPS-H), the Biotechnology Centre of the University of Yaounde, The Institute of Medical Research and Medicinal Plant (IMPM) ;
        - The results of the research produced by the institutions of the United Nations system represented in Cameroon.

With regard to domestic data, and taking into account the deficiencies of the National Health Information System(NHIS), databases were taken into account in the following order:

- Surveys[1] : NIS, BUCREP, local research institutes / bodies;
- Publications produced from surveys and administrative data financed by an external third party to MOH, with a risk of a minimized conflict of interest;
- Publications produced from surveys and / or administrative data financed by the MOH or its residents, with the risk of a conflict of interest;

o International sources are : global and specialized international databases and / or the United Nations system, in particular those of WHO, UNICEF, UNFPA, the World Bank, etc.

Domestic databases established on the basis of survey data or published field data were preferred because they are more reliable than international data sources which are generally based on statistical estimates.

3. Development of the structure of the 2016 Health Analytical Profile document, based on the Profile model proposed by the AHO;
4. Preparation of data collection matrices on Excel spreadsheet, for the production of charts and tables ;
5. Extraction of data from the aforementioned sources: the most recent validated data were used;
6. research / cross-checking of additional information with (i) programs of the MOH or any other actor, (ii) program managers at the level of the WHO Office and other technical and financial partners (TFP) and other stakeholders;
7. production of the preliminary report;
8. Review and finalization of the document;
9. Production of the final document for validation by the scientific Council and adoption by the Steering Committee of the NHO;
10. Dissemination of the final report on the 2016 Health Profile of Cameroon by the NHO.

Limits of the Research

1. The lack of recent information for some indicators at the domestic source level;
2. The poor capacity of the health information system to produce reliable routine data;
3. The limited resources of NHO (informational, infrastructural, material and human);
4. The low dissemination of the results of certain studies.

[1] The precedence given to the documents produced by NIS and BUCREP derives from the mandate of these institutions, that are respectively responsible for carrying out all the Government national surveys and general population and housing census


WHO

CHAPTER 1

INTRODUCTION TO THE COUNTRY CONTEXT

1.1. Country context

Cameroon is a country of Central Africa; his territory covers nearly 475,650 km^2. The country has nearly 590 km of coastline along the Atlantic seaboard and 4591 km of land borders including Nigeria in the West (1690 km), Chad in the North East (1094 km), the Central African Republic In the east (797 km), and Congo (523 km), Gabon and Equatorial Guinea (189 km) in the south.

The country has a contrasted relief made of plateaus of unevenly distributed uplands and surrounded by narrow plains. Her relief is marked by two hydrographic areas on both sides of the Adamawa plateau: the Niger-Chad basin in the north and the Atlantic basins and the Congo in the south. The country has 03 climatic zones (Equatorial, Sudanese and Sudano-Sahelian).

Cameroon has 10 regions, 360 districts, 360 municipalities and 14 major city councils that make an estimated global population of 22,179,707 inhabitants in 2015 (BUCREP, 2010).

On the economic front, the target that set the average growth rate around 5.5% for the first five years of the implementation of the Growth and Employment Strategy Paper (GESP) was not achieved. To achieve this, the government has elaborated a three-year emergency plan 2015-2017, which should help to remove the bottlenecks in the achievement of GESP objectives within a short timeframe.

Cameroon's macroeconomic situation has experienced numerous fluctuations with a trade deficit and a steady rise in food prices.

Despite the misfortunes of the financial and food crisis that the country experienced between 2005 and 2009, the economy managed to leave timidly thanks to the emergency measures initiated by the government. These measures include, among others: raising the salaries of civil servants, a price control on staple products, a tax reduction on imports of some consumer products (rice, frozen fish, sugar, etc.). Some of these measures had a perverse effect on the trade balance, Which led the Government to put in place strategies to strengthen the competitiveness of Cameroon companies both at the national and international levels (NIS, 2015).

The health information system is not good enough. The estimation of health indicators is highly dependent on surveys carried out with coded but uncertain frequencies.

With regard to health financing, the government's contribution remains low (an average of 5% of the state budget allocated to health) in view of the international commitments made. In fact, health expenditure is mainly based on households (70.3% or about 474.5 billion CFA F) with a contribution of the TFPs (7.11%).

1.2. Cameroon Map

1.3. Some data and indicators concerning cameroon

Table 1. General data	
Area	475,650 Km²
Official languages	English
	French
Religions	Christian
	Muslim
	Animist
Currency:	CFA F (XAF)

Source: NIS, MDG report 2014

Table 2. Political and administrative data	
Political regime	Presidential
Administration	Decentralized Territorial units
Regions	10
Departments	58
Districts	360
Urban councils	14
Counties	360

Source: NIS, MDG report 2014

Table 3. Socio-demographic indicators	
Estimated total population in 2015	22,179,707
0 -14 years old	43%
14 – 64 years old	53.5%
65 and over	3.5%
Population of 0 to 24 years old	62.4%
Population of 25 years old and over	37.6%
Average population growth rate	2.60%
birth-rate	22.50%
Density of the population per squared km	46 inhabt /Km²
Distribution of the population (urban/rural)	About 50% in urban area
Poverty rate	37.5
Unemployment rate(including discouraged)	5.7% (june 2010)
Underemployment rate	70%
Life expectancy at birth	54 years old

Sources: MICS 2014; BUCREP, 2010

Table 4. macroeconomic indicators	
GDP per capita (CFA F)	696,000
Human Development Index/Rank(2014)	0.512 /153
GDP growth	5.6%
Investment expenditures (capital expenditures) in Billion CFA F	1053.3
Total budget resources in Billions CFA F	2655.3
% of the budget allocated to health (2012)	5.4 %
Health expenditures Billion CFA F	674.9
Health exependiture per capita (Million CFA F)	32,703
Public Health expenditures Billion (%) 2012	98.1 (14.54%)
Household Health expenditures in Billions (%) 2012	474.5 (70.3%)

Sources: MOH, National Health Account 2012

Table 5A. Health indicators	
Number of health districts	189
Number of regional health delegations	10
Access to improved water source (household)	72.90%
05 major causes of deaths	14.24%
· HIV/AIDS	
· Lower respiratory track infections	10.52%
· Malaria	8.78%
· Neonatal diseases	8.47%
· Diarrheal disease	5.01%

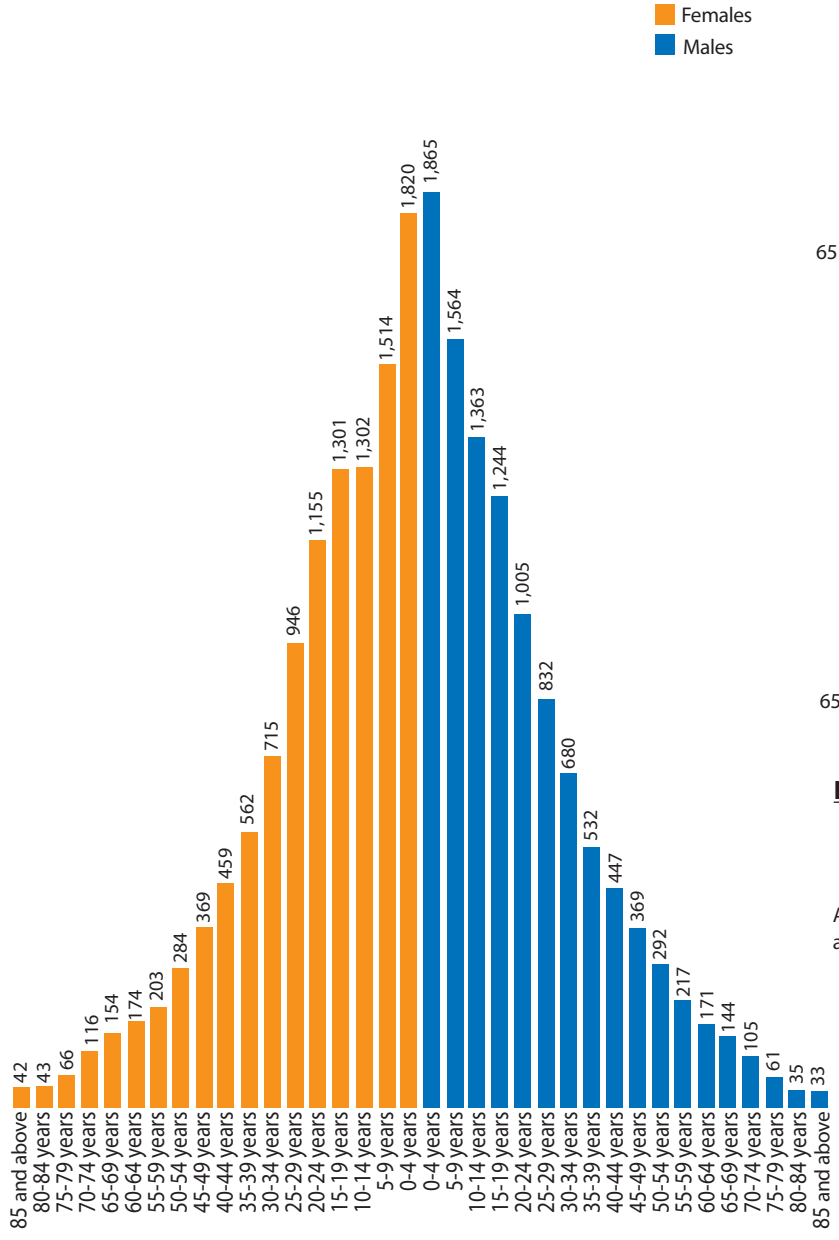
Table 5B. Health indicators	
Urban prevalence of HTA	29.70%
Unmet needs in PF	34.30%
Under five years mortality rate	103%
Maternal mortality rate (deaths per 100 000 live births) in 2011	782
Prevalence of HIV/AIDS in 2011 (DHS)	3%
Incidence of Tuberculosis in 2014	15 410
Malaria (recorded cases) in 2014	1,369,512
Access to improved sanitation facilities (household)	34.9%
Immunization coverage for the under 1 year old (including pneumococcus and rotavirus)	64.4%
Measle Coverage rate	79.90%
Coverage rate in DTC3	79.60%
Chronic malnutrition rate	31.70%

Sources: NIS, MICS 2014

1.4. Distribution of the population by age and Sex

The age pyramid shows a broad base and a narrowed top. This triangular shape is characteristic of young populations with high fertility and high mortality rate. In fact, the age group 0-24 years represents 62.5% of the total population. The health policies should prioritize this target in order to benefit from the demographic dividend. The population aged 60 and over is 6.4%.

Figure 1. Population (per thousands) by age group and sex, 2015



Source : BUCREP, 3ème RGHP, Volume 3-Tome3, Projections Demographiques

Figure 2. Age group dependency, 2015

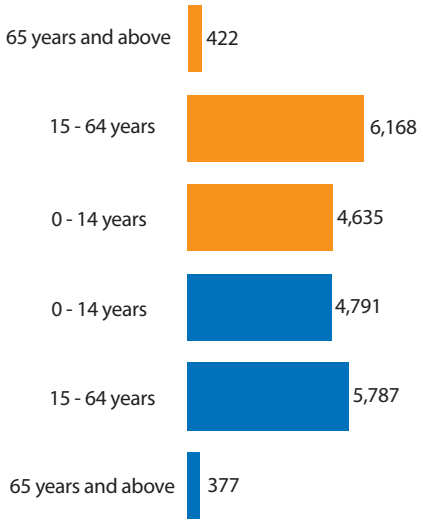
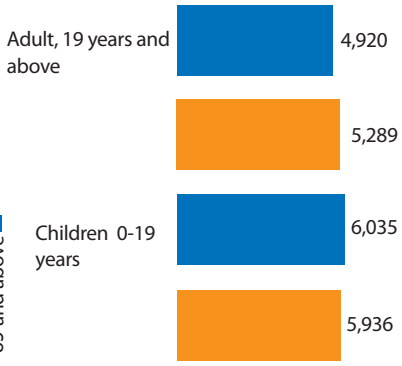


Figure 3. Children and adults population , 2015



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CHAPTER 2

HEALTH STATUS AND TRENDS

2.1. Life expectancy at birth

Life expectancy at birth in Cameroon was estimated at 54 years in 1990. It rose from 51 years in 2000 to 57.3 years in 2015. In 2015, life expectancy is 2.7 years higher for women than men. Compared to other countries, Cameroon had a better life expectancy at birth than the average for Central African countries (ECCAS) and for Sub-Saharan Africa Respectively 53 and 50 years. 25 years later, the country's life expectancy at birth is lower than the average for each of the sub-regional groupings (59 years for ECCAS and 60 years for sub-Saharan Africa). Meanwhile, the average life expectancy at birth in the world has increased from 64 years in 1990 to 71.4 years in 2015.

Through poverty reduction; implementation of Sustainable Development Goal (SDGs) and behaviour improvement and a better response to epidemics and disasters, life expectancy at birth can improve in the coming decades in Cameroon.

Figure 4. Life expectancy in Cameroon, by sex and year, 2009-2015

Figure 5. Life Expectancy in Cameroon vs Other Areas, 2015

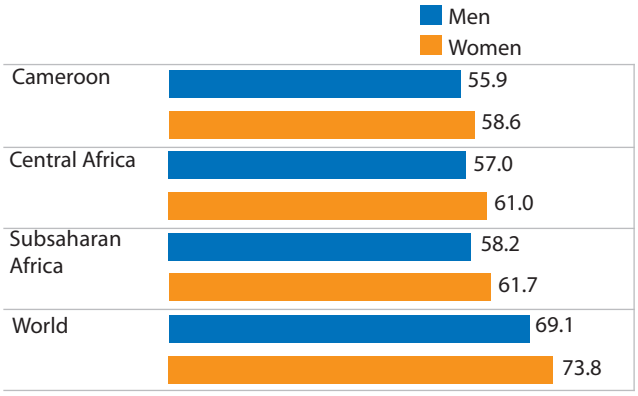
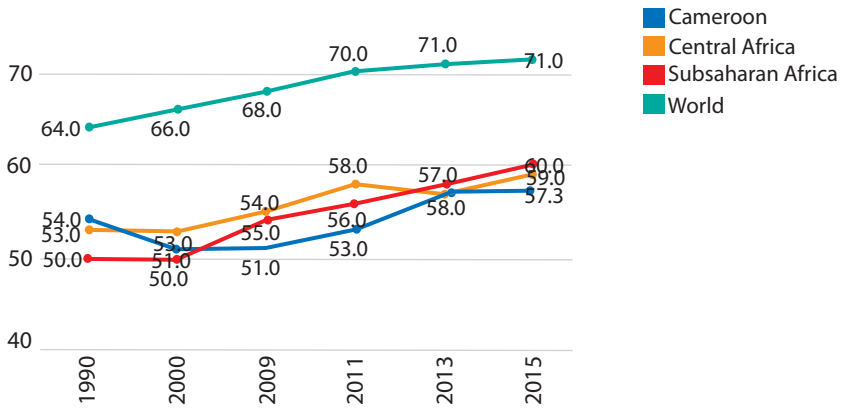


Figure 6. Life Expectancy in Cameroon vs Other Areas, 1990-2015



Sources : WHO, WHS 2011, 2013, 2014, 2016

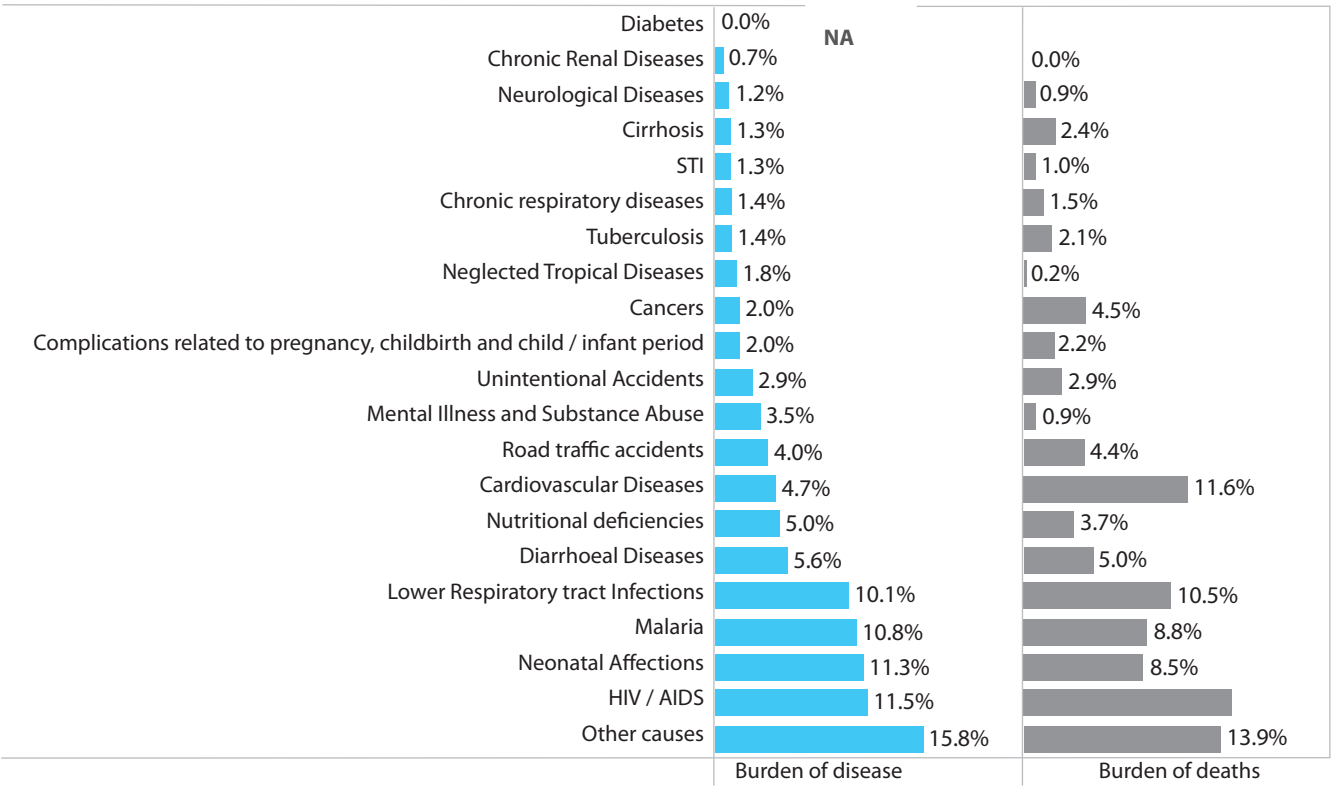
2.2. Burden of disease and causes of deaths

In 2013, Communicable Diseases (CDs) accounted for 40.7% of the burden of disease in Cameroon. (HIV/ AIDS : 11.5% ; malaria : 10.80% ; lower respiratory tract infections : 10.10% ; diarrheal diseases : 5.60%; tuberculosis : 1.40% and STIs : 1.30%. These CDs account for 41.1% of deaths (Global Burden of Disease, 2013).

Non-communicable diseases (NCDs) accounted for 14.2% of the burden of disease. The main ones are: cardio vascular diseases : 4.7% ; road traffic accidents : 4% ; unintentional accidents : 2.9% and chronic kidney disease : 0.7%. However, they are responsible for 23.3% of deaths, excluding Diabetes.

Maternal, child and adolescent related diseases account for 18.3% of the burden of disease and 14.4% of deaths. Neurological diseases account for 4.7% of the burden of disease and is responsible for only 1.2% of deaths. Neglected tropical diseases (NTDs) account for only 1.8% of the burden of disease with an estimated death rate of 0.2%.

Figure 7. Burden of diseases, burden of deaths in Cameroon, 2013



Source: adopte du Global Burden of Diseases 2013


WHO

CHAPTER 3

PROGRESS IN THE MILLENNIUM DEVELOPMENT GOALS

3.1 Global progress in achieving Millennium Development Goals (MDGs)

Cameroon adopted the eight Millennium Development Goals (MDGs). MINEPAT and NIS produced in 2015 a progress report on MDGs and Cameroon has set national targets for 2020, which conclude the ten-year period of the GESP.

This report indicates that the progress of the health MDGs remains mixed. The achievement in the reduction of infant and child mortality rate is 36.89% and 13.75% in the reduction of maternal mortality due to the increase in this ratio between 1990 and 2011.

The MDGs report indicates that one target group is reached and others are potentially or probably achievable. These target are likely to be reached by 2020, if specific actions are effectively implemented. For the other reported MDGs : MDG 1 (Targets 1.A, 1.B, 1.C), MDG 2 (Target 2.A), MDG3 (Target 3.A) and MDG 7 (Target 7.A), achievements are above 60%, with a possible reaching of the targets by 2020.

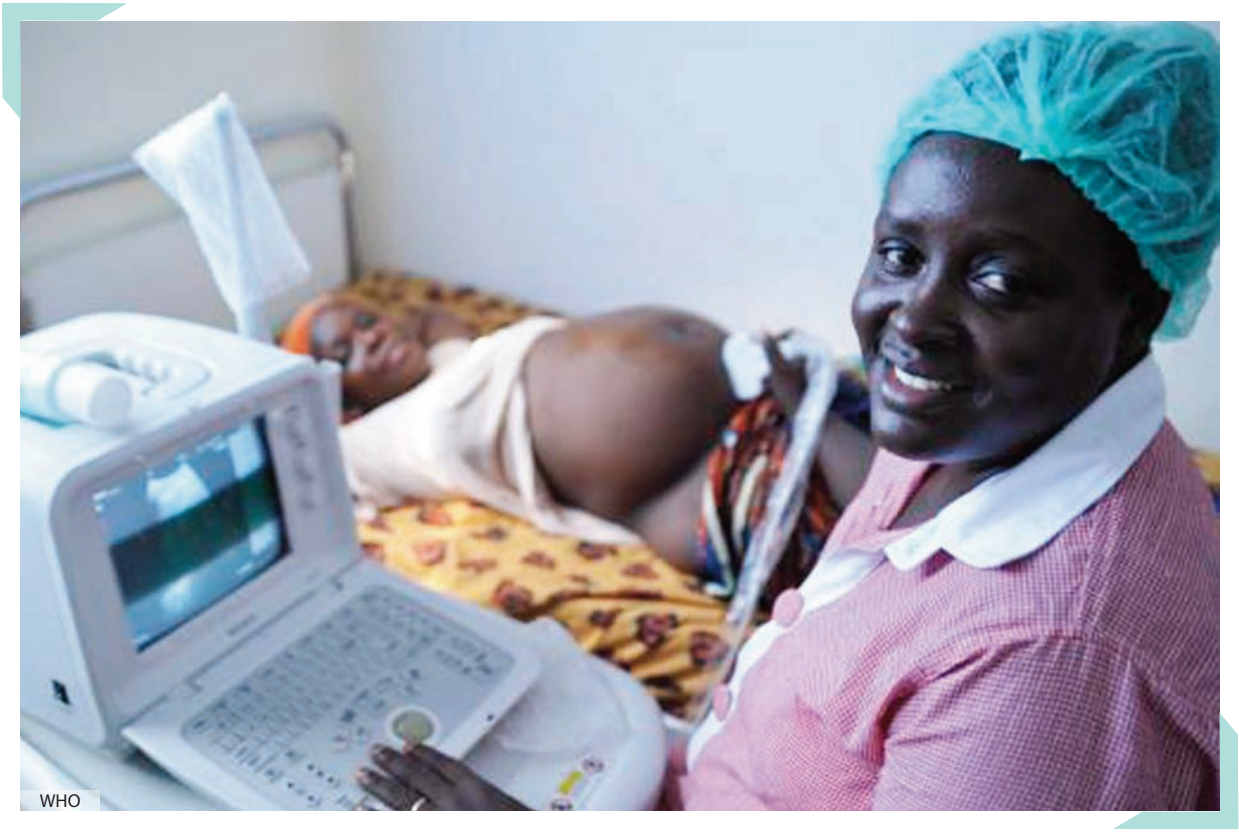
Cameroon subscribed to the post-2015 Agenda which focuses on SDGs without undermining efforts undertaken within the framework of the GESP for achieving MDGs (NIS, 2015). It is crucial for the country to providing SDGs with operative substance, in order to ensure success of the actions to be taken.

Table 6 : Level of Achievement of the MDGs by 2015 and probability of Achievement in 2020

MDG	Targets	Level of Achievement in 2015 [2]	Probability of achievement in 2020[3]
MDG 1	Target 1.A Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day	76.53%	Potentially
	Target 1.B Achieve full and productive employment and decent work for all, including women and young people	68.56%	Probably
	Target 1.C Halve, between 1990 and 2015, the proportion of people who suffer from hunger	100.00%	Achieved
MDG 2	Target 2 Ensure primary Education for all	82.49%	Potentially
MDG 3	Target 3 Promote gender equality and women empowerment	97.96%	Probably
MDG 4	Target 4 Reduce the under-five mortality	36.89%	Potentially
MDG 5	Target 5 Reduce maternal mortality	13.75%	Potentially
MDG 6	Target 6A Have halted by 2015 and begun to reverse the spread of HIV/AIDS	Trend reversed	Achieved
MDG 7	Target 7.A Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources	n.r.	Probably
	Target 7.B Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss	n.r.	Potentially
	Target 7.C Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation	64.10%	Probably
	Target 7.D By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers	n.r.	Probably
MDG 8	Target 8.A Develop further an open, rule-based, predictable, non-discriminatory trading and financial system.	n.r.	Potentially
	Target 8.B Address the special needs of the least developed countries		Potentially
	Target 8.C Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term		Potentially
	Target 8.D In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries	0.15%	Probably

Source: NIS Report, 2015

[2] Ratio in % of level of achievement of objective by target
[3] Probability taken from NIS report on the MDGs



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3.2 Health-related MDGs

Health-related MDGs focus on maternal health (MDG 5) and child health (MDG 4) and HIV / AIDS, malaria and other diseases (MDG 6). DHS and MICS are the main means for the health system to evaluate its performance.

3.2.1. MDG 4 : Reduce child mortality

Infant and child mortality in Cameroon fell from 144 deaths (1990-2004) to 103 deaths (2011-2014) per 1,000 live births. The country is still far from the target of 76 deaths per 1,000 live births.

The best performances were recorded in Yaounde, South-West, East and South regions with respectively 70, 66, 60 and 54 fewer deaths between these two periods. The worst performance was in Adamawa Region with nine fewer deaths between the two periods.

Indeed, progress has been made in child care. By way of illustration, the proportion of children aged 12-23 months completely vaccinated increased from 48.2% (1990-2004) to 75.3%. Yellow fever immunization coverage increased from 64.8% to 85.8%. Yellow fever immunization coverage increased from 64.8% to 85.8%. In addition, the management of malaria in children under five years is free.

Difficulties in accelerating the reduction of infant and child mortality may be related to households' limited access to health services. In fact, poverty has slightly declined between 1990 and 2015. The implementation of the Universal Health Coverage (UHC) and community-based management of childhood illness are some strategies that will contribute to improved access to health care and services.


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Figure 8. Infant and child mortality (per thousand) in Cameroon, compared to other Areas, 1990-2015

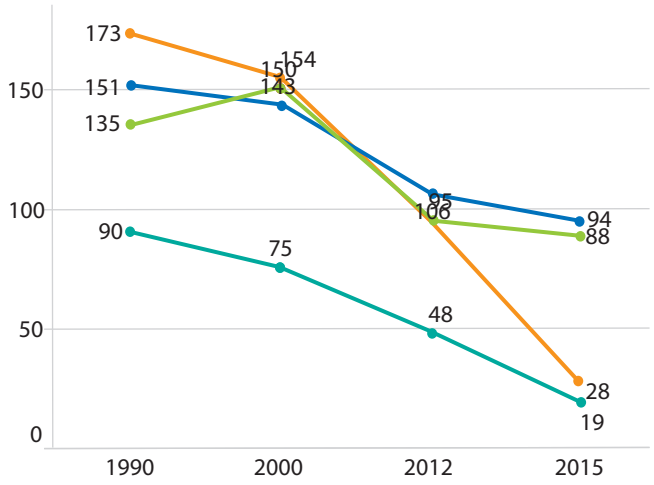


Figure 9. Rate of fully immunized children by place of residence, 2004-2014

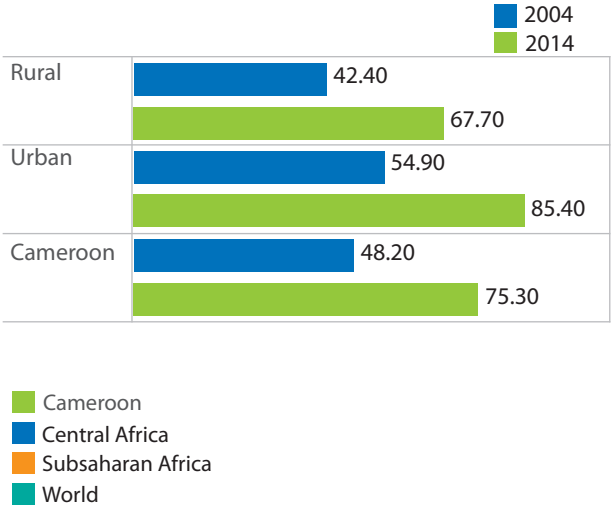


Figure 10. Infant and child mortality ratio (per thousand) in Cameroon, 2004-2014

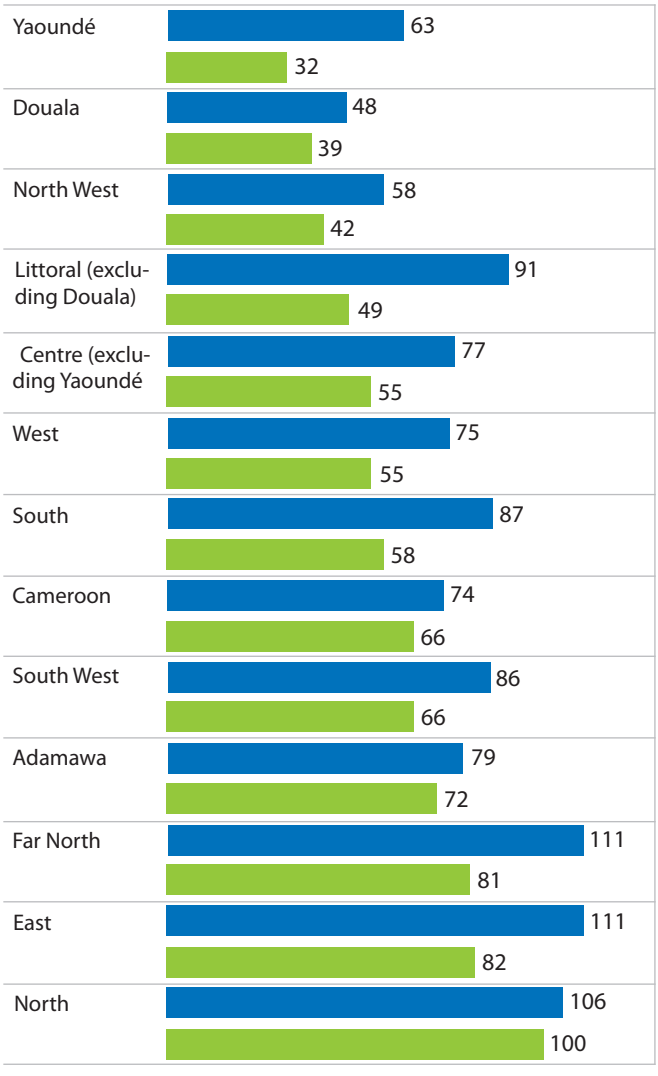
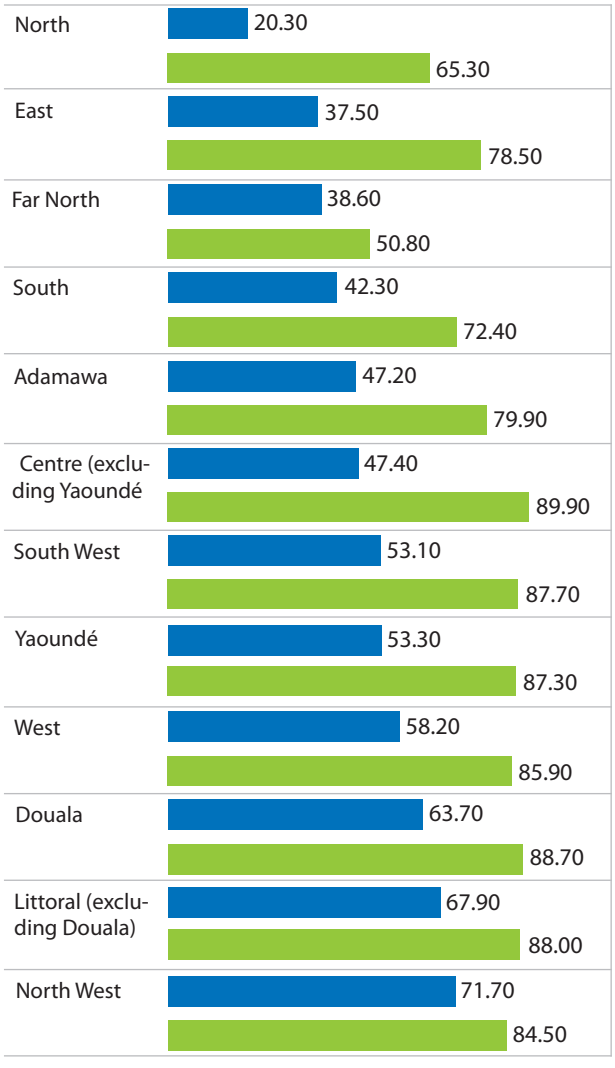


Figure 11. . Rate of children aged 12 to 23 months that are fully Immunized (that received all EPI vaccines), by Region, 2004-2014



Source: DHS 1991, 1998 and 2004; MICS 2004, 2014; WHO, WHS 2011, 2013, 2014, 2015

3.2.2. MDG 5 : Reduce Maternal mortality

The maternal mortality ratio rose from 430 to 782 maternal deaths per 100,000 live births between 1990 and 2011. Many strategies such as the multisectoral program to reduce maternal , infant, child and adolescents mortality ; the distribution of obstetric kits ; the health check project ; the PBF ; etc have been elaborated by the Government to improve maternal health.

Despite these efforts, the antenatal care rate decreased by 5 points between 2004 and 2014, from 63% to 58%. In 2014, the number of births attended by skilled health personnel has decreased regresses in Douala and Yaounde. In the northern regions (Adamawa, Far North and North) health indicators have not progressed well. The MICS 2014 reports that 35.1% of Cameroonian women stay at least 24 hours in the health facility after delivery (MICS, 2014). The three delays (decision-making, transport and care) and the inadequacy of quality and competent health personnel are also causes of the high maternal mortality. (Report SONEU, 2016).

During the period 2010-2014, the adolescent fertility rate is 119 per 1,000 girls; the early fertility rate (20-24 years with a live birth before the age of 18) is 275 per 1.000 young girls. In addition, the contraceptive prevalence rate is 34.3%, with 18% of unmet need in family planning. Contraceptive use is still low in Northern regions. However, the proportion of married or partnered women using any contraceptive method increased by 5 points, from 29.2% in 2006 to 34.4% in 2014.

Figure 12. Maternal mortality (Per 100,000 live births) in Cameroon, 1998-2011

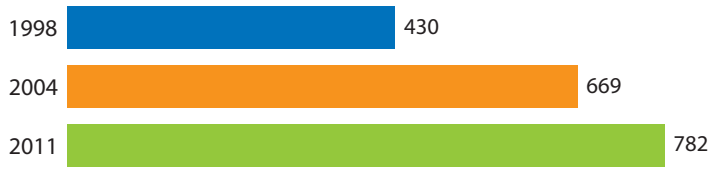


Figure 14. Rate of contraceptive met needs-Place of residence, 2014

Figure 15. Rate of contraceptive unmet needs, 2011-2014

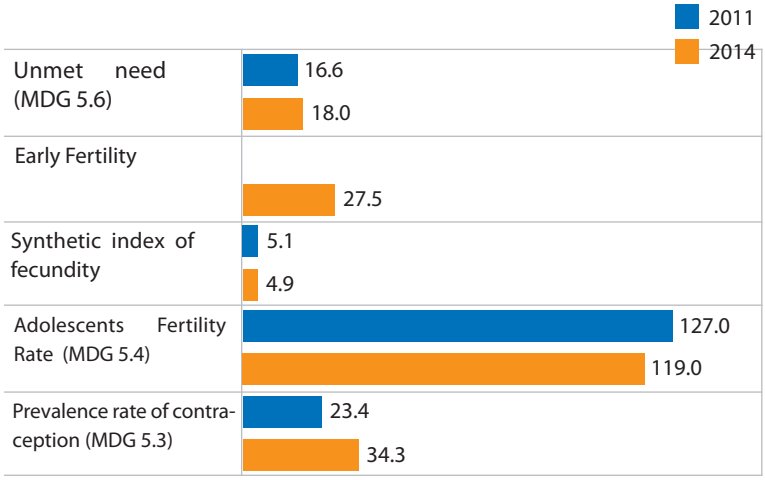
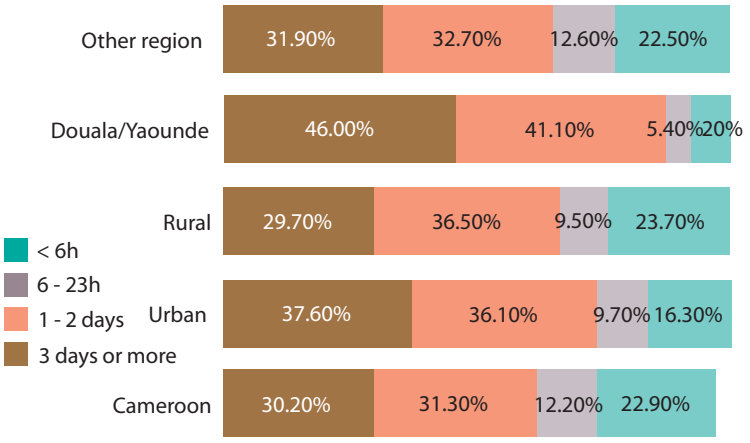


Figure 17. Distribution in % of Post-Partum stay in a health facility (FOSA) in Cameroon in 2014



Source: DHS 2004, DHS-MICS 2011, MICS 2014

Figure 13. Maternal health intervention coverage, 2004-2014

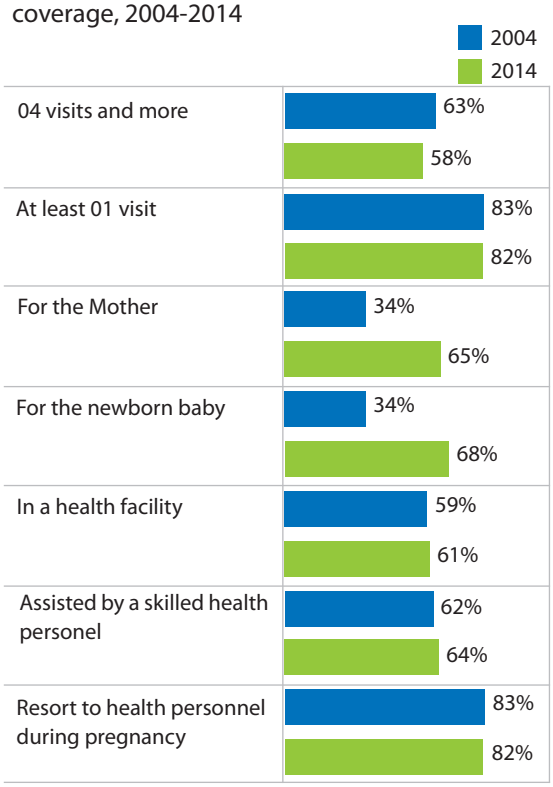
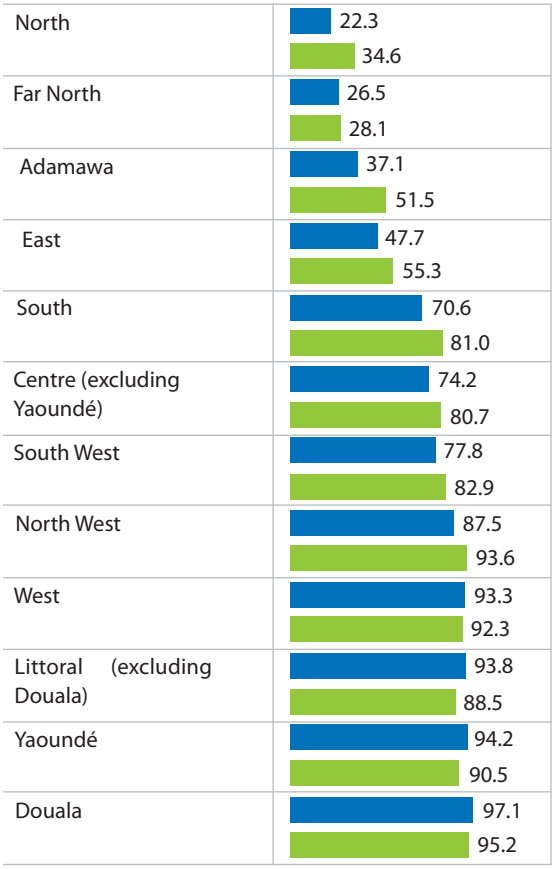


Figure 16. Proportion of Births attended by a skilled health worker- By Region, 2004-2014



3.2.3. Health - related MDGs _ MDG 6: Combat HIV / AIDS, malaria and other major diseases

The number of new HIV infections increased from 47,958 in 2008 to 44,477 new cases in 2015 (CNLS, 2016). The HIV / AIDS prevalence rate among adults aged 15-49 has declined sharply since 2004, from 5.5% to 4.3% in 2011 with regional disparities ranging from 1.2% in the Far North to 7.2% in the South. This decline can be attributed to the shift to triple therapy, to the reduction till the free ARVs through government subsidies, and the support of TFPs.

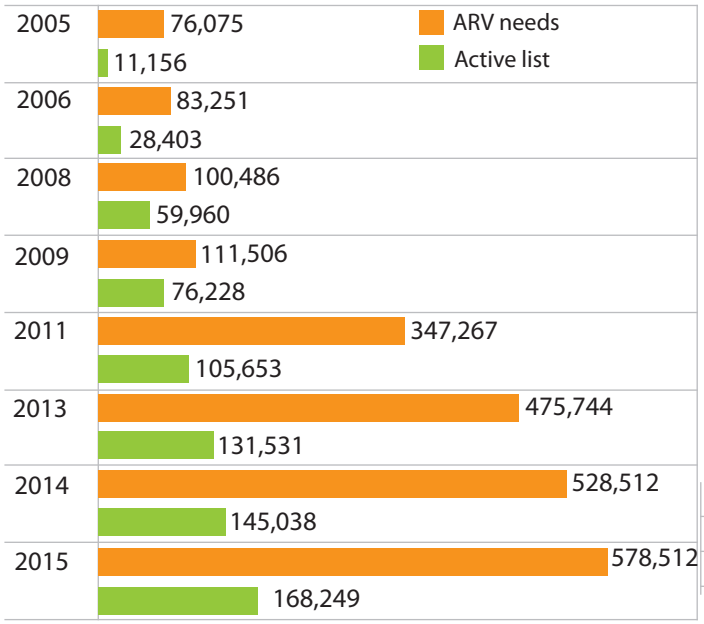
The fight against Malaria focuses on two main aspects: prevention and management of cases. Malaria prevention is based on the distribution of long-lasting impregnated mosquito nets (LLINs). This intervention showed an upward trend in the number of children under 5 years sleeping under a LLIN with 0.9% in 2004 to 21% in 2011 and 54.8% in 2014 (DHS, 2011 ; MICS 2014). The free care of simple and severe malaria for children under five years has been introduced since 2011 and 2014 respectively.

The number of new cases of tuberculosis increased from 11,655 to 16,477 between 2004 and 2014. The tuberculosis control programs implement standardized therapy regimes of six months (new cases) and eight months (relapse, resumption of treatment and failure). Patients with multidrug-resistant tuberculosis are treated in specialized facilities.

The situation of co-infection remains worrying since almost half of patients that are screened positive for tuberculosis are also positive for HIV.

treated-mosquito-nets-like-this-can-reduce-malaria

Figure 18. Needs and people under ARV, 2005-2015



Source : CNLS Reports,2013, 2014; SPECTRUM

Figure 19. HIV/AIDS prevalence compare Cameroon vs Other countries, 2004-2014

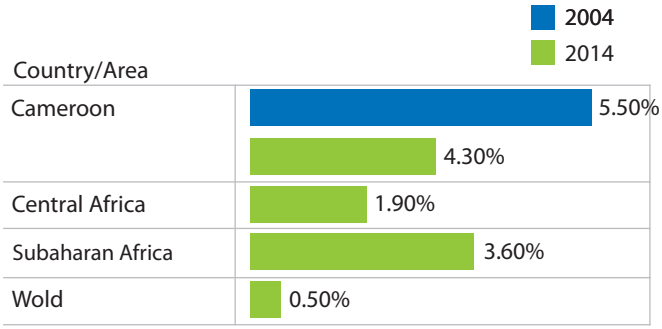
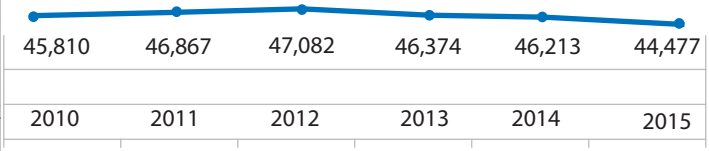
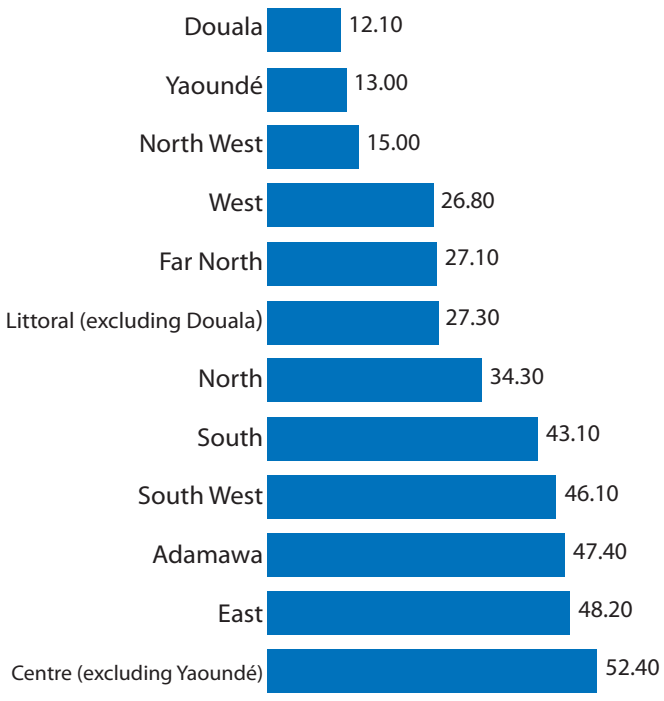


Figure 20. Evolution of new HIV infections 2010-2015



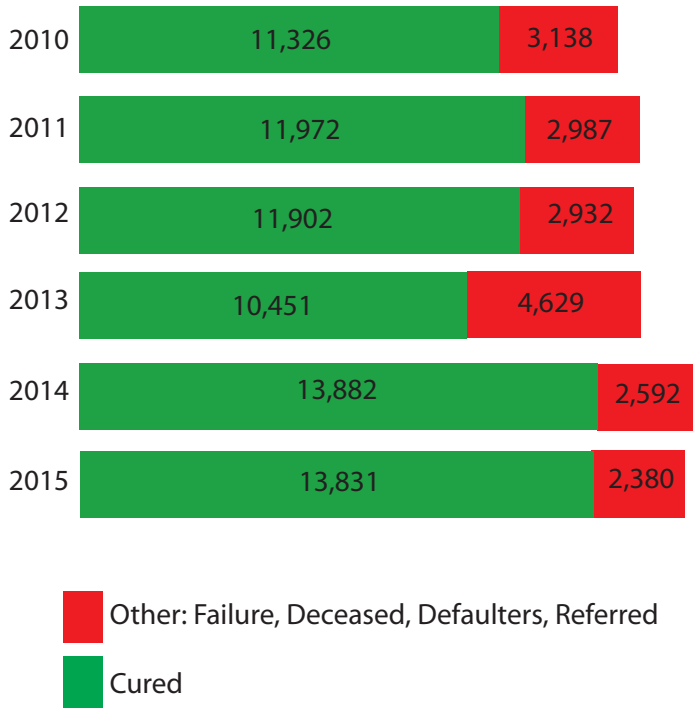
Target 6.c : Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases

Figure 21. Malaria prevalence by Region, 2011



Source : DHS 2011; PNLT Reports 2010-2015

Figure 22. Evolution of new tuberculosis cases 2010-2015, Cameroon, 2010-2015



3.3 OTher health-related MDGs. MDG 7 and MDG 8

The nutritional status of children under five years, a measure of poverty reduction, declined between 2004 and 2014. At the same time, the percentage of the population with sustainable access to drinking water increased in both urban and rural areas from 45.30% to 61.00% between 2007 and 2014 (DHS 2011, MICS 2014).

The proportion of populations with modern and / or improved WC increased between 2001 and 2014 in rural areas, rising from 27.40% to 28.80%, while this indicator decreased in urban areas over the same period, from 77.30% to 57.60% .

Figure 23. Nutritional status of children, 2004-2014, Cameroon

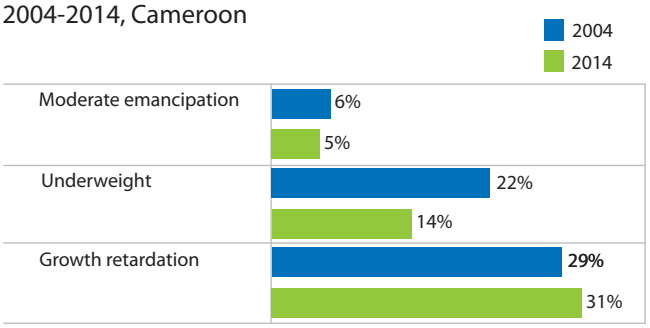


Figure 24. Rate of populations with WC- By place of residence, 2001-2014

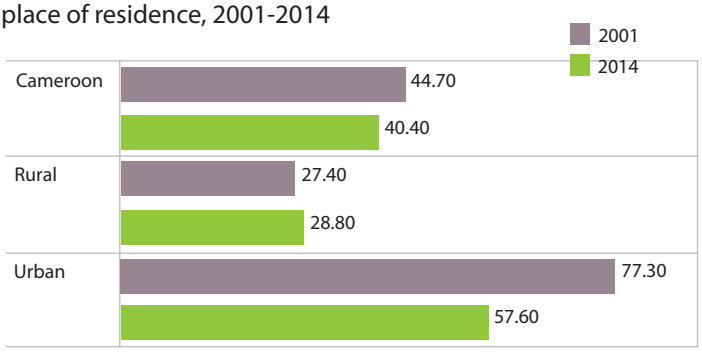


Figure 25. Rate of underweight children <5years, by place of residence 2011-2014

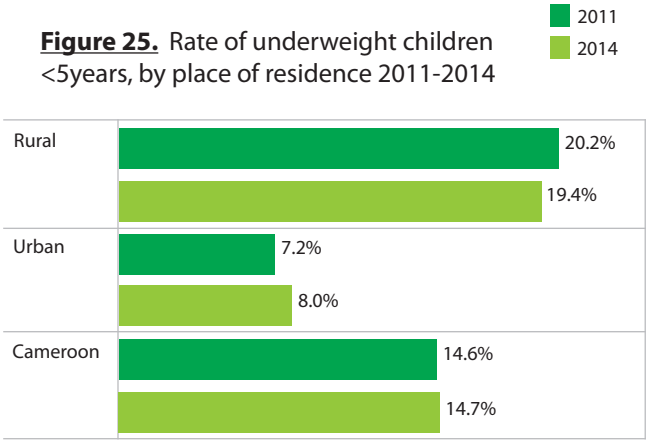
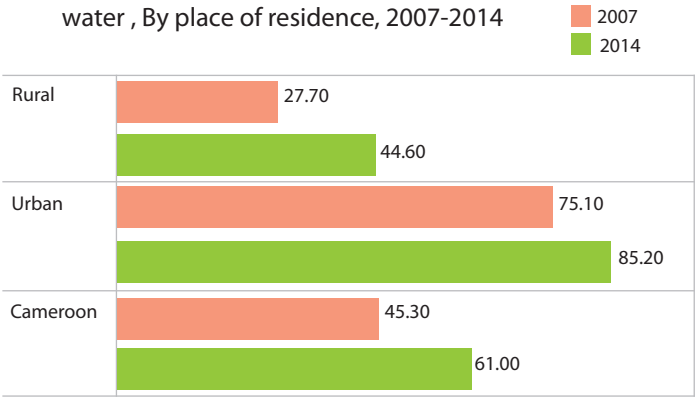


Figure 26. Proportion of access to drinking water , By place of residence, 2007-2014



Source : NIS_OMD Report 2015, DHS 2004, DHS MICS 2011, MICS 2014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vaccin_polio

WHO

3.4 Other MDG : MDG 1, MDG 2, MDG 3, MDG 7 AND MDG 8

The other MDGs address extreme poverty reduction (MDG 1) establishment of a partnership for development (MDG 8), assurance of primary education for all (MDG 2) promotion of gender equality and women's empowerment (MDG 3), and establishment of a sustainable environment (MDG7).

The incidence of poverty has decreased very little, from 40.2% in 2001 to 37.5% in 2014, a decrease by 2.7 points. We are still far from the 25.1%, the target that was set for 2015 (MDG 1).

The access to education (primary level) for the age group of 6-11 years has changed between 2001 and 2014, from 78.9% to 86.3%. Contrary to the disparity observed in 2001, the The parity of access to education at the primary level was observed for this age group with 85.3% for girls and 84.5% for boys. The literacy rate of the population aged 15-24 years has increased in Cameroon from 73.4% in 2004 to 81.8% in 2011 (MDG 2).

The gender parity index rose from 94 girls per 100 boys in 2001 to 99 girls per 100 boys in 2014. The increase is clear in rural areas with a rise by seven points against one points in urban areas in the same period. At the secondary level, the country gender parity index for the country has not changed in urban areas and remains close to 1, but this index has increased from 8 girls per 10 boys in rural areas in 2001 to 9 girls For 10 boys in 2014. Two regions in the northern part of the country recorded the lowest parity indices in 2014 with 6 girls per 10 boys in the North and 7 girls per 10 boys in Adamawa (MDG 3).

MDG 1 : Eradicate extreme poverty and hunger

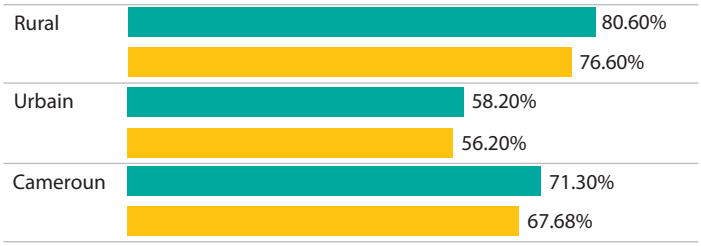
Target 1 A: Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day :

Year	
2001	40.2
2014	37.5

Proportion of the population living below the poverty line between 2001 and 2014

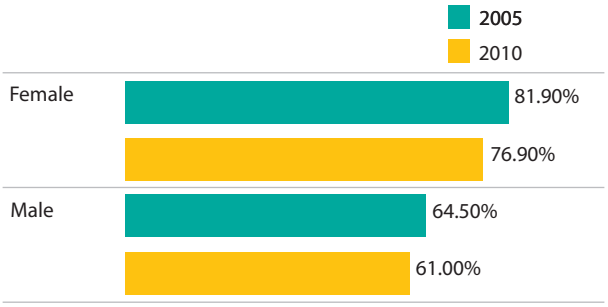
Target 1 B : Achieve full and productive employment and decent work for all, including women and young people

Figure 27. Global under-employment rate among people aged 15 - 64 , by place of residence, 2004-2010 (%)



Source : NIS, MDG Report 2015

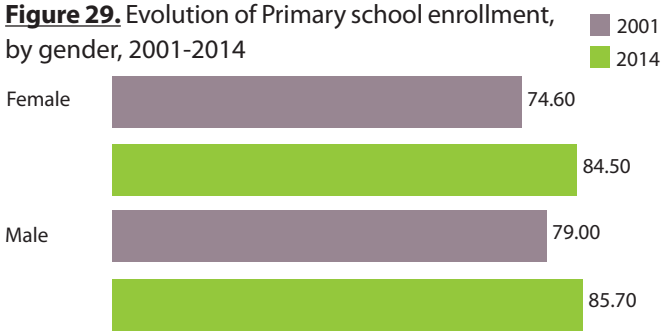
Figure 28. Global under-employment rate among people aged 15 – 64 years , by Sex, 2004-2010 (%)



MDG 2 : Achieve universal primary education

Target 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, wil be able to complete a full course of primary schooling.

Figure 29. Evolution of Primary school enrollment, by gender, 2001-2014



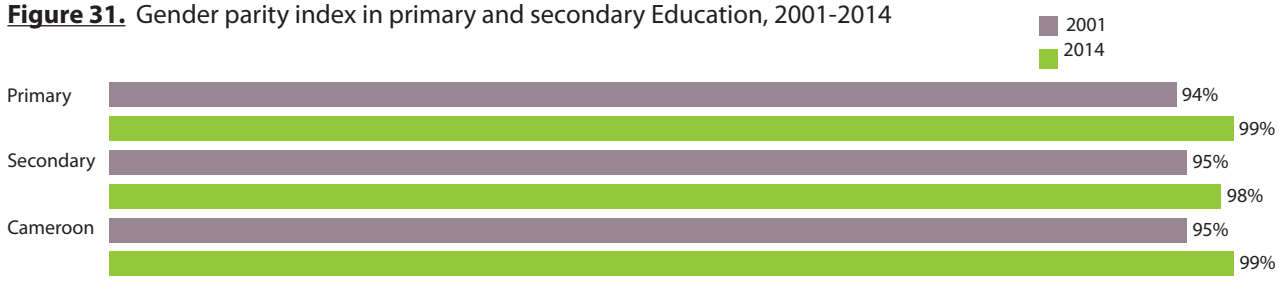
Source : INS, MDG Report 2015

Figure 30. Evolution of primary school enrollment, by place of residence, 2001-2014

MDG 3 : Promote gender equality and women empowerment

Target 3.A : Eliminate gender disparity in primary and secondary education, preferably by 2005 and in all levels of education, no later than 2015

Figure 31. Gender parity index in primary and secondary Education, 2001-2014



Source : NIS, MDG Report 2015

3.5. Transition to sustainable development goals (SDGS)

In September 2015, countries around the World adopted a common commitment to sustainable development goals (SDGs) by 2030 to replace Millennium Development Goals (MDGs).

SDGs go beyond the MDGs, one of the weaknesses of which was the overestimation of the institutional capacities of the health system to achieve them. The achievement of the SDGs will call for integrated interventions implemented by the various stakeholders in the health sector
However, in order to avoid the challenges encountered with the MDGs, Cameroon should necessarily provide SDGs with an operative substance with clear and critical perspectives, underpinned by the search for technical and financial support.

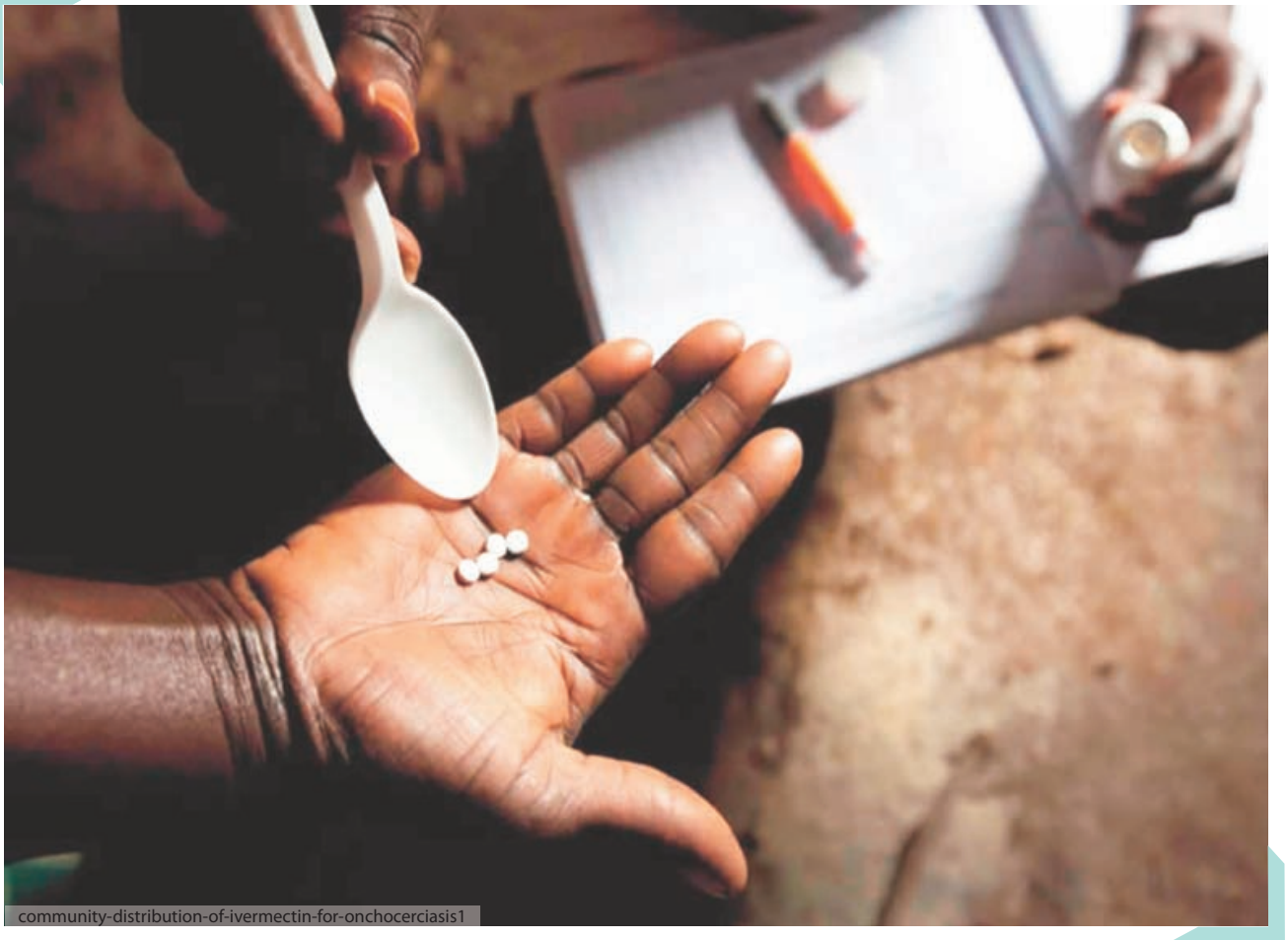
In 2016, SDGs 2, 3, 6 and 13 in the new SSS 2016-2027 and the 2016 2020 National Health Development Plan (PNDS). In addition, the processes towards the Universal Health Coverage, the implementation of the Cameroon Health Data Collaborative have been launched. The challenge is to ensure coherence between these different mechanisms and stakeholders.

In order to ensure a suitable transition from MDGs to SDGs, the Government should work (i) to get all actors to understand contextual meaning of SDGs (ii) to identify appropriate implementation strategies; and (iv) plan from the outset, methods for assessing progress.

More than in the past, the National Health Information System (NHIS) will have to play an important role in the production of reliable health information to enable the continuous assessment of the implementation of the commitments undertaken by Cameroon.

Tableau 7: Linking SSS objectives with Sustainable Development Goals (SDGs)	
HEALTH-RELATED SDGs	SSS 2016-2027 OBJECTIVES
SDG n°3.1 : By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births. **SDG n°3.2 :** By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births	Reduce the hospital and community lethality of priority communicable and non-communicable diseases, maternal infant and child mortality
SDG n°3.3 : By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, waterborne diseases and other communicable diseases.	Reduce the incidence / prevalence of communicable diseases by 2027
SDG n°3.4 : By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being.	Reduce incidence / prevalence of major non communicable diseases by 2027 Reduce the hospital and community lethality of priority communicable and non-communicable diseases, maternal infant and child mortality
SDG n°3.5 : Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.	Encourage people to adopt healthy and positive behaviors by 2027
SDG n°3.6 : By 2020, halve the number of global deaths and injuries from road traffic accidents	
SDG n°3.7 : By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs	Reduce unmet need for family planning by 2027 specialy for adolescents
SDG n°3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all.	Reduce household direct payments through an equitable and sustainable financing policy
SDG n°3.10 : Support the research and development of vaccines and medicines for the communicable and non-communicable diseases	By 2027, ensure the development of health research and the availability of quality health information for evidence-based decision-making at all the levels of the pyramid
SDG n°3.11 : Substantially increase health financing and the recruitment, development, training and retention of the health workforce	By 2027, increase the availability of quality HRH in 80% of health facilities (Health Districts, DRSP, Central Technical Department)
SDG n°3.12 : Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks	By 2027, reduce the risk of occurrence of major public health events, epidemic-prone diseases including zoonoses in at least 90% of districts
SDG n°3.9 : By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination.	Improve the living environment of populations in at least 70% of health districts

Tableau 7: Linking SSS objectives with Sustainable Development Goals (SDGs)	
HEALTH-RELATED SDGs	SSS 2016-2027 OBJECTIVES
SDG n°: 6.2: By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations	
SDG n°: 6.3 : By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally	
SDG n°: 13: Take urgent action to combat climate change and its impacts	



community-distribution-of-ivermectin-for-onchocerciasis1

CHAPTER 4

HEALTH SYSTEM

4.1. Health system performance

Cameroon has developed its first Health Sector Strategy 2001-2015 with 6 objectives. An internal evaluation of this strategy, conducted in 2015, showed some progress.

The proportion of the population living within an hour's walking distance of a FOSA is 63.1% in 2013, with a target of 70% in 2015. Compared with the development of health districts, only 7% have reached the consolidation stage, for a target of 80% by 2015.

The analysis of the poor performances in some themes has allowed to identify the main bottlenecks of this system. These include: (i) the absence of an Integrated Monitoring and Evaluation Plan (PISE), (ii) the inadequacy between the expected results and the available resources; (iii) the deficit in accountability mechanisms (MOH, Final Evaluation Report of the Health Sector Strategy 2001-2015).

Moreover, the system experiences enormous challenges in the management of health data as well as their use, planning, monitoring and evaluation.


OMS/E. Aceng

Table 8 : Health System performance/ the SSS Specific Objectives 2001-2015 - Objective N°1 & N°2

Specific objective N ° 1: "To bring 80% of the 178 existing health districts to complete at least the phase of consolidation of the process of servicing a Health District";

Specific objective No 2: "To bring 100% of health structures at the strategic and intermediate levels to play their role of support and referral";

N°	Indicator	Base value	Target	Result	Source
i.	Proportion of consolidated health districts	7%	80% of health districts completed their consolidation phase	"Poor progression of reference rate 7%"	MOH REP 2013[4]
ii.	Proportion of the population assumed through the pooling of disease risk per region		At least 40% of the national population At least 01 operational health mutual per DS	1.6% for men and 0.4% for women	DHS-MICS 2011 p.56
iii.	Health professional ratio/ population	1.02‰	At least 1.5 per 1000 inhabitants	1.23‰	MOH REP 2013
iv.	Proportion of the population serviced by a functional health facility within one hour's walk	58%	A health facility at one-hour walk for at least 70% of the population	63.1%	MOH REP 2013
v.	Public expenditure on health per capita	n.r.	At least $ 44.18 ie approximately CFAF 20 000	$ 16.5 per capita	CNS 2011[5]
vi.	Proportion of public expenditure allocated to health	5.2%	At least 15% of the State Budget	5.01%[6]	MOH REP 2013
vii.	Satisfaction Index of Health Services Users	40%	at least 80% are satisfied with the quality of services and healthcare	n.r.	PET 2010
viii.	Index of perception of corruption in the health sector	7.56/10	below the national average	n.r.	CONAC 2010[7]
ix.	Proportion of health structures with human resources in line with the sector standards	n.r.	At least 85% of the standards	n.r.	
x.	Percentage of health facilities that are organized and managed in accordance with current regulations	n.r.	At least 90%	n.r.	

Source : MOH, Final Evaluation Report of The SSS 2001-2015

[4] Annual Performance Report of MOH 2013

[5] 2011 National Health Accounts

[6] This figure only represents the State's budget allocated to MOH, not the entire health sector.

[7] CONAC. (2010) Strategie Nationale de Lutte contre la Corruption 2010-2015

Table 9 : Health System performance/ the SSS Specific Objectives 2001-2015 – Objective N°3

Specific Objective N°3 : "Reduce by 1/3 the burden of disease among the poor and most vulnerable populations "

N°	Indicator	Base value	Target	Result	Source
i.	Prevalence of HIV/AIDS	5.5%	Prevalence of HIV/AIDS 5.5%	4.3%	DHS-MICS 2011
ii.	Prevalence of HIV / AIDS among children under 5 years of age [proxy: HIV prevalence among pregnant women]	7.4% (2004)	n.r.	5.6% (2011)	DHS 2004 DHS -MICS 2011
iii.	Incidence of HIV / AIDS	3.1‰ (2001)	Reduction in the number of new cases of diseases by 50%	2.4‰ (2015)	Spectrum estimates, April 2015
iv.	Prevalence of HIV / AIDS (15-49 years old)	5.5% (2004)	Below 0.8% among 15-24 year old girls and boys in all regions	4.3% (2011)	DHS 2004 DHS -MICS 2011
v.	Prevalence of non-communicable diseases [Proxy = Weight of non-communicable diseases in DALYs / 100 000 hbts]	23,081 (2000)	Reduction of 20%	22,753 (2010) ie 1.4%	GBD-IHME, 2013[8]
vi.	Incidence of Malaria [Proxy: prevalence rate of fever 6-59 months]	237‰ (2004)	below 320‰	200‰ (2011)	DHS 2004 DHS-MICS 2011
vii.	Specific mortality rate of malaria [proxy = intra-hospital mortality due to malaria]	43% (2008)	The death rate associated with malaria is below 10%	22.40% (2013)	Report PNLP 2008 and 2013
viii.	Incidence of malaria in the active population (25-55 years) [Proxy: percentage of women having slept under a treated mosquito net]	0,8% (2004)	n.r.	41.6% (2011)	DHS 2004 DHS-MICS 2011
ix.	Incidence of tuberculosis [proxy: number of reported cases / 100,000 inhabitants]	113* (2003)	< 50 / 100 000 hbts	128* (2012)	**PNLT 2015**[9]
x.	Death rate associated with tuberculosis	6%** (2004)	below 5%	6%** (2012)	PNLT 2015
xi.	Admitted patients for mental health problem/100,000	n.r.	n.r.	n.r.	n.r.
xii.	Number of patientswho stayed more than a year in hospital for a mental health problem / 100,000	n.r.	n.r.	n.r.	n.r.

Source : MOH, Final Evaluation Report of The SSS 2001-2015

[8] IHME. (2013) Global Burden of Diseases. Institute of Health Metrics & Evaluation.Univ. of Washington/Seattle

[9] MOH. (2015) Strategy to fight against Tuberculosis 2015-2019

Table 10: Health System performance/ the SSS Specific Objectives 2001-15 – Objective N°4

Specific Objective N° 4 : "Reduce by 2/3death rate among children below 5 years"					
N°	Indicator	Base value	Target	Result	Source
i.	Neonatal mortality rate	29‰ (2004)	below 13 out of 1000	28‰ (2013)	DHS 2004 DHS 2014[10]
ii.	"Death rate among children below 5 years"	144‰ (2004)	below 50 out of 1000	95‰ (2013)	DHS 2004 DHS 2014
iii.	"Death rate among children below 1 year"	74.0‰ (2004)	below 25 out of 1000	61‰	DHS 2004 DHS 2014

Table 11: Health system performance/ the sss specific objectives 2001-15 – Objective N°5

Specific objective N°5: "Reduce maternal mortality by 2/5"					
N°	Indicator	Base value	Target	Result	Source
i.	Maternal mortality rate (per 100,000 live births)	669	below 250/100,000	782	DHS 2004 DHS -MICS 2011

Table 12: Health system performance/ the sss specific objectives 2001-15 – Objective N°6

Specific Objective N° 6 (Health Promotion)					
N°	Indicator	Base value	Target	Result	Source
i.	Proportion of population who adopt specific healthy behaviours	n.r.	At least 90%	n.r.	
ii.	Proportion of populations below minimum caloric intake [Proxy: Prevalence of undernourishment (%)]	31.7% (2000)	n.r.	10.7% (2015)	World Bank 2015
iii.	Prevalence of underweight (moderate and severe) (%)	5.9% (2004)	n.r.	6.2% (2011)	DHS 2004 DHS -MICS 2011
iv.	Prevalence of stunting (moderate and severe) (%)	31.7% (2004)	n.r.	32.5% (2011)	DHS 2004 DHS -MICS 2011
v.	Prevalence of loss (moderate and severe) (%) [underweight]	22% (2004)	n.r.	14.6% (2011)	DHS 2004 DHS -MICS 2011
vi.	Exclusive breastfeeding rate (%)	23,5% (2004)	n.r.	20.4% (2011)	DHS 2004 DHS -MICS 2011
vii.	Continuous breastfeeding rate (12-15 months, 20-23 months) (%)	n.d.	n.r.	n.r.	DHS 2004 DHS -MICS 2011
viii.	Supplementary feeding rate Started in time (%)	79.2% (2004)	n.r.	69.4% (2011)	DHS 2004 DHS -MICS 2011
ix.	Malnutrition rate (12-23 months) (%)	42.5% (2004)	n.r.	42.4% (2011)	DHS 2004 DHS -MICS 2011

[10] UNICEF. (2014) Committing to child survival: A promise renewed. Progress report 2014.

4.2. Leadership and gouvernance

Cameroon has a legislative and regulatory framework for the governance of the health sector. This framework contains more than a dozen texts. A National Governance Programme, attached to the services of the Prime Minister, with ministerial divisions has been set up. Order No. 0019 / PM of February 13, 2003 indicates the whole organization with, inter alia, the objectives (i) to promote the partnership between public / private sector and civil society and a culture of responsibility in the management of public affairs, (ii) improving the transparency of the State apparatus and (iii) combating corruption.

According to the evaluation report of SSS 2001-2015, several dysfunctions are observed, probably due to (i) the approximate functioning (health structures), the absence of most dialogue structures, (ii) the absence of semi-annual and / or annual reviews, (iii) Inadequate transparency in the management of available resources, (iv) disparity in monitoring and evaluation mechanisms, (v) inadequate management of information.

Performance is inadequate with the efforts and resources available, despite the efforts of households and TFPs to contribute to health financing in Cameroon.

The legal framework of the health system is characterized by a multitude of regulatory acts with sometimes competing, discordant and obsolete provisions. This is probably due to: (i) the lack of respect for the legal system by health system actors, and (ii) the lack of awareness of existing legal instruments (MOH, 2016).

The progress, is often linked to an individual, fades when the latter changes function. There is an urgent need for the MOH to invest on structural aspects (standardized operational procedures) in order to guarantee the sustainability of the achievements.


OMS/M. Winkler

Table13 : Elements of leadership and governance in the health system / sector

	Elements of leadership/Governance		Functioning	Peculiarities
1	**Structure of Dialogue and Community Participation**	Health area	Yes	♦Health committee area/Management committee ♦ Most are not functional community representatives terms are perfected
		District Health / District Hospital	Yes	District Health Committee/Management Committee/District Health Management Committee
		Regional	9 out of 10	Regional special fund for the promotion of health in each region (that of the Far North remains to be put in place) NB : FRSPS has gradually lost its character as a dialogue structure and has become, by the will of the Government, an administrative structure of Management, reducing the other partner (community) to play a minor part at the national level.
		National	No	
2	**National policy Documents / Strategic planning**		Yes	SSS 2001/ 2015 ; PNDS 2012 – 15
			Yes	SSS 2016/ 27 ; PNDS 2016 – 20
3	**Operational planning documents**	At all levels of the system	Yes	PNDS 2012-15 PPNDS 2016 – 20 Partial Translation of the regions/health districts
4	**Integrated monitoring and evaluation mechanisms**	Integrated Monitoring and Evaluation (PISE) / SSS 2001-15	more or less	♦ Each structure and / or program has a monitoring and evaluation plan, ♦ Integrated monitoring and evaluation plan (approved in the SSS 2001-15) has never gone effective
5	**Funding Strategy**	Health System	Yes	Maybe diffused but not disseminated
6	**Integrated Annual Review Mechanisms**		No	Only specific programs are used to conduct annual reviews
7	**Only specific programmes have annual reviews**		Yes	Developed with the assistance of the National Statistical Institute for 2011 and 2012
	Management Strategy	Human resources/health	Yes	

Source SSS 2016 - 27 ; Evaluation of the SSS 2001-15

4.3. Community appropriation and participation

Cameroon adhered to the principles of PHC in the Alma Ata Declaration in 1978. This declaration emphasized the importance of community participation in addressing population health problems. To this end, communities were invited to take ownership of the initiative through participation in the analysis and decision-making on health issues.

The initial implementation of this reform has encountered some difficulties. In 1993, the Cameroon adopted the policy of reorientation of primary health care. This policy proposed to the communities a partnership based on co-financing and co-management, which should be underpinned by dialogue structures at all levels.

The stakeholders did not have the same understanding of the concept of community partnership. The final evaluation of SSS 2001-2015 states that "Since the reorientation of primary health care, few dialogue structures are involved in the implementation of the principle of co-financing and co-management (COSA, COGE, COGEDI, COGEH, Board of directors), which reduces accountability between stakeholders". Community involvement and their inclusion in the decision-making processes still remains very weak. The number of functional dialogue structures in most regions is not known

At the legislative and regulatory level, the absence of a legal framework for community participation and a policy on community participation remains a brake on its optimal implementation.

At the operational level, the support of decentralized territorial units for the development and implementation of a process of community capacity-building by civil society organizations is an opportunity to be seized. Since 2016, MOH has launched the Community Integrated Management strategy (PECIC) through priority programs (malaria, HIV / AIDS, tuberculosis, nutrition, WASH) through community-based interventions (ISDC). The issue of community participation should be the concern of decision-makers for effective community involvement in governance.


WHO

Table 14 : Situation of community participation in Cameroon in 2016											
Year 2015	Country	AD	CE	ES	EN	LT	NO	NW	OU	SU	SW
2015 population		125,438	3,906,883	888,682	3,856,740	3,175,664	2,271,914	1,999,831	1,978,322	766,981	1,533,964
DRSP	10	1	1	1	1	1	1	1	1	1	1
Health District		08	29	14	28	19	15	18	20	10	18
Health Area		97	248	105	243	161	112	204	221	104	178
Health facilities (Public and similar)											
CSI / CMA and similar		170	620	148	340	382	254	330	586	258	296
District Hospitals		07	37	12	27	40	16	21	21	14	29
Regional Hospitals		01	01	01	03	02	01	01	01	01	02
Central Hospitals			03			01					
General Hospitals			04			02					
Dialogue structures / Community Participation											
Number of COSA	**NR**		**NR**								
Number of COGE	**NR**		**NR**								
Number of HD Co-Management	**NR**		**NR**								
Number of COSADI	**NR**		**NR**								
Number of COGEDI	**NR**		**NR**								
Number of FRPS		1	1	1	0	1	1	1	1	1	1
Medications and Proparmacies											
Number of CAPPR	10	1	1	1	1	1	1	1	1	1	1
Sales outlets for public EGD / FOSA		178	658	161	370	424	271	352	608	273	327

Source: Health Information Unit / MOH – Cameroon 2015 Health map

4.4. Partenarships for Health Development

MOH has developed a partnership strategy in accordance with Order No. 1433 / A / MSP / DCOOP / CPAT of 16 August 2007. The Division in charge of cooperation coordinates the actions of national and international partners.

At the national level, partnerships have been developed with public, private confessional and secular (OCASC, CEPCA, AD lucem Foundation, Islamic organization, etc.) sub-sector, as well as with NGOs and national associations working in the field of health.

At the international level, we have bilateral and multilateral partnerships. The contribution of multilateral cooperation is predominant through the International Health Partnership (IHP +), the main specialized agencies of the United Nations system with the European Union, the World Bank, the African Development Bank and the Islamic Development Bank, The Global Fund to Fight AIDS, Tuberculosis and Malaria, and UNITAID.

The bilateral cooperation is multiple (USAID, AFD, KFW, GIZ, CDC, etc.) and has been enriched by new partners such as PEPFAR and the Korean Cooperation (KOICA). Many NGOs are also involved, mainly in the implementation of health programs. The main areas of partnership with MOH are: budget support, financing of specific interventions and institutional support (monitoring and evaluation, contracting, strengthening of health districts). These funds are used for construction and rehabilitation of health facilities as well as purchasing equipment, medicines and other medical consumables; human resource capacity building and implementation of priority health programs.

In line with the Paris Declaration, MOH and the TFPs agreed on a consultative framework for partners in the health domain to support the country in the implementation of its SSS in the spirit of the Paris Declaration. Beyond an effective coordination framework, there is a need for real alignment of TFPs with national priorities.


WMD_2017

Table 15 : Elements of Partnership for Health Development in Cameroon situation in 2016		
Partnership strategy	Yes	• Developed
National Partnership	Yes	• Ministries and State Administrations, Public and Private Enterprises, Regional and Local Authorities, NGOs and Associations! NB: Institutional capacities and current coordination techniques are not sufficient to animate and make the Partnership Heritage profitable • Decree No 1433 / A / MSP / DCOOP / CPAT set out the regulatory framework
International Partnership	Yes	• Member of local health partnerships such as International Health Partnership (IHP +) • Cooperation with bilateral and multilateral partners supporting health internationally!
Harmonisation and alignment with the Primary Health Care Approach	Yes	• Reorientation of the Policy of Implementing Primary Health Care (1993) • Servicing of Health Districts
Sectoral approach	Yes	
Public-Private Partnerships	Yes	• Ad-Lucem Foundation in Cameroon • OCAS • CEPCA
Public - Public Partnerships	Yes	

MOH / DCoop, partnership strategy. 2007

WHO

4.5. Health Information, Evidence and Knowledge

The organization of MOH has a NHIS supplied by several types of sources. The centralization of health programs has rather created a multiplicity of non-integrated health information sub-systems and non-harmonized data collection tools. Such fragmentation is aggravated by some partners in the search for short-term results for their concerns. The recording of health information, their use for decision-making is poorly assured at all levels of the health pyramid.

The routine collection system often delivers insufficient, misleading, contradictory and incomplete information. The information collection does not always comply with international standards. This makes comparability with other countries difficult. The information system therefore largely depends on surveys and publications to have reliable information.

The efforts of the Health Information Unit (CIS) and NHO of MOH are visible through the implementation of the DHIS2 and the launch of the Cameroon Health Data Collaborative (CHDC). It can be seen as the starting point for production of quality information.

The CHDC is a platform for resource alignment and information sharing, including those that are not produced by the NHIS. To this end, Cameroon is currently engaged in the civil status reform in order to complement health information on births and deaths.


OMS/Maggie Hallaha

Table16: Sources of health information in Cameroon		
	Frequency	Features
Internal sources		
NHIS routine		
Health structure reports	Monthly	♦ Availability of health information software in the Health District ♦ Very partial exploitation of data / collection site! ♦ Partial Completeness and promptitude!
Integrated Disease Surveillance and Response system (SIMR)	Weekly Monthly	♦ Integrated into NHIS ♦ Data collected and transmitted weekly through the fleet / these data inserted in the Monthly Activity Report
Programme Reports	Annual	
National surveys		
DHS	Every 7 years	2011
MICS	Every 4 years	2004 ; 2011 ; 2014
ECAM	Every 5 years	
GPHC		♦ Three censuses (last in 2015)
Civil status		
Birth registration	Monthly (Max)	Registration in the Civil Registry
Divorce certificate		
Death		Non-systematic registration
Maternal deaths	Weekly	Non-systematic notification / Experimental verbal autopsy
Death certificates		
Minister of Public Health		♦ Technical Directions: Annual ♦ Specific programmes: Annual ♦ DRSP: Annual ♦ Health structures: Monthly
Research Institutes / Centres affiliated to MOH CIRCB ; CPC ; CRACERH;	Annual	♦ Publication of the results of a real-time study

Table16: Sources of health information in Cameroon		
	Frequency	Features
Other Administrations: MINRESI ; MINESUP ; MINADER ; MINEPIA ; MINFOF ; MINEP ; MINCOMMERCE ; MINAS ; MINEE ; MINTSS ; MINADT ; MINDEF ; DGSN	Annual	
Training Institutes: Public or private academics and professionals and vocational training schools (nurses and other health personnel)	Annual	
Research institutes and laboratories: INS ; IFORD ; CIRCB ; ANRS ; MINEPIA ; IMPM ; CPC ; IRAD ; CRESAR ; Jhon Hopkins ; Biotechnology Centre / UY1 ; IRESCO ; BUCREP ; CDBPS-H ; etc.	Annual	• Publication of the results of a real-time study
Development Partners: WHO; World Bank ; UNICEF; UNFPA; WFP; UNDP; UNHCR; GIZ; AFD; JICA; MSF; Cameroon; Plan Cameroon; HKI; IRD; OCEAC; PPSAC; EDCTP; UNAIDS;	Annual	• Data generally based on estimates! • Weakness in the dissemination of activity reports • Publication of the results of a real-time study
International sources		
WHO; World Bank ; UNICEF; UNFPA; WFP; UNDP; UNHCR; GIZ; AFD; JICA; MSF; Cameroon; Plan Cameroon; HKI; IRD; OCEAC; PPSAC; EDCTP; UNAIDS;		Data are usually based on estimates! Often searched on bibliographic databases
UNdata		

Source: SSS 2001-15; 2016-27; DHS; MICS; ECAM; MSP / Health Sector Funding Strategy

4.6. Health Research

Evidence based decision-making is increasingly become a reality in the system. By way of illustration, the retention of health personnel in remote areas was inspired by a policy brief produced by the Centre for the Development of Best Practices in Health.

Moreover, the restitution and dissemination of the results of research works is still low and needs to be structured. However, the provisions of Decision No. 0689 / D / MOH / SG / DROS of 29 July 2009 on conditions for the issuance of the Administrative Research Authorization (AAR) in Human Health in Cameroon, which obliges each principal researcher to commit himself to restoring the results of their research, is clear on this subject. Despite the number of medical schools ; midwifery and other nursing training schools and individual researchers, DROS / MOH reported having issued only an average of 21 research authorizations per year since 2006. Furthermore, most those no work report of such research has been submitted to DROS, most of the reports of such research are not submitted to DROS.

The Transfer-Application and Exchanges of Knowledge (TAEC), also known as "Knowledge Translation", is not effective enough. This reflects a lack of knowledge management, especially the development of policy briefs (NIS) and systematic reviews to inform decision. The Digital Documentation Centre for the Health Sector located in MOH is not operational.

The regulation of research was reinforced by creating a National Committee and Regional Committees of Ethics in Human Health, even though only 3 regional ethics committees are operational : Centre and South-West.

Operational research is weakly conducted at all levels of the health pyramid.

Box 1 : Legal framework of human health research in cameroon

- Law No. 96-03 of 4 January 1996 laying down framework legislation in the field of health;
- Decree No No 2013/093 of 03 April 2013 on the organization of the Ministry of Public Health.
- Decree No 2011/ 408 of 09 December 2011 on the organization of the government;
- Order No. 0977 / A / MOH / SESP/SG / DROS of 18 April 2012 on the creation, organization and functioning of Research Ethics Committees for Human Health within the structures of the ministry in charge of public health, which has repealed Order No. 0791A / MSP / DS of the Ministry of Health of 22 October 1987 on the establishment and organization of an Ethics Committee on research involving human beings;
- Decision No. 0286 / D / MSP / CAB of 5 July 2004 establishing a Scientific and Strategic Advisory Commission on Health Research in MOH;
- Circular letter No. D36 / LC / MOH / SG / DROS / YC of 09 February 2011 on the implementation of operational research in Cameroon.

Box 2 : Ethics comitee	Features
Decree No. 0977 / A / MOH / SESP / SG / DROS of 18 April 2012 organizes the system of ethical evaluation in Cameroon at 03 levels: institutional, national and regional	
National Ethics for Human Health Research (CNERSH) : 10 regional ethics committees are created, but only 3 are operational	Moreover, about 20 institutional ethics committees and associations working in the ethical field, located in Douala, Yaounde, Buea and Bamenda (A study of the NGO COPES – AOC)

Box 3 : Coordination and follow-up of research activities	Features
- **Coordination Structure**	No
- *Administrative Clearance of research (Order N°0689/D/MOH/SG/DROS of 29 July 2009)*	*Obligatory*
- ***Ethical clearance of research***	*Obligatory*

Box 4 : Actors in health research in Cameroon

- ***Ministry of Public Health:*** Technical Department ; Priority Programmes ; Health Structures;
- ***Research Centres/Institutes affiliated to MOH-*** CIRCB; CPC; CRACERH_ ;
- ***Other Administrations:*** – MINRESI ; MINESUP ; MINADER ; MINEPIA ; MINFOF ; MINEP ; MINCOMMERCE; MINAS ; MINEE ; MINTSS ; MINADT ; MINDEF ; DGSN
- ***Training Centres:*** Public and Private academic and professionals and professional training schools (Nursing and other health personnel) ;
- ***Research Institutes and Laboratories :*** NIS; IFORD; CIRCB; ANRS; MINEPIA; IMPM; CPC; IRAD; CRESAR; John Hopkins; Biotechnology centre/UYI; IRESCO; BUCREP; CDBPS-H; etc .
- ***Development Partners :*** WHO; World Bank; UNICEF; UNFPA; WFP; UNDP; HCR; GIZ; AFD; JICA; MSP; Care Cameroon; Plan Cameroon; HK; IRD; OCEAC; PPSAC; EDCTP; UNAIDS ;

Sources: Plan Strategique de la Recherche Operationnelle pour la Sante humaine au Cameroun 2014-2018

Table 21 : Characteristics of authorized research (administrative authorizations) by the Division of Operational Research (DROS) of MOH between 2006 and 2016

Themes	Years											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	**Average**
HIV	7	7	4	10	10	4	4	13	9	10	5	**65**
Malaria	1	3	1	1	1	7	1	3	3	4	2	**22**
Infectious Diseases	5	5	0	2	4	3	3	5	5	8	4	**34**
Buruli Ulcer	1	2	0	2	1	0	1	0	0	0	0	**4**
Reproductive health	0	3	0	0	1	0	4	0	0	1	3	**9**
Chronic noncommunicable diseases	0	2	2	0	0	2	1	3	2	4	4	**16**
Nutrition	0	2	0	2	1	1	1	0	0	0	0	**5**
Tuberculosis	0	2	1	0		0	2	3	1	3	2	**11**
Health system	0	4	3	3	0	3	2	2	6	9	1	**26**
Mental health	0	0	1	0	0	0	1	0	0	0	0	**1**
STIMNT	0	0	0	0	0	2	0	0	0	0	1	**3**
Others	2	2	2	3	5	3	1	4	3	0	9	**28**
Total	**16**	**32**	**14**	**23**	**23**	**25**	**21**	**33**	**29**	**39**	**31**	**224**

Source : MOH / DROS, 2016

Table 22 : Percentage of research by type, recorded by DROS / MOH between 2006 and 2016

Type	Years											
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	**Average**
Epidemiological research	50	79	58	69	62	65	80	64	83	72	59	**67**
Clinical research	25	6	26	15	19	29	15	15	10	15	19	**18**
Evaluation	25	12	11	12	13	0	0	12	0	13	13	**10**
Clinical trials	0	3	5	4	6	6	5	9	7	0	9	**5**

Source : MOH / DROS, 2016

4.7. Health Financing System

The National Health Accounts (NHA) is only available for the years 2011 and 2012.
In 2012 households contributed more than 70% of the health financing (direct payment), about CFA F 474.5 billion. Nearly one-third of this expenditure is spent on drugs. Household financing in Cameroon was the third most important contribution in sub-Saharan Africa after Sudan and Nigeria (SSS 2016-2027).

The government, contributed 14.54% or 98,547 billion CFA francs for the health financing . In addition, the proportion of the state budget allocated to health has varied between 3.5% and 5.9% over the last ten years, 95.5% of which is for the MOH.

External financing varies between 10% and 20% depending on the year.

The State implemented a free care policy for some common diseases (malaria, HIV / AIDS, tuberculosis, etc.), immunization and support services for certain targets (children under 5, pregnant women, etc.). However, this free health care policy is not systematically applied due to a lack of formal compensation mechanisms.

Figure 32: Health Financing, Cameroon , 2011-2012

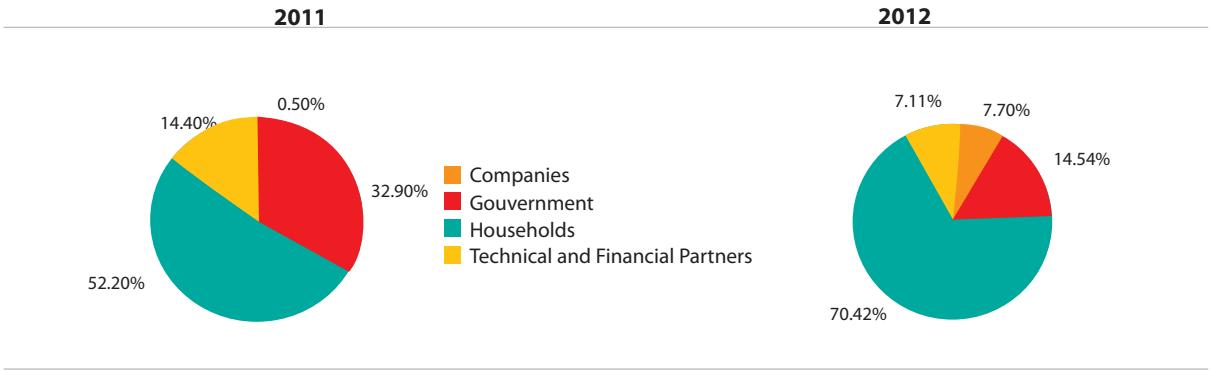
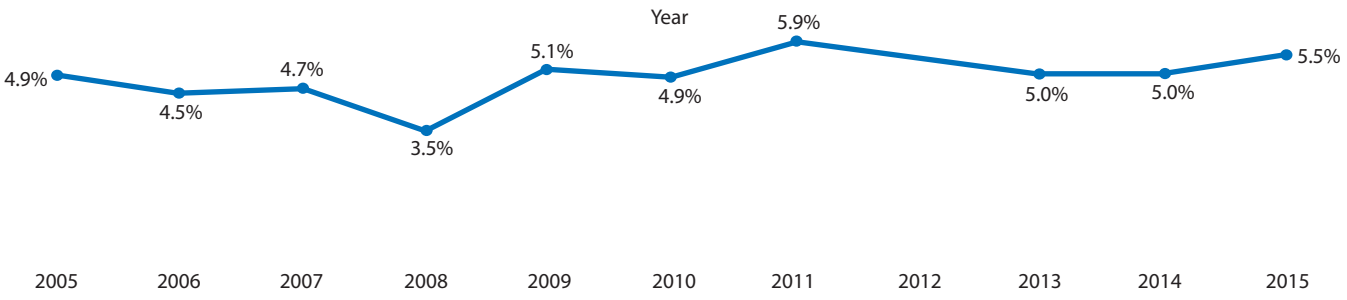


Figure 33. Evolution of MOH Budget on the State's Budget, 2005-2015



Source : NHA 2011, 2012; Finance Law 2005-2015

Public Financing of Health

Table23. Distribution by ministry of the State's budget (in millions CFA F) in the health sector in 2015

Structure	
Ministry of Small and Medium-Sized Enterprise, Social Economy and Arts	3
Ministry of Post and Telecommunications	4
Ministry of Forestry and Wildlife	4
Ministry of Mines, Industry and Technological Development	5
Ministry of Labor and Social Security	7
Ministry of the Environment, Nature Conservation and Sustainable Development	9
Ministry of Tourism and Leisure	9
Ministry of State Property, Surveys and Land Tenure	12
Ministry of Water and Energy	17
Ministry of Finance	23
Ministry of Livestock, Fisheries and Animal Industries	29
Ministry of Higher Education	36
Ministry of Scientific Research and Innovation	38
Ministry of Basic Education	101
General Delegation For National Security	281
Ministry of Defense	283
Ministry of Public Health	207,066

Source: Finance Law 2015

Private Financing (Household Spending)

Figure 34. Household Total Health Expenditure, By Region, 2012

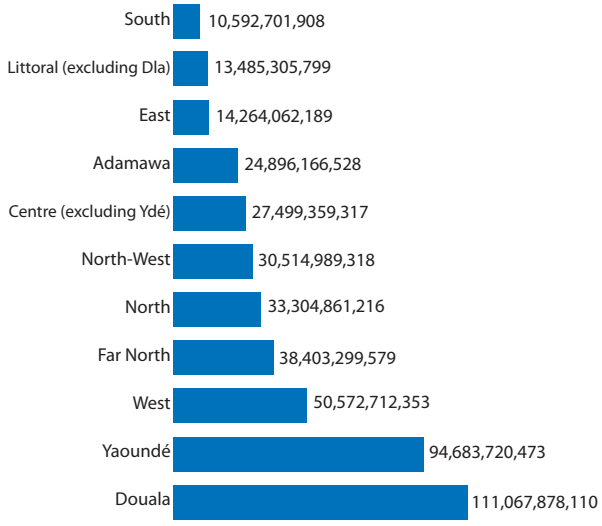
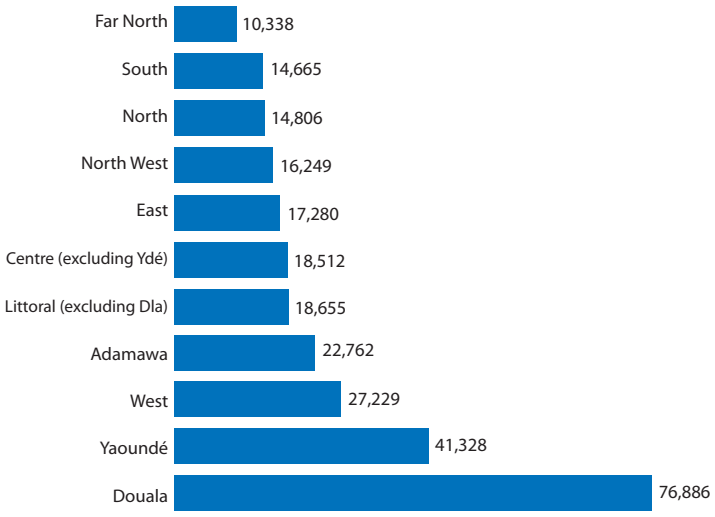


Figure 35. Household Health Expenditure per capita, By Region, 2012



Source : National Health Account 2012

External Financing (Technical and Financial Partners)

Table 24 : Distribution of Health Financing by donor between 2011 and 2015 in Cameroon (In thousands of CFAF)

	2011	2012	2013	2014	2015	Total by Donor
Other Funding to be sought	3,000,000	35,844,716	67,843,087	85,373,041	96,160,040	288,220,884
ADB	1,219,905	0	0	0	0	1,219,905
World Bank	4,154,903	30,000	0	0	0	4,184,903
C2D	28,604,270	15,000	15,000	0	0	28,634,270
Government	114,534,151	129,962,847	135,620,207	131,239,332	132,830,651	644,187,188
Counterpart Fund	326,422	0	0	0	0	326,422
GAVI	9,619,671	11,281,327	15,396,219	14,078,942	15,716,486	66,092,645
Global fund	43,070,460	51,407,293	56,441,934	69,912,896	71,213,564	292,046,147
GIZ	23,900	20,500	0	0	0	44,400
HKI	5,000	97,318	27,557	2,557	102,557	234,989
KFW	1,637,500	0	0	0	0	1,637,500
WHO	935,893	1,440,108	526,394	686,699	909,605	4,498,699
PLAN CAMEROON	0	0	7,500	0	0	7,500
Sabine Vaccine Institute (SVI)	15,000	15,000	0	0	0	30,000
UNESCO	238,312	0	0	0	0	238,312
UNFPA	2,951,0250	0	0	0	0	2,951,025
UNICEF	1,750,595	3,327,288	527,960	498,146	2,684,449	8,788,438
TOTAL per year	212,087,007	233,441,397	276,405,858	301,791,613	319,617,352	1,343,343,227

Source: PNDS 2012-2015

Table 25 : Contributions of Technical and Financial Partners by Program (Billion of CFA F)

Areas	Contribution	Percentage
Maternal, Child and Adolescent health	22	33.8%
Health Promotion and Disease Control	25	38.4%
Viabilization of Health District	18.1	27.8%
Total	**65.1**	

Source: D Coop_2015 / MOH

WHO

4.8. Provision of Services and Care

The health system has two types of services and care: Primary Health Care (PHC) and secondary and tertiary health care. This offer is supported by the interventions of several organisations and technical committees.

PHC is the basic strategy for providing health care and services. The provision of services and care is based on fixed and advanced strategies.

FOSAs are classified into seven categories: (i) general hospitals, (ii) central hospitals, (iii) regional hospitals, (iv) district hospitals, (v) district medical centers, (vi) Integrated health centres and (vii) ambulatory health centers (Decree No. 2013/093 of 3 April 2013 on the organization of MOH). However, There is insufficient application of certain principles such as community participation, intersectoral collaboration, availability of appropriate health technologies, equity and social justice. These factors limit the optimum access of populations to interventions of the Minimum Activity Package (PMA) and the Supplementary Package (PC). In addition, the quality of services and care is inadequate at all levels due to inadequate technical facilities (materials and human resources) and a poor culture of continuous quality improvement (maintenance of equipment, continuous training, etc.), reference/counter reference systems not very functional, the low availability of the essential drugs and products.

Moreover, the populations also use the traditional medecine and the informal circuit for various socio-cultural and economic reasons.

The non-optimal organization and functioning of dialogue structures reduce populations' involvement in situational analysis and response to their health issues.

OMS/S. Hawkey

Table 26: Primary, Secondary and Tertiary Health Care - Bodies and Technical Committees

Primary health care	Features
▪ Health education ▪ Nutrition ▪ Maternal and Child Health ▪ Basic Sanitation ▪ Safe Water Supply ▪ Vaccination against major infectious diseases, Prevention and control of local epidemics ▪ Treatment of common diseases and injuries ▪ Supply of essential medicines ▪ Health Centre / Medical health centres / health areas	▪ Community Involvement ▪ Partnership (State and Communities) based on: o Co-financing o Management

Secondary and tertiary health care	Features
▪ Care o Communicable diseases; o Non Communicable diseases; o Chronic diseases; o Accidents and violence ▪ District hospitals; ▪ Regional hospitals; ▪ Central Hospitals; ▪ General hospitals; ▪ Infrastructure / Programme Development ▪ National Observatory of Public Health (NHO)	Several surveys: DHS; MICS 4 and 5; ECAM ▪ Non-communicable diseases and Recurring trauma ▪ Oral Diseases ▪ Road accidents! Mental health; Fight against drugs, tagism Specialised services

Secondary and tertiary health care	Features
▪ The Centre Pasteur of Cameroon **(CPC)** ▪ National Supply Centre for Drugs and Essential Medical Consumables **(CENAME)** ▪ Endoscopic Surgery and Human Reproduction Research and Application Centre **(CHRACER)** ▪ National Laboratory for Quality Control of Medicines and Expertise **(LANACOME)** ▪ Chantal BIYA International Reference Centre for Research on HIV/AIDS Prevention and Management **(CIRCB)** ▪ National Observatory of Public Health **(NHO)**	

Source : MOH, SSS 2001-2015 ; PNDS 2012-2015

Table 27 : Some Indicators Tracers of healthcare deliveries and healthcare services

Components	Indicator	Value	Year
Food and Nutritional Conditions	Food insecurity rate (%)	8.1	2011
	Prevalence of breastfeeding (%)	28.2	2011
	Anaemia in women (%)	40	2011
	Anaemia in children (%)	60	2011
	Obesity in women (%)	32	2011
WASH	Access to drinking water (%)	72.9	2014
	Access to improved latrines (%)	34.9	2014
	Maternal mortality (per 100,000 births)	782	2011
	Child-infant mortality (per 1,000 births)	103	2014
	Modern contraceptive prevalence (%)	21	2014
Vaccination	Children vaccinated with DTP3 reference antigen (%)	79.6	2014
Prevention and control of endemic diseases	Hospital morbidity caused by malaria (%)	20.7	2014
Treatment of common diseases and injuries	Subjective morbidity rate (%)	25	2007
	Resort to health care (%)	52,6	2007
Supply of essential medicines	Supply of essential medicines (%)	86	2015
	Average out-of-stock per year (day)	18.1	2015
	Consumption of low-quality essential drugs (%)	61.4	2012
Health education	Health literacy rate	n.r.	n.r.

Source : SSS 2016-2027


OMS/J. Pudlouski

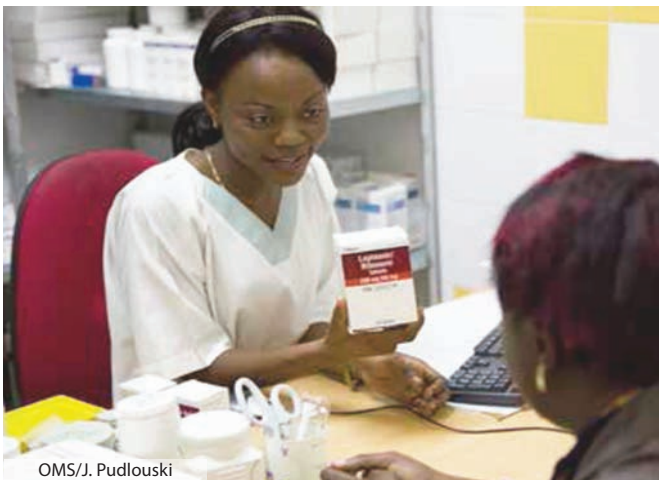

OMS/J. Pudlouski

Figure 36. Evolution of Immunization coverage, 2011-2014

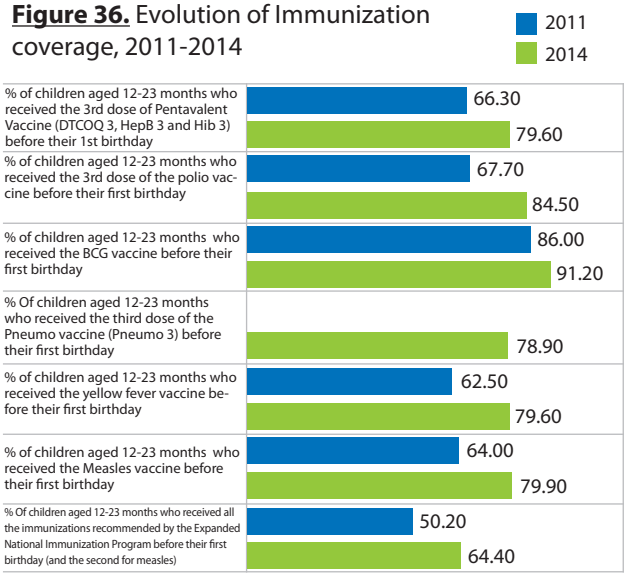
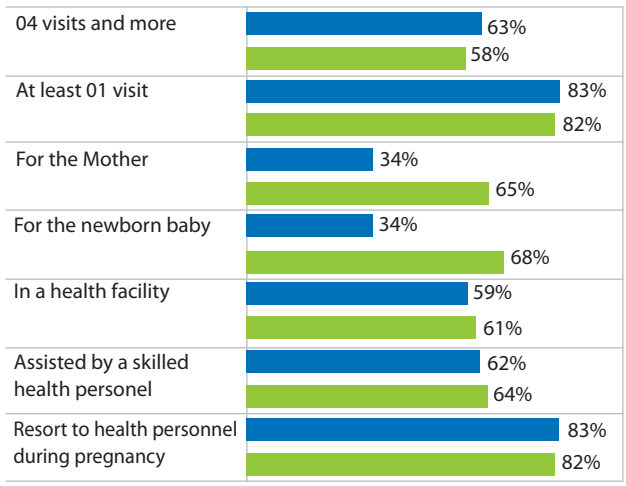


Figure 38. Use of Contraception 2011-2014

Type	Methods	
Modern methods	Female Condom	0.10 0.10
	Male Condom	7.60 7.30
	Implants	0.70 1.30
	Injections	3.00 4.50
	LAM	0.30 4.90
	Pills	1.90 2.30
	Female sterilization	0.50 0.20
Traditional methods	Periodic abstinence	6.70 11.30
	Other	0.40 0.50
	Withdrawal	1.80 1.50
Any Method	Any Method	23.40 34.30
No Method	No Method	76.60 65.60

Figure 40. Maternal health intervention coverage, 2004-2014



Source : DHS 2014, DHS-MICS 2011, MICS 2014

Figure 37. Rate of children aged 12 to 23 months that are fully Immunized (that received all vaccines), by Region, 2004-2014

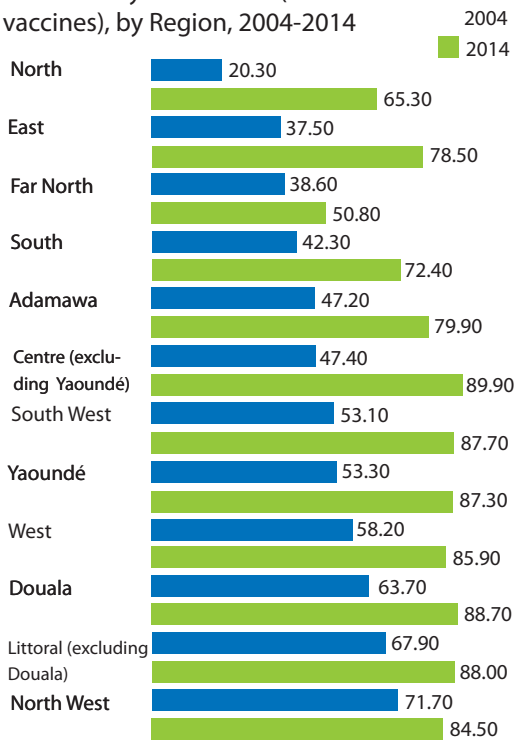
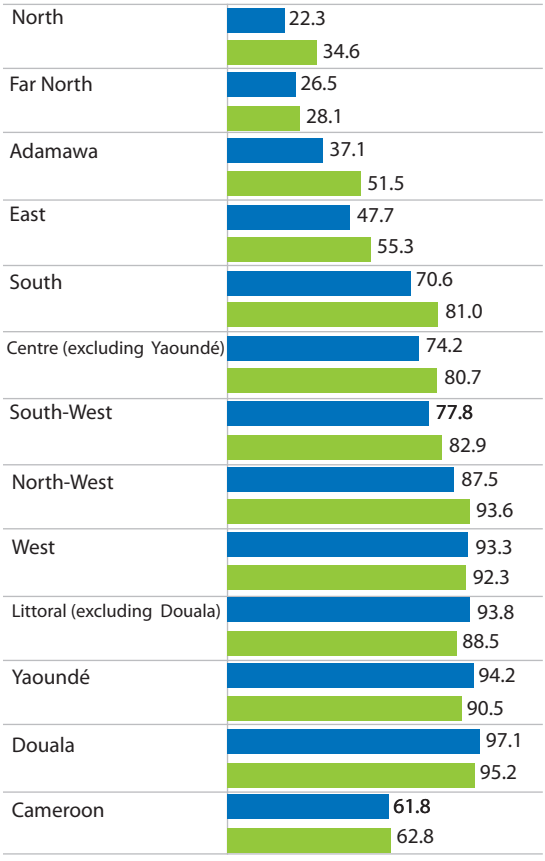


Figure 39. Proportion of Births attended by a skilled health worker- By Region, 2004-2014



4.9. Health Human Resources (HHR)

A General Census of Health Workers (RGPS) was carried out in 2011 with the development of a Human Resources Development Plan (HRDP) adopted in 2013 (MOH/DRH. 2013) . In 2011, the number of staff was estimated at 38,207, 25,183 of which were in the public sector (66%) and 13,024 (34%) in the private sector. This staff was made up of 1,842 medical staff, 18,954 paramedical staff and 17,411 administrative and support staff, more than one third (1/3) of whom were in core services.

In 2011, the health personal / population ratio was 1.07 (doctor, midwife, nurse) per 1000 population (WHO standard: 2.3 per 1000 inhabitants). Specifically, the public sub-sector included 1 nurse for 3,157 inhabitants and 1 doctor for 11,335 inhabitants, as well as an unequal geographical distribution of the staff and a strong centralization of their management. Center, Littoral and West regions, through the big cities of Yaounde, Douala and Bafoussam are more than 55% staffed, compared with only 10% for East, Adamaoua and South.

The 2013 HRDP identified three strategic areas, namely: (I) Improving HHR management and governance, (ii) strengthening HHR output, and (iii) strengthening HHR strategic intelligence.

Thus, for some years now, the Government has been engaged in a policy for (i) health human resources training (doctors, pharmacists, dentists, midwives, para-medical health workers), (ii) increasing continuing education, and (iii) recruitment and HRH management, one of the most recent of which is the policy of staff retention in hard-to-reach areas.

Six years after the elaboration of the HRDP, there is an urgent need to include personnel inventory in the routine information system to ensure appropriate monitoring in real time.


OMS/A. Gumulira

Table 28: 2011 Public Human Resources of Health System												
2011	Regions											
	AD	CE	EAST	Diaspora	FN	LIT	NORTH	NW	WEST	SOUTH	SW	Total
Population (2011)	1,069,121	3,617,321	822,819	0	3,571,315	2,940,306	2,103,535	1,851,617	1,831,702	710,138	1,420,277	19,938,151
Staff / Qualification												
CHW		26	27	0	131	6	11	47	97	11	8	367
Social Worker	1	54	1	0	9	9	3	0	12	5	11	105
Other Health Professionals	7	305	55	1	176	508	26	499	555	44	237	2,413
Administrative Staff	47	770	58	0	69	191	58	184	131	64	152	1,724
Dental Surgeon	4	22	0	0	4	17	1	2	3	3	2	58
Pharmacy Clerk	5	133	42	0	166	137	92	211	234	24	134	1,178
Nurses	817	4,512	874	3	173	3,276	965	1,590	2,599	781	1,804	18,954
Physician-Generalist	38	500	53	72	71	307	42	82	116	45	94	1,420
Physician-Specialist	16	192	5	7	10	127	3	9	26	11	16	422
Paramedical practitioners	176	1,343	204	2	342	786	160	377	593	175	368	4,526
Support Staff	77	1,401	120	0	816	1,534	227	844	726	100	828	6,673
Pharmacist	7	38	4	0	12	40	8	2	26	4	21	162
Traditional-pratitioners / Traditional nurses	0	0	0	0	189	0	10	0	1	1	4	205
Total	1,198	9,296	1,443	85	3,728	6,938	1,606	3,847	5,119	1,268	3,679	38,207
Percentage	3.14%	24.33%	3.78%	0.22%	9.76%	18.16%	4.20%	10.07%	13.40%	3.32%	9.63%	100%

Source: MINSANTE / DRH, 2011

WHO/S. Gborie

4.10. Medical Products, vaccines, infrastructure equipment

Medicines and medical products management is based on the National System of Supply of Medicines (SYNAME). It has the structures for policy design (Technical Direction for Drugs and Laboratories) at the central level, a National Centre for Essential Drug Supply (CENAME), its regional divisions and the pharmacies of the FOSA. Besides this, there are private purchasing centers and pharmacies. More than half of the pharmacies in the country are located in Douala and Yaounde. The other pharmacies are mainly located in the Regional Capitals and in some secondary cities. Unlike other medical products, vaccine is exclusively managed by the Expanded Program on Immunization (EPI), which has its supply chain.

Regarding blood transfusion, it should be noted that accessibility to blood products remains very limited. Even if blood banks exist in the major cities of the country, they do not always meet the standards. In order to address this issue, a National Blood Transfusion Programme was established under Order No. 026 / CAB / PM of 18 March 2013 establishing the organization and operation of the National Blood Transfusion Program in Cameroon. Its main mission is to ensure availability, quality and safety of blood transfusions. There are plans to establish a national center and ten regional blood transfusion centers.

Infrastructure and equipment are of insufficient quantity and unevenly distributed accross the territory. Even though there is a hospital maintenance, preventive maintenance remains limited to hospitals of the first and second categories. As for curative maintenance, it remains inadequate at all levels.

Specialized units such as Imaging, Hemodialysis are available at the Regional capitals. The other specialized units are poorly distributed or absent for some of these regions.

WHO/E. Kabambi Kabangu

Table 29 : Medical Products, Vaccines, Infrastructure and Equipment (1)											
Reference year: 2015.	Country	AD	CE	EST	EN	LT	NO	NW	OU	SU	SW
Population		1,125,438	3,906,883	888,682	3,856,740	3,175,664	2,271,914	1,999,831	1,978,322	766,981	1,533,964
Health Districts											
Health Area		97	248	105	243	161	112	204	221	104	178
Public health structures											
CSI / CMA and related		170	620	148	340	382	254	330	586	258	296
District Hospitals		07	37	12	27	40	16	21	21	14	29
Regional Hospitals		1	1	1	3	2	1	1	1	1	2
National Hospitals			4			1					
General Hospitals			3			2					
Availability of Medication											
Supply of EGD + consumables	1	1	1	1	1	1	1	1	1	1	1
EGD Average Price	Yes										
Hospital Pharmacies			7			3					
Sales outlets of EGD and consumables / FOSA		178	645	161	370	421	271	352	608	273	327
Pharmacies (2012)	340	10	101	10	13	107	16	12	36	13	22
Vaccines											
Regional Cold Chain Unit		1	1	1	1	1	1	1	1	1	1
Centre / Immunization Unit	1										

Source: Health Information Unit / MOH - Cameroon, 2015


rci-children-unicef2_sn635

Table 30 : Medical Products, Vaccines, Infrastructure and Equipment (2)											
Reference year: 2015.	Country	AD	CE	EST	EN	LT	NO	NW	OU	SU	SW
Sanitary Technology											
Health Technology Unit / MOH	1										
Medical Equipment / Imaging											
Magnetic resonance	1										
Scanner / Tomography	10										
Nuclear medicine	1										
Mammography	12										
Unit «Cobalt TV»	2										
Radiotherapy	2										
Specialised units											
Medical Analysis Laboratory											
Imaging / Hospital Unit		1	6	1	1	3	1	1	1	1	1
Imaging /Private Unit			5								
Maternity											
Haemodialysis Unit											
Psychiatric unit		1	1			1					
ENT unit/service											
Ophthalmology Unit (2012)	98	1	29	1	1	59	2	1	4	0	0
Dental surgery Service / Unit											
Blood Bank											
Research Unit											
Quality check	1										

Source: Health Information Unit / MOH - Cameroon, 2015

WHO/C. Black

WHO

4.11. Health policies

Cameroon has a four-phase evolution in its health policies : (i) the medical approach, (ii) the health services approach, (iii) the primary health care policy, and (iv) the policy of reorienting primary health care.

The medical approach defines health as the lack of illness. This approach is based on vertical programmes (with the development of public and rural urban hospitals for missionaries) oriented towards the interests of the coloniser. Before the 1960s, treatment was free and sometimes on credit (A Study of ReoSSP, October 1997), and the community was asked to follow the caregiver.

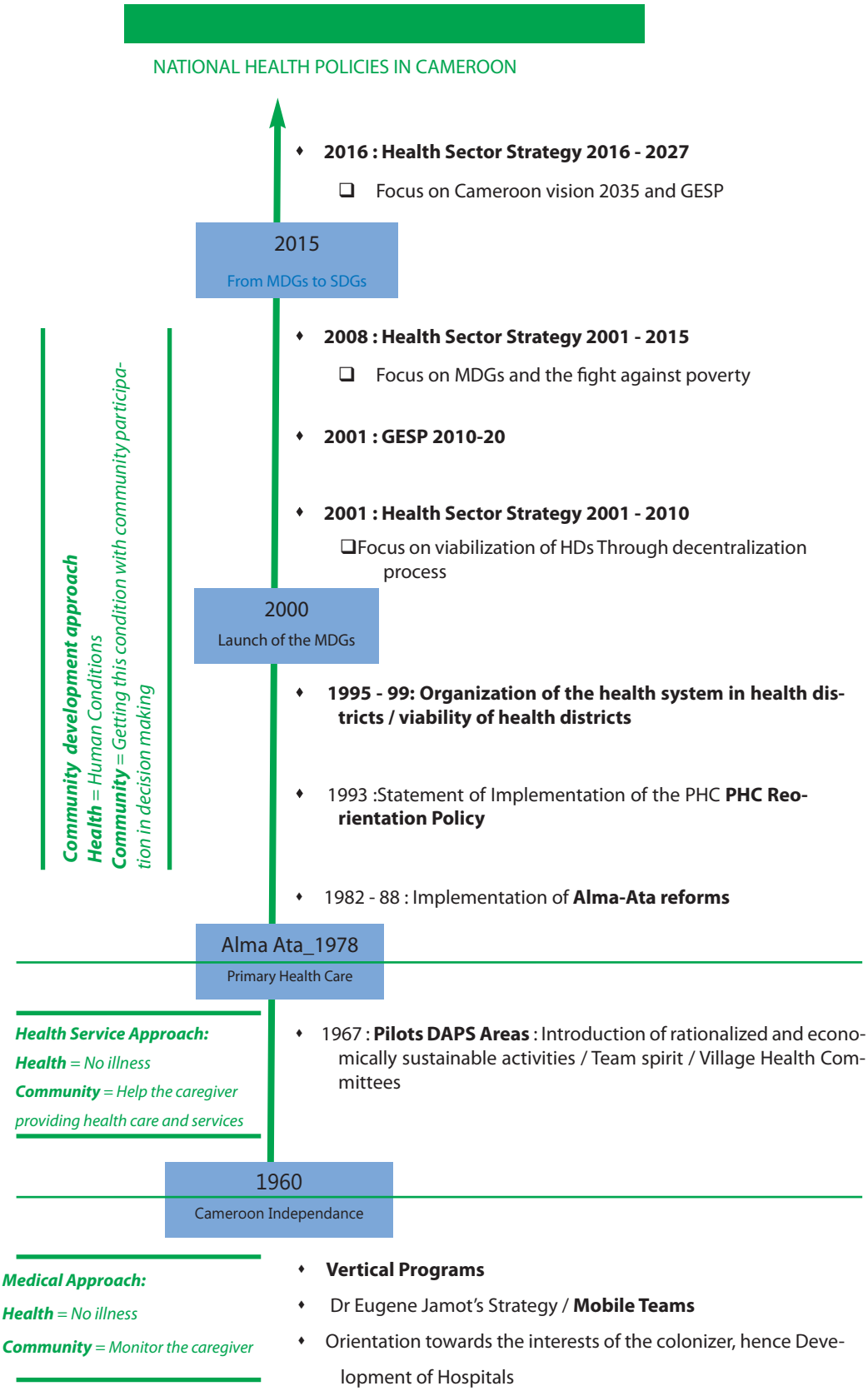
The health service approach was characterised in Cameroon by the establishment in 1967 of four (4) DASP zones (Demonstration of public health action). This WHO strategy aimed at introducing gradually rationalised and economically viable health activities, the concept of the health team, the establishment of village pharmacies or propharmacies with a mechanism for recovering costs and working capital managed by local health personnel. The evaluation of this experimental phase showed that (i) Community-based health activities had positive effects, and at the same time stimulated demand, (ii) Communities were willing to contribute to financing(to an extent) of health facilities and certain health activities, and to organise and create village pharmacies (A Study of ReoSSP, October 1997).

The primary health care policy was adopted in 1982. It is based on the principle of health reforms advocated at Alma Ata in 1978. The 1988 evaluation by the Ministry of Public Health showed some weaknesses in the implementation of Primary Health Care (PHC) : (i) existence of a set of vertical programmes running in parallel, (ii) system not restructured to integrate PHC , ((iii) use of community health workers without basic training and unsupervised, and (iv) lack of mechanisms to ensure full community participation. The 1988 evaluation report then proposed a new policy.

The Reorientation of Primary Health Care (ReoSSP) policy (Community-State Partnership based on co-financing and co-management) was therefore adopted in 1993.

Several mechanisms for the implementation of the Reorientation of Primary Health Care have been developed. The approach of organizing the health system in health district for the implementation from 1995 onwards. In 2001, the country developed its first Health Sector Strategy (SSS) 2001-2010, updated in 2008 after a mid-term evaluation in 2006, and then docked to the MDGs to achieve SSS 2001-2015. The assessment of this indicator in 20015 showed mixed results. A new strategy focusing on Cameroon's emerging country vision in 2035 was developed for the period 2016-2027 as well as PNDS 2016-2020.

Figure 41. Synthetic representation of the evolution of national health policies in Cameroon



4.12. Universal Health Coverage

The general policy of the Government of Cameroon is to combat poverty, strengthen equity and social justice, increase access to basic social services for all and protect people from risks and disasters, especially the most vulnerable.

To address the problem of financial access to healthcare, Cameroon has tried several strategies, including the promotion of mutuals, free care policies and insurance. The free care policy is for certain diseases, services and care for certain targets (pregnant women, children under 5 years and economically and socially disadvantaged people). In 2014, only 1% and 2% of the population were covered by mutual health insurance and private health insurance respectively.

The government has initiated a process to establish a Universal Health Coverage System (UHC). A proposal for architecture in three scenarios was elaborated in October 2016 (MOH, Comite National sur la CSU, proposition d'une architecture du système de Couverture Universelle en Sante au Cameroun, Note Technique, Octobre 2016). This process was inclusive with the involvement of the representatives of the Prime Ministry, the Technical Ministries and the social partners.

Scenario 1 consists of the establishment of a single national technical and financial management structure of the UHC.

Scenario 2 is focused on the establishment two national structures (formal sector workers and their beneficiaries, and other categories (informal sector, agricultural sector, vulnerable persons and beneficiaries). Each structure provides technical and financial management of health coverage.

Scenario 3 consists of the establishment of a local health insurance fund in each municipality.


WHO

Table 31 : Free care policy in cameroon: axes

Control of a disease for the whole population

- Diabetes care subsidies
- Epilepsy management subsidies / Free management of Epilepsy
- Free Onchocerciasis Preventive Treatment
- Free adult and paediatric ARVs and cotrimoxazole
- Free Tuberculosis Management
- Free Leprosy Management
- Free management of Intestinal Helminthiasis
- Free management of shistozomiasis
- Free management of Buruli Ulcer and its complications
- Free management of Pian
- Free management of Treatment and Trachoma Surgery
- Free treatment of Lymphatic Filariasis and Hydrocele Surgery
- Subsidy for Cancer Management
- Subsidy for Hemodialysis

Control of a Targeted Disease to a Portion of the Population

- Free management of simple malaria for children 0 to 5 years of age
- Subsidy for the management of simple malaria in Children of more than 5 and adults
- Free intermittent preventive treatment for pregnant women
- Subsidy of vitamin A in children under 5 and women in post-partum
- Free long-lasting treated mosquito insecticide nets
- Free chemoprophylaxis of seasonal malaria (children under 5 years / 2 regions)
- Subsidy for the management of severe and moderate acute malnutrition
- Free HIV testing for pregnant women, spouses and children 0 to 5 years of age
- Free PMTCT (Mother and child diagnosis)
- Free diabetes management for 0-18 year old
- Health check subsidy (purchase order or voucher) for pregnant women in 03 regions
- Subsidy for obstetric kits

Services

- Free Family Planning Services
- Free immunization services

Care for the economically and socially disadvantaged

- Care of abandoned children
- Care of the poor

Source: MINSANTE, OASIS Report 2016

Universal Health Coverage / Coverage of interventions between 2004 and 2014 in Cameroon

Figure 42. Maternal health intervention coverage, 2004-2014

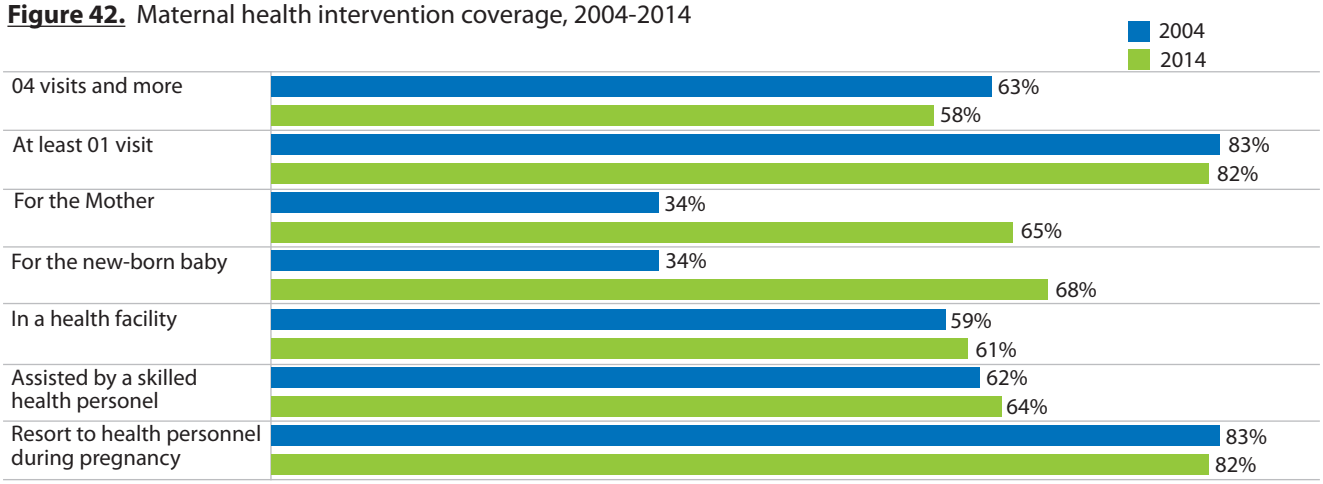


Figure 43. Evolution Immunization coverage, 2011-2014

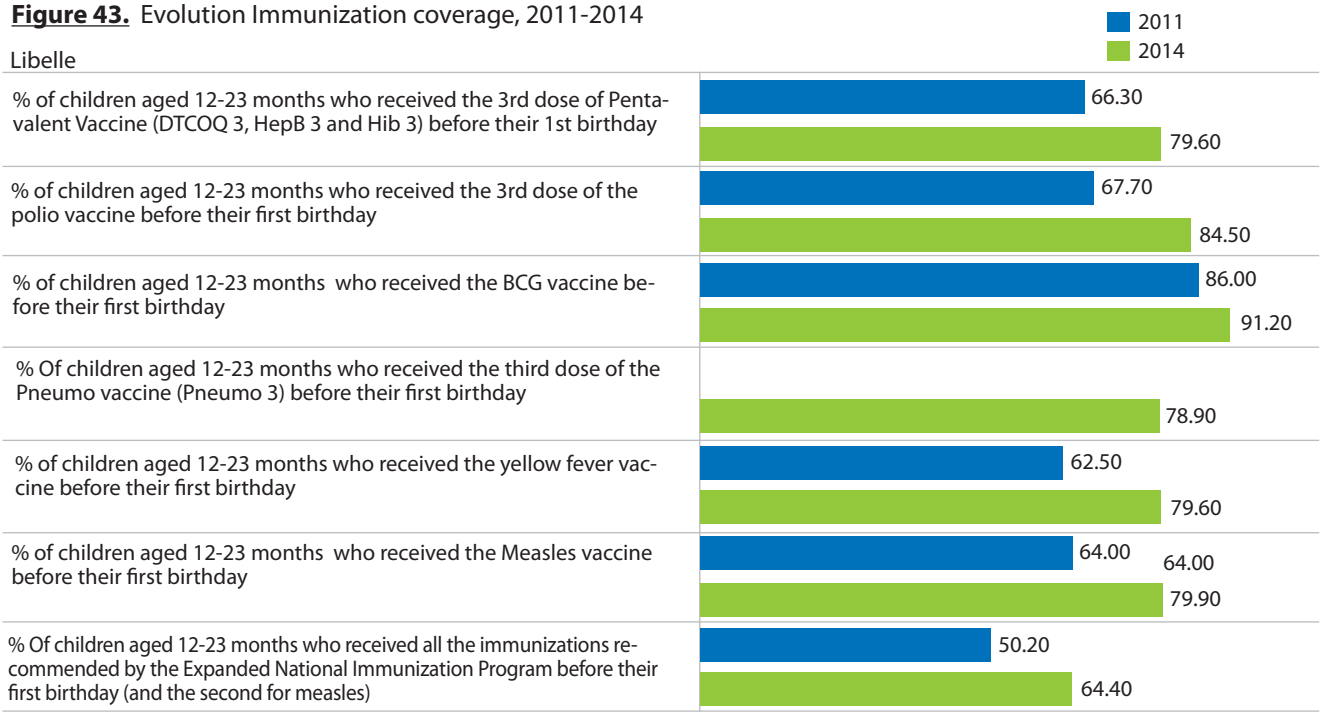


Figure 44. Total household health expenditures, by Region, 2012

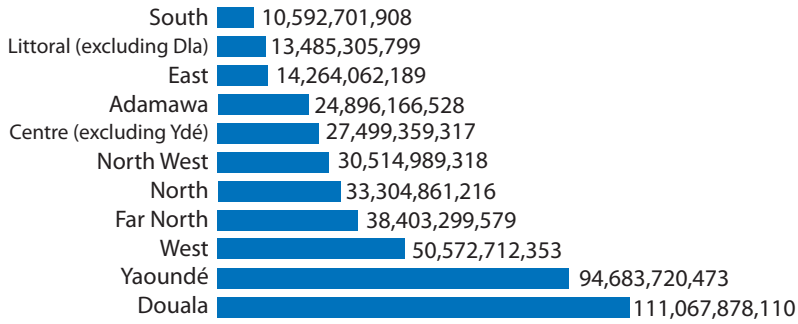
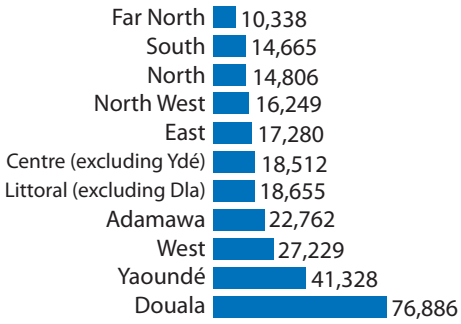


Figure 45. Household health expenditures, Per Region, per capita, 2012



Sources : DHS 2004; DHS-MICS 2011; MICS 2014; CNS 2012

Universal Health Coverage / Reproductive Health

Figure 46. Met contraceptive needs- By Method, 2014

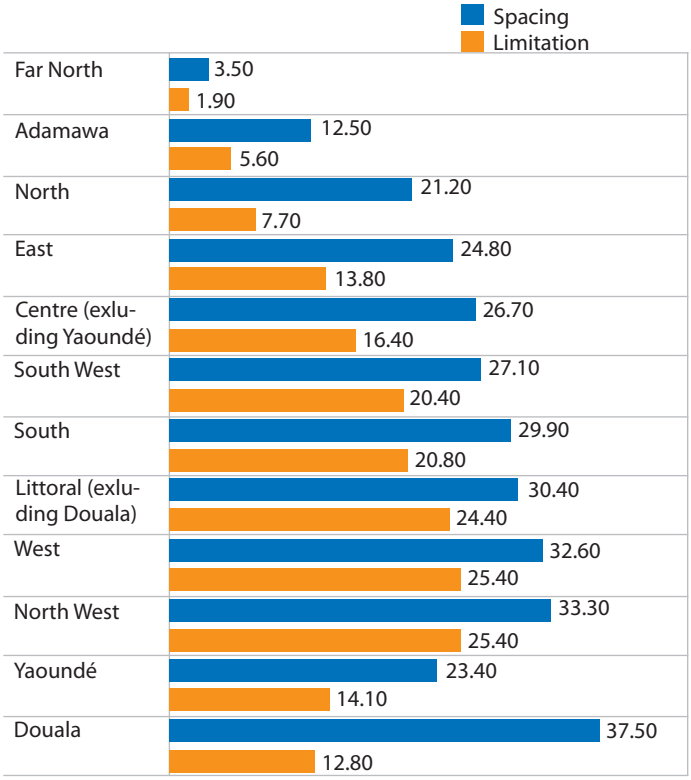


Figure 47. Unmet contraceptive needs, 2014

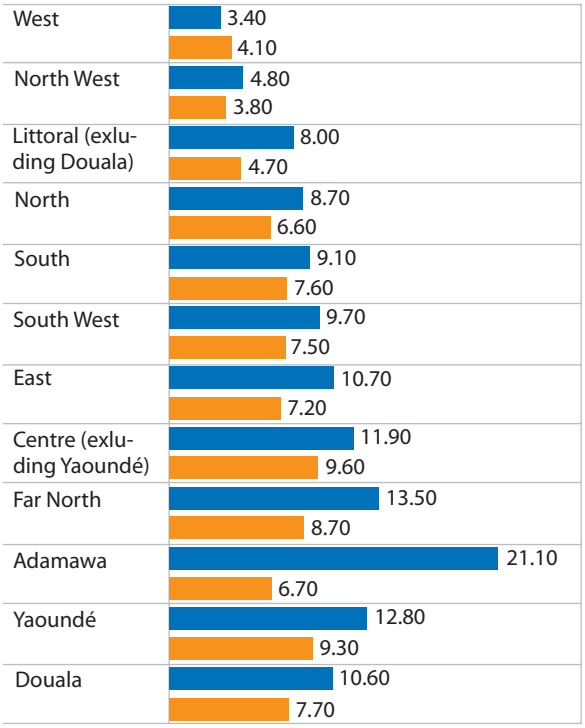


Figure 48. Met contraceptive needs, by age group, 2014

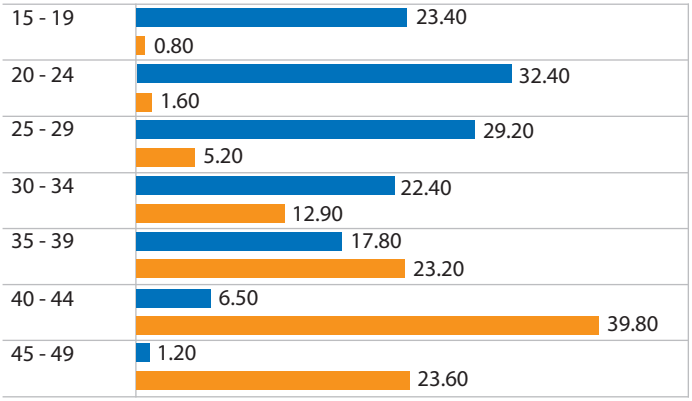


Figure 49. Unmet contraceptive needs, by age group, 2014

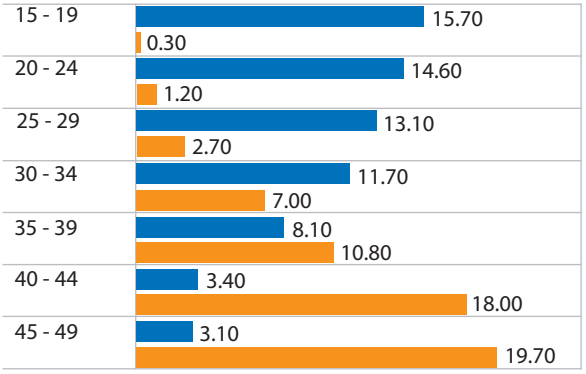
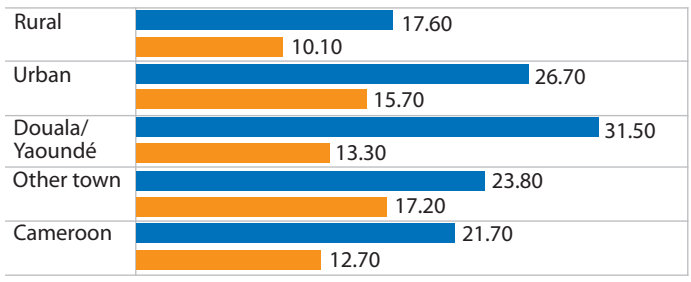
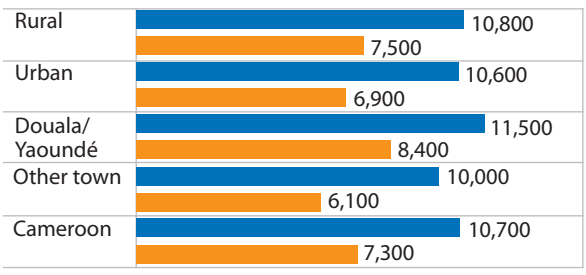


Figure 50. Met contraceptive needs- By Place of Residence, 2014



Source : MICS 2014

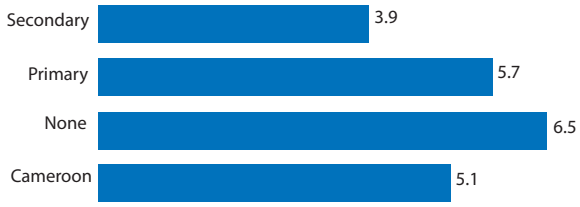
Figure 51. Unmet contraceptive needs- By Place of Residence, 2014



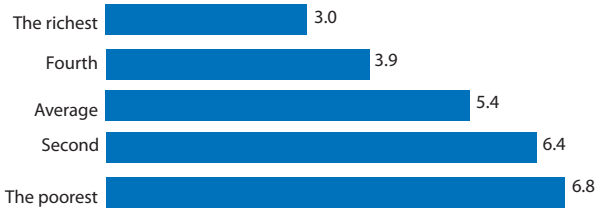
Universal Health Coverage / Reproductive Health (continuing)

Fecondity in 2014 from Cameroon

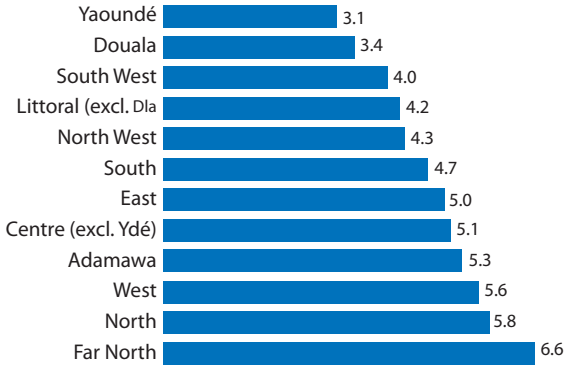
Total Fertility Rate among people aged 15-19 years, by level of Education, 2014



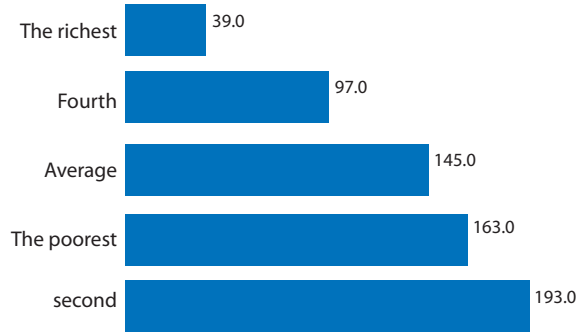
Total Fertility Rate among people aged 15-19 years, level of Education by Economic Wellbeing Quintile, 2014



Total fertility rate among people aged 15-19 years, by Region, 2014

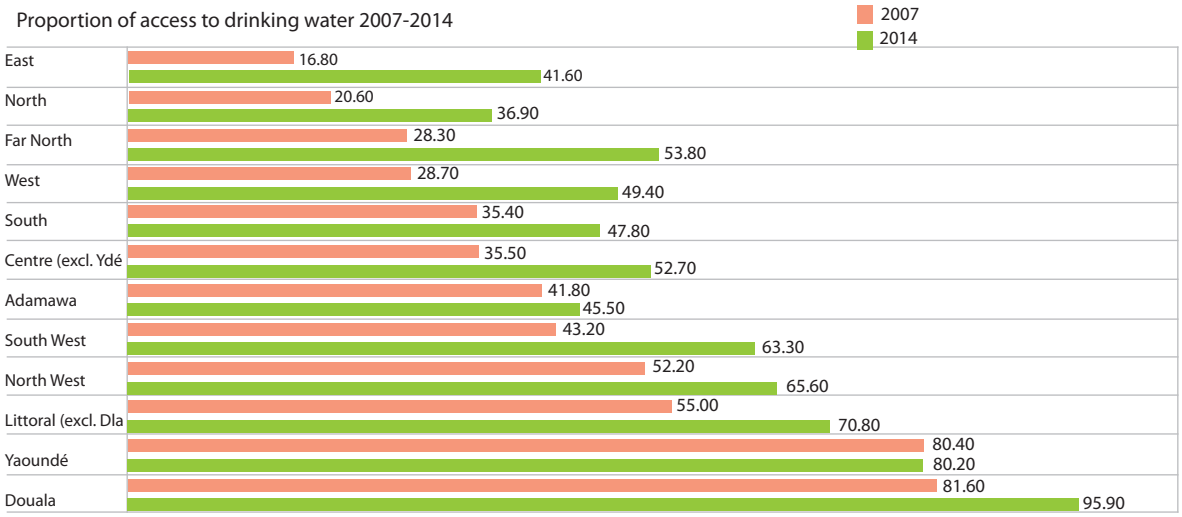


Fertility (per 1,000) Adsolescents aged 15-19 years, 2014, Economic Wellbeing Quintile, 2014

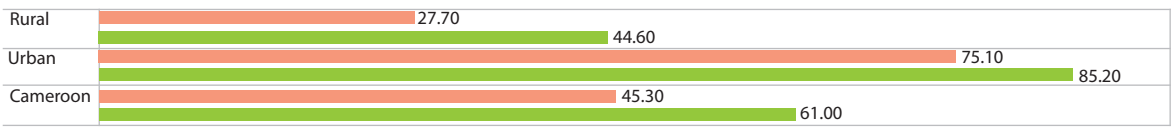


Source : MICS, 2014

Proportion of access to drinking water 2007-2014



Proportion of access to drinking water, by place of residence, 2007-2014



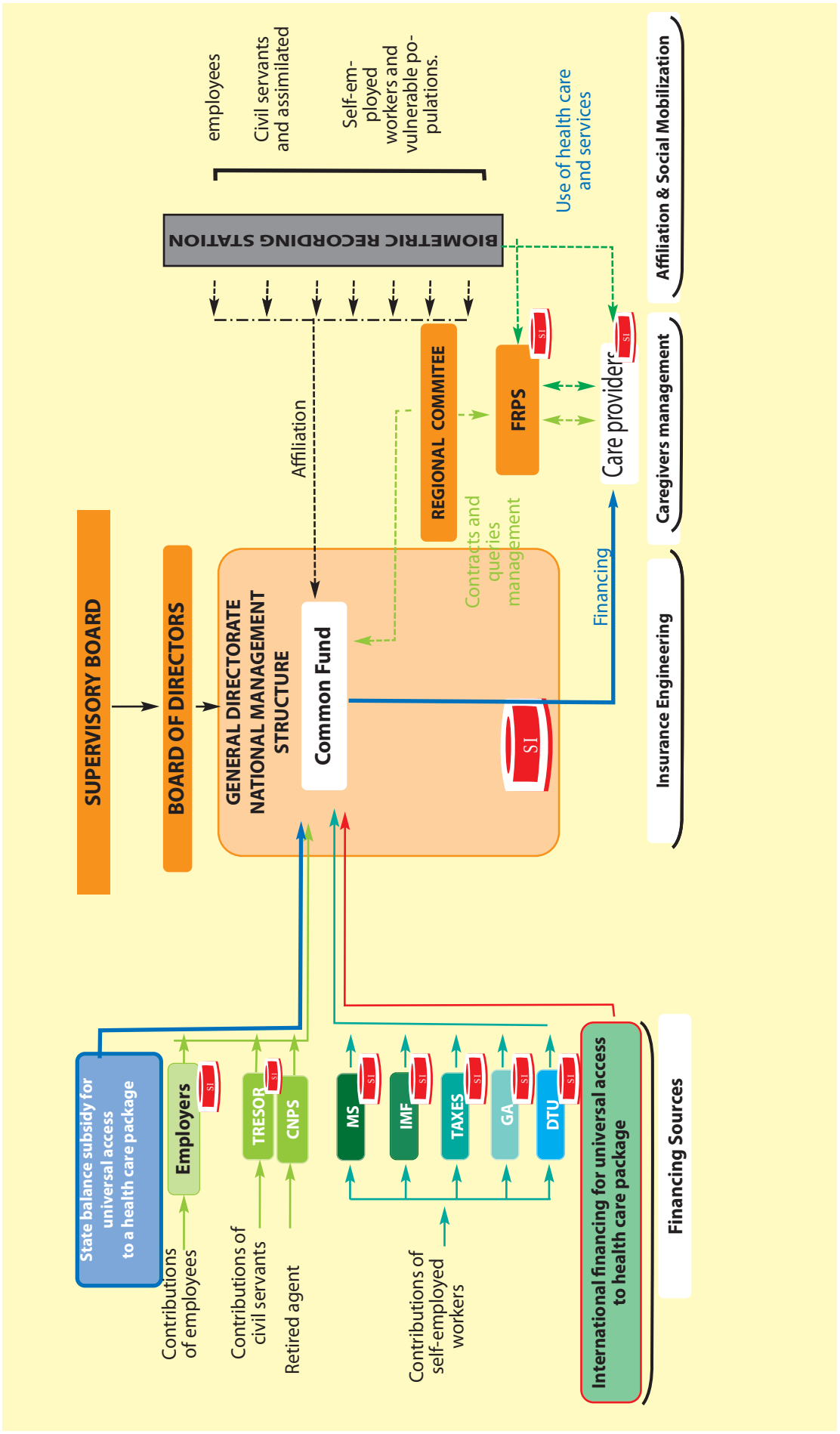


Figure 52. Architecture of Universal Health Coverage System _ Scenario 1

Source : (MOH, Comite National sur la CSU, Propositionn d'une architecture du système de Couverture Universelle en Sante au Cameroun, Note Technique, Octobre 2016).

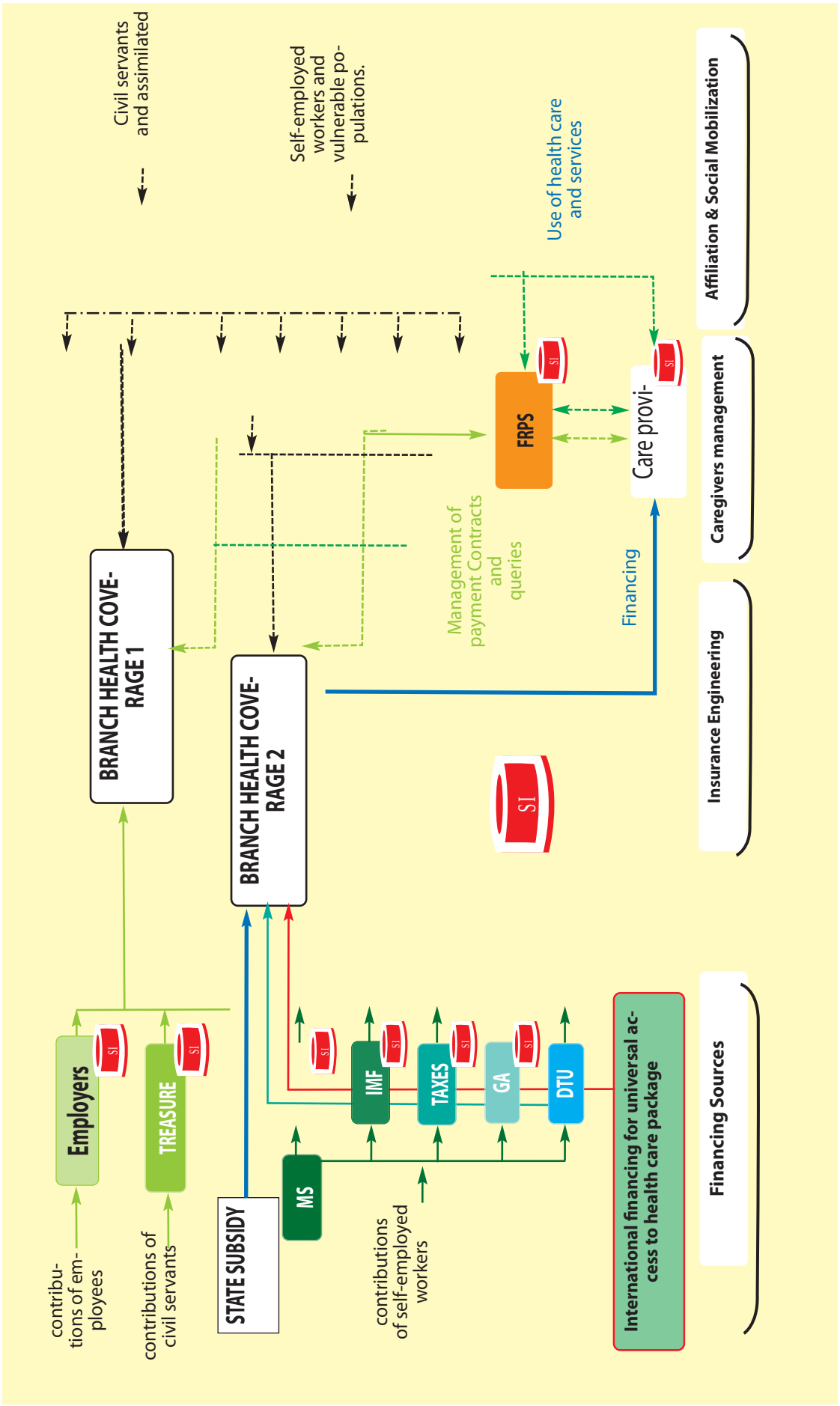
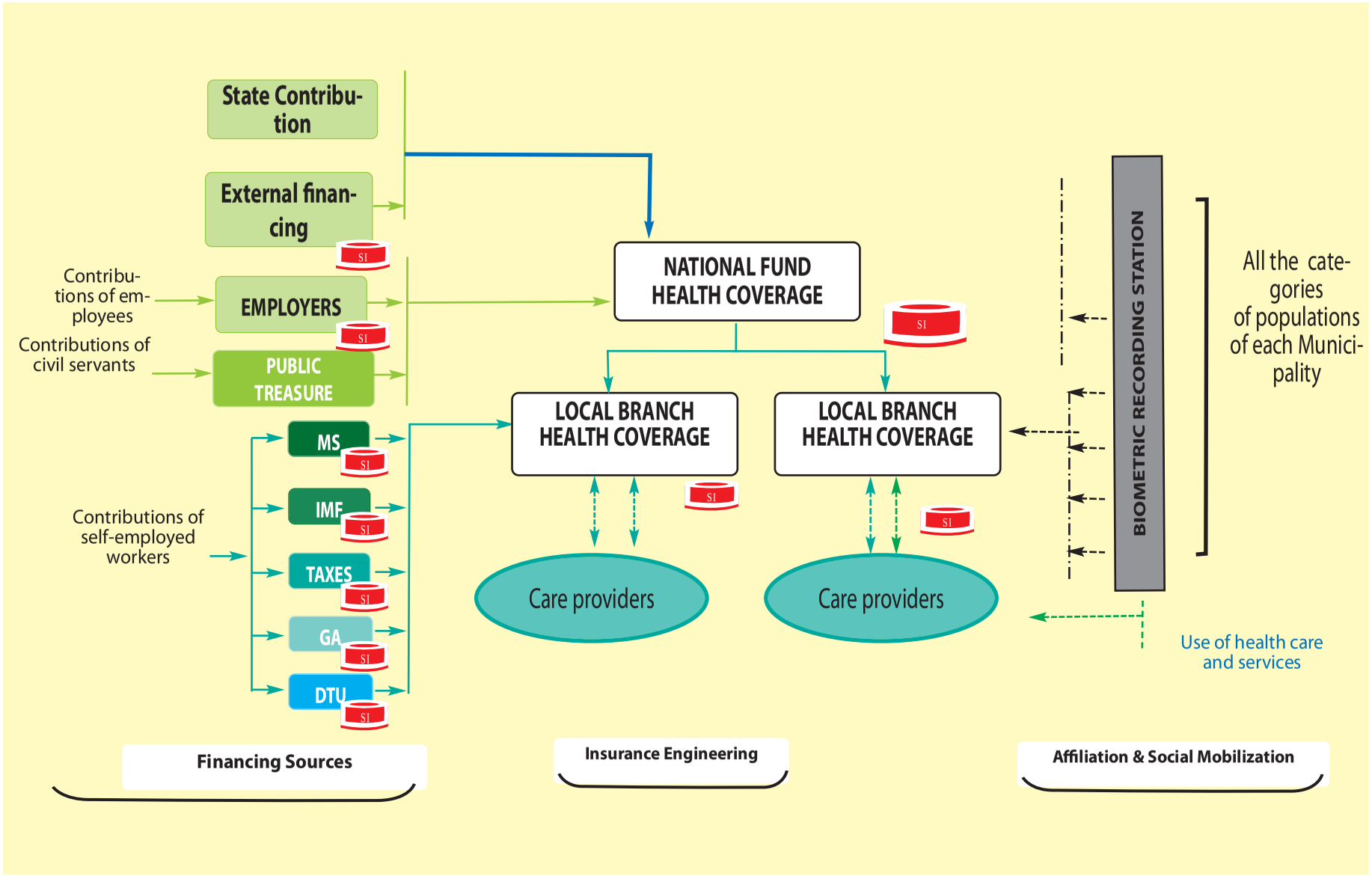


Figure 53. Architecture of Universal Health Coverage System _ Scenario 2

Source : (MOH, Comite National sur la CSU, Propositionn d'une architecture du système de Couverture Universelle en Sante au Cameroun, Note Technique, Octobre 2016).

Figure 54. Architecture of Universal Health Coverage System _ Scenario 3



Source : (MOH, Comite National sur la CSU, Propositionn d'une architecture du système de Couverture Universelle en Sante au Cameroun, Note Technique, Octobre 2016).


WHO

CHAPTER 5

SPECIFIC PROGRAMS AND SERVICES

Cameroon Health Analytical Profile, 2016 focuses on 10 programs and services: (I) HIV / AIDS, (ii) Tuberculosis, (iii) Malaria, (iv) Immunization and Vaccine Development, (v) Child and Adolescent Health, (vi) Maternal and new-born health; (vii) Gender and maternal health; (viii) Epidemic and epidemiological diseases; (ix) Neglected tropical diseases; and (x) Non Communicable Diseases.

5.1. HIV / AIDS

HIV prevalence among adults aged 15-49 years increased from 5.5% in 2004 to 4.3% in 2011. This prevalence is still high and above the Central African average in the ECCAS area (1.9%) and sub-Saharan Africa (3.6%) in 2014. The evolution of the indicators between 2004 and 2014 on sexual behavior with regard to AIDS and the behaviors with regard to the tests are encouraging, especially among young people of 15 to 24 years.

However, the evolution of new HIV infections remains significant among young people, especially for the age groups of 15-39 years. There are more cases of new infections among 20-29 years old. The most exposed populations to HIV are: sex workers (36.8%), homosexuals (37.2%) and truckers (16%) (PNDS 2016-2020).

Between 2004 and 2014, changes in sexual behavior towards HIV and test behaviors are encouraging, especially among young people aged 15-24 years. Indeed, the 2015 CNLS report indicates that the acceptance rate of the HIV test in the pregnant women is 88%. Far North (54%) and North (76%) Regions have the lowest performances. The seropositivity rate among pregnant women is 4.1%. It is higher in the Littoral (4.5%), East (5.6%), Center (5.7%) and the South (6.6%).

The number of people under ARVs treatment increased from 17,156 in 2005 to 168,249 in 2015. However, the active list remains low compared to ARV requirements estimated at about 650,000 people by 2016 (SPECTRUM). It is therefore necessary to accelerate the new strategy "Treat all HIV +" to continue to reverse the curve and achieve the goals 90-90-90 in 2020 and the elimination of HIV infection by 2030.

According to the PNDS 2016-2020, major problems persist in the management of HIV / AIDS and the most important are:

- Late case detection and poor care of HIV-positive people;
- The low availability of UPECs, several HD do not have a support site;
- Sustainability / Sustainability Plan for the acquisition of ARVs, after the possible cessation of the financing of the Global Fund projected in 2020;
- Insufficient qualified HR for the global care of PLHIV and the poor decentralization of the "controlled distribution" of ARVs in the community;
- Functional deficiency of the device to assist therapeutic adherence of patients on antiretroviral treatment.

Figure 55. Sexual behaviors (%) AIDS, 2011-2014

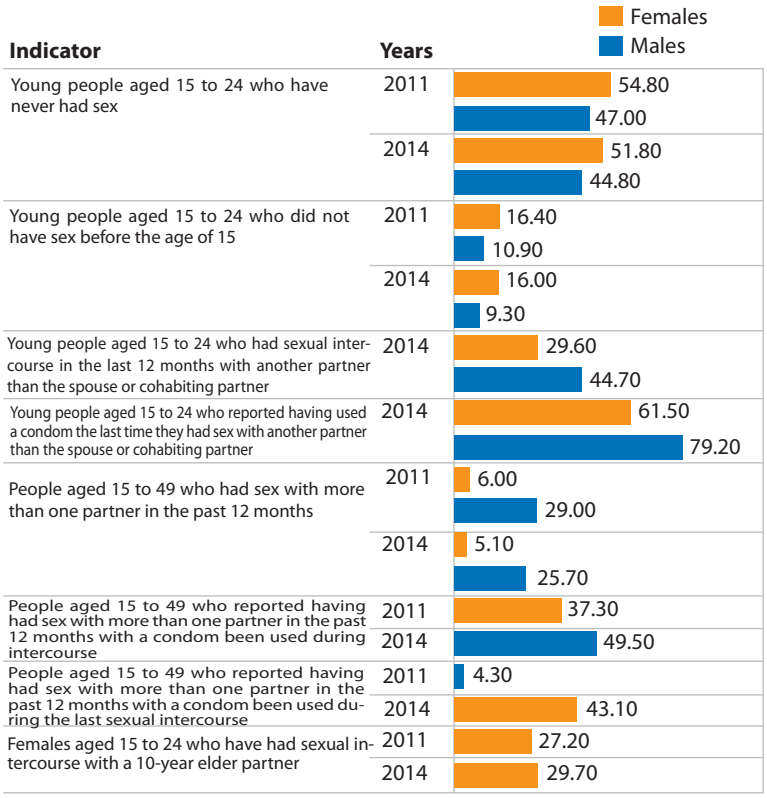


Figure 56. Evolution of new cases of HIV infections 2010-2014, by Age group

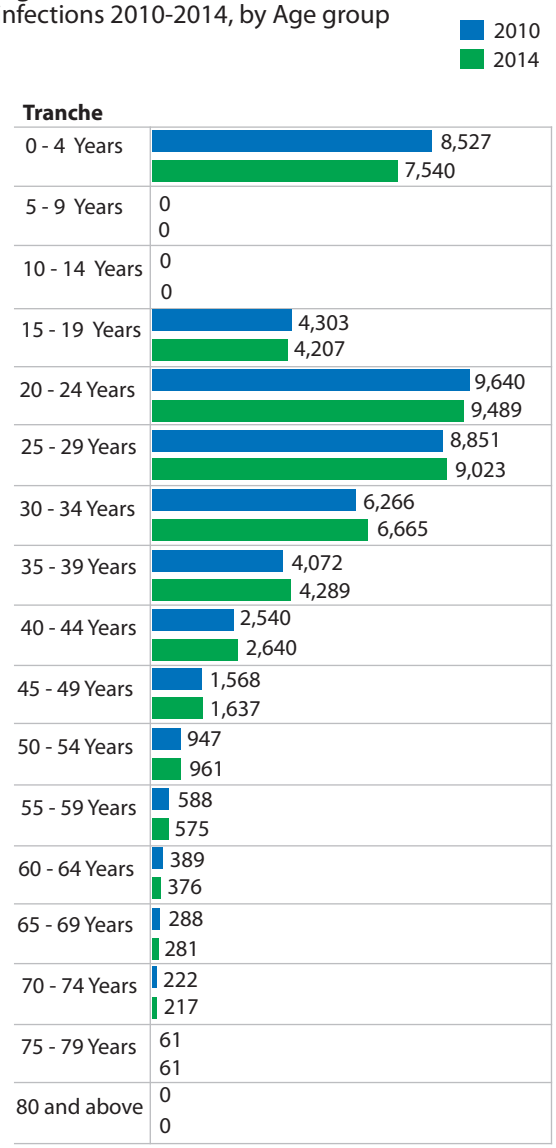


Figure 57. Behaviors towards HIV Tests, 2011-2014

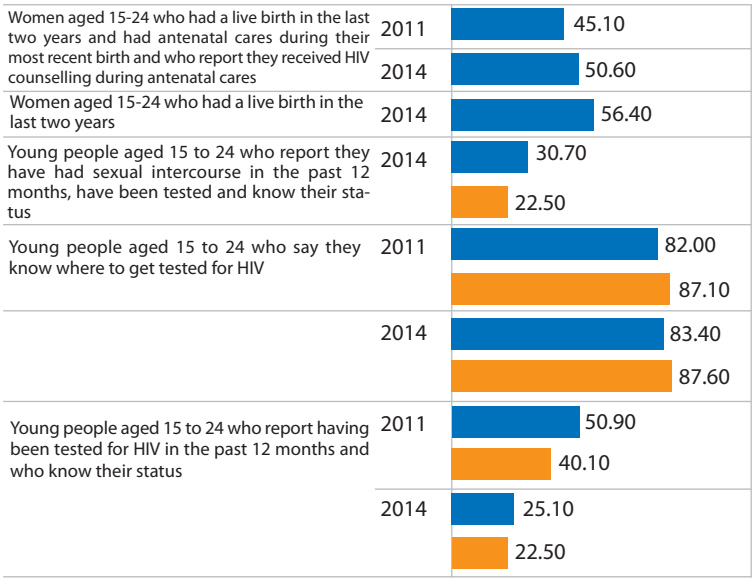


Figure 58. Evolution of new cases of HIV infections, 2010-2015

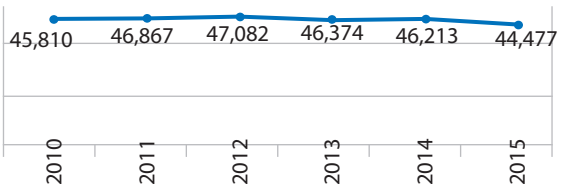
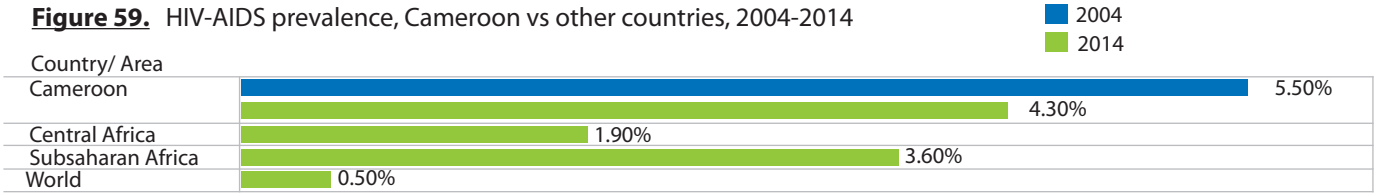


Figure 59. HIV-AIDS prevalence, Cameroon vs other countries, 2004-2014



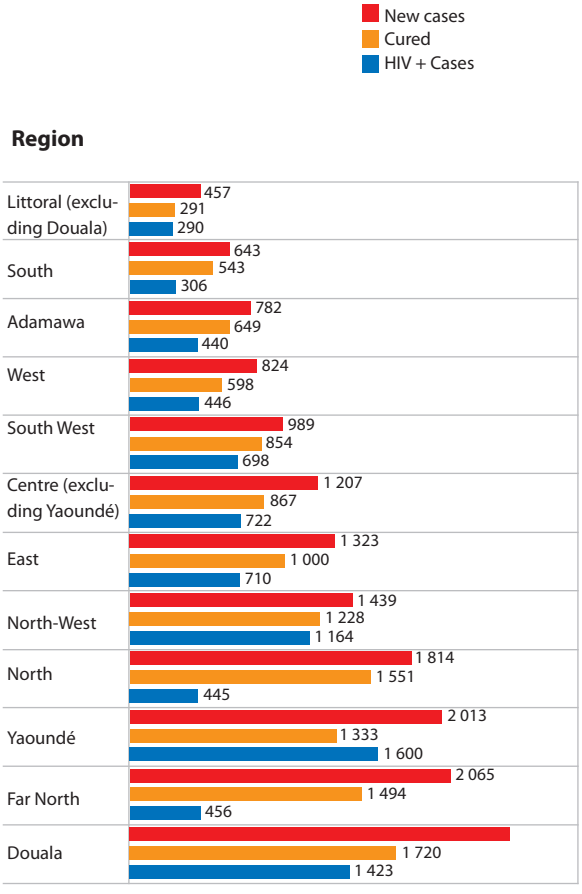
Source : DHS-MICS 2011; MICS 2014; WHO, WHS 2011, 2013,2014, SPECTRUM 2016

5.2. Tuberculosis

Tuberculosis (TB) is found in all regions of Cameroon. It has been a re-emerging disease for over two decades. TB is not only a major public health problem but also a real obstacle to development because of the costs involved in managing patients, disabilities and high deaths. The number of new cases (new and relapsed) of pulmonary tuberculosis with a positive microscopy had increased from 14,464 in 2010 to 16,008 in 2015 with cure rates around 85% in the past three years.

A total of 24,552, 26,344 and 26,570 tuberculosis cases of all forms were registered in 2010, 2014 and 2015, respectively. The PNLT has adopted new screening strategies in prisons, collaborative TB / HIV activities, and has acquired modern diagnostic tools. It is important to ensure active and systematic detection of TB among all HIV-positive people to take care of HIV-positive patients early and reduce the risk of contagion in the community.

Figure 60. New Tuberculosis cases registered and treatment outcomes by Region, 2015



Source : PNLT Reports 2004-2015

Figure 61. Evolution of New Tuberculosis cases and cure 2004-2015

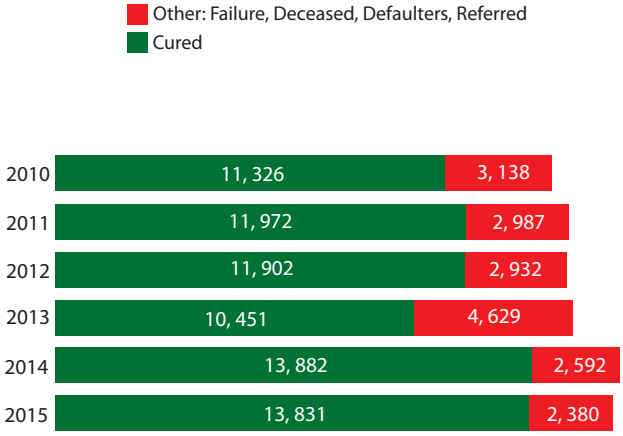
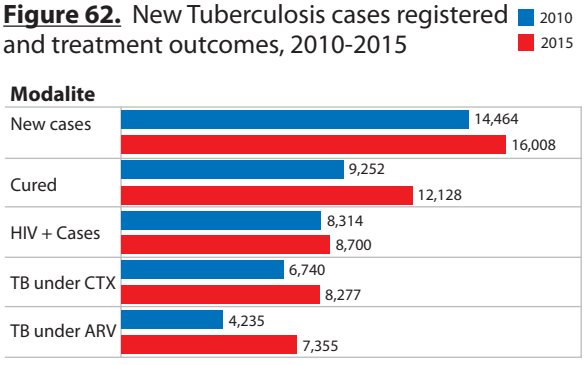


Figure 62. New Tuberculosis cases registered and treatment outcomes, 2010-2015




WHO

5.3. Malaria

Malaria-related morbidity in hospitals decreased from 40.6% in 2008 to 30.1% for the country as a whole in 2014. However hospital mortality increased from 18.65% in 2011 to 22.9% in 2014 (PNLP, 2014).

In terms of prevention, progress has been made in the distribution of LLINs to the population, particularly through campaigns for distribution of more than 8 million to 12 million LLINs between 2011 and 2016. From 2004 to 2014, an increase in the use of LLINs was recorded, especially among children under 5 years and pregnant women.

However, in 2014, the availability rate of LLINs was low among pregnant women. This rate was:
- Less than 25% in 5 regions (Adamaoua: 21.06%, Littoral 14.39%, North-West: 20.32%, South: 14.17% and South-West: 12.45%;
- Between 25% and 50% in two regions (Center: 29.57% and East: 34.08%);
- Between 50% and 75% in two regions (Far-North: 53.98% and West: 60.04%);
- Over 100% in the North Region (108%).

The percentage of pregnant women receiving preventive treatment (IPT3) who attend ANC rose from 26% in 2011 to 28% in 2014. Furthermore, the implementation of interventions that are specific to the most vulnerable groups and eco-climatic zones is also necessary to accelerate progress towards targets (Seasonal chemoprevention, intra-domiciliary).


ys-men-roll-back-malaria-14-728

Figure 63. Malaria among Children under 5, 2011

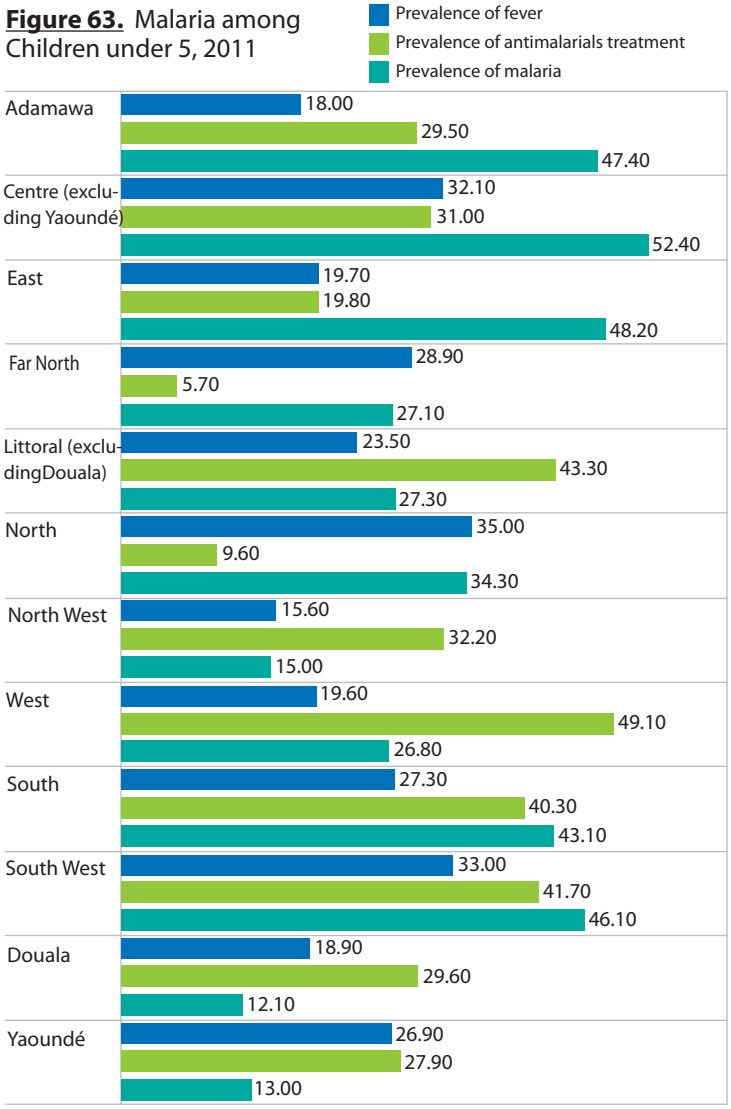


Figure 64. Malaria-Use of LLINs among Pregnant Women and Children under 5, 2004-2014

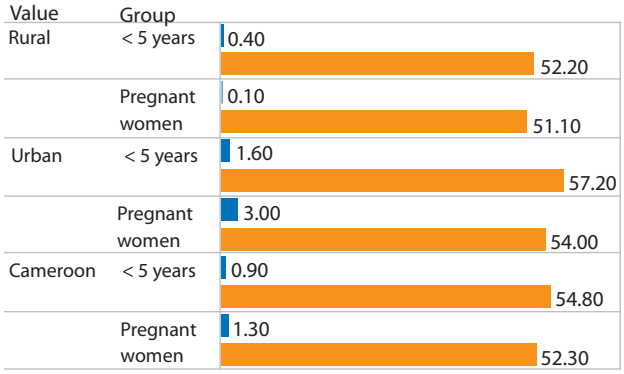


Figure 65. Malaria Prevention 2004-2014

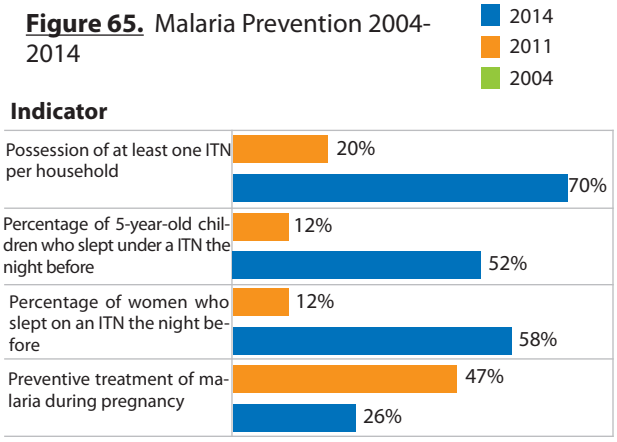


Figure 66. Malaria among Children under 5, by place of residence, 2011

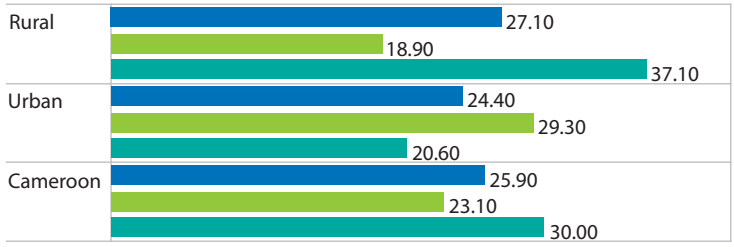


Figure 67. Evolution of IPT Distribution in ANC, 2011-2014

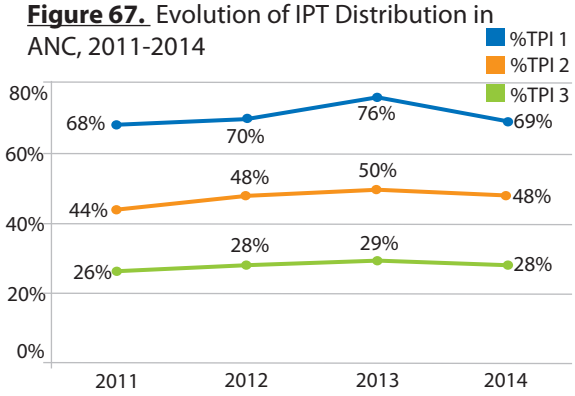


Figure 68. Evolution of in-hospital malaria mortality, 2008-2014

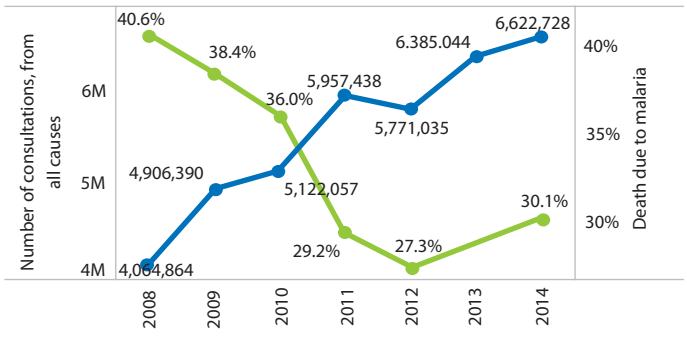
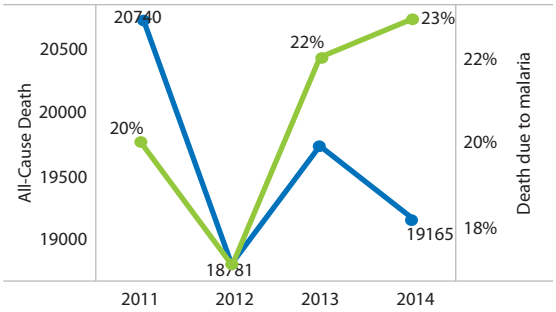


Figure 69. Evolution of in-hospital malaria mortality, 2011-2014



Source : DHS 2004, DHS-MICS 2011, MICS 2014, PNLP Report 2008-2014

5.4. Immunization and Vaccines Development

In recent years, the Expanded Program on Immunization (EPI) has introduced new vaccines into the immunization schedule to protect children against 12 diseases. Cameroon does not yet manufacture vaccines, but has a relatively efficient cold chain network, but the monitoring and maintenance of which must be strengthened.

The rate of 12-23 months children that are fully vaccinated has improved markedly from 48.2% in 2004 to 75.30% in 2014. This increase has doubled, or more, in 3 regions from 20.30% to 65% North, from 37.50% to 78.50% in the East, from 47.40% to 89.90% in the Center Region (without the city of Yaounde). Moreover, additional immunization activities are organized for polio, measles, and yellow fever mainly.

In 2014, the rates of unimmunized or incompletely immunized children were 12.3% and 12.7% in Douala and Yaounde (MICS 2014). However, in 2016 a EPI study revealed that 10.1% and 40.3% in Yaounde and Douala respectively. The causes of non-immunization identified included poor perception of the functioning of the health system, parent's lack of confidence in the health system, inappropriate IEC in urban dynamics, governance difficulties, inadequate or unsufficient accountability framework, and poor appropriation by local authorities and parents (EPI, 2016).

Despite encouraging results, it is important to strengthen routine EPI to protect all children against vaccine-preventable diseases.


vaccin_polio

Figure 70. Rate of children aged 12 to 23 months that are fully Immunized (that received all vaccines), by Region, 2004-2014

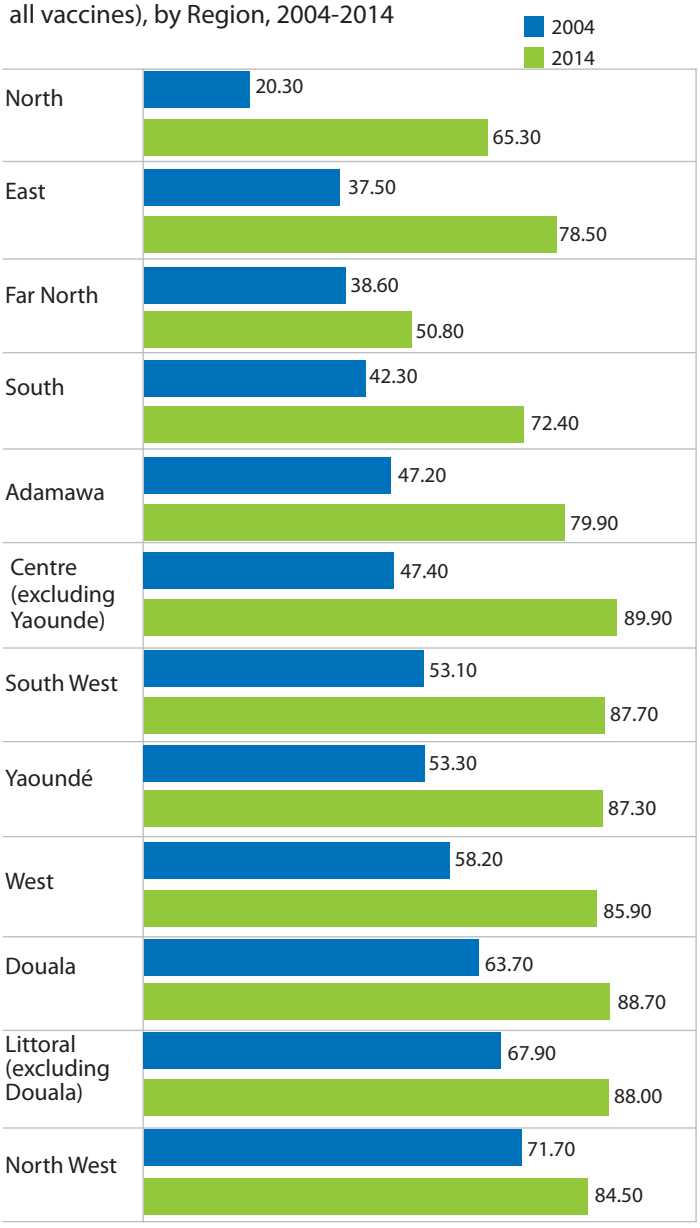


Figure 71. Rate of children aged 12 to 23 months that are fully Immunized against Measles, by Region, 2004-2014

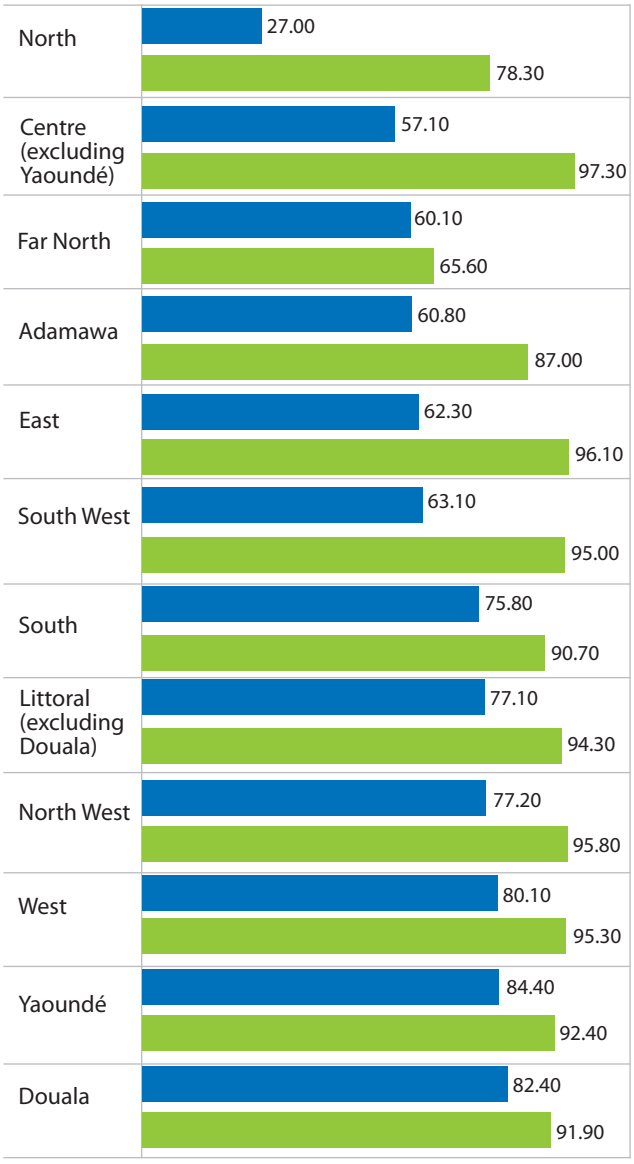


Figure 72. Rate of children aged 12 to 23 months that are fully Immunized - Area, 2004-2014

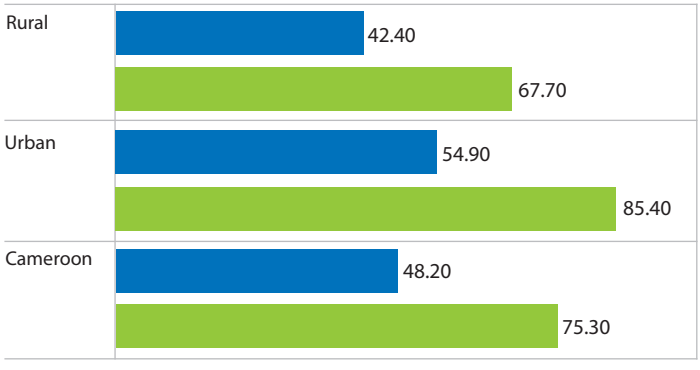
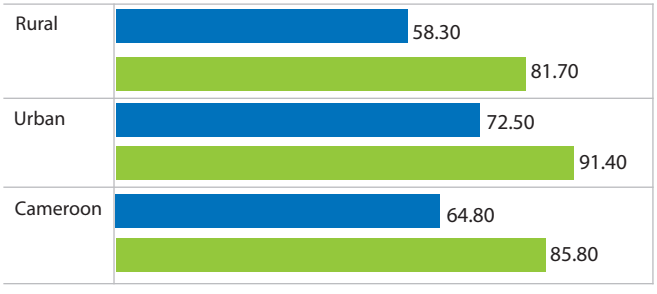


Figure 73. Rate of children aged 12 to 23 months that are fully Immunized against Measles, by Area, 2004-2014



Source : DHS 2004, MICS 2014

5.5. Nutrition, and Child and Adolescent Health

Changes in the nutritional status of new-borns decreased in two areas (moderate wasting and underweight), while the nutritional status of children under five stagnated between 2004 and 2014. Progress was recorded between 2004 and 2014 in terms of prevention of vaccine-preventable diseases, incentives for early breastfeeding and exclusive breastfeeding for the first six months. In addition, simple and severe malaria care are free of charge for children under five years of age since 2011 and 2014 respectively.

Infant and child mortality decreased between 2011 and 2014, and significantly among children under five, from 122 deaths to 103 deaths per 1,000 live births. The government's stated goal was to reduce infant and child mortality rates from 103 ‰ to 76 ‰ and child mortality rates from 66 ‰ to 39 ‰ in 2015.

At the regional level, the target for child mortality rate was reached in Douala (39 per 1000 live births) and Yaounde (32 per 1000 live births), with the regions of the North-West and the West approaching the target of 42 per 1000 live births each. As far as infant and child mortality is concerned, the South West (78 per 1000 live births), Northwest (64 per 1000 live births), Douala (52 per 1,000 live births) and Yaounde (42 per 1000 live births) performance is above the target.

In addition, fertility rates for women aged 15 to 19 years were 83 ‰ for those with secondary education level, 178 ‰ and 205 ‰ for women with primary education level or no level at all. In addition, the fertility rate for 15-19 years old was East: 206 ‰, South: 183 ‰, Center (excluding Yaounde): 177 ‰, Littoral (excluding Douala): 72 ‰, Douala: 55 ‰ and Yaounde: 54 ‰. The total fertility rate was: Far North: 6.6; North: 5.8; West: 5.6, Yaounde: 3.1 and Douala: 3.4.

Met contraceptive needs were 60.30% for 15-19 year old in 2014, while unmet contraceptive needs in l5-19 were 23.4% in terms of spacing and 0.80% in terms of limitation.


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Figure 74. Nutritional status of children under 5 years of age, 2004-2014

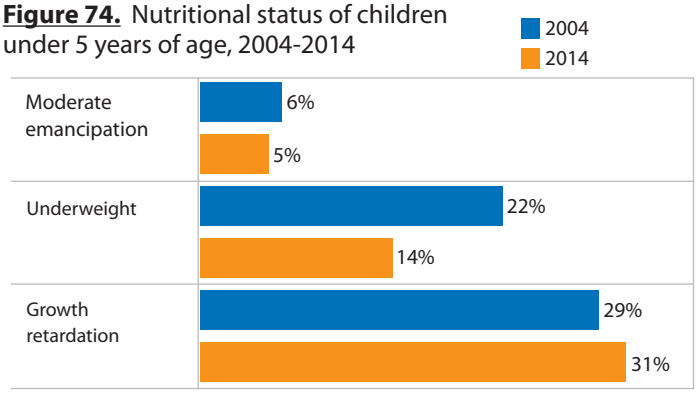


Figure 75. Child nutritional status, 2004-2014

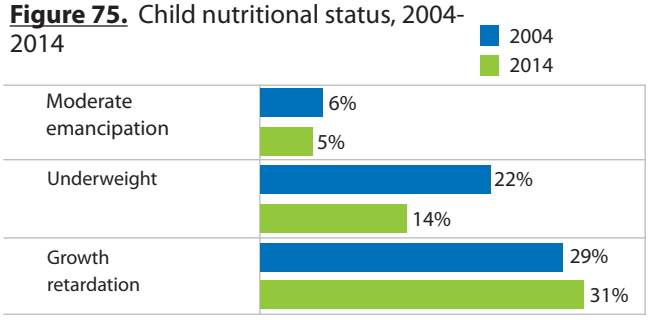


Figure 76. . Infant and child mortality (per thousand) in Cameroon, compared to other Areas, 1990-2015

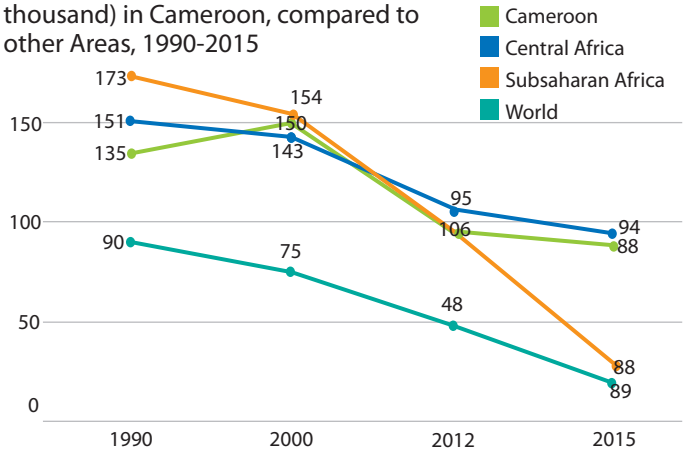


Figure 77. New-born Interventions Coverage, 2004-2014

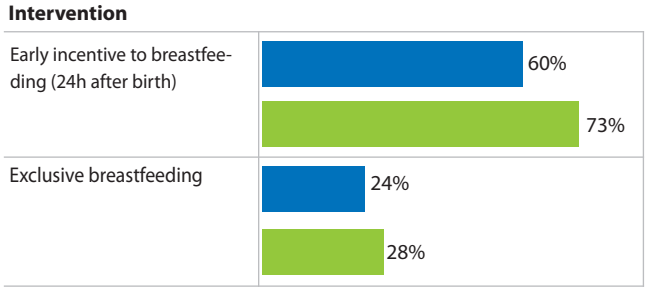


Figure 78. Nutritional status of children under 5 years of age, 2011-2014

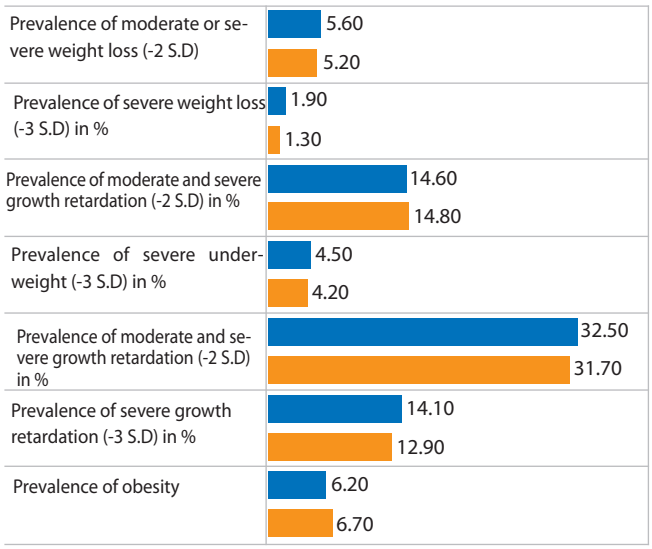


Figure 79. Early childhood Mortality, 2011-2014

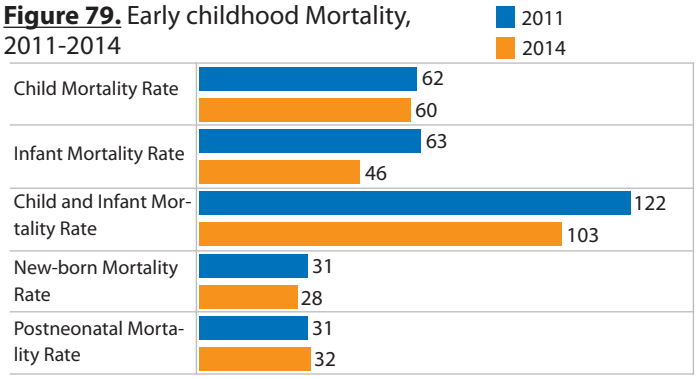


Figure 80. Total Fertility Rate among people aged 15-19 years, by Region, 2014

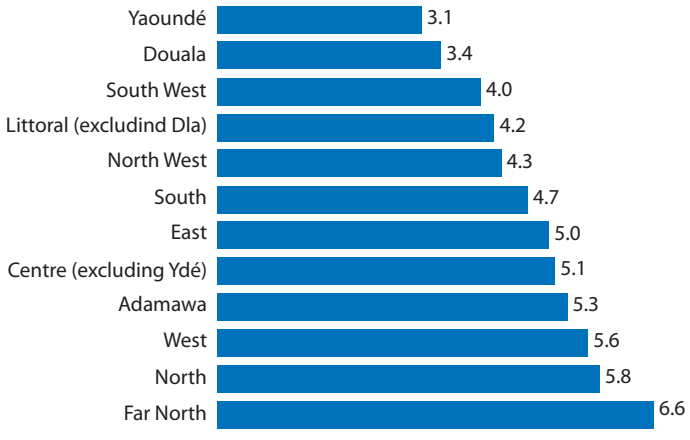
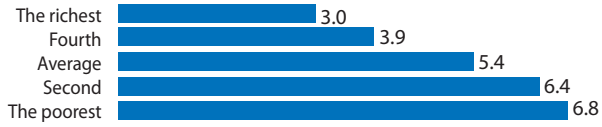


Figure 81. Total Fertility Rate among people aged 15-19 years, by level of Education,2014

Figure 82. Total Fertility Rate among people aged 15-19 years, level of Education by Economic Wellbeing Quintile, 2014



Source : DHS 2004, MICS 2014

Table 32: Child mortality (per 1,000 live births, child and infant and child mortality per 5-year period before the MICS 2014 in Cameroon)						
5 -year analysis period	Number of years preceding survey	Neonatal mortality	Post-neonatal mortality	Child mortality	Infant Mortality	Child-infant mortality
2009 - 2014	0 - 4	28	32	60	46	103
2004 - 2009	5 - 9	25	37	72	55	123
1999 - 2004	10 - 14	33	42	74	64	134

Source : MICS 2014

Table 33 : Child mortality per 1,000 live births by region _ MICS 5-2014; Cameroon						
		Morality				
		Neonatal	Post-neonatal	Child	Infant	Child-infant
Regions	**Code**					
Adamawa	AD	40	32	72	59	127
Centre (excluding Yaoundé)	CE (excluding Yde)	28	27	55	43	96
East	ES	39	43	82	49	127
Far North	EN	40	41	81	79	154
Littoral (excluding Douala)	LT (excluding Dla)	22	27	49	36	84
North	NO	42	58	100	81	173
North West	NW	19	23	42	23	64
West	OU	14	28	42	42	83
South	SU	31	24	55	48	100
South West	SW	32	26	58	21	78
Douala	DLA	21	18	39	14	52
Yaoundé	YDE	17	15	32	10	42
Level of education						
None		39	47	87	78	156
Primary		29	36	65	51	112
Secondary and plus		26	19	45	21	65
Quintile of Economic Well-being						
The poorest		39	54	93	88	173
Second		34	39	74	56	126
Average		28	31	58	45	101
Fourth		23	21	45	32	75
The richest		29	17	46	12	57
According to gender						
Male		36	35	70	52	119
Female		27	34	61	48	105

Table 33 : Child mortality per 1,000 live births by region _ MICS 5-2014; Cameroon						
		Morality				
		Neonatal	Post-neonatal	Child	Infant	Child-infant
Age group of the mother at birth						
	Below 20 years	40	38	79	55	129
	20 - 34	26	31	57	46	101
	35 -49	46	49	95	68	157
	Birth order					
	1	30	27	57	40	94
	2 - 3	26	30	56	45	98
	4 - 5	31	35	66	49	112
	6 years or more	49	57	108	92	188
	Interval with previous birth					42
	< 2 years	51	63		73	170
	2 years	22	35		56	109
	3 years	25	31		49	102
	4 years or more	25	19		27	70

Source: DHS 1991, 1998 and 20O4 ; DHS-MICS 2011 and MICS 2014,

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Table 34 : Breastfeeding and feeding of children in Cameroon between 2011 and 2014			
Groups	Indicator	DHS -MICS 2011	MICS 2014
Breastfed children	% of women who had a live birth in the 2 years preceding the survey and who breastfed their last living child		95.8
Precocious initiation to breastfeeding	% of women who had a live birth in the 2 years preceding the survey and who breastfed their new-born baby during the first hour after childbirth		31.2
Exclusive breastfeeding for children below 6 months	% of infants below 6 months of age who are exclusively breastfed.	20.4	28.2
Predominant breastfeeding for children below 6 months	% of infants younger than 6 months who received breastfeeding as the predominant source of feeding during the previous day		69.8
Continuous feeding at 1 year	% of children 12-15 months who were breastfed during the previous day	77.9	70.3
Continuous feeding at 2 years	% of children 20-23 months who were breastfed during the previous day	24.3	18.5
Median duration of breastfeeding	Age less or 50% child 0-35 months who were not breast-fed on maternal day	17	16.8
Suitable breastfeeding according to age	% of children aged 0-23		49.3
Introduction of solid, semi-solid and soft foods	% of infants 6-8 months of age receiving solid, semi-solid foods during pregnancy		82. 7

Source : DHS-MICS 2011, MICS 2014

Table 35 : Vaccination before 1st birthday (%)	DHS-MICS 2011	MICS 2014
TB immunization coverage	86	91.2
Polio immunization coverage 3	67.7	84.5
Pentavalent vaccine coverage (DTPoq 3, Hep 3 and Hib 3)	66.3	79.6
Measles immunization coverage	70.6	79.9
Pneumonia immunization coverage		78.9
Yellow fever immunization coverage	62.5	79.6
Full vaccination coverage	50.2	64.4
Protection against neonatal tetanus	73.3	73.9

Source : DHS-MICS 2011, MICS 2014

Table 36 : Diarrhea (among children below 5 years) in the last 2 weeks before the survey between 2011 and 2014 in Cameroon	DHS -MICS 2011	MICS 2014
Children with diarrhea	20.9	20
Search for treatment for diarrhea	22.8	25.2
Diarrheal treatment with oral rehydration salts (ORS) and Zinc	Oral rehydration salts (ORS) 17.2 and Zinc: 0.1	5.2
Diarrheal treatment with TRO and continuous feeding	46.5	39.3

Source : DHS-MICS 2011, MICS 2014

Table 37 : Symptoms of acute respiratory infection among children under 5 years between 2011 and 2014 in Cameroon	DHS -MICS 2011	MICS 2014
Children with IRA symptoms	5.4	4
Search for treatment for a child with IRA	29.9	28.1
Antibiotic treatment for children with symptoms of IRA	44.7	40.7

Source : DHS-MICS 2011, MICS 2014

Table 38 : Malaria and fever among children between 2011 and 2014 in Cameroon	DHS -MICS 2011	MICS 2014
Children with a fever	25.9	25.6
Availability of a ITN in households (at least one ITN)	36.4	70.9
Availability of a ITN in households (at least one ITN for 2 persons)		37.4
Children below 5 years sleeping under ITN	21	54.8
Population having slept under ITN	14.8	47.5
Search for treatment for fever	26.9	32.9
Use of Malaria Diagnostic Tests		15.9
Antimalarial treatment for children below 5 years of age	23.1	38.2
Treatment with artemisinin-based combination therapy(ACT) among children who have received antimalarial treatment		15.1
Pregnant women sleeping under ITN	19.8	52.3
Preventative treatment against malaria duing pregnancy		26

Source : DHS-MICS 2011, MICS 2014

Table 39 : Protection of children (%) reported between 2011 and 2014 in Cameroon		
	DHS -MICS 2011	MICS 2014
Birth registration of children below 5	61.4	66.1
Children aged 5 to 17 years involved in child labour	44.4	47
Children aged 1 to 14 years who experienced psychological aggression or physical punishment during the last month prior to the survey		85

Source: MICS 2011 and 2014

Table 40 : Adolescent fertility rate and total fertility rate among women aged 15 to 19 in 2014 in Cameroon			
Regions		Fertility rate of adolescent girls aged 15-19 (per 1,000 girls)	Total fertility rate 15-19 years (Children / Women)
Adamawa	AD	151	5.3
Centre (excluding Yaoundé)	CE (excluding Yde)	177	5.1
East	ES	206	5
Far North	EN	143	6.6
Littoral (excluding Douala)	LT (excluding Dla)	72	4.2
North	NO	141	5.8
North West	NW	102	4.3
West	OU	99	5.6
South	SU	183	4.7
South West	SW	82	4
Douala	DLA	55	3.4
Yaoundé	YDE	54	3.1
Level of education			
None		205	6.5
Primary		178	5.7
Secondary		83	3.9
Higher			2.6
Quintile of Economic Well-being			
The poorest		163	6.8
Second		193	6.4
Average		145	5.4
Fourth		97	3.9
The richest		39	3
Cameroon		127.4	5.1

Source: DHS 3 (2004); DHS -MICS 2011 and MICS 2014

WHO

WHO

5.6. Maternal and New-born Health

Maternal mortality has been aggravated over time, from 430 in 1998 to 669 in 2004 and then to 782 maternal deaths per 100,000 live births in 2011 (DHS-MICS, 2011). On the other hand, neonatal mortality slightly decreased from 33 ‰ deaths (period 1999-2004) to 28 ‰ (Period 2009 - 2014) live births.

Moreover, the country recorded between 2004 and 2014 (i) a decrease in ANC 1 and ANC 4, (ii) a stagnation in the use of health personnel during pregnancy, (iii) an increase (births in a health facility, assisted delivery by trained provider, and postpartum consultations for mother and new-born). The rates of deliveries attended by trained / skilled care providers increased, except in the West (93.30% to 92.30%) and Littoral (without Douala) Regions (93.80% to 88.50%) and in Douala (97.10% to 95.20%) and Yaounde (from 94.20% to 90.50%). Some efforts are needed in order to improve the quality of reception and care for pregnant women in hospitals.

In addition to the ANC, the use of impregnated bed nets has considerably improved: 12% and 58% between 2004 and 2014 the percentage of women sleep under mosquito nets. Moreover, the proportion of women aged 15-49 who are married or living in a union and are under contraceptive improved from 29.20 to 34.40 except in Yaounde (from 41.20% to 37.50%) and in the Southwest (53.20% to 47.50 %) Between 2004 and 2014. With regard to unmet need for contraception, there is a predominance of spacing compared with birth control in all regions except in the West Region, in 2014 .

Since 2013, the Government has set up the national multisectoral program to combat maternal, neonatal and child-infant mortality (PNLMNI) by Order No. 095 / CAB / PM of 11 November 2013.

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Figure 83. Proportion of Assisted delivery – By Region, 2004-2014

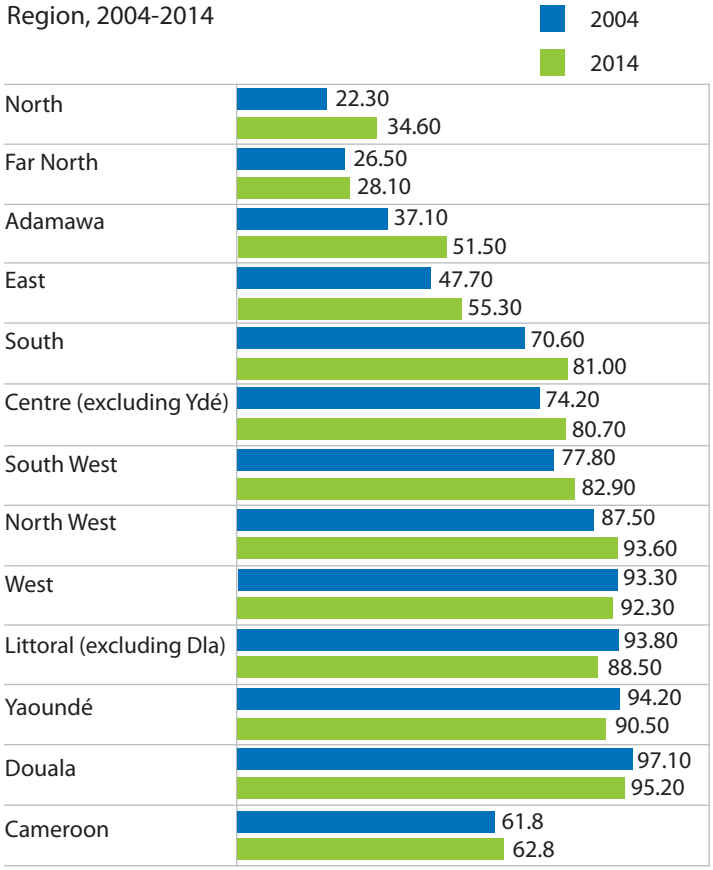


Figure 84. . Maternal health intervention coverage, 2004-2014

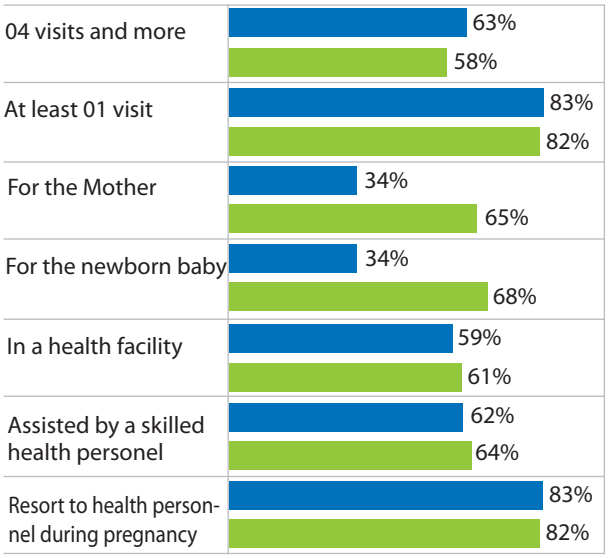


Figure 85. Proportion of Assisted delivery – By Area, 2004-2014

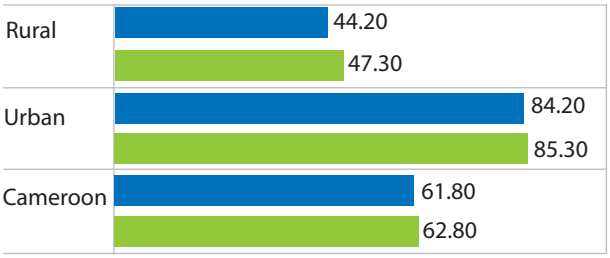


Figure 86. Proportion Married women aged 15-49 under Contraception, 2001-2014

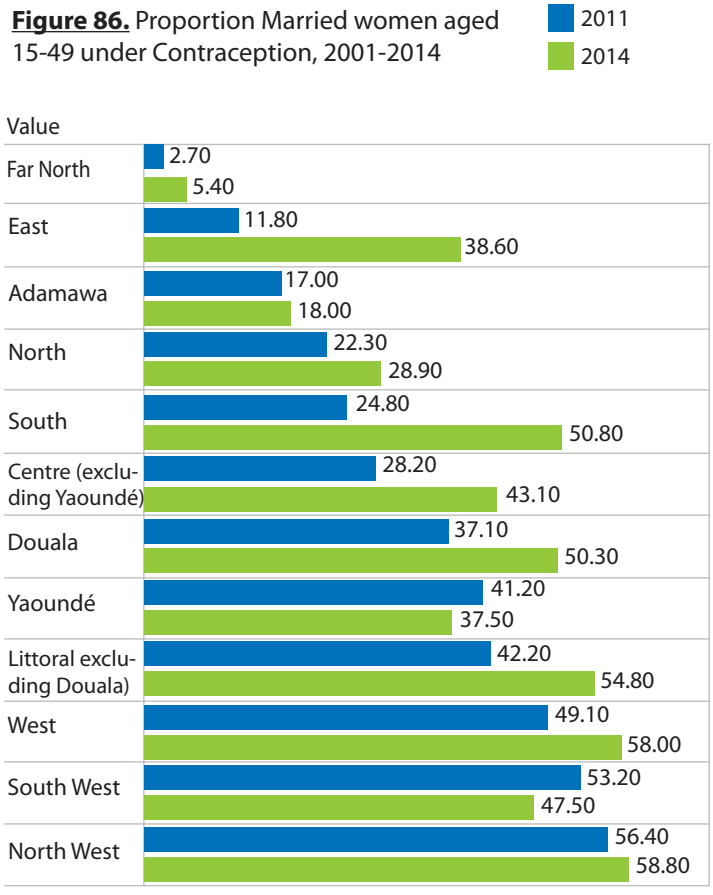


Figure 87. Maternal Mortality (per 100,000 living births) in Cameroon, 1998-2011

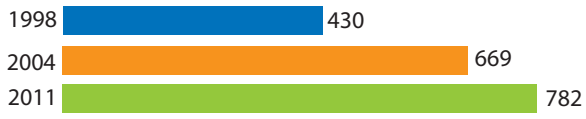
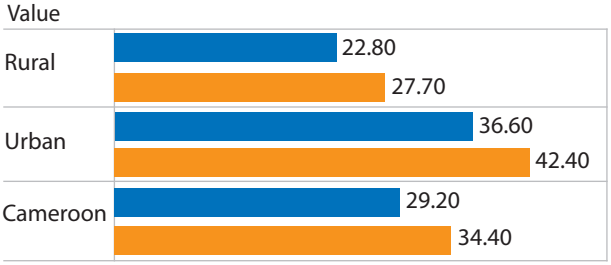


Figure 88. Proportion Married Women aged 15-49 under Contraception, By Place of Residence, 2011-2014



Source : EDS 2011, MICS 2014

Figure 89. Total Fertility Rate among people aged 15-19 years, by level of Education,2014

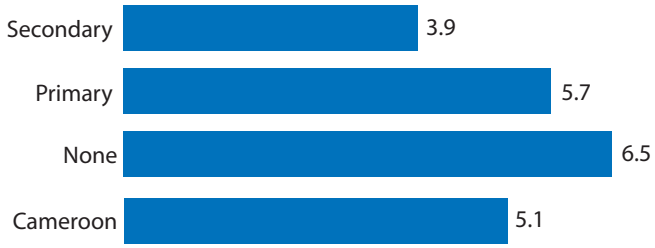


Figure 90. Total Fertility Rate among people aged 15-19 years, level of Education by Economic Wellbeing Quintile, 2014

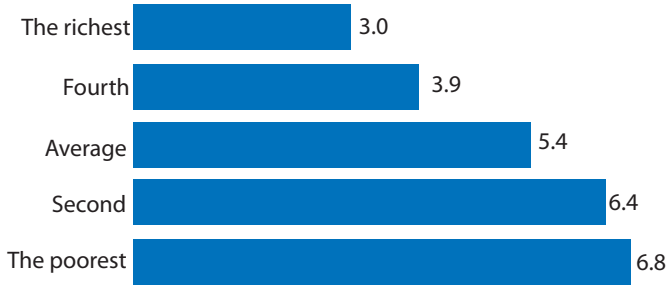


Figure 91. Total fertility rate among people aged 15-19 years, 2014

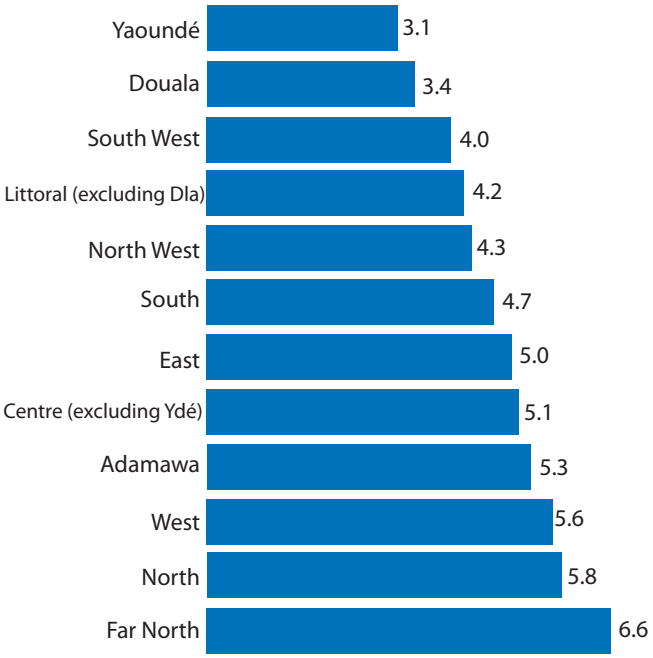


Figure 92. Fertility (per 1,000) Adsolescents aged 15-19 years, 2014

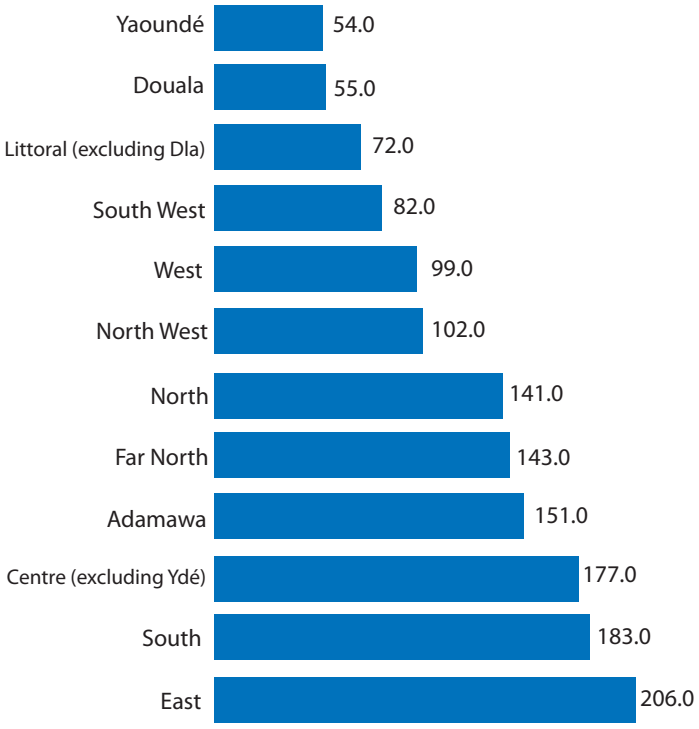


Figure 93. Fertility (per 1,000) Adolescents aged 15-19 years, by quintile of economic wellbeing, 2014

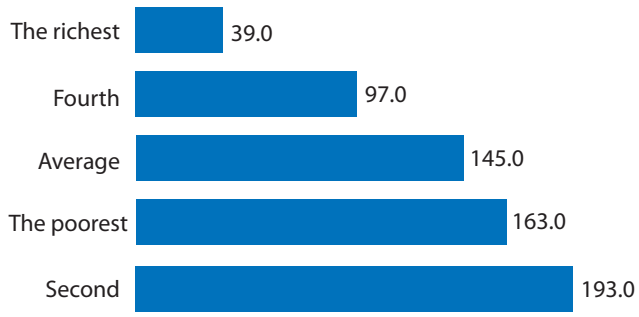
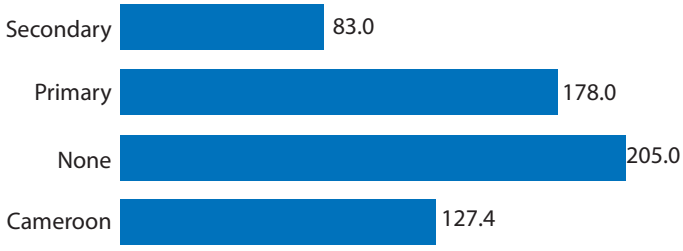


Figure 94. Fertility (per 1,000) Adolescents aged 15-19 years, by level of education, 2014



Source : MICS, 2014

Table 41 : Prevalence and unmet needs in Family Planning between 2004 and 2014 in Cameroon			
	2004	2011	2014
Modern contraceptive prevalence rate	14%	16%	34%
Unmet needs		17%	18%

Source: DHS 3(2004) ; DHS-MICS 2011 and MICS 2014

Table 42 : Coverage of interventions specific to the new-born between 2004 and 2014 in Cameroon				
		2004	2011	2014
Intervention	Prevention of Tetanus	53%	73%	74%
	Early incitement to breastfeeding (24 hours after birth)	60%	71%	73%
	Exclusive breastfeeding	24%	20%	28%
	Birth registration			66%
	Child labour			4%
Nutritional status of new-borns	Growth retardation	29%	28%	31%
	Emaciation	6%	5%	5%
	Underweight	22%	18%	14%

Source: DHS 3(2004); DHS-MICS 2011 and MICS 2014

Table 43 : Live births before the age of 15 and 18 years among women aged 15-49 according to age group in 2014 in Cameroon									
Urban environment in 2014					Rural environment in 2014				
% of women who had a live birth before the age of:					% of women who had a live birth before the age of:				
	15 years		18 years			15 years		18 years	
Age group	Number of women aged 15-49	%	Number of women aged 20-49	%	Age group	Number of women aged 15-49	%	Number of women aged 20-49	%
15 - 19 years	1,124	3			15 - 19 years	996	5.3		
20 - 24 years	1,078	4.3	1,078	19.4	20 - 24 years	891	8.2	891	37.3
25 - 29 years	995	3.4	995	20.1	25 - 29 years	804	9.3	804	40
30 - 34 years	730	4.3	730	19.5	30 - 34 years	878	10.7	878	40
35 - 39 years	576	4.9	576	21.4	35 - 39 years	554	8.8	554	38
40 - 44 years	454	7.8	454	28.7	40 - 44 years	377	9.6	377	35.3
45 - 49 years	292	8	292	24	45 - 49 years	310	6.7	310	34.7
Cameroon	0	4.4	0	21.2		0	8.2	0	38.1

Source : MICS 2014

5.7. Gender and maternal health (including sexuality and reproductive health)

Women are the priority target of some health programs and interventions because of their vulnerability. We can cite, among others, the PNLMNI (reduction of maternal mortality, training in SONEU), the PNLP (access to LLINs and Intermittent Preventive Treatment), CNLS (Prevention of mother-to-child transmission of HIV), EPI (free vaccination against tetanus). A policy of reducing the costs of deliveries through obstetric kits, health checks, and contraceptive subsidies.

In 2014, 47 per cent of women report emotional abuse, 31 per cent physical violence, 14 per cent sexual abuse and 53 per cent at least one of the three forms of violence committed by their husband / partner in the past 12 months (MICS, 2014).

Between 2011 and 2014, the use of modern and traditional methods of contraception increased. In the Modern Methods group, it was mainly the Lactational Amenorrhoea Method (LAM) that boosted this indicator from 0.3% in 2011 to 4.9% in 2014. As a reminder, the proportion of women under contraception, although rising between 2004 and 2014, remains very low for the three (3) northern regions with less than 30% of married women or women living in union concerned.

In case of childbirth assistance, the highest percentages are recorded in the northern regions for childbirth assisted by Parents or Friends (Adamawa: 29.5%, Far North : 40.5% and North: 42.9%) to the detriment of assistance by a qualified or trained provider. These figures indicate that the cultural context continues to influence behaviour despite all the sensitisation campaigns carried out, always exposing parturient women at the time of delivery. It is in these three (3) northern regions and in the East that the post-partum stay of more than 12 hours is the lowest, less than 43%.

All in all, this analysis challenges all actors on the difficulties related to gender and maternal health throughout the country, in particular for the populations living in Northern Regions and East Region.


C7IScZCXQAA_pl12

Table 44: Fertility rate for the period of 03 years preceding the survey according to the place of residence in 2014					
	Urban	Douala /Yaoundé	Other towns	Rural	Total (average)
ASFR* Per age group (years)					
15 – 19	6	55	88	169	79
20 – 24	171	148	186	294	200
25 – 29	182	158	203	274	204
30 – 34	168	154	181	226	182
35 – 39	104	88	116	176	121
40 – 44	35	30	38	73	44
45 – 49	11	22	3	24	15
TFR**	3,7	3,3	4,1	6,2	4,9
GTFR***	127	112	137	209	165
CBR****	31.0	29.6	31.9	40.8	36
*Age-specific fertility rates (ASFR); ** Total fertility Rate (TFR) expressed for a woman aged 15-49; *** Global Total Fertility Rate (GTFR) expressed per 1,000 women aged 15-49; **** Crude Birth Rate (CBR) per 1,000 individua					

Source : MICS 2014

Table 45 : Proportion of married women or women living as a couple aged 15-49 years using contraceptives per region of Cameroon between 2006 and 2014				
Region		2006	2011	2014
Adamawa	AD	17		18
Centre (excluding Yaoundé)	CE (excluding Yde)	28.2		43.1
East	ES	11.8		38.6
Far North	EN	2.7		5.4
Littoral (excluding Douala)	LT (excluding Dla)	42.2		54.8
North	NO	22.3		28.9
North West	NW	56.4		58.8
West	OU	49.1		58
South	SU	24.8		50.8
South West	SW	53.2		47.5
Douala	DLA	37.1		50.3
Yaoundé	YDE	41.2		37.5
According to place of residence				
Rural		22.8		27.7
Urban		36.6		42.4
Cameroon		29.2		34.4

Source : DHS -MICS 2011 ; MICS 2014

Table 46: Antenatal visits (%) among women aged 15-49 who had a live birth in the last two years, Cameroon _ MICS 2014

		Number of prenatal visits				
Region		None	1	2	3	4 and +
Adamawa	AD	20.5	4.9	4.9	19	50
Centre (excluding Yaoundé)	CE (excluding Yde)	6.3	4.4	9.6	24.5	53.2
East	ES	9.2	5.3	10.7	27.9	45.2
Far North	EN	38.3	4.3	5.1	13.4	37.8
Littoral (excluding Douala)	LT (excluding Dla)	3.2	2.1	7.6	17.5	69.1
North	NO	25.8	3.6	4.3	17.6	46.8
North West	NW	2.8	1.7	5.4	7.4	82.7
West	OU	2.9	2.3	4.3	15.6	74.3
South	SU	8.8	2.9	10	18.1	60.1
South West	SW	10.3	1.3	0.7	5	89.7
Douala	DLA	0.5	0.9	2.5	8.9	86.7
Yaoundé	YDE	3.3	1.3	0.7	5	89.7
According to place of residence						
Rural		24.5	4.2	6.4	17.3	46.8
Douala / Yaounde		1.7	1.1	1.7	7.2	88
Other towns		7.2	2.9	5	13.9	69.6
Urban		5.2	2.2	3.8	11.5	76.3
Cameroon		16.6	3.4	5.3	14.9	58.8

Source : MICS 2014

Table 47: Person who attended childbirth (%) (women aged 15-49 who had a live birth in the last two years), Cameroon _ MICS 2014

Region		Doctor	Midwife / Nurse / Assis-tant nurse	Traditional Birth At-tendant	Community Health Officer	Parents / Friend	Others	No assistance	Total
Adamawa	AD	10.6	42.4	6.2	0	29.5	9.9	1.4	100
Centre (excluding Yaoundé)	CE (excluding Yde)	5.6	76.8	12	0.8	2.1	2.6	0	99.9
East	ES	5.8	50.9	23.4	0.3	13.5	4.6	1.5	100
Far North	EN	5.1	23.8	14.9	0.5	40.5	10.1	5.1	100
Littoral (excluding Douala)	LT (excluding Dla)	18.9	73.6	1.1	0	5.8	0.7	0	100.1
North	NO	6.7	28.9	10.4	1.5	42.9	8.3	1.3	100
North West	NW	13	82.5	0.3	0.9	2.1	1.1	0	99.9
West	OU	18.8	77.5	0.6	0	1.5	1.7	0	100.1
South	SU	28.9	53.5	8.6	0.7	6.8	1.4	0	99.9
South West	SW	7.4	77.9	5.6	0	7.6	1.5	0	100
Douala	DLA	35.2	63.5	0.4	0	0.5	0	0.4	100
Yaoundé	YDE	24.1	69.9	0.8	1.3	0.7	3.2	0	100
Cameroon		15.0	60.1	7.0	0.5	12.8	3.8	0.8	99.9917

Source : MICS 2014

5.8. Epidemics and Epidemic-prone diseases

With the support of WHO, Cameroon has set up an Integrated Disease Surveillance and Response System (SIMR), which focuses on the surveillance of epidemic-prone diseases (MAPE), priority diseases and other public health events. Through this system, cholera outbreaks, poliomyelitis and measles have been detected and response plans deployed.

Measles epidemics have been reported in 2015 (Center, Far North and North-West regions particularly) and in 2016 (Adamawa, Far North, North and South-West regions).

As regard Poliomyelitis, 4 confirmed cases of polio virus were recorded in 2013, then 5 confirmed cases in 2014; the last case was recorded on 9 July 2014 in Kette Health District, East Region. Cases of bloody diarrhoea, poisoning, thyroid fever, GEAS, meningitis, malaria, dog or snake bites, influenza were recorded in all regions, in 2015 and 2016 without reaching the epidemic threshold. No cases of the following diseases have been recorded in the country: Anthrax, Chikungunya, Dengue, FHV, Plague, SRASS and Smallpox.

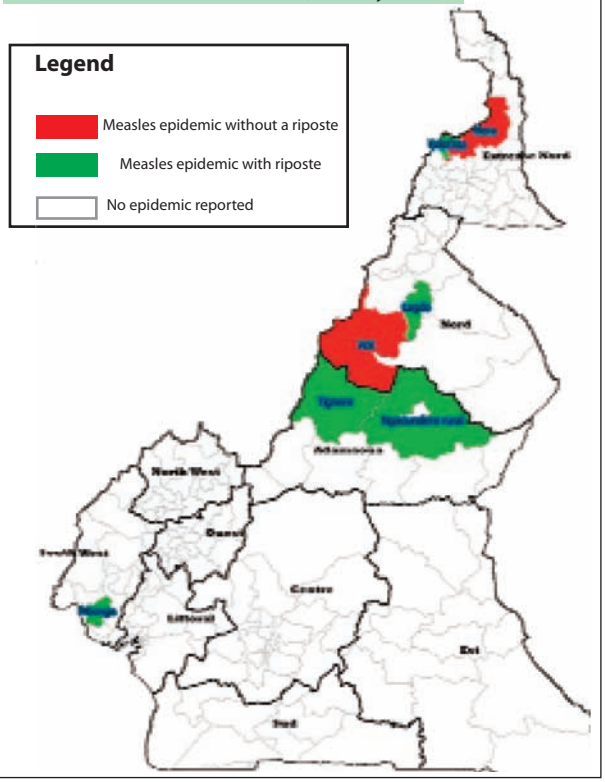
In 2016, the completeness of the districts to the region was 98% and the readiness of 84% (MAPE 2016, S52). The completeness of the regions towards the central level was 100% and the readiness 80%. However, the completeness and promptness of the FOSAs to the districts are not known at the regional level and even less at the central level. The improved sensitivity of the surveillance system is highly dependent on the NHIS. However, the imminent establishment of the National Center for Emergency Public Health Operations (CNOUS) is an opportunity for the country to better manage public health activities.

Table 48 : Surveillance of vaccine-preventable epidemic-prone diseases by region in 2015 and 2016 in Cameroon

	Yellow fever		Acute Flaccid Paralysis		Measles		Neonatal Tetanus	
	2016	2015	2016	2015	2016	2015	2016	2015
Adamawa	198	180	78	51	95	397	5	8
Centre	390	225	160	73	313	3 417	22	21
East	72	100	31	31	41	298	15	15
Far North	164	216	101	64	291	1 571	32	20
Littoral	488	237	80	35	256	720	3	11
North	312	252	107	68	106	286	25	4
North West	182	225	50	72	221	1 100	4	4
West	100	81	41	26	74	895	9	11
South	149	158	28	27	91	813	8	4
South West	323	210	69	31	147	316	9	20
Cameroon	2 378	1 884	745	478	1, 635	9, 813	132	118

Source: DLMEP/MOH, SE50 _ 2016

Map of the Measles epidemics in 2016
Source : SITREP Hebdomadaire, January 2017



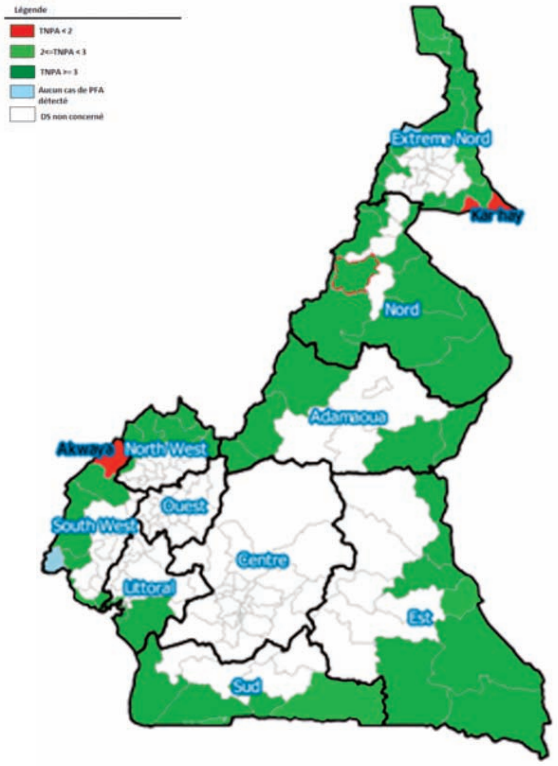
Distribution of wild poliovirus and cVDPV cases between 2013 and 2016 in Cameroon

Source: WHO / MOH _ SITREP Hebdomadaire du Cameroun, January 2017

- 2013: 4 PVS cases
- 2014: 5 PVS cases
- Last PVS: 9 July 2014 (Kette HD)

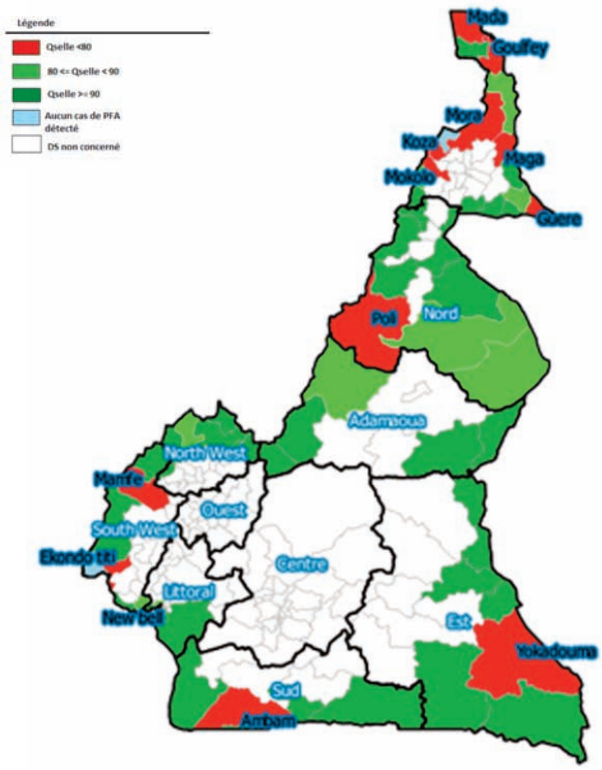
Rate of non-polio AFP in 2016

Source : SITREP Hebdomadaire, January 2017



Stools Quality in 2016

Source : SITREP Hebdomadaire, January 2017



Comparison of cases of acute Flaccid Paralysis by region in 2016 (weeks 1 to 52)

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5.9. Neglected Tropical Diseases

Of the 17 Neglected Tropical Diseases (NTDs) recorded in the World, 10 are reported in Cameroon. They are subdivided into 2 groups:

- The NTDs group in Preventive Chemotherapy (NCD-PCT): Lymphatic Filariasis, Geohrminthiasis, Onchocerciasis, Shistosomiasis and Tracoma, which covers the whole national territory according to (known) endemicity in health districts. The transmission of these diseases stops as soon as the country succeeds in reducing their prevalence
- The NTDs group in the management of cases of NCD-PCC: African Human Trypanosomiasis (THA), Buruli ulcer, Lesihmaniose, Pian and Leprosy which require intensive medical case management.

Cameroon has established 5 National Programmes to fight against NCDs (Onchocerciasis and Lymphatic Filariasis Disease - Shistosomiasis and Geo (Helminthiases-Blindness in charge of Trachoma, Leishmaniasis, Leprosy and Buruli Ulcer _ THA). These programmes are headed by a NCDs coordination unit (Order N°1611/A/MOH/CAB/SG/DLM of 21 October 2013) and located at the Department of Disease Control, Epidemics and Pandemics (DLMEP), whose main role is to monitor the coherent implementation of the NCDs integrated control activities. It should be noted that Cameroon eradicated Guinea worm in 2007 monitors rumor cases.

Cameroon has adopted the five public health interventions, recommended by the global roadmap, to control, eliminate and eradicate NTDs: (I) Preventive chemotherapy, (ii) intensified case management, (iii) vector control, (iv) drinking water supply, sanitation and basic hygiene, and (v) participation of veterinary public health.

The epidemiological profile shows that in 2016 the endemicity of NCDs has considerably changed (2016 Annual Technical Report). At the national level, 113 HDs are endemic for onchocerciasis, 138 HDs for lymphatic filariasis, 189 HDs for geo-helminthiasis, 12 for leprosy, 189 for yaws and rabies. In the Far North and North Regions, trachoma is recorded in 9 HDs and leshmaniosis in 30 HDs.

The impact assessment of treatments after five rounds showed a halt in the transmission of lymphatic filariasis in 31 of the regions of the Far North (20 HDs) and the North (11 HDs).

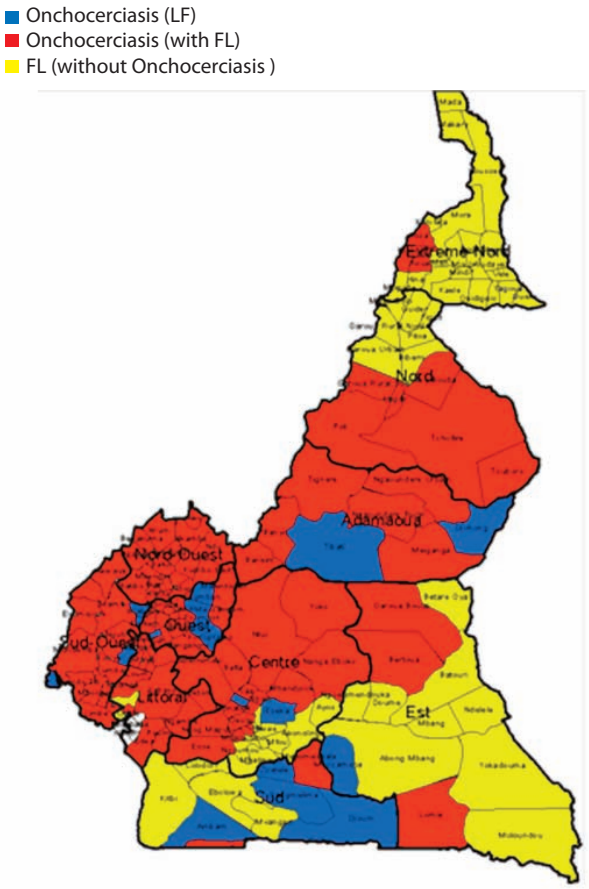
Table 49 : Endemicity Distribution of NTDs in Cameroon in 2016		
Diseases	Geographic Distribution	Number of Endemic Health Districts
Onchocerciasis	National	113
Lymphatic Filariasis	National	138
Geo-Helminthiases	National	189
Shistosomiasis	National	76
Trachoma Trachome	Far-North and North	9
Meadow	National	12
Yaws	National	189
Buruli ulcer	National	nr
Leishmaniasis	Far-North and North	30
Rabies	National	189
African Human Trypanoso-miasis	East, South et South-West	nr

Source: Annual Technical Report of NTDs activities, 2016

10-17-2012tuberculosis

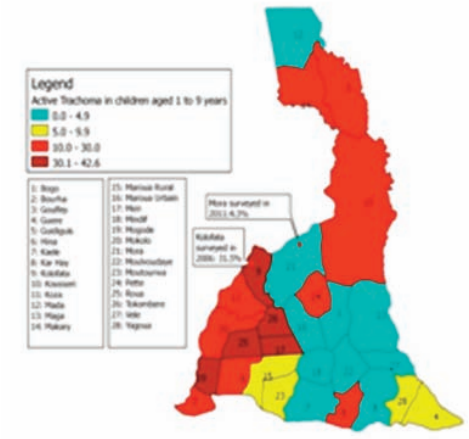
Preventive chemotherapy Neglected Tropical Diseases / Cameroon, 2012

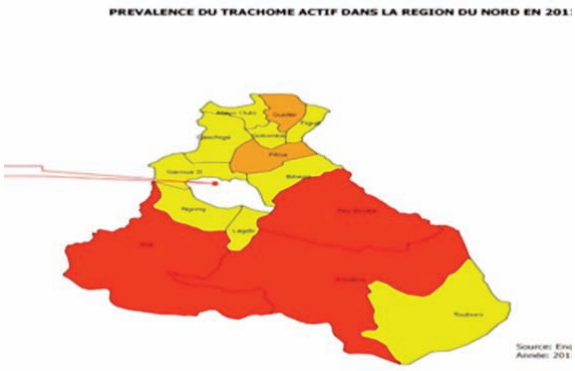
Source: WHO/ Cameroon Office, 2016



Prevalence of active trachoma in the Far-North Region in Cameroon in 2011

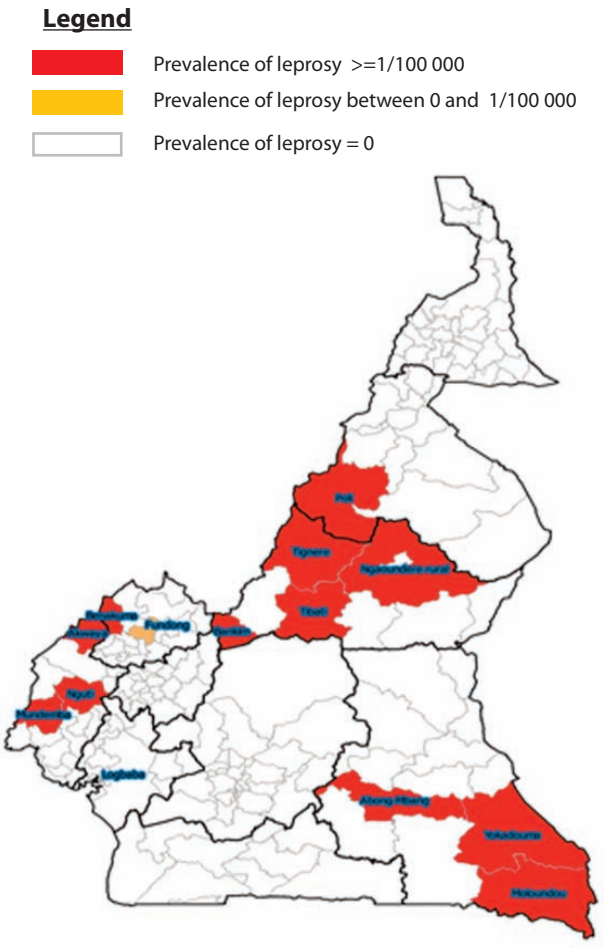
Source: WHO/ Cameroon Office, 2016



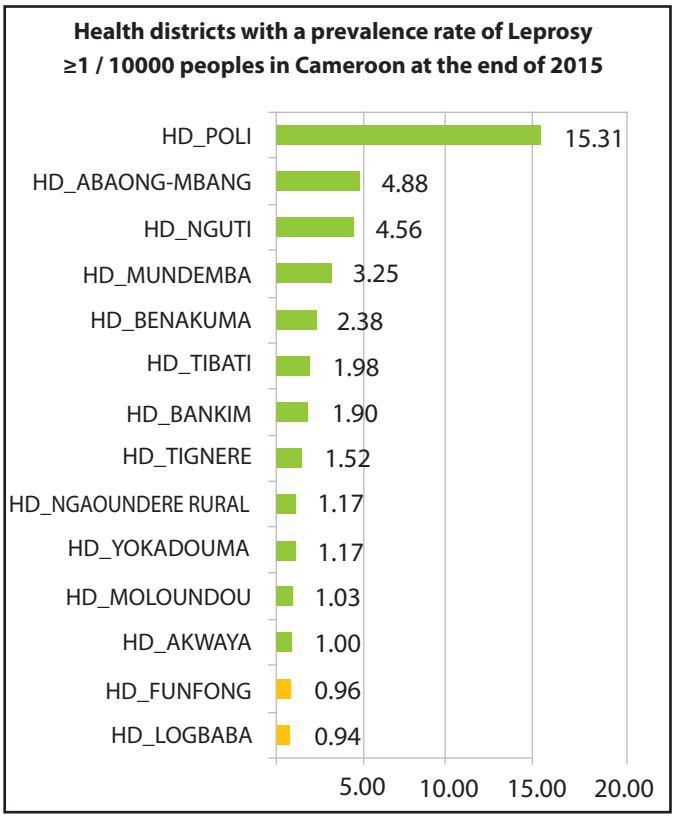


Prevalence of Leprosy in Cameroon in 2015

Source: WHO/ Cameroon Office, 2016



Source :WHO/ Cameroon Office, 2016



Source: E. Njih Tabah, Brief Situation of Leprosy in Cameroon in 2015

Table 50 : MTN-PCC: evolution of Buruli ulcer from 2008 to 2012 on the main outbreaks identified in Cameroon

Area affected	2008	2009	2010	2011	2012
Akonolinga	112	91	127	130	65
Ayos	72	78	59	29	20
Ngoantet	51	71	34	23	19
Bankim	92	69	52	70	56
Ekondotiti	0	0	0	1	8
Mbongue	7	14	15	3	0
Total	**334**	**323**	**287**	**256**	**168**

Source: PNLP2LUB

5.10. Non-Communicable diseases and conditions

Non-Communicable diseases (NCDs) are on the rise. Furthermore, the prevalence and burden of communicable diseases (CDs) is still important, although it is believed that epidemiological transitions have been initiated, hence the dual burden of NCDs and CDs on the health system.

In 2014, NCDs account for 31% of all-deaths in Cameroon in 2014 (WHO, 2014). The probability of dying between 30 and 70 years in Cameroon from one of the four main NCDs (cardiovascular diseases, cancers, diabetes and chronic respiratory diseases) was 20.2% in 2010 and 19.9% in 2012 (CamBoD, 2015).

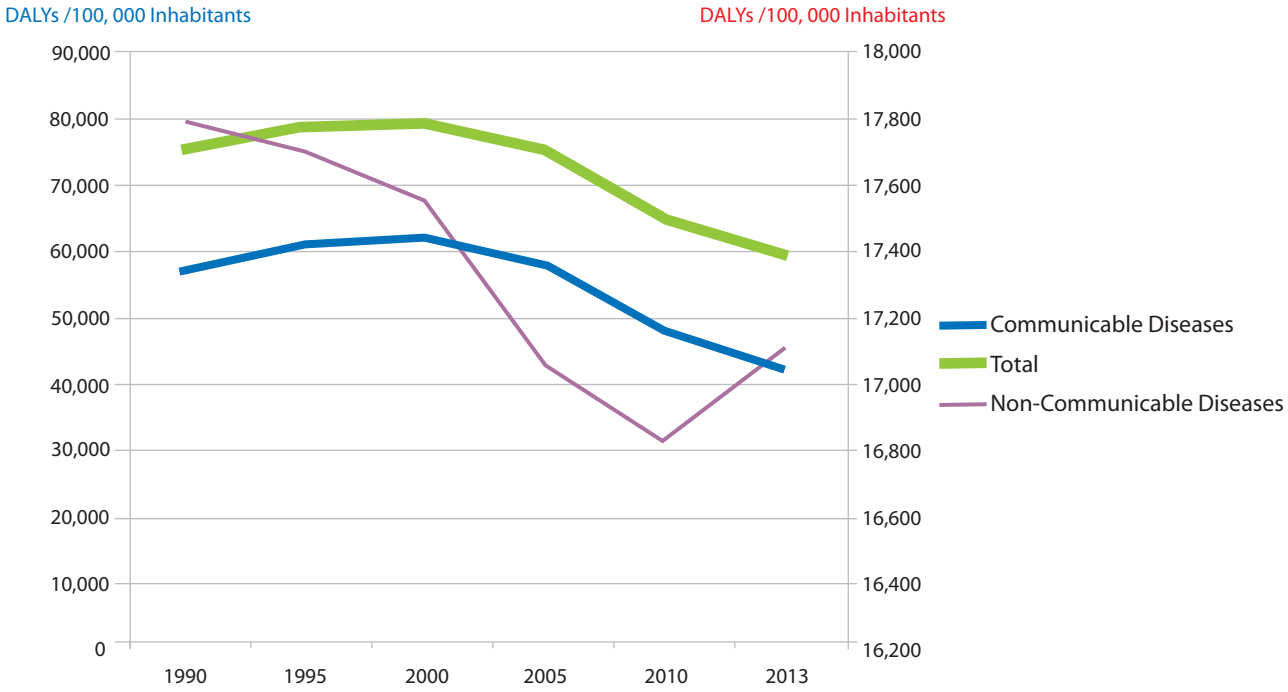
Between 1994 and 2010s, the incidence of cervical cancer increased from 24 (2008) to 30 per 100,000 (2012), the prevalence of diabetes increased in both urban and rural areas, among both men and women. Only the prevalence of arterial Hypertension stagnates around 22% between 1994 and 2014 (CamBoD 2015).

The number of victims of roads traffic accidents (AVP) decreased from 3552 to 3071 injured between 2011 and 2013. This reduction was achieved thanks to the joint actions of road prevention and road safety of MINTRANS and MINDEF under the coordination of the National Road Committee (CONAROUTE). Deaths increased from 1588 to 1170 during the same period (Data of the Secretary of State for Defense, Unpublished). The case-fatality rate is still high (nearly 40%), indicating either a low readiness / effectiveness in the care of victims of AVP or the severity of the cases. The Emergency Medical Assistance Services (SAMU) have been created for this purpose but remain poorly operational.
The management of mental illness is not sufficiently insured. However, there are two specialized centers with adequate technical equipment for the management of mental illnesses (Hôpital Jamot de Yaounde and Hôpital Laquintinie in Douala). There is a lack of psychiatrists and other mental health professionals.

The National Surveillance and Response System for NCDs is still in its budding stage.


hiv-self-test-310

Figure 95. Evolution of the Global Burden of communicable and non-communicable diseases in Cameroon from 1990 to 2013



Source: Adapted from data of the Global Burden of Diseases of 2015

Table 51 : Proportion of Total Mortality by Age and Sex of Non-Communicable Diseases in 2014 in Cameroon	
Communicable Diseases, Maternal and Perinatal Affections, and Nutritional Conditions	61%
Violence (Hits and Injuries)	8%
Cardiovascular diseases	11%
Cancers	3%
Chronic respiratory diseases	2%
Diabetes	2%
Other Non-Communicable Diseases	13%
Total	100%

Source: Cameroon Burden of Disease Project; 2014;

Table 52 : Comparative incidence rate for 100,000 cervical cancers in 2008 and 2012 in Cameroon	
Year	Incidence rate per 100,000
2008	24
2012	30

Source: Cameroon Burden of Disease Project; 2014

Table 53 : National prevalence of diabetes in Cameroon between 1994 and 2003 by sex and place of residence			
Gender and place of residence	1994	1998	2003
Urban male	0.7%	6.5%	6%
Rural male	0.8%	4.8%	5.9%
Urban female	1.3%	4.9%	8.8%
Rural female	0.3%	2.8%	5%

Source: HoPiT. Cameroon Burden of Diseases (CamBod) Project. Yaounde, Cameroon; 2004

Table 54: National Prevalence of High Blood Pressure by Sex between 1994 and 2014 in Cameroon			
Gender	1994	2003	2014
Male	24.4%	39.6%	
Female	20.1%	37.2%	
Country	22.2%	38.4%	21.6%

Source: HoPiT. Cameroon Burden of Diseases (CamBod) Project. Yaounde, Cameroon; 2004 and 2015)

Table 55 : National Response System for Non-Communicable Diseases in Cameroon / 2014 Status	
The country has	
an NCD Operational Unit at MOH / Equivalent	**No**
a National Policy / Multisectoral Strategy that incorporates several NCDs and Risk Factors	**No**
a National Policy / Strategy or Action Plan to reduce harm related to alcohol abuse	**No**
a National Policy / Strategy or Action Plan to promote physical activity Yes	**Yes**
a National Policy / Strategy or Action Plan to reduce the burden of misuse of tobacco	**Yes**
a National Policy / Strategy or Plan of Action to promote a balanced diet	**Yes**
National Protocols on Evidence / Standards for the management of most NCDs from a baseline approach	**No**
a monitoring and tracking unit for functional NCDs for reporting on the 09 global NCD targets	**No**
a National Cancer Registry	**No**

Source : WHO, Noncommunicable Diseases _NCD_ Country profiles ; 2014_Cameroon

CHAPTER 6

KEY DETERMINANTS

Four types of determinants were analyzed: (i) risk factors for health, (ii) the physical environment, (iii) nutrition and food security, and (iv) social determinants.

6.1. Risk Factors for Health

Four risk factors are analysed: tobacco, alcohol, physical activity and physiological risk factors. According to the MICS 2014, smoking among 15-49 year-old shows that 99.7% of women are non-smokers with 98.6% who have never smoked, while 89% of men are non-smokers with 79.6% Who have never smoked. Of the 11% of males aged 15-49 who smoked, 8.2% were daily smokers and 2.8% were occasional smokers.

The perception in the Cameroon population of the risk related to the consumption of tobacco in more than 90% of Cameroonians, in all the age groups of 15 to 65 years and more, while smoking can cause hazardous diseases. Respondents, overwhelmingly varying by age, know that smoking can cause the following diseases: Stroke, Heart attack, Cancer (Lung, bladder and Stomach) and premature birth.

MICS 2014 reported that the warnings on cigarette packs allowed 31% of smokers to consider quitting smoking in the 30 days prior to the survey.

Concerning physical activities, the government encourages physical activity through the creation of sport areas, commonly known as "Parcours Vita". People are organized in small groups and fitness clubs outdoor which are very active on weekends in the practice of sport. The prevalence for physiological risk factors (overweight, obesity, high blood glucose and hypertension) among the population aged 18 and over increased.

Concerning alcoholism, the prevalence of risk factors for alcohol consumption remained stable between 2010 and 2014. At the same time, there are many gaps in the monitoring of the policy against alcoholism among young people and specifically in school milieu. In addition, the large offensive publicity and marketing of the alcohol industries creates an environment conducive to excessive and uncontrolled consumption of alcohol.

Finally, a national policy to promote a healthy and balanced diet does not yet exist. Inadequate and unappropriated foods (full of fat, too salty, etc.) flood our markets and increase the risk factors. In order to provide an adequate response, a multisectoral approach which includes the socio-economic aspects and the need to reduce the factors that pose risks to the health of populations is needed.

Table 56 : Tobacco consumption. Percentage of women aged 15-49 and men aged 15-59 by smoking status, 2014 / Smoking Tobacco Prevalence		
	Women 15-49 years	Men 15-49
Current Smoker	0.3	11.0
Daily Tobacco Smoker	0.2	8.2
Casual Smoker	0.2	2.8
Non-smoker	99.7	89.0
Have never smoke	98.6	79.6
Others	1.1	10.6

Source : MICS 2014

Table 57 : Perception of the risk caused by the consumption of tobacco by adults			
	Adults who believe (in 2013) that breathing in the smoke of other people can cause serious illness in non-smokers		
	Together	Real smokers	No-smokers
15-24 years	91.5	92.3	91.4
25-44 years	91.7	87.3	92.1
45-64 years	90.2	86.1	90.5
65 and +	83.3	55.9	79.2

Source: GATS Survey _ Cameroon 2013

Table 58 : Prevalence of certain risk factors for Non-Communicable Diseases in Cameroon in 2010 and 2014						
	Prevalence in adults (15+)					
	2010			2014		
Risk factors	Men	Women	Total	Men	Women	Total
Alcohol						
Adult consumption per capita (in litres of pure alcohol), the population aged 15 years (2010)	13.3	3.5	8.4			8.6
Insufficient physical activity						
The prevalence of insufficient physical activity (adults 18+ years), 2010	22.8	38.7	30.7			
Physiological risk factors						
Prevalence of overweight (IMC≥25) (Population aged 18 years and more), 2010	33.3	38.7	31.0	25.1	41.8	33.5
Prevalence of Obesity (IMC ≥ 30) (Population aged 18 and more)	4.9	14.7	9.8	5.8	17.1	11.4
Prevalence of high blood glucose (Population aged 18 years and more)	8.5	7.9	8.2	9.3	8.6	9
Prevalence of high blood pressure (Population aged 18 years and more)	29.4	28.2	28.8	22.6	20.5	21.6

Source: Analysis of non-Communicable disease prevention policies in Africa (APPMNTA): A case study of Cameroon, Final Report September 2016

6.2. Physical Environment

Cameroon is constantly improving its physical environment. However, some citizens still have bad behaviors in terms of hygiene and environmental sanitation such as the dumping of plastic bags and bottles and household waste in the nature.

People's access to drinking water has improved considerably in all regions of Cameroon (MICS, 2014). In 2014, access to drinking water was between 25% and 50% in five regions: North (36.90%), East (41.60%), Adamawa (41.50%), the South (47.80%) and the West (49.40%). In the other five regions, this access was between 50% and 75%. In Douala and Yaounde, drinking water was available for 95.9% and 80.2% of the population, respectively.

The percentage of people living in houses with solid materials has increased overall, but has decreased by half in urban areas between 2007 and 2014.

The percentage of populations with WC decreased everywhere between 2001 and 2014, except in the North West and Adamawa Regions where there was an increase.

Beyond access to drinking water, the other determinants of the physical environment have not evolved favorably, consequently the populations are always exposed to diseases.


WHO

Figure 96. Rate of population living in houses with solid materials, by Area of residence, 2007-2014

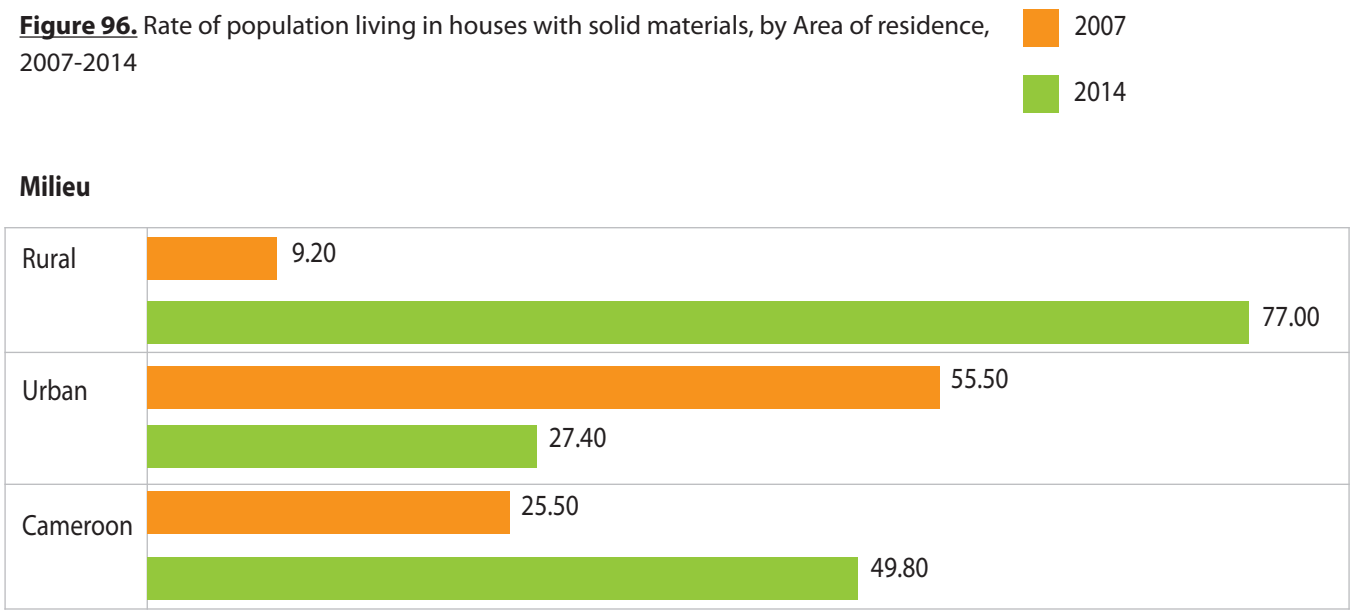
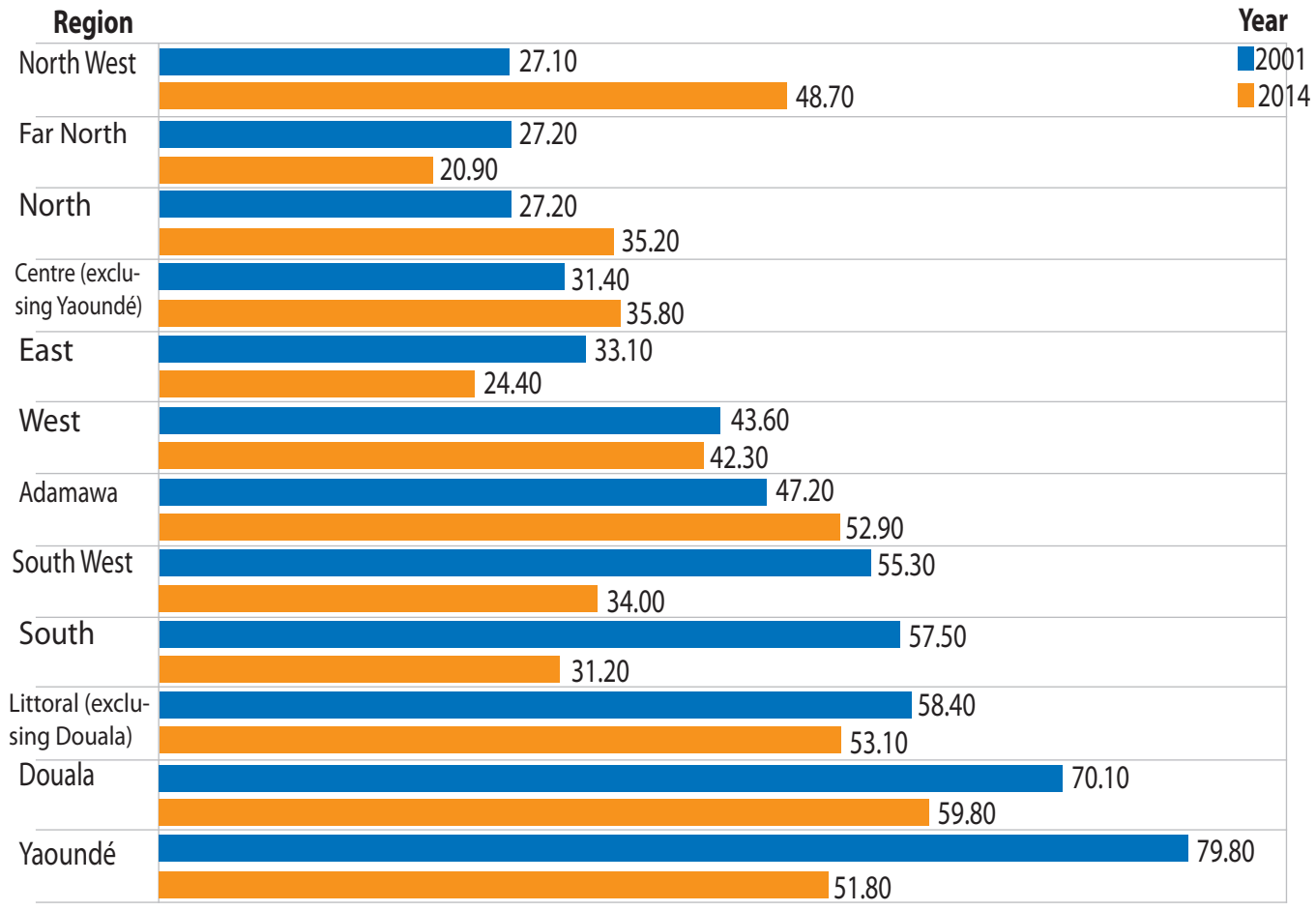


Figure 97. Rate of population with WC, by Region, 2001-2014



Source : NIS, MDGs Report 2015

6.3. Nutrition and Food Security

Cameroon is considered as a self-sufficient food country and as the breadbasket of the Central Africa Subregion. However, DHS carried out in Cameroon between 1991 and 2011 show that the nutritional status of children and women remains a concern. This situation has been exacerbated by the persistence of poverty, food insecurity aggravated by the phenomenon of population displacement due to terrorism in the Northern Regions and the precarious security situation in the Central African Republic.

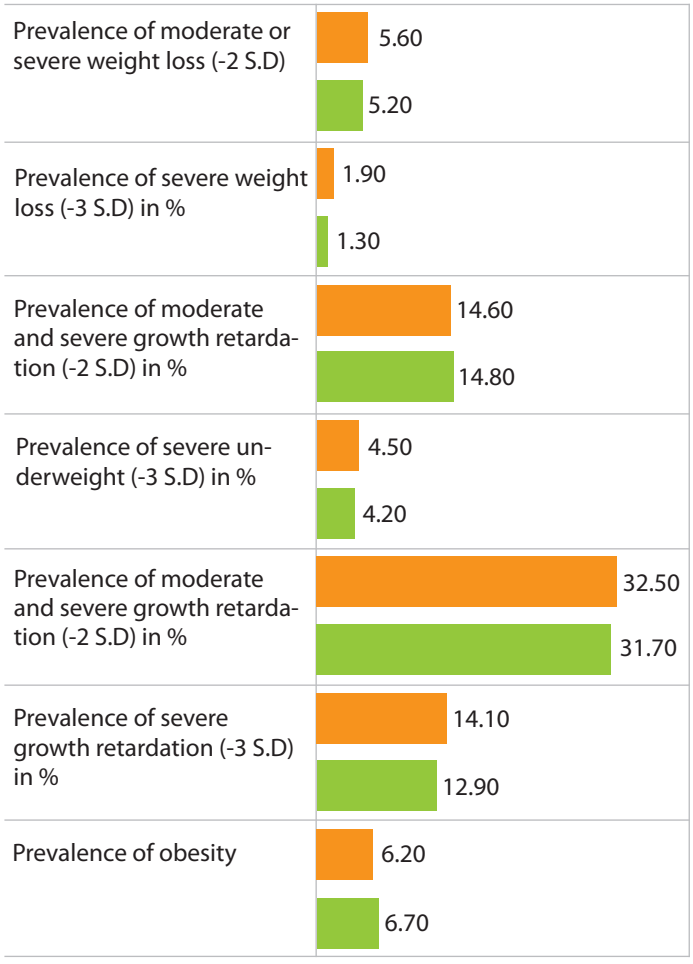
A thorough food security assessment (MINEPAT 2010) showed that (i) 32.5% of households in Adamawa Region and 16.0% in the East Region do not achieve a balanced diet, (ii) Food insecurity is severe 9.2% of households of refugees and 5.7% of host households in the two (02) regions and (iii) 22.8% of households of refugees and 13% of Indigenous peoples have a limited food consumption. The increase in some NCDs is partly linked to nutrition (over-nutrition).

With the SSS 2001-2015 and in conformity with the GESP, MOH implemented a national food and nutrition policy which defines nine major areas: (i) The promotion of breastfeeding, (ii) the fight against malnutrition, (iii) the fight against micronutrient deficiencies, (iv) prevention and management of nutrition-related NCDs, (v) Nutritional support to vulnerable groups, (vi) nutritional care for people living with HIV / AIDS, (vii) promotion of food safety, (viii) food security and training, (ix) recruitment of Professionals in nutrition. However, this strategy has not been developed in concert with other administrations in charge of food and nutrition , including Agriculture and Rural Development, Livestock, Fisheries and Animal Industries, Wildlife and Forests, Environment, and Water.

The final evaluation of SSS 2001-2015 reveals that the major achievement in health promotion in Camroon is the reduction of 50% of cases of undernutrition, some indicators of food and nutritional conditions are reported for Year 2011 : food insecurity rate (8.1%), prevalence of breastfeeding (28.2%), anemia among women (40%) anemia among children (60%), women's obesity. The evaluation report notes that the weak results observed are related to (i) a lack of a Multisectoral Strategic Plan for disease prevention and promotion; (ii) inadequate resources, specifically, financial resources for implementating of planned actions.

Table 59 : Food & Nutrition Conditions 2011 & WASH 2014			
Components	Indicator	Value	Year
Food and Nutritional Conditions	Food insecurity rate (%)	8.1	2011
	Prevalence of breastfeeding (%)	28.2	2011
	Anaemia in women (%)	40	2011
	Anaemia in children (%)	60	2011
	Obesity in women (%)	32	2011
WASH	Access to drinking water (%)	72.9	2014
	Access to improved latrines (%)	34.9	2014
	Maternal mortality (per 100,000 births)	782	2011
	Infant-juvenile mortality (per 1,000 births)	103	2014
	Modern contraceptive prevalence (%)	21	2014

Figure 98. Nutritional status of children under 5 years of age, 2011-2014



Source : DHS 2004, MICS 2014

Figure 99. Child nutritional status, 2004-2014

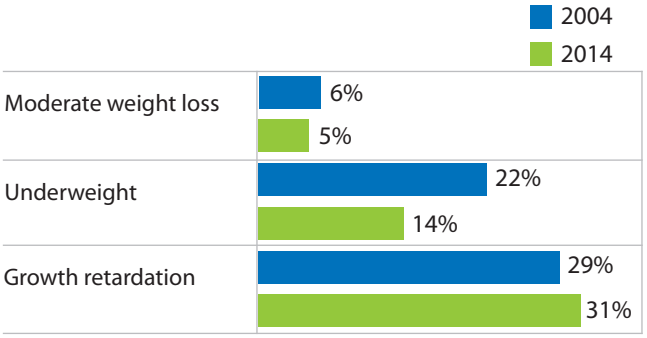


Figure 100. Nutritional status of children under 5 years of age, 2011-2014

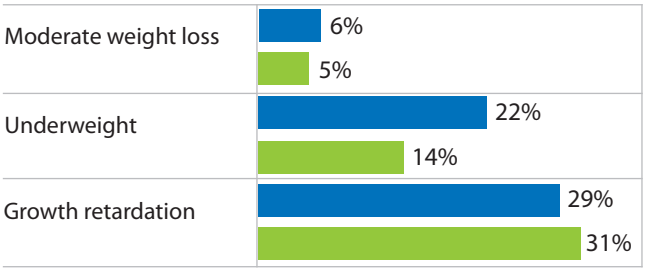
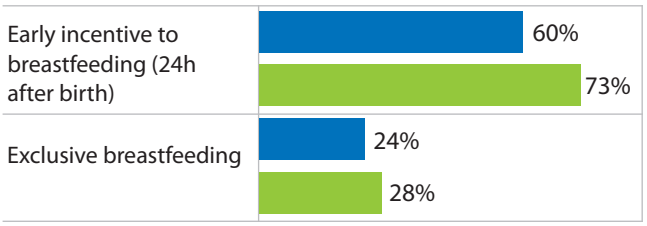


Figure 101. New-born Interventions Coverage, 2004-2014



6.4. Social Determinants

Indicators of access to Information and Communication Technologies have developed substantially in all regions between 2001 and 2014. In 2014, 16.1% of the population use the Internet, and the number of mobile subscribers increased from 4.5 million to 14.8 million between 2007 and 2013, with a geographical coverage of 83.3% (ART, 2014).

Children (girls and boys) have access to education in all regions and the girl / boy ratio is close to 1.
The road network has grown considerably, reaching nearly 77,589 km in 2012, including 5,133 km of paved roads (MINTP, 2012). However, several areas remain difficult to access.
The percentage of the population living in dwellings with improved sanitation facilities decreased in 6 regions (East, Far North, Littoral excluding Douala, West, South and South West), as well as in Douala and Yaounde between 2001 and 2014.

If access to ICT and education does not pose particular problems for Cameroonians regardless of their place of residence, the Government need to take an interest through the IEC to communicate more with people to improve social determinants that contribute to health.

The aging of the population is a worrying concern with the life expectancy at above 60 which slightly decreased from 17 to 18 years (WHO Estimates, WHS, 2015).

Table 60 : Some information on road accidents in Cameroon in 2015	
Institutional framework	
Legal Agency	Ministry of Transport
State budget	Yes
National Strategy	Yes
Post-accident management	
Emergency Availability	Yes
Free Phone Number	119
First aid personnel	
Populations informed about gestures that save	
Data	
Reports on road accidents (2013)	1,095
WHO's estimate of road accidents	6,136 (95% CI 5,035-7,236)
WHO's estimate: Rate per 100,000	27.6
Estimated GDP loss due to road accidents	1,096
Deaths of road users	Not available
Road safety instructions	
Speed limit	Yes
Law on drinking while driving	Yes
Law respecting two-wheeled machine	Yes
Seat Belt Act Yes	Yes
Law restricting the carriage of children	No
Law respecting the use of mobile phones while driving	Yes
Law against driving under the influence of drugs dependence	Yes

Source: WHO, Global status report on road safety, 2015

Figure 102. Access to telephone lines (per 1000 inhabitants), by Region, 2007-2014

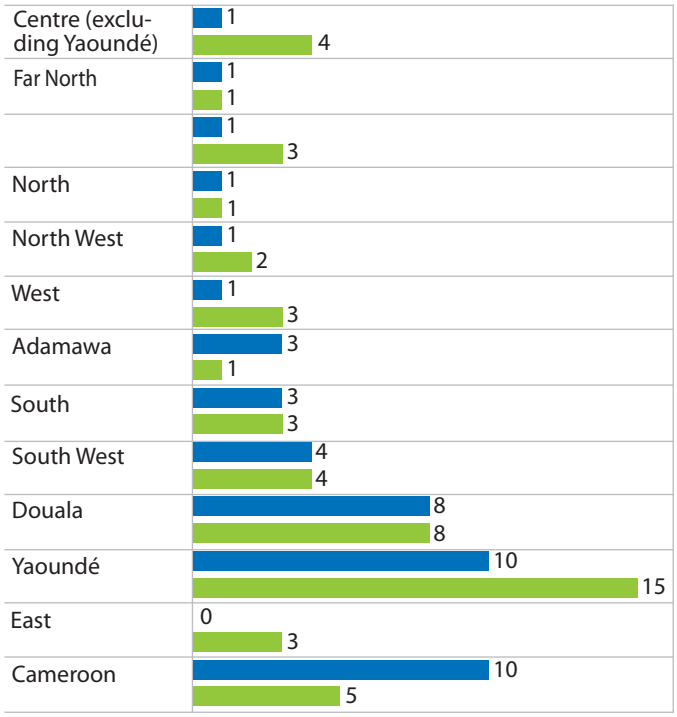


Figure 103. Number of mobile phones (Per 1,000 inhabitants) , by Region, 2007-2014

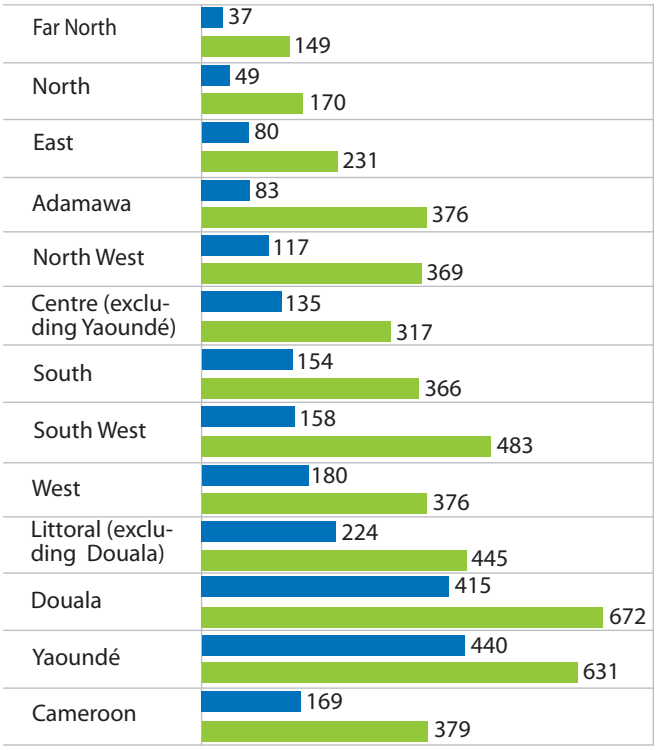
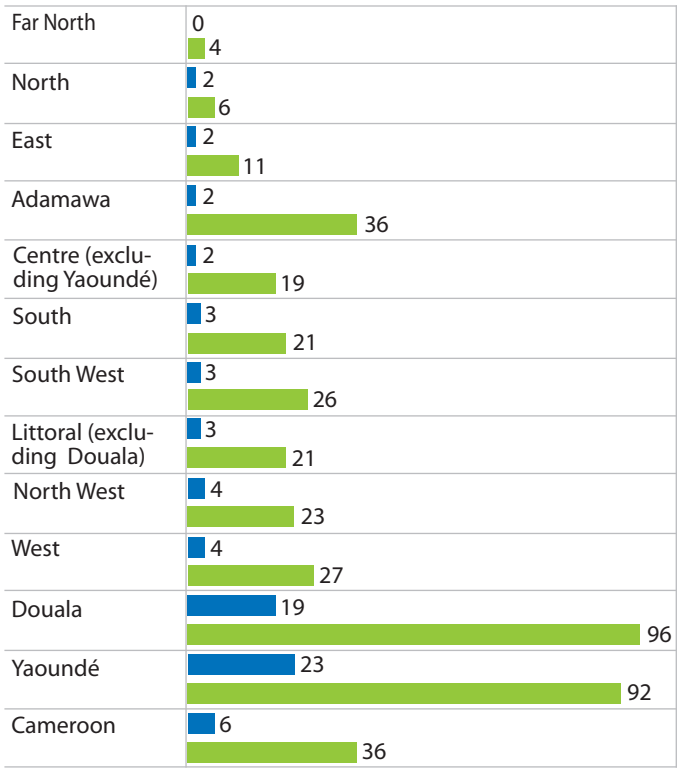


Figure 104. Number (Per 1,000 inhabitants) of personnal Computers, By Region, 2007-2014



Source : NIS, MDGs Report 2015; Ecam 3 and 4; WHO, 2013

Figure 105. Rate of population living in houses with solid materials, By Area of residence, 2007-2014

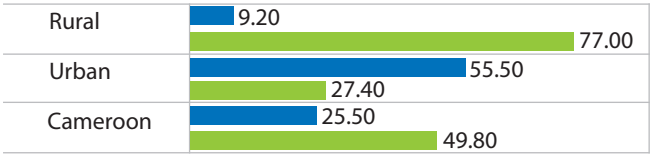


Figure 106. Rate. Of Populations with WC, By Region, 2001-2014

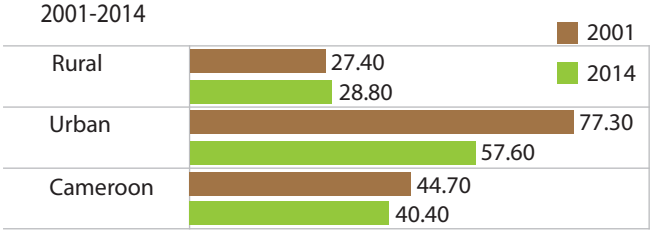
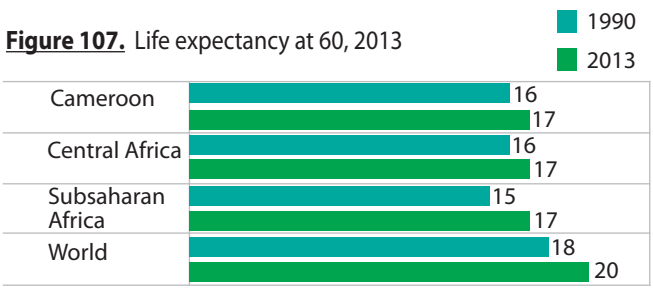


Figure 107. Life expectancy at 60, 2013



Cameroon Health Analytical Profile 2016 is a synthesis of the most recent validated health data. Three trends emerge from health indicators:

(i) Improvement of indicators: these are mainly interventions related to vertical programs such as malaria, HIV / AIDS, tuberculosis and immunization;

(ii) Stagnation: life expectancy, public health financing and development of health districts are found here;

(iii) Regression: mostly maternal mortality, family planning, and disease coverage.

In general, health system performance is poor and no health-related MDG have been achieved by 2015. However, health indicators are inadequate with available resources. There is therefore a great potential for improvement. The new SSS 2016-2027 and its first PNSD 2016-2020 oriented towards the provision of essential and specialized health care and services offer an excellent opportunity to improve the health of populations. To achieve this, strengthening all components of the health system is imperative for the efficiency and effectiveness of health interventions. In addition, all key actors must adopt the learning organization approach for continuous monitoring in order to adapt strategies and activities on a regular basis according to the local context and the results obtained.

As key recommendations, we suggest:

(i) Development of stewardship at all levels of the system so that each actor follows the logic of learning and continuous improvement of performance;

(ii) Update and dissemination of regulatory texts and putting in place mechanisms and strategies for their effective implementation;

(iii) Strengthening of action and operational research in order to identify bottlenecks and operational challenges for the implementation of specific health interventions;

(iv) Development of routine NHIS to ensure effective follow-up of health interventions and evidence-based decision-making;

(v) Acceleration of the building of a more equitable financing system through the universal health coverage approach.

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Health-related Sustainable Development Goals (SDGs)

The 17 SDGs[11] , include poverty eradication, health, education, food security and nutrition, as well as a large number of economic, social and environmental objectives and the promise for more inclusive and peaceful societies!

Goal 3 focuses on health: « **Ensuring healthy lives and promoting the well-being for all at all ages**»

- By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
- By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
- By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
- By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being
- Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
- By 2020, halve the number of global deaths and injuries from road traffic accidents
- By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs
- Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
- By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
- Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate.
- Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all
- Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and Small Island developing States
- Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

[11] Link- Description of SDGs (in French) : http://www.un.org/sustainable development goal/fr/objectif de developpement durables/
Recent WHO reference : http://www.who.int/hrh/news/2015/path-towards-SDGs/en/

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