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**2<sup>ND</sup> SURVEY ON THE MONITORING OF PUBLIC EXPENDITURES  
AND THE LEVEL OF RECIPIENTS' SATISFACTION IN THE  
EDUCATION AND HEALTH SECTORS IN CAMEROON  
(PETS2)**

**Main Report**

**HEALTH Component**

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## ACRONYMS AND ABBREVIATIONS

CAPP	Supply Centre of Pharmaceutical Products
CDE	Camerounaise Des Eaux
CE	School Council
CENAME	National Centre for Essential Drugs Procurement and Medical Disposables
CMA	Sub divisional Medical Centre
CSI	Integrated Health Centre
CSSD	Head of the District Health Service
DDEB	Divisional Delegation of Basic Education
DDESEC	Divisional Delegation of Secondary Education
DREB	Regional Delegation of Basic Education
DRESEC	Regional Delegation of Secondary Education
DRSP	Regional Delegation of Public Health
EA	Enumeration Area
EB	Basic Education
ECAM3	Third Cameroon Household Survey
ENIEG	Teachers Training College
ENIET	Technical Teachers Training College
ENS	Higher Teachers Training College
ENSET	Higher Technical Teachers Training College
FS	Health Unit
GESP	Growth and Employment Strategy Paper
HD	District Hospital
HIPC	Heavily Indebted Poor Countries
IAEB	Sub divisional Inspectorate of Basic Education
ICT	Information and Communication Technology
MDG	Millenium development Goal
MINEDUB	Ministry of Basic Education
MINEPAT	Ministry of the Economy, Planning and Regional Development
MINESEC	Ministry of Secondary Education
MINFI	Ministry of Finance
MINSANTE	Ministry of Public Health
MTEF	Medium Term Expenditure Frame-Work
NGO	Non Governmental Organization
PETS	Public Expenditure Tracking Survey (survey on the monitoring of public edxpensitures and recipients' satisfaction in the Education and Health sectors)
PIB	Public Investment Budget
PRCTC	Project for Strengthening Capacities of Transparency and Control (PRCTC)
PRSP	Poverty Reduction Strategy paper
PTA	Parents and Teachers Association
RBM	Result Based Management
SSD	District Health Service

## FOREWORD

The National Institute of Statistics is pleased to present to you the health component of the main report of the second survey on the monitoring of public expenditures and recipients' satisfaction in the education and health sectors. This study, which constitute a monitoring and evaluation instrument of the State's new financial regime, promulgated in December 2009, provides an updated situation of public finance management in Cameroon

At the end of the first survey, it was recommended to the concerned sectoral ministries to take ownership of this exercise in order to carry it out each year in its reduced form. Similarly, after PETS 1, it was recommended that this exercise be extended to other priority sectors (public works, justice, etc...).

Other than the Government's financial support, the survey equally benefitted funding from the World Bank through the Project for Strengthening Capacities of Transparency and Control in the management of public resources (PRCTC). The NIS wishes to express its gratitude to this privileged Government partner, whose actions for the modernization of public finances are quite significant.

The realisation of all survey activities was made possible thanks to the good cooperation of sectoral experts. The NIS extends its sincere thanks and congratulations to all these experts for the quality of their technical support. Finally, the NIS thanks the temporary staff for quality services rendered during the data collection and data processing phases.

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## ABSTRACT

### 1. BACKGROUND, OBJECTIVES AND METHODOLOGY OF THE STUDY

#### 1.1 Background of the study

The first survey PETS1, ordered by the Cameroon Government, was conducted in Cameroon in 2003/2004 by the National Institute of Statistics (NIS) of Cameroon. It was part of the triggers of the completion point of debt reduction of Heavily Indebted Poor Countries Initiative (HIPC). Following this study, a matrix of priority actions was elaborated and some of the actions of this matrix are already implemented. Among these include, the establishment and effective functioning of local monitoring committees of the PIB (Public Investment Budget) and the dissemination of the projects log book right up to the level of the third class traditional chiefdoms.

Given the importance of the governance section in the Government's current policy and the place of results based management, it was recommended that such a survey be conducted periodically, with lighter data collection tools in order to assess the effectiveness of public expenditures and the evolution of recipients' satisfaction. PETS 2 is equally positioned as a monitoring and evaluation instrument of the new financial regime.

#### 1.2 Study's objectives

The general objective of PETS 2 is to provide necessary information to the Cameroon Government and partners intervening in the health sector, in order to objectively appreciate the performances of public expenditure over the period 2003-2009.

Specifically, the study helps:

- i) To provide a current assessment of the traceability of public expenditure in order to measure progress made in the management of public resources since the previous PETS, and to identify potential inefficiency sources still existing;
- ii) To evaluate the implementation of measures retained in the matrix of priority actions resulting from PETS 1, in order to appreciate the extent to which education and health actors have appropriated the various monitoring and control tools of public expenditure. We particularly examined the dissemination of information on the provision of public education and health services necessary to commit citizens and strengthen social accountability;
- iii) To appreciate the degree of satisfaction of health services beneficiaries, in order to bring out orientations to improve the access and quality of these services.

#### 1.3 Methodological approach of the study

The information related to the traceability of public expenditure have been collected essentially for the 2009 financial year.

Concerning the provision of services, the sampling unit is a public or private structure, provider of health services. These structures are basically health units. These units are at the same time considered as units of observation. Moreover, officials of different administrative services through which resources circulate have been interviewed (central, regional, divisional services, etc.). Regarding

the demande of services, the unit of observation is the household or the patient chosen in a health unit. The information from the central level were collected as secondary data or by direct interview.

The drawing of the PETS2 sample has integrated the achievements of ECAM3 sample drawing, conducted in 2007 as well as that of PETS1 of 2003/2004. It is therefore a national representative survey stratified at one or two stages depending on the type of units targeted.

The breakdown of the sample by type of units gives about 1 642 households and 249 decentralized services, involved in the public expenditure circuit or in the management and supervision of structures providing health services.

## **2. ORGANIZATION AND FUNCTIONING OF THE CAMEROON'S PUBLIC HEALTH SYSTEM**

### **2.1 Background of the health sector development**

Cameroon's population, constantly increasing, is estimated at January 1<sup>st</sup>, 2010 at 19 406 100 inhabitants with a density of 39 inhabitants per km<sup>2</sup>, with strong regional disparities. This population is predominantly young. The population under 15 years represents 43.6%, meanwhile over half of the population is under 18 years.

Cameroon's population has experienced a significant change thanks to efforts made particularly by the family planning programme. Thanks to different strategies adapted to the epidemiological context, specific to each disease, undeniable achievements were recorded.

### **2.2 Presentation of the public health system**

Health coverage by health care establishments has significantly improved, varying from 3 039 establishments in 2007 to 3 370 in 2009. The Cameroon's health system is comprised of 04 general hospitals (1<sup>st</sup> category), 04 central hospitals (2<sup>nd</sup> category), 11 regional hospitals (3<sup>rd</sup> class), 164 district hospitals, 155 sub divisional medical centres and 1 888 integrated health centres, of which 1600 are functional. In addition to this, we enumerate 93 private hospitals, 193 non-profit private health centres, 289 clinics/polyclinics and 384 consulting rooms. Moreover, we enumerate about 12 accredited medical laboratories among which the Centre Pasteur representing the reference, 05 drug manufacturers, 14 wholesalers, 331 pharmacies (181 in Yaounde and Douala), 01 National Centre for Essential Drugs Procurement and Medical disposables, 10 regional pharmaceutical supply centres (CAPR), 03 public medicine faculties in Yaounde, Douala and Buea and 01 private faculty of Medicine (Université des Montagnes), and 39 training establishments of medico sanitary personnel.

In the framework of the fight against poverty, Cameroon has adhere to most health policies adopted at the international, level like the African Charter for health development and primary health cares.

### **2.3 The interveners in the health sector**

The health sector has three sub-sectors, namely the public sub sector, the private sub sector and the traditional medicine sub-sub-sector. The interveners in this sector comprises of the State, households/communities, Civil Society Organizations (CSO), private, traditional practitioners and finally, technical and financial partners.

In order to promote and make operational the complementarity between all the health actors, the MINSANTE opted for dynamic contracting interventions. Thus, in 2007, the State embarked on

strengthening the public-private partnership, through the signing of framework agreements and execution contracts.

## **2.4 The resources of the sector**

From 2005 to 2009, the number of medical and paramedical staff has not increased considerably. The ratios medical doctor/inhabitants and nurse/inhabitants have depreciated respectively from 10 084 to 14 418 inhabitants per medical doctor, and 2 249 to 2 545 inhabitants for one nurse. This is particularly due to the lack of human resource development plan for health, to brain drain because of poor remuneration, to retirements without replacements and also due to the rapid growing of the population. It should be noted that human resources available are unevenly distributed according to regions and area of residence (urban or rural).

The main financing sources of the health sector include: The State's budget, households through cost recovery and other direct payments and external financing. Public local communities, NGOs and private sickness insurance contribute marginally. Enormous disproportions exist between the different financing sources. For example in 2009, of a total financing of the sector estimated at 2301.1 billion CFA francs, households' contribution stood at 94.6% against 3.8% (86 779 000 000 FCFA) for the State and 1.6% (37 425 080 000 FCFA) for external partners. It should be noted that this budget does not include health resources allocated to other administrations.

## **3. DESCRIPTION OF THE PUBLIC EXPENDITURE CIRCUIT**

### **3.1 The budget preparation**

Budget preparation in Cameroon is done in view of being in phase with the new financial regime under Law No. 2007/006 of 26 December 2007. This new regime which reinforces managers' power, highlights the principle of their responsibility, characterized by fair-mindedness, and the production of an administrative account as well as a patrimonial and analytical accounting. It prescribes the programme approach in the preparation of the budget (the budget should henceforth be in the form of programme and project).

Budget preparation thus allows efficient execution of the MINSNTE's programmes, while ensuring that the retained projects reflect the Health Sector Strategy (SSS) and the roadmap, prescribed by the Prime Minister.

In 2008, year of the preparation of the 2009 budget, the budget preparation was placed under the coordination of the secretary general. However, there is no standard organization on the matter, the only reference being the presidential circular.

In 2009, for the preparation of the 2010 budget, the innovation made was the reactivation of the PPBS chain (Planning-Programming-Budgeting-Monitoring/Evaluation) which induces the creation of technical operational structures, such as the technical unit in charge of the MTEF.

Budget preparation in Cameroon is mainly done in 08 important phases. I) the macro-economic and budgetary framing, ii) the elaboration of ministerial MTEF, iii) the budgetary pre-conferences, iv) the budget framing, v) the budget conferences, vi) the last arbitrations, vii) the bill and viii) the adoption, promulgation and validation of the budget.

### **3.2 The budgetary execution**

Budget execution begins with its loading in the computer at the level of specialized financial controllers of various ministries, with the help of the DEPMI software. A joint MINFI-MINEPAT team then carries out a mission in the different regions for the launching of the budget execution.

The execution procedure of public expenditure consists of four stages, of which three depend on the official entitled to order payment (engagement, liquidation and payment order) and one on the accountant (payment).

### **3.3 The different interveners in the expenditure circuit**

Regarding budget revenues, there exist two categories of officials entitled to order payment: The main official (Minister of Finance) and delegated officials (Heads of ministries and equivalents) for revenues generated by their administrations and tax administration officials.

Concerning public expenditures, there exist three categories of officials entitled to order payment: i) the main officials who are the heads of ministries or equivalents (Director Generals or Directors of public administrative establishments for example) and presidents of constitutional bodies (National assembly, Senate, etc.) ii) secondary officials who are the heads of decentralized services of the State receiving authorization of expenditures from the main officials (eg, regional delegates, heads of district health service, heads of District Hospitals (HD) and of Sub divisional Medical Centres (CMA) and iii) officials delegated by the main or secondary officials for expressly defined matters. This delegation takes the form of an administrative action from a main or secondary official (eg heads of CSI).

Other interveners accompanying the three categories of officials mentioned above in the execution of contracts include: i) contract commissions ii) the financial controllers, iii) MINEPAT services iv) the Directorate General of the Budget of MINFI v) the official in charge of stores accounting vi) the delegated work masters vii) other interveners include control engineers of (MINTP, MINDUH, MINFI or MINDAF according to cases), the services of the Directorate General of Treasury (Pay master, finance receivers, tax collectors) and suppliers/service providers.

## **4. TRACEABILITY OF PUBLIC EXPENDITURE**

The traceability of public expenditures follows the pattern of the flow of public funds and material resources from the Government and other donors, through the administrative hierarchy right up to the official entitled to order payment in health units, providers of health services.

### **4.1 The conceptual model of traceability**

For a good analysis of the traceability of budgetary resources destined to (or passing through) these structures, it is necessary to have complete and reliable information on the expenditure circuit as well as on the allocations provided in the finance act and those actually received by the different elements of the chain.

The proposed conceptual scheme is a combination of some important points for the monitoring of the traceability of budgetary resources. It presents the budgetary preparation before, and the use made of resources received afterwards. Specific indicators identified at each step, help to better define the related information.

### **4.2 Budgetary allocation and preliminary information of officials entitled to order payment**

According to the World Health Organization (WHO), the Governments should allocate 15% of their budgets to health related expenditures, so as to achieve the goal of access to health care for everyone. In Cameroon since 2005, the budget allocated by the State to the health sector has an overall upwards trend. From 2005 to 2009, it varied from 85.6 to 113.3 billion, evidence that the Government lays special emphasis on health related issues. It should also be noted that external resources are not included in this framework.

If it is true that the Government's actions must reflect the commitments subscribed at national and international levels, notably the WHO's standards which sets a 15% share of the budget related to health expenditures in the overall budget, the current evolution of the MINSANTE's budget shows that efforts made are still insufficient.

The survey reveals that in 2009, the proportion of health unit managers who estimate they participated in the preparation of their budgets remains relatively low. The opinion of health unit managers on this participation is less favourable when we move from structures found beside decision centres to peripheral structures. One official out of three of the regional delegation, declared not having participated in budget preparation. Regarding health units, managers of CMA and CSI are the least involved in the preparation of their budgets (26% and 31% respectively).

According to these managers, their contributions in budget elaboration is usually done either by participating in sessions, organized by the management committee or by the elaboration and transmission of the structure's needs to the hierarchy.

In the decentralized services and Health units (FSSs), virtually all those who declared having been involved in budgetary preparation admit that they were just passive actors, their opinions are not always taken into account.

### **4.3 Overview of traceability in the management of public resources in 2009**

For a good traceability of public expenditure, information on the budget and its use have been collected from managers of health units and decentralized health services. Regardless of the structure's level, it appears that information on the use of the operating budget is much more detailed than that of the investment budget.

Regarding the intermediary decentralized health services, we note that 88.9% of regional delegates have provided detailed information on their operating budgets against 71.4% for investment budget. For the investment budget, the situation seems more deplorable in District Health Services (SSD), where nearly 56% of the managers are unaware on the amount of their investment budgets.

As regards to health units, as one moves from a higher category to a lower category, managers have less information on the operating budget as well as on the investment budget. In addition, given that a greater part of the investment in health units is managed at a higher level, information on the investment budget is less available at the level of these managers.

During the 2009 financial year, several health unit managers reported having received no resources from the administration. This situation is more worrying when we move from the services closer to the central level to those at the peripheral level. All heads of district hospitals declared having received resources in cash, while nearly one CSI manager out of four declares not having received resources for the running of the structure headed. Concerning the investment budget, the situation is appalling in sense that, only half of CSI and CMA managers declared having received resources against 78% for district hospital managers.

Looking at the declarations made by these managers, to know whether the amount of resources received from the administration corresponded to that inscribed in the finance act and in the projects log book, we notice that apart from CSI managers, at least half of the them answered in the affirmative.

Regarding the operating budget, the authorizations of expenditures of the first semester 2009 were withdrawn in late February by the SDI and in mid March by the health units. Those of the second semester were withdrawn in mid September.

Once the authorizations are withdrawn, the officials entitled to order payment in the health units spend more than half a month to execute those with the highest amount. In return, the heads of decentralized services on their part, take much time (twofolds the time taken in the FSs). An analysis by semester shows that gaps are less important in the second semester than in the first.

For the investment budget, the authorizations of expenditures of health units were withdrawn in 2009 about two months after (June) those of the decentralized services.

It appears that the first authorizations of expenditures executed are those with the highest amount. They were executed about 10 days after withdrawal for health units and after more than a month for the intermediary decentralized health services. We equally note that for health units, the execution time are much reduced in the rural area than in the urban area.

Half of the managers of health units and decentralized health services believe that contract commissions take on average two weeks to one month to grant a contract. Some few commissions take a little more time (more than a month) to grant a contract. We record 18.2% among health units and about 40% among decentralized health services.

Concerning the execution of the operating budget and with the exception of the South region, this rate is relatively favourable in health units than in the intermediary decentralized health services. As one moves from a lower level to a higher level, the execution rate of the investment budget increases considerably. Concerning health units for example, we move from 50% (CSI) to 90% (HD), with 60% for CMA.

### **The losses of resources recorded in the expenditure circuit**

The estimation of the amount of losses in the expenditure circuit using the elaborated questionnaires did not produce reliable results. However, off microphone conversations with actors of this sector have helped to estimate the average difference between the amount inscribed in the finance act and the one used to effectively carry out activities.

Because of the multiplicity of interveners in the expenditure circuit, a greater proportion of budgetary resources is lost by decentralized services to take care of different links of the expenditure circuit. Overall, the most concerned lines are "purchase of *current equipment*" and "*purchase of supplies*".

The situation of health units appears more worrying due to the fact that the majority are established in the rural area. The fact that the withdrawal of their authorizations of expenditures is sometimes done by an authority of the locality (an elected person, an elite or an administrative authority), it may worth a compensation. This could justify the strong involvement of the latter in the loss of resources recorded by health units. Both in urban and rural areas, the budgetary lines the most subjected to losses of resources for the health units are respectively "purchases of drugs," "office supplies" and "hardware equipment".

This estimation of losses that was made for the operating budget has been very difficult for the investment budget, whose management is not always done at the local level.

### **The appreciation of the functioning of contract commissions**



As regards to the deliberations of commissions, 7 out of 10 managers believe that they correspond to their expectations. This proportion is higher in the urban area (90.9%) than in the rural area (50%). The main reasons given by unsatisfied managers include: Opacity in the granting of contracts (25%), disorder in the granting of contracts (18.5%) and favouritism (18.5%).

The same observation is made on the satisfaction of contracts granted by the commission but in reduced proportions on the overall and in the urban area. Those unsatisfied with services rendered gave as main reasons, the non taking into account of their view points (33.3%) and the non taking into account of instructions from technical services (33.3%).

### **The management of subventions to private health units**

About 74% of private health unit managers interviewed declared not having received State's subventions in 2009. We can understand that they do not have information on this subject given that subventions are generally paid to founders of these health units (who are not necessarily the managers in post).

Among the structures beneficiaries of subventions in 2009, about 42% were informed in advance on the amount allocated to them.

The scale of distribution of subventions is subjected to criteria not known by all managers/founders of health units. Less than 42% of managers are aware of these criteria and 60% consider them acceptable.

Managers/founders of private health units have difficulties to be in possession with the subventions allocated to their structures. The three main problems mentioned are i) the arrival of subventions in instalments (41.7%), ii) administrative heaviness (33.3%) and iii) bank worries (16.7%).

Subventions are paid to private health units to support the charges of the staff, notably salaries and allowances. The survey reveals that in 2009, the subventions received by private health units have largely been used for expenses other than those related to the staff. This is the case of material and equipment expenditures and expenditures related to the running of services. Only 16% of these subventions were used to take care of the staff.

#### **4.4 The main difficulties encountered in budgetary execution**

In 2009, managers of health units and intermediary decentralized health services have virtually experienced the same difficulties in the execution of their operating and investment budgets. Although the proportions vary from one area to another, the same problems are regularly reported.

The two big cities, Yaounde and Douala, however, enjoy certain facilities due to their proximity to decision centres. These difficulties are more pronounced in the rural area, certainly because of the enclavement some areas are subjected.

In order of importance, we note :

- ✓ Insufficiency and inadequacy of credits;
- ✓ Administrative slowness;
- ✓ Worries in the payment;
- ✓ Delays in the reception of cartons.

## **5. THE CHARACTERISTICS OF THE PROVISION OF SERVICES**

## 5.1 Availability of infrastructures and basic equipment

On average, 8 out of 10 health units have medical laboratories. Strong disparities are observed at the regional level; only 5% of health units of the urban area lack laboratory against 33% for the rural area.

Overall, 13% of health units possess a mortuary. However, this average hides some disparities that exist between different categories of health unit: HD (47.4%), CMA (6.3%). Equally, according to the area of residence, 18% of health units of the urban area possess a mortuary, as against 8% in the rural area.

Overall, 2 health units out of 5 possess an operation room. Following the technical plateau, 9 out of 10 HD possess an operation room against 4 out of 10 for CMA and about 2 out of 10 for CSI.

On the whole, 95% of health units have a pro-pharmacy. Whatever the category of the health unit or the area of establishment, low disparities are observed.

For maternal health, the availability of delivery equipment is part of the important elements of the technical plateau of a health unit. We observe on the whole that 75% of health units possess a delivery box, 88% of them possess delivery tables and 32% possess caesarean section boxes. By category, we observed that the proportion of FSs with basic medical equipment decreases as we move from a higher category to a lower category. The same observation is made according to the area of establishment.

Sterilization equipment is useful in the prevention against infectious diseases like tuberculosis or HIV. In general, one health unit out of two possesses dry and water sterilization system. This material is more available in the urban area than in the rural area.

In 2010, about 9 out of 10 FSs, regardless of the category or the area of establishment possess vaccination equipment or a freezer/refrigerator. Apart from the CSI of which one out of five doesn't possess functional microscopes, all the other health units do possess.

One district hospital out of five has a functional ambulance. It should be noted that structures located in the rural area are less endowed with these transport facilities. In the rural area, one health unit out of ten possesses an ambulance while about 3 out of 10 have a functional motor bike.

Seven health units out of ten have access to electrical energy network. This access to electrical energy network is higher in the urban area. In the rural area, one FS out of two is connected to AES-Sonel network. As expected, the access to electricity decreases as we move from a higher to a lower category health unit.

In general, managers of FSs deplore power cuts, whose duration vary from 11 to 16 hours. The damages caused by these power cuts in 2009 have led to losses estimated at millions of CFA francs for some health units. To remedy this situation, 50% of health units resorted to alternatives sources like solar energy and generators (78.9% for HD, 43.8% and 33.3% for CMA and CSI respectively).

The supply of running water in health units is essential. The findings of this study reveal that only 46.8% of health units have access to running water. It should be noted that one health unit out of 5 gets water supply from a sinking well, almost the same value from harnessed springs and wells and about 15% elsewhere (rivers, non harnessed springs ...). In the rural area, only 2 out of 10 health units have access to water against 7 out of 10 in the urban area. Running water supply is also rare as one moves from HD to CSI.

## 5.2 Human resources and essential drugs

In 2010, basic health units have an average size of 24 persons among which 20 permanent personnel and 4 temporary staff. For the permanent personnel, the average number in public health units stands

at 14, and 35 in the private structures. The personnel number varies depending on the status and category of the FS. Regarding the temporary staff, the average number per health unit stands at 4 for the public and 3 for the private.

Regarding the medical and paramedical personnel of health units, medical coverage by specialized doctors stands on average at about 2 for a HD, almost 1 for a CMA and virtually zero for an CSI. The coverage by general practitioners is almost identical to that of specialized doctors for HD, but two folds for CMA and CSI. A reduced number of CSI, likewise private clinics and consulting rooms have general practitioners or specialized doctors working part time. Regarding non specialized nurses, this coverage stands at 27 for a HD, 10 for a CMA and 3 for an CSI. In addition, one can note that in the CSI, we almost don't have radiology technicians.

Six patients out of ten have not met a medical doctor during a consultation. The majority address themselves to a chief nurse. Patients consult medical doctors more in private health units. As such, nearly 5 out of 10 patients met a medical doctor in a private health unit and only 3 out of 10 in a public health unit. Consultation by a medical doctor is essentially an urban phenomenon, while that of a chief nurse remains a rural phenomenon.

Despite the supply mechanism of essential drugs put in place, stock run outs of almost all sorts of drugs experienced in health units were deplored. This phenomenon is more observed in the CSI than in HD. Health units are more often in shortage of Coartem, Amodiaquine (tb) + Artesunate and Cotrimoxazole(tb).

Concerning the duration of stock run outs, it varies from 3 to 9 days. Coartem represents the product that experienced more stock run outs and for a long duration in health units (an average of 19 days).

### 5.3 Supervision

Supervision constitute one of the measures of the national public health policy that enables efficient management of health structures, and to ensure at all levels of the system, the inclusion of orientations defined by the central services. This supervision is done in both public and private structures on the basis of specification whose criteria must normally be known by both parties (supervisor and the supervised).

In the intermediary decentralized services, managers have received on average 4 supervision visits. Moreover, in more than one health unit out of ten, managers reported having received one supervision visit during the year 2009.

Nearly 3 out of 10 managers, declared not knowing about these supervisions, thus representing one manager out of two for regional delegates and one manager out of four in district health services.

Concerning the appreciation of supervision visits, nevertheless, we have some managers (5%) who find them useless. In terms of percentage, the regional delegates are more likely to think so.

The health unit managers who reported having received a supervision visit during the year 2009 represent 92% of the total. The average number of supervision visits by health unit stands at 5 in 2009.

All health units do not benefit the same level of supervision. Following the category, the CMA and the CSI are more frequently supervised with an average of 6 and 5 visits respectively than the HD, which received an average of 3 visits per year. Similarly, one private health unit out of five has not received a supervision visit throughout the year 2009. However, the average number of supervision visit received is virtually identical in the public and in the private.

Although they are about a quarter to declare not mastering supervision criteria, health unit managers are almost unanimous on the usefulness of this activity in the monitoring mechanism for the implementation of the national health policy.

## **6. THE CHARACTERISTICS OF THE DEMAND OF HEALTH SERVICES**

The demand of health services tackled in this study is related to the profile and socioeconomic characteristics of patients and their personal motivations.

### **6.1 Attendance of basic health unit**

In 2009, health units have received on average 12 patients per day of which 2 were hospitalized. Health units located in the urban area received on average 12 patients per day as against 8 in the rural area.

This demand also varies according to the category and the status of the health unit. Indeed, the HD received on average 22 patients per day, as against 8 for the CMA and 6 for the CSI. Moreover, the private health units seem more solicited than those of the public. Private health units received on average 15 patients per day while those of the public received 8.

The study reveals that in 2009, three out of four patients visited a public health unit. This reflects the magnitude of the provision and geographical coverage in public health infrastructures. According to the area of establishment, 69% of patients resorted to a health unit located in the urban area.

Moreover, following the health unit category, 33% of patients resorted to HD, 21% to CMA and 46% to CSI. HD have more been visited in the urban area (33% of patients). It should also be noted that women visit health units more than men. Indeed, among 10 patients received in health units during the last three months preceding the survey, about 7 are of the female sex. This trend is observed both in the urban and rural areas, where respectively 73% and 63% of patients are of the female sex.

Persons aged 21 to 55 years constitute the majority of patients consulted in the health units interviewed, irrespective of the category and the area of establishment of the health unit. More than half of the population of this age group visited a health unit located in the urban area.

Regarding the socio-economic group of patients, persons with precarious social status (labourer, independents, family helps, apprentice, students, unemployed) represent those who visit the CSI the most; they are about half to go there.

### **6.2 Consumption of health services**

Several diseases and services have been retained to analyze the reasons for consultation in health units. Among these diseases included: (i) malaria, fever, headaches, (ii) influenza and cough, (iii) diarrhoeal diseases, (iv) fracture or bone malformation. Services retained included: Mouth and dental care, family planning, antenatal and postnatal care, vaccinations, medical tests including HIV/AIDS test.

Following the patients' declarations, the group malaria, fever, headaches is by far the first reason of health consultation. About one out of two patients goes to the hospital for the treatment of malaria, which represents the first cause of mortality in Cameroon.

Overall, patients declared the proximity of the health unit as the first element that motivates their choice (35%), followed by good quality service received in health units (28%). These reasons predominate regardless of the area of residence. Private health units are also more solicited for the

quality of the service offered than those of the public. Indeed, 2 out of 5 patients visit a private health unit for this reason, as against one patient out of four in a public health unit.

In general, the average expenditure for a consultation stands at 1 381 CFA F. It stands at 1 840 CFA F for the HD, 1 252 CFA F for the CMA and 1 097 CFA F for the CSI. In the urban area, patients spend on average 1 849 CFA F for a consultation, of which 2 329 CFA F in a HD, 1 812 CFA F in a CMA and 1 256 CFA F in an CSI. In the rural area, the average expenditure for a consultation stands at 850 CFA F.

Regarding the service received in FSs, 67% of patients believe that the amount paid is sufficient or normal and 23% find it excessive or very excessive as compared to the result obtained.

### **6.3 Appreciation of the quality of health care**

More than half (57%) of the patients who visited a health unit in 2009 took less than 30 minutes before being received for consultation, 29% took between half an hour to an hour and 14% took more than one hour. This trend is the same regardless of the type of health unit. More patients take less time to be received for consultation in the CSI (63% took less than 30 minutes) than in HD (54% took less than 30 minutes).

About 9 out of 10 patients were satisfied with the quality of consultation and consider it good and even complete. Following the area of establishment, the judgment is more favourable for health units in the rural area (92%) than those in the urban area (89%). Following the status of the health unit, the quality of consultation is better appreciated in private health units (94%) than in public ones (89%). Following the category of the health unit, the quality of the consultation is best appreciated in the CMA (94%), despite the fact that it lasts longer.

In general, patients more consult nurses (40%) regardless of the area of establishment of the health unit, and especially in the CSI (58%) and in health units of the public sector (43 %). This result reflects the situation of the provision of medical personnel, medical doctors being mostly in HD and in private clinics.

Overall, about 9 out of 10 patients think that the reception is satisfactory or very satisfactory, regardless of the area of establishment, the type or status of health unit. According to the status, the appreciation made by patients on the quality of reception is more favourable to private health units.

### **6.4 Appreciation of the provision of services in health units**

In general, most patients appreciate positively the state of premise where they had their last consultation: 38% consider it acceptable, 33% good and 13% very good.

Following the category of the FS, patients complained more on the state of premises of the CSI (19%). Following the status of the health units, the state of premises is more decried in public FSs (20%) than in private ones (6%).

Health unit users have a very negative appreciation on the state of toilets. About 1 patient out of 3 believes that toilets of health units visited are clean. Toilets patients consider cleanest are those of the CSI (52.1%), contrary to those of FSs with a higher technical plateau.

Seven patients out of ten consider the hygienic and salubrity conditions good or very good in health units, while 15.8% consider them bad or very bad.

At least one patient out of two met in FSs, thinks that pharmacies are either fairly well furnished or well furnished. For those who are fairly well furnished, 53% are located in the urban area. Private health units, notably the confessional private health units, are considered to be the best furnished by patients.

About three patients out of ten think that general equipment and logistics of health units visited are decrepit but well maintained.

The overall judgment made by patients on health units is satisfactory. Indeed, 77% of patients were either satisfied with the services received or found them acceptable.

## **6.5 Assessment of the level of satisfaction of health services beneficiaries**

With the help of a global satisfaction indicator elaborated with variables of appreciation, it follows that beneficiaries of health services are mostly satisfied. We have: 67% satisfied, 14% are neither satisfied nor unsatisfied and 19% unsatisfied.

A non-sensitive difference emerges between health services satisfaction for men (80%) and that of women. Moreover, poor persons are more satisfied with health service provisions (81%) than non-poor persons (80%). This can be explained by the fact that the non-poor persons are more demanding when it comes to health, while the poor persons are content with the bare minimum. The analysis is similar regarding the education level, since a person with a high education level is better placed to appreciate the imperfections of the health system. Thus, persons whose household heads have no education level are more satisfied with health service provisions (82%) than those whose heads have the primary school level (81%), secondary school level or more (79%). The results also show spatial disparities for the satisfaction level of household beneficiaries so far as a health service provision is concerned. Indeed, households residing in the rural area (84%) are generally more satisfied with health services than those of the urban area (83%).

## **7. ANALYSIS OF THE EFFICIENCY OF THE CAMEROON'S HEALTH SYSTEM**

### **7.1 The aims of the health system organisation reform**

For a health district to be viable, it must possess a network of health units whose infrastructures and equipment meet with the norms in force, a staff quantitatively and qualitatively in conformity with the requirements of the WHO. However, the implementation of reforms clashes with many problems of the system. Indeed, in the process of viabilization of health districts, we note a shortage of qualified human resources that reduces the effectiveness of the system. Similarly, the poor distribution of available human resources, the poor state or the decrepitude of infrastructures and equipment available does not enable to ensure quality services.

Although the decentralization of the health system is effective in the aspects of management of financial, human and material resources, its implementation is hampered by the insufficiency of skills at the level of health districts. For this to be possible, the Government should strengthen the capacities of officials in results based management (RBM), in the elaboration of the budget and the MTEF and in the management of human resources.

### **7.2 Problematic of the health financing in Cameroon**

Many technical and financial partners support the Cameroon Government in its health policy. Apart from bilateral backers, we enumerate 26 UN agencies, 20 global and regional funds and 90 global initiatives working in Cameroon for health. .

Primary health cares are generally the main destination of this funding, this is in conformity with the national health policy.

The spatial allocation of international aid is less efficient because of the insufficient coordination of the various co-operations by the Ministry of Public Health. The strengthening of capacities of several officials in RBM will certainly enable achieve the objectives of good management, in view of improving the beneficiaries' satisfaction for health services.

Face to the difficulties encountered, the communities organize a solidarity, through informal support mechanisms. This solidarity is observed in Cameroon within mutual health organizations and especially associations and "tontine", in which we find the rubric "assistance", which aims to support a part of medical expenses incurred by one of the members whose contributions are up to date. However, these approaches generally remain insufficient to overcome the problems of health care financing.

The social security (provided by the NSIF) which doesn't yet incorporate health coverage in its services, protects only formal sector workers and civil servants. This practice excludes a significant part of the population which is regrouped in informal agricultural sector and the informal non-agricultural sector. Similarly, private insurance companies, financially inaccessible for many, partially meet with the health insurance needs of a minority of wage earners. Sickness insurance whose effectiveness is recognized in some countries, therefore appears to be the necessary tool for this new approach.

### **7.3 Implication of the civil society in the budgetary execution and control**

The civil society only acts at the level of the public investment budget (PIB). The PIB is a tool that enables the state to promote development and achieve its objectives in the fight against poverty. Thus, the civil society participates regularly in commissions in charge of budgetary execution and control, especially in the control of public contracts. The results of the contribution of representatives of the civil society in budgetary execution and control still remain mitigated.

In order to monitor the achievements of the Cameroon Government and to banish the evils which constitute an obstacle to economic and social development of the State, the participation of the civil society must be improved. For this purpose, it is advisable to carry out the following actions among others:

- Collaborate with parliamentarians, especially during debates preceding the vote of the budget;
- Establish a real decentralization policy that aims at transferring a substantial part of budgetary management to decentralized State collectivities;
- Sensitize citizens on budgetary issues so as to increase their interest in this aspect.

### **7.4 Consolidation of the health information system**

The health sector, like the national statistical system in general, has a rich potential as regards to the production of statistical information. Unfortunately, the study of the traceability of public expenditures related to health in Cameroon has encountered some difficulties, mainly due to the non availability of budgetary information. In addition, information on the provision and demand of health services is still less known, not updated and do not therefore enable to make good decisions. This arises from the inefficiency of coordination between the various structures and vertical health programmes that produce information (non harmonization of data collection methodologies and questionnaires used).

Looking at the importance given to priority sectors like health, to boost growth in Cameroon, the process of decision making at every organizational level, passes through the establishment of an efficient health information system. Hence, there is need to define a capacity building plan of the health system in order to equip the various actors on the keeping and management of health

information. This capacity building will enable to have routine information at regular intervals, and mechanisms to produce useful information.

For a better statistical coverage of the health sector, the methodological approach to be developed should include all bodies and all levels identified, and train the staff in charge of statistics according to corresponding levels.

## 7.5 Provision and demand of health services

The present organization of the public sector foresees the establishment of health units right up to the peripheral levels, so as to serve a maximum number of people. In 2009, we noted an improvement in hospital coverage: A ratio of 118 330 inhabitants per hospital, which is reasonable as compared to the WHO's standards, that sets a ratio of 100 000 inhabitants for a hospital. However, it does not only suffice to increase the number of health units, but to ensure their functioning, notably the presence of sufficient human and material resources.

Private health units that accompany the government in providing health services to populations, mostly have as promoters medical doctors working in the public sector. Indeed, many patients who consult public health units are referred by medical doctors to their private health centres for medical care. However, many risks are observed in this practice, among which a very high workload for medical doctors, who are compelled to work continuously in both the public and in their private structures. This may have a negative impact on their performances, although many patients find their services satisfactory. One of the findings is that many patients are dissatisfied with the services provided in public health units because of poor reception they are subject to.

Additional efforts must be made by the Government to train and recruit more medical personnel, notably medical doctors, dental surgeons and pharmacists to fill the gap relative to the WHO's standards. The hope is possible when we know that actions are being implemented in direction of the opening of new faculties of medicine and new branches.

Equity also remains a fundamental concern for the health system in Cameroon.

Based on projections obtained from the Third General Population and Housing Census (3<sup>rd</sup> GPHC) data and information from the health map, the analysis of the distribution of health units across the country shows a high inequity which enables to distinguish two main groups:

- i) The group of those who are better served, characterized by a high population density and a low population/health unit ratio, that is to say a high concentration of FSs as compared to the population. Included in this group and in decreasing order of health unit possession are: West, North West, Littoral, Far North, Centre and South West regions.
- ii) The group of the underprivileged, characterized by a high population/health unit ratio and a low population density. Belonging to this group and with a low possession of health units are the East, Adamawa, North and South regions.

In this classification, the Centre and the Littoral regions should definitely fall under the underprivileged groups if we exclude Yaounde and Douala, which concentrate many of the health districts and health units nationwide coverage.

If one is interested in primary health care, only the West and the North West regions remain in the group with a concentration of health units higher than that of the population. Even when limited to public health centres, the changes observed do not modify the composition of the preceding groups.



In any case, the North, Far North and the Littoral regions appear to be regions where access to primary health care faces a low endowment of health centres. On average, in these three regions, over 10 000 people are served by one health centre.

Although recruitments have increased in the sector, the deployment of personnel through out the national territory is not always optimal. Indeed, the centralized management of the personnel at the national level hinders the mastery of the personnel in its deployment and its daily management. Furthermore, the majority of the health personnel lack motivation due to absence of visibility in the status, the career profile, the bonuses, the means, and the working environment. The reward of the personnel through the financial aspect is crucial for its involvement in work. Thus, if the personnel is interested in the results obtained by the health unit and his work in this health unit, there will be an encouragement to work better. So when the link between income and work input shall be clearly visible, we could expect a different type of behaviour from the personnel.

Sudden power cuts, coupled with the poor use of equipment acquired are also cited as sources of malfunction. For example, the new haemodialysis centre whose construction in Bamenda required substantial resources, experienced damage of devices due to power cut. This situation calls upon Government and main managers of health units on the establishment of a maintenance system in each health unit with a medical device of great importance. The absence of qualified technical personnel for maintenance/repair of medical equipment in these health units remains a major problem. In this perspective, the State should think of opening in national schools, branches for the training of personnel in charge of the maintenance of medico sanitary equipment.

Drugs availability in health units continues to be a concern looking at the conclusions on the monitoring of some essential drugs. In 2009, about 30% of health units have not had the required minimum stock of medicines. Stock run out sometimes goes up to 19 days, evidence that the quality of the distribution network is still to be improved.

## 7.6 Hospital governance

The last PETS had recommended that consultation prices display system should be established in health units, in order to facilitate patients' information and prevent corruption that could cause troubles. The problem still persists. Indeed, for about 43% of the patients interviewed, the consultation rates are not displayed. Even when displayed, they are done in areas not quite visible to the public.

The costs of medical care in hospitals today are far from obeying the decree No. 87/529 of April 21<sup>st</sup>, 1987, setting the general nomenclature of medical deeds; Decree amended by a ministerial decree (MINSANTE) of the 8<sup>th</sup> June 1994, setting the list of goods and services whose prices and rates are subjected primarily to prices approval procedure, following the effects induced by the devaluation and technological evolution. In public health units for example, the costs of medical care vary depending on whether you solicit a reference hospital, a district hospital, a CMA or an CSI on the one hand, and on the personnel you wish to meet on the other hand.

## 7.7 Summary of key problems raised by respondents

By exploiting the different responses given by managers of health units interviewed on problems related to the traceability of public expenditure, and those of health service beneficiaries on their level of satisfaction, the following substantially problems can be raised:

### ✓ *On the expenditure circuit*

- Low participation of heads of decentralized services and dialogue structures in the budget preparation;
- Non respect of the budget preparation timetable;
- Insufficient consideration of needs expressed by structures at the level of central services;
- High concentration of the PIB's management;
- High diversion of resource at the level of financial controls and administrative authorities;
- Strong asymmetry of information between managers of health units and beneficiaries;
- Insufficient knowledge or poor application of budgetary management principles by some officials ;
- Total or partial unavailability of archives on budgetary information;
- Non respect of budgetary execution time and delay in the reception of authorizations of expenditures ;
- Weak decision powers of managers within the local contract commissions;
- Poor quality of expenditures;
- Persistent difficulty in programming a "Budget Tracking" survey at regular intervals.

✓ ***In relation to the level of beneficiaries' satisfaction***

- Insufficient equipment needed to provide medical care worthy of the technical plateau of health unit solicited;
- Sanitation problems in health units;
- Inadequate supply of electricity especially in the rural area;
- Run out of stock of essential drugs in health units;
- Insufficient qualified medical personnel in health units;
- Non display of the official rates and incompatibility between these rates and those used in the FSS;
- Poor reception of patients in health units and especially those of the public sector;
- Persistence of some diseases (influenza and malaria).

## **7.8 Recommendations**

In view of the definition of a matrix of actions to improve financial management and access to quality health services, the following recommendations could be made:

✓ ***On the expenditure circuit***

- Involving more the officials of decentralized services and dialogue structures in budget preparation;
- Decentralize the technical structure of budget preparation;
- Take into account the real needs expressed by health units;
- Allow managers of structures to define their priorities;
- Create a Planning - Programming - Budgeting - Monitoring committee (PPBS) in the MINSANTE;
- Decentralizing as much as possible the management of the PIB;

- Revise the role of financial controls and administrative authorities in the expenditure circuit ;
- Systematically make available to the public (through dialogue structures such as management committees) information on budgetary resources and their uses;
- Make available the manual of budgetary and accounting procedures and facilitate its acquisition and its use to officials;
- Establish an archiving system of budgetary documents;
- Improve the time-limit of transmission of authorizations of expenditures;
- Increase the decision power of officials entitled to order payment within local contract commissions;
- Sufficiently fill out technical specifications to exclude adventurer service providers;
- Consider the financial and technical capacities of bidders in the granting of contracts;
- Establish a mechanism to appropriate the "Budget tracking" exercise in the Ministry of Public Health.

✓ ***In relation to the level of beneficiaries' satisfaction***

- Adequately equip health units;
- Improve the quality of health service provision especially in the rural and inaccessible areas;
- Promote modern methods of waste disposal, while respecting environmental protection;
- Ensure access to drinking water to all FSs;
- Ensure access to electricity to all FSs;
- Make available essential drugs, vaccines and consumables as well as laboratory tests at all levels of the health system, especially in rural areas and area with difficult access;
- Make available and motivate the qualified personnel in FSs especially in rural areas and areas with difficult access;
- Clearly define an orientation system of patients' in health units;
- Improve the quality of equipment of health units to meet the demand and intensify the fight against some priority diseases such as malaria.

# CHAPTER 1: BACKGROUND, OBJECTIVES AND METHODOLOGY OF THE STUDY

## 1.1 Background of the study

A survey on the public expenditure circuit "budget tracking (also called PETS), is a statistical audit (and not accounting). It is an operation that aims at providing a reference document for the appreciation of public finance management in priority sectors considered.

The first survey of its kind PETS 1, ordered by the Cameroon Government, was conducted in Cameroon in 2003/2004 by the National Institute of Statistics (NIS). It was part of the triggers of the completion point of debt reduction of Heavily Indebted Poor Countries Initiative (HIPC). Following this study, a matrix of priority actions (MAP) was elaborated and some of the actions of this matrix are already implemented. Among these include the establishment and effective functioning of local monitoring committees of the PIB (Public Investment Budget) and the dissemination of the projects log book right up to the level of the third class traditional chiefdoms. The present survey (PETS 2) is equally one of the recommendations of the matrix of actions.

This time again, the monitoring of public expenditures focused on education and health, two social sectors to which the Cameroon Government places a high priority. In these priority sectors, the national report of the participatory consultations in March 2008, highlighted some realisations made during the implementation period of the PRSP 1 (2003-2007), that would have helped improved people's access to basic social services. However, it remains a concern to evaluate the level of implementation of measures retained in the priority plan of actions from PETS 1, this can help to correct malfunctions that persist and update the matrix of measures to be implemented with the ultimate goal of ensuring adequate access to health services and quality education to the entire population.

Furthermore, the Law n°2007/006 of the 26<sup>th</sup> December 2007, on the state's financial regime has made available the "financial constitution of Cameroon". In relation with this law which establishes the principles of regularity, sincerity and faithfulness in keeping the public accounts, PETS 2 is positioned as a tool for monitoring and evaluation of this new financial regime.

Given the importance of the governance component in the government's current policy and the place of results based management, it was recommended that such a survey be conducted periodically, with lighter data collection tools in order to assess the effectiveness of public expenditures and the evolution of recipients' satisfaction.

## 1.2 Study's objectives

### 1.2.1 General objective

The general objective of PETS 2 is to provide necessary information to the Cameroon Government and partners intervening in the health sector, in order to objectively appreciate the performances of public expenditure over the period 2003-2009.

### 1.2.2 Specific objectives

Specifically, the study helps:

- iv) To provide a current assessment of the traceability of public expenditure in order to measure progress made in the management of public resources since the previous PETS, and to identify potential inefficiency sources still existing;
- v) To evaluate the implementation of measures retained in the matrix of priority actions resulting from PETS 1, in order to appreciate the extent to which education and health actors have appropriated the various monitoring and control tools of public expenditure. We particularly examine the dissemination of information on the provision of public education and health services, necessary to commit citizens and strengthen social accountability;
- vi) To appreciate the degree of satisfaction of health services beneficiaries, so as to bring out orientations to improve the access and quality of these services.

### 1.3 Methodological approach of the study

To carry out the survey PETS 2, a steering committee was created. This committee was composed of the technical coordination team of the NIS and experts of concerned sectors notably, education (MINEDUB and MINESEC), Health (MINSANTE), Public Finance (MINFI and MINEPAT) and Monitoring of Economic Programmes (CTS).

#### 1.3.1 Scope of the study

Geographically, the survey covered the entire national territory. Are involved in the operation on the side of public services, all hierarchical levels of the public health administration and structures providing health services (health units). Concerning beneficiaries, all Enumeration Areas (EAs) of the Third Cameroon Household Survey (ECAM 3) were part of the sampling frame of the survey.

To detect regional specificities, particularly in terms of cost and quality of public health service, the country was divided into twelve survey areas (the two major cities, Yaounde and Douala are regarded as survey regions separately). This enables a disaggregation of the information necessary in the frame work of the current implementation of the decentralization process, but also facilitates comparisons with PETS 1.

#### *Box 1 : Limits of the study's scope*

As regards households, only those who participated in the frame work of the Third Cameroon Household Survey were retained. The main concern being to put in relation the apprehensions of beneficiaries of health services and their living conditions, through the merging of information sources (databases).

Concerning health units, just like in PETS 1, were expressly excluded from the scope of the study general, central and regional hospitals, which are answerable to other management rules, notably the board of directors, which governs general hospitals and Government subventions even for public establishments.

#### 1.3.2 Data sources

The data analyzed in this paper were mainly collected from:

- (i) Administrative Services (central, regional, divisional, etc..) through which resources circulate;
- (ii) A sample of structures providing health or education services;

- (iii) A sample of beneficiaries of services of the sectors concerned.

### **1.3.2.1 Primary sources**

Regarding primary data, they have been obtained from:

- (i) Administrative Services (regional, divisional, etc..) through which resources circulate;
- (ii) A sample of structures providing health or education services;
- (iii) A sample of beneficiaries of services of the sectors concerned.

Information on traceability of public expenditure have been collected essentially for the financial year 2009.

So far as the provision of services is concerned, the sampling unit is a public or private structure, provider of health services. Basically, they consist of health units. These units are at the same time units of observation. Moreover, officials of different administrative services through which resources circulate have been interviewed (central, regional, divisional, etc.).

Regarding establishments, providers of basic health services, the sampling frame consisted of a list of all public and private health units. This list was provided by MINSANTE.

The constraint to reconsider back a part of the PETS1 sample in PETS2, obliges the comparison of sampling frames over the two years, and this operation has revealed mutations of structures of which it should be important to take note. Regarding the demande of services, the unit of observation is the household or the patient taken live in a health unit.

### **1.3.2.2 Secondary sources**

They mainly consist of central administrative services in charge of finance, investment and health matters. These information from the central level, were collected as secondary data or by direct interview.

The collection of secondary data enables on the one hand, to master the health administrative organization, and on the other hand, to make a general diagnosis of the country's educational and health systems.

Some secondary data were collected in specialized structures in the frame work of demographic and socio-economic surveys and censuses; these data are related to the structure of the population by age, sex, region, etc.. An estimate of potential provision and demand of services can then be evaluated.

Studies and policy documents and programmes in health elaborated by the Cameroon Government, international organisations or non-governmental organizations (NGOs) also provide information on actions that have already been implemented and more precisely on the volume of financial esources and non-financial resources allocated for the execution of projects.

An exploitation of legislative and regulating texts on public finances has equally helped to have items on the institutional context.

## **1.3.3 Sampling plan**

### **1.3.3.1 Methodological approach of the drawing of samples**

The approach of the drawing of PETS2 samples is similar to that of PETS1 since on one the hand, PETS2 which will enable update results and analyze the evolutions observed, relies on the same scope and targets the same objectives as PETS1, and on the other hand, it intervenes just like PETS1, shortly

after a Cameroon Household Survey (ECAM), that helps update the poverty profile and living conditions of households.

Thus, the PETS2 sample drawing has integrated the achievements of the ECAM3 sample drawing, conducted in 2007 and that of PETS1 of 2003/2004. It is therefore a nationwide representative survey, stratified at one or two stages depending on the type of units targeted.

The option of incorporating some methodological choices of PETS2 with those of PETS1 and ECAM3, will help to ensure better readability and future analysis of results of the aforementioned surveys, in view of studying the determinants of poverty and the trajectories of health units and health services sampled between 2003/2004 and 2009/2010 in the domain of public resources management. This option also enables to save time and gain resources by inheriting the achievements of previous operations in terms of design and other preparatory works of surveys (for example, the use of the cartography of enumeration areas recently updated in ECAM3), and limit the quality effect of some sampling frames available (for example, incompleteness of the national lists of health units, decrepitude of some enumeration area maps resulting from the 3<sup>rd</sup> GPHC cartography and used for the household survey).

### **1.3.3.2 Stratification**

In the frame work of PETS2 just like in that of PETS1, ECAM2 and 3, the country is stratified into 12 study areas or survey regions, namely the 10 administrative regions of the country, to which is added given their specificities, the cities of Douala and Yaounde considered as study areas separately.

Apart from Yaounde and Douala considered entirely urban, each of the administrative regions of the country is a sub divided into three sub-strata of residence: The urban area composed of cities of 50 000 inhabitants and more, the semi-urban composed of agglomerations of 10 000 to less than 50 000 inhabitants, and the rural area (agglomerations with less than 10 000 inhabitants). However, for analysis purposes, we have chosen a simplified stratification opposing the urban area (set of towns of 50 000 inhabitants and more) to the rural area in the broad sense (agglomerations with less than 50 000 inhabitants).

### **1.3.3.3 Sample size**

Given that PETS2 proposed to produce robust results by region and given the budget constraint, the sample sizes of PETS2 are, for the different types of units targeted, close to those retained in PETS1.

The breakdown of the sample by type of units gives about 1 642 households and 249 decentralized services involved in the public expenditure circuit or in the management and supervision of structures providing health services.

As for sampled health units, we had a total of 176, of which 38 HD, 30 CMA and 108 CSI.

Whenever possible, about 30 to 40% of school establishments drawn in each region, belongs to the private education order for all sub orders concerned (lay, catholic, protestant, islamic).

### **1.3.3.4 Drawing of samples**

As it was the case for PETS1, the drawing of samples begins with that of establishments, providers of basic health services and that of households considered as potential beneficiaries.

To ensure coherence of results, the drawing of samples for the different components and levels of intervention in the public expenditure circuit is done in an integrated manner. Thus, households and establishments providing basic education and health services selected for the survey, belong to the same administrative units to enable a connection between the results of the different components and

levels of the survey. The samples of decentralized services playing an intermediary, a control or supervision role between the central administration and the establishments, derive hierarchically from the choice of establishments of the survey.

### 1.3.3.5 Drawing of the sample of beneficiary households

As reminder, the drawing of households to be interviewed in PETS2 derives from ECAM3 sampling plan, that was used to update the poverty profile and living conditions of households in 2007. Indeed, ECAM3 was carried out on a representative sample of about 12 000 households selected in 742 EAs across the country, stratified as described previously. This is a random draw stratified at two stages: The first stage (selection of primary units of areolar type) concerns EAs and the second was (selection of secondary units) that of the selection of households.

The draw made, consisted first in choosing a sub sample of EAs and sub divisions selected in ECAM3, while giving preference to those found in administrative units where PETS1 took place; then, choosing in each of the EAs a number of households which varies according to the survey region.

**Table 1 : Spatial distribution of PETS2 sample households**

Survey region	ECAM3		PETS2	
	Number of EAs	Number of households	Number of EAs	Number of households
<b>Douala</b>	100	1 260	25	145
<b>Yaounde</b>	100	1 248	25	140
<b>Adamawa</b>	32	600	11	99
<b>Centre</b>	46	855	15	131
<b>East</b>	33	618	11	101
<b>Far North</b>	90	1 665	20	159
<b>Littoral</b>	39	726	13	112
<b>North</b>	46	864	15	130
<b>North-West</b>	85	1 575	20	178
<b>West</b>	73	1 362	20	181
<b>South</b>	31	582	10	91
<b>South-West</b>	67	1 254	20	175
<b>Total</b>	<b>742</b>	<b>12 609</b>	<b>205</b>	<b>1 642</b>

At the first stage, out of the 742 ECAM3 EAs, it was given to select about 200 EAs in all the 12 survey areas distributed as follows: 25 EAs in Douala, 25 in Yaounde and on average 15 in each of the 10 other survey regions.

To do this, in Yaounde and Douala, the main urban towns where we have a sample of 100 ECAM3 EAs, we first drew systematically a  $\frac{1}{4}$  sub sample, thus worths 25 EAs representing all the sub divisions that make up these cities.

In the other 10 survey regions, we chose  $\frac{1}{3}$  of ECAM3 EAs, with a maximum of 20 EAs per region for PETS2. This allocation depends on the weight of the region in the ECAM3 sample and the number of administrative units that were concerned by PETS1.

In each selected EA, we randomly choose 50% of sample households successfully interviewed in ECAM3, thus representing in general 6 households in Douala and Yaounde, and 9 households in the other survey regions.



**Table 2 : Spatial distribution of PETS2 sample households by stratum of residence**

Survey region	Rural	Semi urban	Urban	Total
Douala			145	145
Yaounde			140	140
Adamawa	38	26	35	99
Centre	27	16	88	131
East	16	46	39	101
Far North	55	8	96	159
Littoral	20	19	73	112
North	22	27	81	130
North West	49	9	120	178
West	48	9	124	181
South	18	36	37	91
South West	18	35	122	175
<b>Total</b>	<b>311</b>	<b>231</b>	<b>1 100</b>	<b>1 642</b>

These households are selected from those interviewed in ECAM3. The objective is to valorize available information on these households, especially those related to its living standards and living conditions. In this case, simply select in a systematic manner 1 household out of 2 among sampled households successfully interviewed in ECAM3, and identify them using cartographic dossiers available for effective interview.

### 1.3.3.6 Drawing of the sample of health units

The drawing method is similar to that of the EAs as indicated above; health units selected, constitute samples selected in the same administrative units as the EAs of the household survey. The following two criteria are privileged in this selection:

- Health units located in the localities covered by the EA, in default neighbouring;
- Health units that have been part of the PETS1 sample in 2004.

**Table 3 : Spatial distribution of the sample of health units by region and by order**

Region	PETS1 sample reconsidered in PETS2				PETS2 Sample				Of which private				Beneficiary patient			
	HD	CMA	CSI	Total	HD	CMA	CSI	Total	HD	CMA	CSI	Total	HD	CMA	CSI	Total
Douala	4	2	5	<b>11</b>	4	3	9	<b>16</b>	1	1	6	6	20	9	27	56
Yaounde	4	2	5	<b>11</b>	4	3	9	<b>16</b>	2	0	6	15	20	9	27	56
Adamawa	3	1	4	<b>8</b>	3	1	9	<b>13</b>	1	0	3	4	15	3	27	45
Centre	1	1	2	<b>4</b>	3	5	9	<b>17</b>	0	3	2	5	15	15	27	57
East	1	1	1	<b>3</b>	3	3	9	<b>15</b>	2	1	1	7	15	9	27	51
Far North	2	0	4	<b>6</b>	3	1	9	<b>13</b>	0	0	1	8	15	3	27	45
Littoral	3	0	5	<b>8</b>	3	2	9	<b>14</b>	0	1	1	9	15	6	27	48
North	1	1	2	<b>4</b>	3	1	9	<b>13</b>	0	0	1	10	15	3	27	45
North West	1	2	6	<b>9</b>	3	3	9	<b>15</b>	1	1	4	11	15	9	27	51
West	2	2	4	<b>8</b>	3	3	9	<b>15</b>	0	0	3	12	15	9	27	51
South	3	0	5	<b>8</b>	3	2	9	<b>14</b>	1	0	2	13	15	6	27	48
South West	2	0	4	<b>6</b>	3	3	9	<b>15</b>	1	1	3	14	15	9	27	51
<b>CAMEROON</b>	<b>27</b>	<b>12</b>	<b>47</b>	<b>86</b>	<b>38</b>	<b>30</b>	<b>108</b>	<b>176</b>	<b>9</b>	<b>8</b>	<b>33</b>	<b>50</b>	<b>190</b>	<b>90</b>	<b>324</b>	<b>604</b>

### 1.3.3.7 Samples at the intermediary level (decentralized services)

At the intermediary level, the survey sample comprises of:

- The 10 regional delegations of public Health (DRSP) ;
- District health services of the 38 health districts where the health units have been selected for interview.

Regarding the decentralized services of finance and MINEPAT:

- 11 regional financial controls (of which 2 in the Littoral, respectively in Douala and Nkongsamba) and the 10 regional delegations of MINEPAT, who are respectively in charge of the operating and the investment budgets in the different regions of the country;
- Divisional financial controls and divisional delegations of MINEPAT in the 35 divisions involved in various components of the surveys;
- Sub divisional financial controls, role attributed to divisional officers in the sub divisions concerned by the survey.

The breakdown by area of the samples of decentralized services interviewed at the intermediary level is summarized in the table below.

**Table 4 : Spatial distribution of the sample of decentralized structures to be interviewed**

Survey area	Health sector,			Financial controls			
	DR	DS	Total	DR	DD	Divisional offices	Total
<b>Douala</b>	1	4	5	2	2	5	9
<b>Yaounde</b>	1	4	5	2	2	6	10
<b>Adamawa</b>	1	3	4	2	6	3	11
<b>Centre</b>		3	3		8	4	12
<b>East</b>	1	3	4	2	4	4	10
<b>Far North</b>	1	3	4	2	8	4	14
<b>Littoral</b>		3	3		6	4	10
<b>North</b>	1	3	4	2	6	4	12
<b>North West</b>	1	3	4	2	8	4	14
<b>West</b>	1	3	4	2	8	6	16
<b>South</b>	1	3	4	2	6	3	11
<b>South West</b>	1	3	4	2	6	4	12
<b>Total</b>	<b>10</b>	<b>38</b>	<b>48</b>	<b>20</b>	<b>70</b>	<b>51</b>	<b>141</b>

### 1.3.4 Presentation of the sample of health units interviewed

The survey covered a sample of 164 health units of which 118 from public sector and 46 from the private sector. In the public sector, 23% of these health units are District Hospitals (HD), 18% are Sub-divisional Medical Centres (CMA) and 59% are Integrated Health Centres (CSI).

**Table 5 : Distribution of health units interviewed by region, sector and category**

Region	Public			Private			Total			Total
	HD	CMA	CSI	HD	CMA	CSI	HD	CMA	CSI	
Douala	3	3	2	1	4	3	4	7	5	16
Yaounde	1	2	2	2	0	1	3	2	3	8
Adamawa	2	1	6	1	0	3	3	1	9	13
Centre	3	2	6	1	2	2	4	4	8	20
East	1	3	8	2	0	1	3	3	9	18
Far North	2	1	7	0	0	2	2	1	9	22
Littoral	3	1	6	1	0	2	4	1	8	14
North	3	1	8	0	0	0	3	1	8	12
North West	2	3	5	1	1	3	3	4	8	15
West	3	3	6	0	0	3	3	3	9	18
South	2	1	7	0	0	2	2	1	9	13
South West	2	1	6	0	1	0	2	2	6	15
<b>Total</b>	<b>27</b>	<b>22</b>	<b>69</b>	<b>9</b>	<b>8</b>	<b>22</b>	<b>36</b>	<b>30</b>	<b>91</b>	<b>164</b>

Source: NIS/PETS2, 2010

Regarding the distribution of health units according to the area of establishment, 49% are located in the rural areas, as against 51% in the urban area. About 64% of district hospitals, 52% of CMA and 40% of CSI were interviewed in the urban area.

## CHAPTER 2 : ORGANIZATION AND FUNCTIONING OF THE CAMEROON'S PUBLIC HEALTH SYSTEM

### 2.1 Background of the health sector development

#### 2.1.1 Demographic situation

Cameroon's population, constantly increasing, is estimated at January 1<sup>st</sup>, 2010 at 19,406,100 inhabitants with a density of 39 inhabitants per km<sup>2</sup> with strong regional disparities. This population is predominantly young. The population under 15 years represents 43.6%, meanwhile over half of the population is under 18 years.

The population's structure by sex shows a slight imbalance between women (who represent about 51% thereof) and men. The population of urban areas is lower as compared to that of rural areas, although it grows rapidly.

The annual population growth rate declined from 2.8% in 2005 to 2.6% by 2009 ending.

#### 2.1.2 Health situation of the population

The Assessment of the population's health situation appreciated through a number of indicators, helped to highlight a set of positive achievements in terms of the improvement of the population's health situation, of the provision of health care, of finance, of medicine and of health security.

Cameroon's population has experienced a significant change thanks to efforts made particularly by the family planning programme. Indeed, the synthetic fertility index has experienced a significant drop, varying from 7 children per woman in 1962 to 2.5 in 2004.

Thanks to different strategies adapted to the epidemiological context, specific to each disease, undeniable achievements were recorded. They include:

- The elimination or reduction of a number of diseases (poliomyelitis, diphtheria, neonatal tetanus, measles, trachoma, malaria, Bilharzia);
- The improvement of vaccination coverage: 86.2% for BCG (vaccine against tuberculosis), 84.0% for DPT3 (vaccine against diphtheria, tetanus and whooping cough), 79.9% for VAR (anti measles vaccine), 81.9% for POLIO3 (vaccine against poliomyelitis), 76.3% for protected births against neonatal tetanus (TT2+) and 77.3% for the VAA (against yellow fever);
- The improvement of health care support and malaria prevention;
- The control of tuberculosis endemic and decentralizing its health care support, with its integration into the network of basic health cares;
- The improvement of the situation of transmittable ophthalmias especially those relating to trachoma;
- The generalisation of access and the free access to tritherapy for AIDS;
- The substitution of human insulin 40 units by human insulin 100 units to increase the security and quality care to diabetes patients.

## 2.2 Presentation of the public health system

### 2.2.1 Organization and functioning

The organization of the Cameroon's health system has been defined in 1989 by the Ministry of Public Health by decree N°89/011. The Ministry of Public Health stands security for the design and implementation of the health policy. As such, it elaborates implementation strategies of the health policy; ensures the organization, the development and the technical control of services of public and private health units; control the exercise of professions of health professionals, ensures the supervision of corresponding professional bodies and that of public health organizations; elaborates and implements the training plan for staff serving in the Ministry of Public Health; contributes to the permanent training and recycling of personnel of the public health bodies, manages public health establishments, contributes to the promotion of health cooperation, manages the careers of public agents serving in the Ministry of Public Health, prepares salaries as well as salary accessories of the aforementioned agents; ensures compliance with the national health mapping and ensure its update.

Interveners in the health sector in Cameroon work within a system organized in three levels: Central, intermediary and peripheral. Each level has specific functions and possesses administrative structures, health care structures and dialogue structures .

**Table 6: The different levels of the national public health system in Cameroon**

Level	Administrative Structures	Competences	Health care structures	Structures in charge of dialogue
<b>Central</b>	Central services of the Ministry of Public Health	-Elaboration of concepts, of the policy and strategies - Coordination - Regulation	General reference hospitals, University hospital centre, Central hospitals	Board of directors or management committee
<b>Intermediary</b>	Regional Delegation	Technical support to health districts	Regional hospitals and equivalents	Special regional funds for health promotion
<b>Peripheral</b>	District health services	Implementation of programmes	District hospitals, Sub-divisional medical centres, Health centres	COSADI COGEDI COSA COGE

*Source : NIS/PETS2, 2010 (produced from SSS 2006 – 2015)*

Each level is divided into three sub-sectors namely, public, private and traditional medicine.

The public sub sector comprises of all public and parapublic health establishments including those managed by other ministries (Defense, Employment and Labour, Social Affairs, Women Empowerment and National Education). It is organized as a pyramidal structure with 1<sup>st</sup> category hospitals occupying the top, followed by 2<sup>nd</sup> category hospitals and regional hospitals, who each head several district hospitals. This sub-sector is less performant due to the dilapidated nature of infrastructures, decrepitude of equipment and insufficient human resources.

The private sub sector occupies an important place in Cameroon. It comprises of non-profit (religious denominations, associations and NGO) and profit health institutions. This sub-sector is slightly beyond the control of health authorities at all levels and their statistics are not sufficiently integrated into the national health information system.

Traditional medicine is the third sub-sector, although not yet regulated. However, in view of the promotion of this medicine, many actions of the State are carried out: Creation of a service in charge of traditional medicine in the Ministry of Public Health, creation of the Centre for Research on Medicinal

Plants and Traditional Medicine (CRPMT / IMPM), the elaboration of a legal framework which is under adoption and the incentive to organize traditional doctors in associations.

### 2.2.2 Health infrastructures and accessibility

Health coverage by health care establishments has significantly improved, varying from 3 039 establishments in 2007 to 3 370 in 2009. The Cameroon's health system is comprised of 04 general hospitals (1<sup>st</sup> category), 04 central hospitals (2<sup>nd</sup> category), 11 regional hospitals (3<sup>rd</sup> class), 164 district hospitals, 155 sub divisional medical centres and 1 888 integrated health centres of which 1600 are functional. In addition to this, we enumerate 93 private hospitals, 193 non-profit private health centres, 289 clinics/polyclinics and 384 consulting rooms. Moreover, we enumerate about 12 accredited medical laboratories, among which the Centre Pasteur representing the reference, 05 drug manufacturers, 14 wholesalers, 331 pharmacies (181 in Yaounde and Douala), 01 National Centre for Essential Drugs Procurement and Medical disposables, 10 regional pharmaceutical supply centres (CAPR), 03 public medicine faculties in Yaounde, Douala and Buea and 01 private faculty of Medicine (Université des Montagnes) and 39 training establishments of medico sanitary personnel.

**Table 7: Physical capital for the provision of services and health cares<sup>1</sup>**

Category of health units	2001	2007	2009
1 <sup>st</sup> category hospitals	4	4	4
2 <sup>nd</sup> category hospital	3	3	4
Regional hospitals and equivalents	8	11	11
District hospitals	130	154	164
Sub-divisional medical centres	/	155	155
Integrated health centres	1 689	1 888	1 888
Non-profit private health centres	...	559	...
Consulting rooms	...	...	384
Non-profit private hospitals	...	93	...

**Source :** MINSANTE/DOSTS

Physical accessibility to health care remains inadequate despite the great efforts of creation and construction/equipment of health units and the existence henceforth, of a national strategy document of health technology that focuses on this aspect. This is due to an unequal distribution of health care establishments available, which itself is as a result of the absence of a national health map and also due to the inadequate maintenance of existing infrastructures and equipment.

<sup>1</sup> Equally add 10 regional delegations of health and 178 district health services, of which 172 are functional who mainly ensure administrative coordination.

**Table 8: Summary of the National Health System**

Regions	Population	Surface area (km <sup>2</sup> )	Density	Health areas	public CSI	private CS	CMA	HD	DS	private Pharmacies
Adamawa	1 015 622	60 000	12	74	92	32	12	6	8	10
Centre	3 525 664	71 050	37	296	370	201	36	28	29	101
East	801 968	106 000	7	100	120	37	8	14	14	5
Far North	3 480 414	41 984	68	203	260	48	15	24	28	13
Littoral	2 865 795	31 984	72	158	151	111	12	18	18	107
North	2 050 229	63 005	20	96	152	30	3	14	15	16
North West	1 804 695	18 100	107	172	181	82	22	16	18	12
West	1 785 285	13 960	149	230	256	127	18	19	20	33
South	1 384 286	45 059	12	128	145	42	17	9	10	12
South West	692 142	24 300	55	130	161	50	12	16	18	22
<b>TOTAL</b>	<b>19 406 100</b>	<b>475 442</b>	<b>35</b>	<b>1 587</b>	<b>1 888</b>	<b>760</b>	<b>155</b>	<b>164</b>	<b>178</b>	<b>331</b>

Source: Ministry of Public Health, 2008

**Table 9: Population/ health structure ratio, by region in 2009**

Region	Average population per health district	Average population per hospital	Average population per health centre
Adamawa	126 953	169 270	7 468
Centre	121 575	125 917	5 808
East	57 283	57 283	4 860
Far North	124 301	145 017	10 775
Littoral	159 211	159 211	10 459
North	136 682	146 445	11 082
North West	100 261	112 793	6 332
West	89 264	93 962	4 452
South West	138 429	153 810	6 786
South	38 452	43 259	3 104
<b>Country's total</b>	<b>109 023</b>	<b>118 330</b>	<b>6 923</b>

Source: Ministry of Public Health, 2009

### 2.2.3 The new development strategy of the health sector

In the framework of the fight against poverty, Cameroon has adhere to most health policies adopted at the international level, like the African Charter for health development and primary health cares. The adherence to these policies has let in 2001, to the elaboration of a health sectoral strategy preceded by a mid-term evaluation carried out in 2006. The recommendations made at the end of this work have incite the Government to revise this reference document so far as health policy is concerned in 2009, while taking into account new orientations of the Government's policy elaborated in the GESP.

Thus, the new health sector strategy (SSS) will aim at the following specific objectives:

- Bring 80% of the 178 existing health districts to complete atleast the consolidation phase of the viabilization process of a health district;

- Bring 100% of health structures at strategic and intermediary levels to carry out their roles of supports and that of recourse orientation;
- Reduce by 1/3 the disease burden for the poors and the most vulnerable populations;
- Reduce by 2/3 the mortality of children below 5 years;
- Reduce maternal mortality by 2/5. To achieve these specific objectives, five (05) strategic priorities were retained:
  - The strengthening of the health system;
  - The popularization of the implementation of the minimum package of activities (MPA) and the complementary package of activities (CPA) in the health district;
  - The development of an operational pattern referral system;
  - The strengthening of partnerships in the sector;
  - The increase of demand.

The unfolding of these strategies enable to bring out the major interventions relating to services and health cares, grouped according to a nomenclature that is organized in to four (4) areas (**i.** maternal, child and adolescent health **ii.** fight against the disease, **iii.** health promotion and **iv.** Viabilization of the health district), 21 intervention classes, 63 intervention categories and 265 types of intervention.

### 2.3 The interveners in the health sector

The health sector has three sub-sectors, namely the public sub sector, the private sub sector and the traditional medicine sub-sub-sector. The interveners in this sector comprises of the State, households/communities, Civil Society Organizations (CSO), private, traditional practitioners and finally, technical and financial partners.

The 2004/018 and 2004/019 laws of the 22<sup>nd</sup> July 2004, laying down rules for the decentralized local communities (regions and councils), have given to this latter a very important role in health and social development. They include among others:

- The creation, equipment, management and maintenance of health centres of council or regional interest in accordance with the health map;
- The participation in the organization and management of supply of drugs, reagents and essential medical devices in accordance with the national health policy;
- The organization and management of assistance to necessitous.

In order to promote and make operational the complementarity between all the health actors, the MINSANTE opted for dynamic contracting interventions. Thus, in 2007, the State embarked on strengthening the public-private partnership, through the signing of framework agreements and execution contracts. For example, contracts were signed with three non-profit major partners in the sub sector: OCASC, CEPCA, FALC.

#### 2.3.1 The State

The main role in the administration of the health system comes back to the State, as guarantor of public interest and the improvement of the population's health. The State defines the health policy and sets major economic balances, related to health and its financing. The State sometimes intervenes directly in the production or financing of health cares. It exercises control over the relationship



between financial institutions, professional institutions and patients on behalf of general health and economic imperatives. Several ministries are involved in the elaboration of health policies on behalf of the State: Thus, the ministry of health, the ministry of labour and social security and the ministry of finance have a role to play in the field of public health.

### **2.3.2 Households/Communities**

Households and communities are called upon to play an important role in the definition of health policies and programmes, planning and implementation as well as the monitoring and evaluation of all these actions.

For now, the inadequacy of decentralization and the lack of training hinder somewhat the effective participation of households and communities in implementing the aforementioned policies and programmes.

### **2.3.3 The private sector**

Private interveners have a very important position in Cameroon. The provision of health care in this sector is done by the profit private sector and the non-profit private sector.

i) The profit private sub sector possesses for each of the professions (medical doctors, dental surgeons, pharmacists and nurses), an order and a trade union.

ii) The non-profit private sub sector regroups confessionals who play an essential role in the provision of health care in Cameroon, and the associative sector is still marginal. The confessionals are made up of the Catholic Church, the Federation of Evangelical Churches and Missions in Cameroon (FEMEC) and Muslims.

The profit private sub sector is mainly concentrated in urban areas; the non-profit private sub sector is in turn distributed throughout the territory, rural areas being historically the privileged area of establishment of religious confessions.

### **2.3.4 The international partners**

Several international partners are actively involved in the health sector in Cameroon. They support the Government in its efforts to develop the district health system and in the development and implementation of priority programmes. We can list notably UNICEF, WHO, World Bank, UNAIDS, etc.

## **2.4 The resources of the sector**

### **2.4.1 Human resources**

From 2005 to 2009, the number of medical and paramedical staff has not increased significantly. The ratios medical doctor/inhabitants and nurse/inhabitants have depreciated respectively from 10 084 to 14 418 inhabitants per medical doctor and 2 249 to 2 545 inhabitants for one nurse. This is particularly due to the lack of human resource development plan for health, to brain drain because of poor remuneration, to retirements without replacements and also due to the rapid growing of the population. It should be noted that human resources available are unevenly distributed according to regions and area of residence (urban or rural). As regards to certain categories of personnel such as dentists, ophthalmologists, pharmacists and dental surgeons, the deficit is still very significant going up to absence in some areas. This is mainly due to lack of certain training fields, particularly that of paramedical in the different institutes and national training schools.

**Table 10: Situation of resource indicators in 2009 as compared to WHO standards**

Resources	Indicators	Value in Cameroon	WHO standards
<b>Physical</b>	Number of inhabitants for 1 hospital	106 044	100 000
	Number of inhabitants for 1 health centre	12 061	10 000
<b>Human</b>	Number of inhabitants for 1 medical doctor	14 418	10 000
	Number of inhabitants per medico sanitary personnel	3094 <i>(in 2007)</i>	3 000
	Number of inhabitants for 1 pharmacist	718 744	15 000
	Number of inhabitants for 1 dental surgeon	606 441	105882
<b>Financial</b>	% of public budget allocated to health		15%

Source : MINSANTE 2009, finance act (2009)

**Table 11: Distribution of medical and paramedical staff of public health system in Cameroon**

Heading	2005	2007	2009
Health administrator	11	11	22
Medical doctors	1 049	1 319	1 346
Dental surgeons	26	39	32
Pharmacists	27	38	27
Nurses	6 705	8 226	7 626
Medico sanitary technician	1 021	1 409	1 008
Health engineering personnel	175	187	372
Biomedical technician	15	37	-
Contract workers	233	559	635
Decision workers	781	781	1 694
Others	1 485	1 548	2 958
<b>Total</b>	<b>11 528</b>	<b>14 154</b>	<b>15 720</b>

Source : MINSANTE/SIGIPES, 2009

## 2.4.2 Financial resources

The health system is defined as the set of organization of health and health care systems of the population. Health care services to the population are rendered by different types of health care providers: public and private hospital establishments, liberal medical and paramedical practitioners, pharmacies and suppliers of equipment. Tackling issues on financiers of the health system is therefore being interested in the organizations that financial back up health care services provided by these professionals.

The main sources of financing of the health sector include: The state budget, households through cost recovery and other direct payments and external financing. Local public authorities, NGOs and private health insurance have a marginal contribution.

Enormous disproportions exist between the different financing sources. In 2009 for example, of a total financing of the sector, estimated at 2 301.1 billion CFA francs, the contribution of households stood at 94.6%, as against 3.8% (86 779 000 000 CFA F) for the State and 1.6% (37 0425 080 000 CFA F) for

external partners. It should be noted that this budget does not include health resources allocated to other administration.

**Table 12: Evolution of the health sector's budget (in billion CFA F)**

Year	Evolution of the allocated budget			Evolution of the executed budget			Execution rate of the budget	
	National	MINSANTE	% of national budget	National	MINSANTE	% of national budget	National	MINSANTE
2005	1742,9	85,6	4,9	1 476,1	51,5	3,5	84,7	60,2
2006	1 861,0	84,3	4,5	1 529,8	55,3	3,6	82,2	65,6
2007	2251,0	105,3	4,7	1742,4	68,9	3,9	77,4	65,4
2008	2482,0	95,5	3,8	2385,0	74,9	3,1	82,8	75,6
2009	2 301,4	113,3	4,9	2227,0	83,1	3,7.	96,8	73,2

Source : Finance act 2005 – 2009, Physical financial report of the PIB execution

The proportion of the State budget allocated to health remains low following the declaration of the health sector policy of 1992, which planned to ensure a gradual increase up to 15%, to testify the priority given to the health sector and the adherence to the WHO recommendations. This situation is worsened by the weak capacity to execute investment credits inscribed in the budget, which represent about 30% of the budget allocated to the Ministry of Public Health.

## CHAPTER 3: DESCRIPTION OF THE PUBLIC EXPENDITURE CIRCUIT

Public expenditures represent the total expenditures made by public administrations in the frame work of their budget allocation. Their funding is mainly provided by public revenues (taxes, social contributions and due contributions). After preparing the budget by competent services, the expenditure is carried in the different administrations according to a well-defined framework.

In the frame work of improving the efficiency of governance and transparency, which are two key words in poverty reduction, launched since several years in Cameroon, it is important for the Government to better know the public expenditure circuit in general, and that of priority sectors such as education and health in particular.

### 3.1 The preparation of the budget

Budget preparation in Cameroon is done in view of being in phase with the new financial regime under Law No. 2007/006 of December 26, 2007. This new regime which reinforces managers' power, highlights the principle of their responsibility, characterized by fair-mindedness, the production of an administrative account as well as a patrimonial and analytical accounting. It prescribes the programme approach in the preparation of the budget (the budget should henceforth be in the form of programme and project).

Budget preparation thus allows efficient execution of the MINSNTE's programmes, while ensuring that the retained projects reflect the Health Sector Strategy (SSS) and the roadmap prescribed by the Prime Minister.

#### - *The mechanism of budget preparation in the Ministry of Public Health*

In 2008, year of the preparation of the 2009 budget, the budget preparation was placed under the coordination of the secretary general. However, there is no standard organization on the matter, the only reference being the presidential circular.

In 2009, for the preparation of the 2010 budget, the innovation made was the reactivation of the PPBS chain (Planning-Programming-Budgeting-Monitoring/Evaluation) which induces the creation of technical operational structures such as the technical unit in charge of the MTEF.

#### - *The process of preparation of the State budget in Cameroon*

Budget preparation takes place mainly in Cameroon in 08 important phases.

##### ➤ *Phase 1 : Macro-economic and budgetary framing*

It begins usually during the month of February and enables to lay the basis for the development of the central Medium Term Expenditure Framework (MTEF).

The central MTEF defines a three-yearly hierarchical allocation of resources, compatible with the macro-economic stability and some explicit strategic priorities. It allows an estimate of costs in the short and medium term policies (current and planned) as well as decision making related to an iterative process that harmonizes the costs and the resources available. This operation takes in to account the development of partnership.

##### ➤ *Phase 2 : Elaboration of ministerial MTEFs*

After the macro-economic and budgetary framing, medium term expenditure frame works are elaborated at the global and ministerial levels. It's a question for policy makers, after the review of sectoral programmes in the second quarter, to set limits on global and ministerial expenditures that best meet global development goals. This operation, which mainly takes place in the first semester of the year, leads to realistic programmes to be financed or developed.

➤ **Phase 3 : Budgetary pre- conferences**

The different public administrations are invited to carry out the first assessment of the mid-term execution of their budgets and to express the needs for the coming financial year. This phase takes place during the month of July.

➤ **Phase 4 : Budgetary framing**

It takes place in the month of August and consists in adjusting the needs expressed by ministries to the new resources framing. This phase helps to notify the budgetary allocations to ministries and to engage the iterative adjustments of programmes and projects.

➤ **Phase 5 : Budgetary conferences**

They take place during the month of September and results in the presentation by budget chapter, of priority objectives of the year concerned and the portfolio of programmes and projects, with proposals for budget allocations in the bill.

➤ **Phase 6 : Last arbitrations**

On the proposal of the Minister of Finance and the Minister of the Economy, Planning and Regional Development, they are done in September by the Prime Minister and help to obtain final annual budgetary allocations by ministry.

➤ **Phase 7 : The bill**

The Finance Act provides and authorizes for each year, all the resources and expenditures of the State in determining their nature, amount, allocation and fixing their balance in the conditions and under the reserves provided by Law N° 2007/006 of December 26, 2007, laying down the financial regime of the State.

Under the authority of the President of the Republic, the Prime Minister coordinates the preparation of the bill, ensured by the Minister of Finance, in consultation with the constitutional bodies, ministers or officials of concerned services.

The bill which is elaborated during the period of September to early October is submitted by the Head of State for examination to the National Assembly.

➤ **Phase 8 : Adoption, validation and promulgation of the budget**

The bill is examined by the National Assembly. Each minister goes before members of parliament to defend their budgets. At the end of the exercise, the State budget is voted and submitted to the Head of State for promulgation. It's after this promulgation that the budget becomes executory.

## 3.2 Budgetary execution

Budget execution begins with its loading in the computer at the level of specialized financial controllers of various ministries with the help of the DEPMI software. A joint MINFI-MINEPAT team then carries out a mission in the different regions for the launching of the budget execution. In this sub section, are presented one after the other, key operations of public expenditures, the main interveners and finally, the actions expected for its execution.

The execution procedure of public expenditure consists of four stages of which three depend on the official entitled to order payment (engagement, liquidation and payment order) and one on the accountant (payment).

➤ **Step 1 : Judicial engagement of the expenditure**

It is an act done in view of the execution of a project and susceptible to result in an expense (signed contract, purchase order, mission order, rent contract, etc.). It is important to note that the expenditure can be incurred both at the level of the central services of the ministry and decentralized services. An attestation of stock situation must first be established before placing an order.

The engagement process is different for either case. It can be accelerated for an emergency or follow its normal course.

***i. The normal procedure***

***At the level of central services***

The service provider presents two important documents to the beneficiary administration notably, a proforma invoice and a file of fiscal and administrative situation. Upon receipt and validation of these two elements, we proceed in the execution of the seven following steps orderly:

- The issuing of an Engagement Order (BE) by the credit manager, to which is attached the file established by the provider. It specifies the expenditure to be carried out and the name of its beneficiary;
- The registering of the BE on control engagement forms of the credit manager;
- The visa of the service issuing the BE ;
- The visa of the financial controller after checking on the regularity of expenditure, prices, documents, etc.;
- The transmission of the engagement file to competent services (financial control in the regions) of the Directorate General of the Budget (DGB) of the MINFI that (i) carries out the computer input for the counting of engagements and (ii) issues an authorization of expenditure (AD ) which worths an authorization of order;
- The authorization of expenditure is edited and sent back to the official entitled to order payment via the financial controller;
- The manager finally receives the authorization of expenditure and may confirm the order to the supplier by a service order.

***At the level of decentralized services***

At the level of decentralized services, the BE takes the appellation of Purchase Order (BC), preliminary controls are done by the local financial controller, who may either be regional, divisional or the divisional officer following the administrative unit in which the structure is located. The visa of the assigned accountant worths an authorization of expenditure and authorizes the supplier to execute the order received.

***ii. Accelerated procedures***

It is normally provided for certain limited categories, specific expenses or in case of proven emergencies, simplified procedures that concentrate in a single phase the engagement, the liquidation and the editing of a payment bond. This is for instance the case of expenditure incurred on the HIPC funds in the health and education sectors.

Being it the accelerated or the normal procedure, the verification principle of the service rendered establishes that when the order is confirmed to the provider, the latter executes and delivers the service to the beneficiary, while making sure that it's accompanied with the final invoice. A control of delivery should be done by the beneficiary of the product (goods or services) to check their conformity (quantity, unit price, type and quality) with the order and make an inventory to ensure good management of properties acquired by the State.

➤ ***Step 2 : The liquidation of the expenditure (accounting engagement)***

It is the operation that consists in determining the exact and final amount of credit the provider holds on the State after executing the order received. The sequencing of four operations is as follows:

- The manager takes possession of the order;

- A reception commission including the stores accountant intervenes in order to notice, with respect to the order and relevant documents produced, the effectiveness and the conformity of services requested by the manager;
- The financial controller receives the file, makes the necessary checks, visa's the file and transmits it to the services of the Directorate General of Treasury;
- The Treasury: (i) proceeds in the control within its jurisdiction, which may give rise to rejections, (ii) deducts from the invoice the amount of taxes owed by the supplier and, where applicable, deducts the supplier's tax liabilities, (iii) proceed in the liquidation and computer counting of invoices and (iv) transmits to the DGB, the list of BE considered ready for payment to the net amount determined by the liquidation.

This procedure follows two circuits according to the importance of the expenditure:

For small amounts (up to 200 000 CFA F), the stores accountant establishes and signs a report of reception and certification of the service rendered and ensures the preservation and protection of goods supplied as well as their distribution to final beneficiaries.

For larger amount expenses (more than 200 000 CFA F), the above operations are carried out by the reception commission. This procedure applies to virtually all expenditures related to the PIB.

In the case of investment expenditures relating to the realization of equipment or infrastructures, a work inspection must be carried out. Draft estimates and contracts as well as detailed account of invoices must be done by competent technical services of the Ministry of Public Works (MINTP) for new buildings, road works; of the Ministry of Urban Development and the Habitat (MINDUH) for urban works of repairs, restoration and rehabilitation; of the Ministry of Finance (MINFI) for hardware equipment and the Ministry of Land Tenure and Property (MINDAF) for vehicles.

➤ ***Step 3 : The pay order of the expenditure***

In 2009, the State's new financial regime entered in to its second year of application. According to this law, the official entitled to order payment is the person who authorizes the expenditure by establishing the payment order, which is transmitted to the treasury for execution.

➤ ***Step 4 : The payment of the expenditure***

The public treasury receives for payment, credit or bond notices submitted by the officials entitled to order payment. Depending on the availability, the public treasury establishes a payment programme.

### **3.3 The different interveners in the expenditure circuit**

Regarding budget revenues, there exist two categories of officials entitled to order payment: The main official (Minister of Finance) and delegated officials (Heads of ministries and equivalents) for revenue generated by their administrations and tax administration officials.

As for public expenditures, there are three categories of officials entitled to order payment: The main official, secondary officials and delegated officials.

➤ ***The main officials***

They include heads of ministries or equivalents (director general and directors of public administrations for example) and presidents of constitutional bodies (National Assembly, Senate, etc.).

➤ ***The secondary officials***

They include Head of decentralized services of the State who receive authorizations of expenditures from the main officials (eg, regional delegates, heads of district health services, managers of HD and CMA).

➤ ***Delegated officials***

They are appointed by the main or secondary officials for expressly defined matters. This appointment takes the form of an administrative action from a main or secondary official (eg heads of CSI).

Other interveners accompanying the three categories of officials mentioned above in the execution of contracts include:

➤ ***The contract commissions***

In the regulations currently in force, each administration or institution, as dismemberment of the State is endowed with a contract commission, which is a technical support body placed beside work masters and delegated work masters for the placement of public contracts of an amount greater than or equal to 5 million CFA F.

➤ ***The financial controllers***

The financial controllers are placed beside central and local decentralized officials entitled to order payment, territorial and public administration officials entitled to order payment. They ensure concomitant control of the legality and regularity of public expenditure at the engagement stages. As such, they control the accreditation of managers and stores accountants, the regularity of contracts and accounts, the monitoring and editing of advance services. In general, they control the accounting engagements and judicial engagements. They are not judges of the opportuneness of the expenditure.

At the level of sub divisions not found in the headquarters of regions or headquarters of divisions, the divisional offices play the role of the financial controls.

At the regional, divisional and sub divisional levels, the financial control covers all the administrations.

➤ ***The MINEPAT services***

The services of MINEPAT ensure the monitoring of the execution of the public investment budget.

➤ ***The Directorate General of the Budget of MINFI***

It carries out the supervision of the financial controls. It also ensures the financial control of administrations non provided with control.

➤ ***The agent in charge of stores accounting***

In the reference plan, stores accounting helps to ensure good management (conservation and traceability) of goods of any kind, and notably fungible goods with commercial value acquired by public funds. It therefore relies on the identification and location of goods (marking and taking inventory) and on strict procedures of attribution, of consumption or reform. The agent in charge of stores accounting is designated by the official entitled to order payment and is obliged under his authority, to produce stores accounts.

➤ ***The delegated work masters***

They essentially include administrative authorities (governors, senior divisional officers, divisional officers).

➤ ***The other interveners***

- The control engineers of MINTP, MINDUH, MINFI or MINDAF according to cases;
- The services of the Directorate General of Treasury (Pay master, finance receivers, revenue collectors).

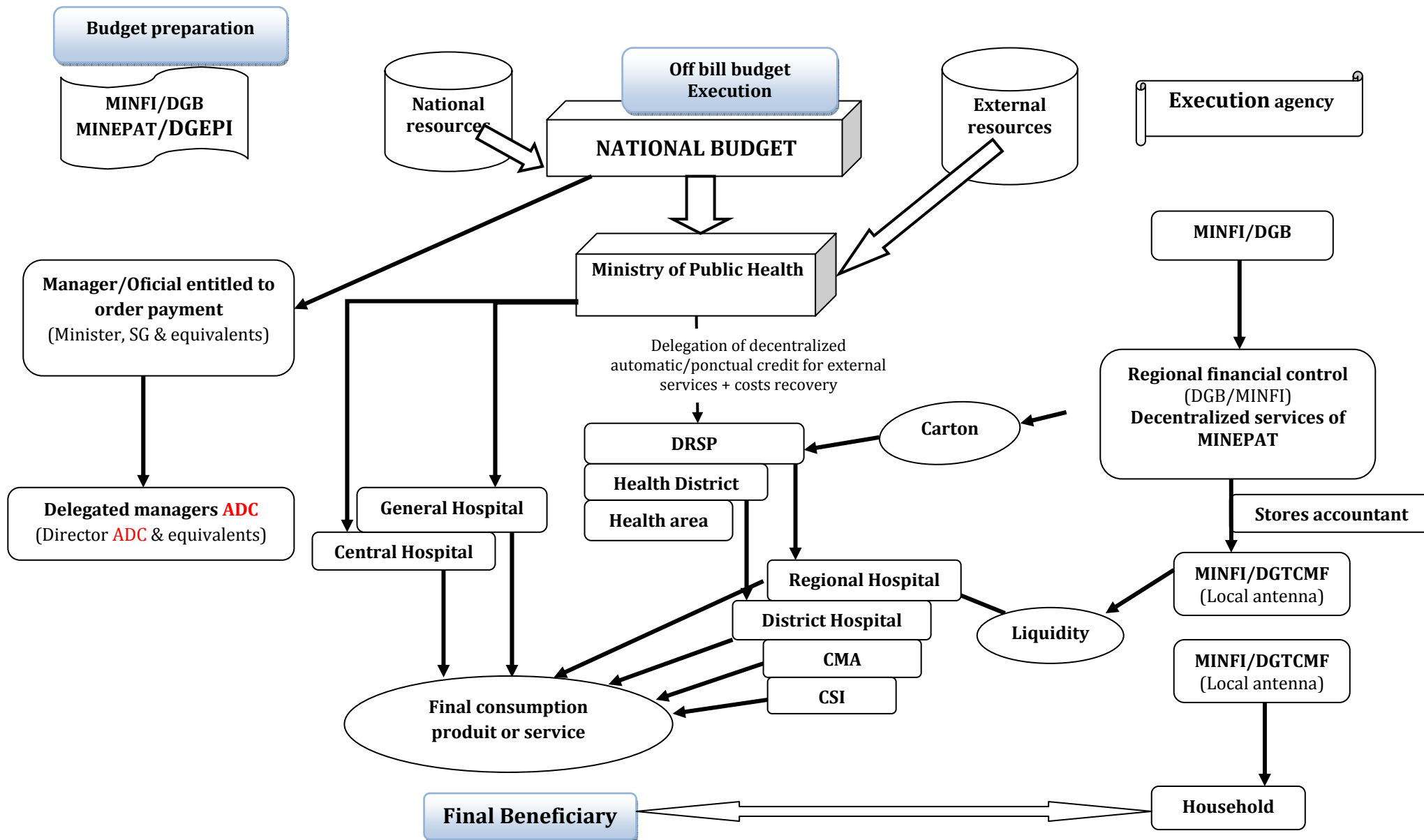
These actors are at the end of the expenditure chain since they are responsible for the financial settlement and payment of bonds issued to the creditors of the State.

➤ ***The suppliers / services providers***

They are not really part of the expenditure chain, but their transverse role is determinant. Indeed, they ensure the rendering of services or the delivery of products, which constitute the main purpose of public expenditure and are necessary for the proper functioning of public services.



**Box 2 : Health sector expenditure circuit**



## CHAPTER 4: TRACEABILITY OF PUBLIC EXPENDITURE

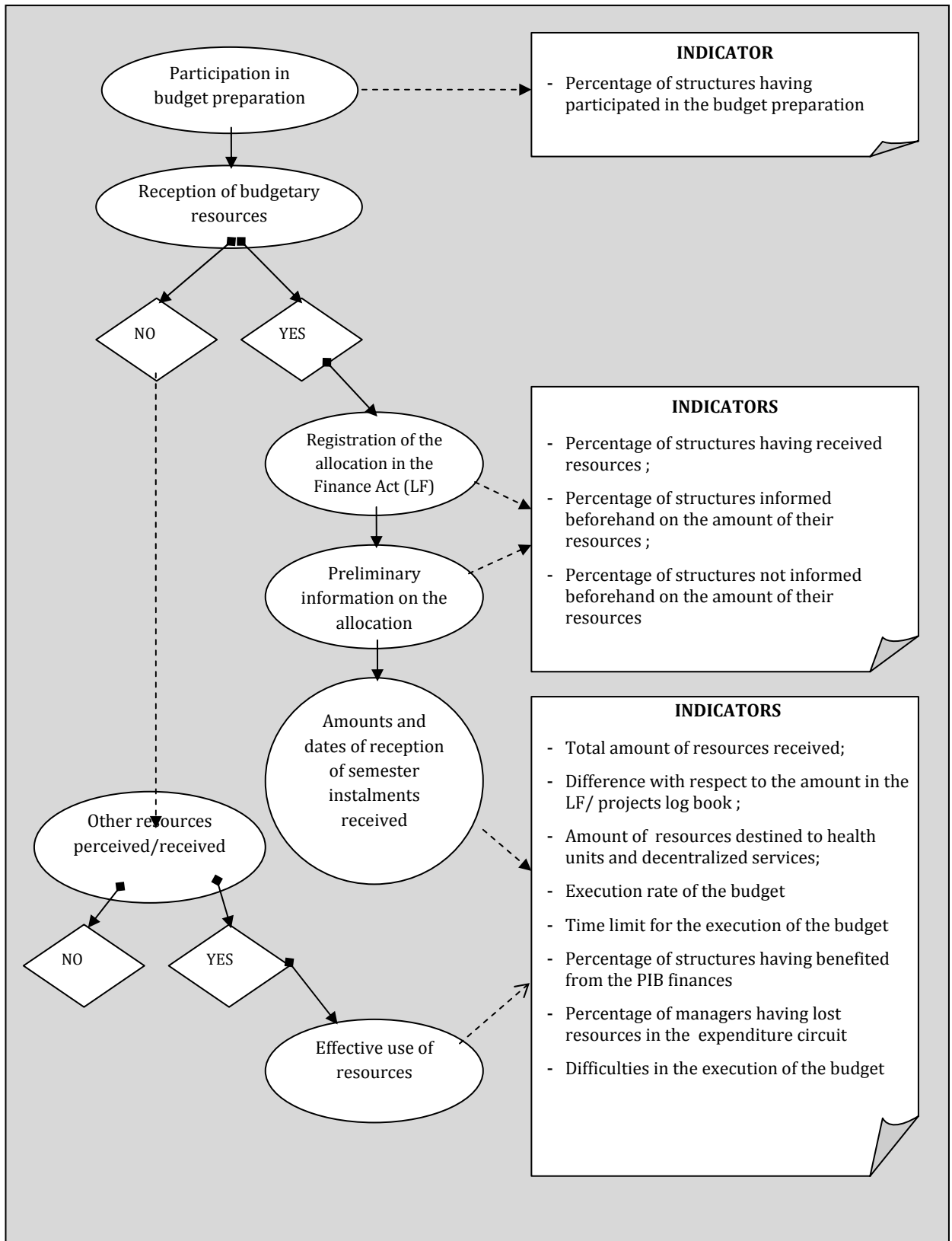
The traceability of public expenditures follows the pattern of the flow of public funds and material resources from the Government and other donors, through the administrative hierarchy right up to the official entitled to order payment in health units, providers of health services. Apart from information on budgetary preparation, this chapter focuses on the availability of information relative to the public expenditure circuit, on the subvention the State grants to private health units and on the budgetary execution.

### 4.1 The conceptual model of the traceability

For a good analysis of the traceability of budgetary resources destined to (or passing through) these structures, it is necessary to have complete and reliable information on the expenditure circuit as well as on the allocations provided in the finance act and those actually received by the different elements of the chain.

For this, we carried out the following conceptual scheme which constitutes the base of the sections relative to the budget circuit in the questionnaires destined to decentralized services and to health units. This model is a combination of some important points for the monitoring of the traceability of budgetary resources. It presents the budgetary preparation before, and the use made of resources received afterwards. Specific indicators identified at each step help to better define the related information.

**Box 3 : Conceptual model for the monitoring of the traceability of budgetary resources in the health sector**



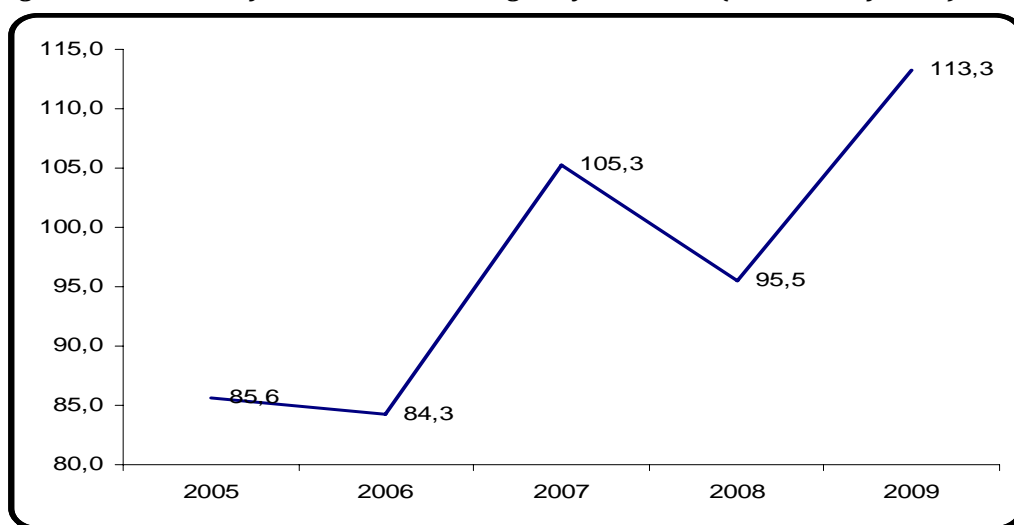
## 4.2 Budgetary allocation and preliminary information of officials entitled to order payment

Each year, the State allocates a significant part of its budget to the health sector. This budget is put at the disposal of the official entitled to order payment by the MINFI for execution. For good governance, information on the availability of resources should be widely disseminated.

### 4.2.1. The allocation of resources to the health sector

According to the World Health Organization (WHO), Governments should allocate 15% of their budgets to health related expenditures so as to achieve the goal of access to health care for all. In Cameroon since 2005, the budget allocated by the State to the health sector has an overall upwards trend.

**Figure 1 : Evolution of the MINSANTE'S budgetary allocation (in billions of CFA F)**



Source : Finance act 2005-2009

From 2005 to 2009, it varied from 85.6 to 113.3 billion, evidence that the Government lays special emphasis on health related issues. It should also be noted that external resources are not included in this framework.

If it is true that the Government's actions must reflect the commitments subscribed at national and international levels, notably the WHO's standards, which sets a 15% share of the budget related to health expenditures in the overall budget, the current evolution of the MINSANTE's budget shows that efforts made are still insufficient.

**Table 13 : Evolution of the proportion of the health sector's budget in the total budget**

	2005	2006	2007	2008	2009
<b>Budget of the Ministry</b>	85.6	84.3	105.3	95.5	113.3
Cameroon's budget	1742.9	1861.0	2251.0	2482.0	2301.4
Proportion of the sector's budget in the total budget	4.9	4.5	4.7	3.8	4.9

Source : Finance act 2006-2009.

Since 2005, the ministry's budget has never reached 5% of the State's budget. Although health expenditures have not been evaluated in other ministries, the observation made at the level of the

MINSANTE shows that the Cameroon Government has much to do in order to meet up with the lateness already accumulated.

According to the Health Sector Strategy (2001-2015), the MTEF brings out the allocation of the sector's financial resources in the form of programmes. Thus, four programmes are identified. They include: (i) the health of the mother, the child and the adolescent (14% of the total budget), (ii) the fight against the disease (22% of the budget), (iii) health promotion (5% of the budget) and (iv) strengthening of the health system (59% of the budget). It is also noted that all these programmes are divided into sub-programmes or following the health pyramid optic, in which one finds the central level (30% of the budget), the intermediate level (36% of the budget) and the operational level (34% of the budget).

#### 4.2.2. The budgetary preparation and the preliminary information of officials entitled to order payment

At the beginning of the financial year, each public structure must be allocated a budget while some private health units must receive subventions from the State.

##### – Budgetary preparation in practice

Budget preparation of the different State's structures requires the participation or the collaboration of their managers, who are better informed on problems concerning their structures and the resources needed to be mobilized. The fact of taking part actively in the elaboration of the budget of the structure one is in charge of, raises up the interest to make an inventory on the necessary needs for the fulfilment of its missions.

The survey reveals that in 2009, the proportion of health unit managers having participated in the preparation of their budget remains relatively low. The opinion of health unit managers on this participation is less favourable when we move from structures found beside decision centres to peripheral structures. One official out of three from the regional delegation declared not having participated in budget preparation. Regarding health units, managers of CMA and CSI are the least involved in the preparation of their budgets (26% and 31% respectively).

**Table 14 : Percentage of managers who declared having been associated in the budget preparation of their structures in 2009**

Type of structure	Level of the structure	Urban	Rural	Total
Decentralized services	Regional delegation	66.7	-	66.7
	District health service	54.3	-	54.3
Health units	District hospital	69.6	26.7	52.6
	Sub divisional medical centre	22.2	30.8	25.8
	Integrated health centre	28.2	32.7	30.9

Source : NIS/PETS2, 2010

According to these managers, their contributions in budget elaboration is usually done either by participating in sessions organized by the management committee or by the elaboration and transmission of the structure's needs to the hierarchy.

Administrative correspondence is the means used by most managers to express their needs to the hierarchy in view of the budget preparation. This remains true whatever the type and the level of the structure.

At the level of decentralized services and Health Units (FSs), virtually all those who declare having been involved in budget preparation admit that they were just passive actors, their opinions are not always taken into account.

**Table 15 : Main situations considered by managers as means to be involved in the State budget preparation by level**

Type of structure	Level of the structure	In the frame work of the management committee	Assistance	Declaration of needs	Total
<b>Decentralized services</b>	Regional delegation	-	50.0	50.0	100.0
	District health service	31.6	15.8	52.6	100.0
<b>Health units</b>	District hospital	35.3	11.8	52.9	100.0
	Medical health centre	37.5	12.5	50.0	100.0
	Integrated health centre	40.7	7.4	51.9	100.0

Source : NIS/PETS2, 2010

#### – Preliminary information of officials entitled to order payment

The availability of budgetary information before arrival of resources is necessary in sense that it enables the managers to better programme and plan their activities. The proportion of managers informed on their budget allocations before arrival of resources remains very low. Regardless of the type and the level of the structure, less than 3 managers out of 10 are informed. This observation is verified regardless of the area of establishment of the structure. It is also convenient to note that the proportion of managers informed before arrival of resources for the operating budget is greater than that of the investment budget. This situation remains identical regardless of the area of establishment.

Concerning the investment budget, managers of health units are less informed due to the fact that their budgets are generally managed at a higher level (SSD and DRSP).

**Table 16 : Percentage of managers of structures of the health sector, informed on the budgetary allocation before the arrival of resources**

Type of structure	Level of the structure	Operating budget			Investment budget		
		Urban	Rural	Total	Urban	Rural	Total
<b>Decentralized services</b>	Regional delegation	22.2	-	22.2	22.2	-	22.2
	District health service	28.6	-	28.6	17.1	-	17.1
<b>Health units</b>	District hospital	13.9	0.0	13.2	5.6	0.0	5.3
	Sub divisional medical centre	5.9	15.4	9.7	-	-	-
	Integrated health centre	15.8	25.0	21.3	7.9	8.9	8.5

Source : NIS/PETS 2, 2010

## 4.3 Overview of traceability in the management of public resources in 2009

The traceability in the management of resources allocated by the State to the public health is monitored through the budgetary information, the management, the execution time limit, the execution rate, the losses of resources in the expenditure circuit, the appreciation of the functioning of contract commissions and the management of subventions given to private health units.

### 4.3.1 The availability of budgetary information

For a good traceability of public expenditure, information on the budget and its use have been collected from managers of health units and decentralized health services. Regardless of the structure's level, it appears that information on the use of the operating budget is much more detailed than that of the investment budget.

Regarding the intermediary decentralized health services, we note that 88.9% of regional delegates have provided detailed information on their operating budgets, as against 71.4% for investment budget. For the investment budget, the situation seems more deplorable in District Health Services (SSD), where, nearly 56% of managers are unaware on the amount of their investment budgets.

As regards to health units, as one moves from a higher category to a lower category, managers have less information on the operating budget as well as on the investment budget. In addition, given that a greater part of the investment in health units is managed at a higher level, information on the investment budget is less available at the level of these managers.

**Table 17 : Proportion of managers of health structures having available information on the 2009 budget**

	Structure	Operating			Investment		
		Collected	Finance act	Collected and finance act	Collected	Projects log book	Projects log book
<b>Decentralized services</b>	DRSP	88.9	100.0	88.9	71.4	100.0	71.4
	SSD	97.0	100.0	91.0	27.3	44.4	12.1
<b>Health units</b>	HD	80.8	100.0	80.8	73.1	57.9	42.3
	CMA	70.8	71.4	41.7	66.7	14.3	8.3
	CSI	62.3	80.3	59.0	54.1	9.8	3.3

Source : NIS/PETS2, 2010

#### 4.3.2 The management of budgetary resources

During the 2009 financial year, several health unit managers reported having received no resources from the administration. This situation is more worrying when we move from services closer to the central level to those at the peripheral level. All heads of district hospitals declared having received resources in cash while nearly one CSI manager out of four declares not having received resources for the running of the structure headed. Concerning the investment budget, the situation is appalling in the sense that, only half of CSI and CMA managers declared having received resources, as against 78% for district hospital managers.

**Table 18 : Percentage of managers of structures of the health sector who declared having received resources in 2009**

Type of structure	Level	Operating	Investment
<b>Decentralized services</b>	Regional delegation	62.5	33.33
	District health service	58.8	32.98
<b>Health units</b>	District hospital	100.0	77.78
	Sub divisional medical centre	97.1	45.71
	Integrated health centre	68.4	50.00

Source : NIS/PETS2, 2010

Looking at the declarations made by these managers, to know whether the amount of resources received from the administration corresponded to that inscribed in the finance act and in the projects log book, we notice that apart from CSI managers, at least half of them answered in the affirmative.

**Table 19: Proportion of officials entitled to order payment who declared having received from the administration in 2009, an amount of resources corresponding to the one inscribed in the finance act**

Type of structure	level	Urban	Rural	Total
Decentralized services	DRSP	55.6	-	55.6
	SSD	54.3	-	54.3
Health units	HD	56.0	-	56.0
	CMA	70.0	40.0	55.0
	CSI	35.0	39.5	37.9

Source : NIS/PETS2, 2010

In health units, nearly 4 managers out of 10 declared that they did not personally withdraw the authorizations of expenditures destined to their structures. Apart from district hospitals, this proportion is higher in the urban area as compared to the rural area. In the rural area, a greater number of health unit managers personally withdrew their authorisations of expenditure.

**Table 20: Proportion of managers having withdrawn personally their operating authorizations of expenditures**

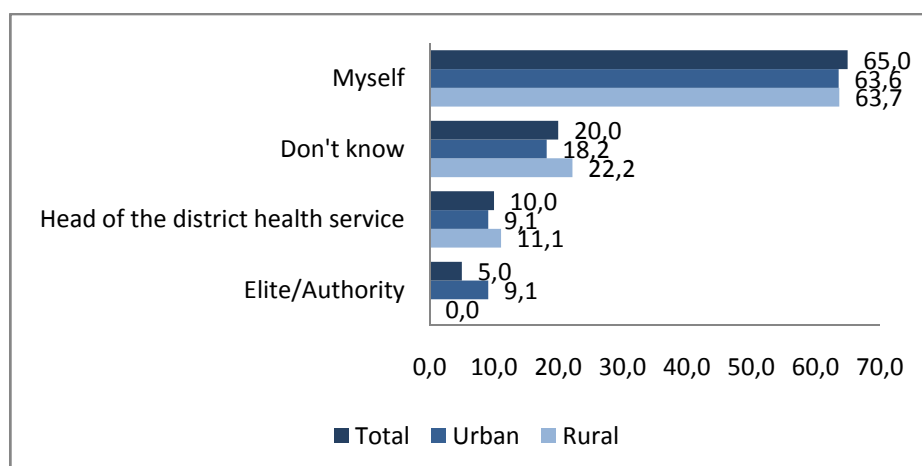
Level of the structure	Urban	Rural	Total
District hospital	73.9	-	63.2
Sub divisional medical centre	38.9	76.9	54.8
Integrated health centre	46.2	63.6	56.4
<b>Total</b>	52.5	62.6	57.7

Source : NIS/PETS2, 2010

In health units, nearly one investment authorization of expenditure out of three has been withdrawn by persons other than the managers of the health units. This proportion is identical regardless of the area of establishment of the structure. Among persons intervening in the withdrawal of authorization of expenditures, we note that about 10% of authorization of expenditures are withdrawn by direct chiefs of health units (the chief of the district health service) and 5% by elites and administrative authorities of the locality where the structure is located. This practice expresses the non respect of rules governing the financial control services, that confers only to the official entitled to order payment, the right to withdraw the authorizations of expenditures and the execution of the budget of the structure he is in charge of. In addition, 20% of the other interventions are done by other persons whose qualities are not known by the official entitled to order payment.



**Figure 2 : Proportion of health units according to the quality of the person who withdrew the authorizations of expenditures for the investment budget in 2009**



Source : NIS/PETS2, 2010

The public order imposes to the official entitled to order payment three modalities to contract with the supplier. These modalities are differently used by managers of structures depending on whether we are in the urban or the rural area.

Concerning the operating budget, the purchase order is the modality used in the public order of health units and decentralized services. For the investment budget, contracts, order letters, and the purchase order are used. Certainly because the amount imposes, even linked to the investment activities, in the urban area, purchase orders and contracts are the most used, meanwhile in the rural area, the order letters and contracts are the most used. This expresses that investment allocations of less than 5 million CFA F are still numerous. This could be considered as an indicator of inadequacy of credits to investment needs of structures.

**Table 21 : Types of budget execution**

		Operating						Investment					
		Urban			Rural			Urban			Rural		
		Purchase order	Order letter	Contract	Purchase order	Order letter	Contract	Purchase order	Order letter	Contract	Purchase order	Order letter	Contract
<b>Health units</b>	HD	87.5	0.0	11.7	75.0	0.0	42.8	12.5	50.0	37.5	0.0	33.3	100.0
	CMA	80.0	10.0	10.0	88.9	0.0	14.3	100.0	0.0	50.0	0.0	0.0	100.0
	CSI	70.0	10.0	30.0	83.8	6.1	9.1	30.0	0.0	0.0	0.0	50.0	0.0
<b>Decentralized services</b>	DRSP	11.1	100.0	22.2	-	-	-	66.7	14.3	50.0	-	-	-
	SSD	8.7	95.6	13.0	-	-	-	55.6	36.4	55.6	-	-	-

Source : NIS/PETS2, 2010

### 4.3.3 Time limit for budgetary execution

The time limit for execution corresponds to the time interval that elapses between the withdrawal of authorizations of expenditures (AD) and the start of the service to be rendered. The ideal situation is that of reducing at maximum this time in order to contribute significantly to the rehabilitation of the expenditure system and to render it more efficient.

In fact, the authorizations of expenditure are put at the disposal of the official entitled to order payment in two phases for the operating budget and in one phase for the investment budget.

It was asked to managers of health structures to indicate the reception dates of the authorizations of expenditures and that of their executions, in order to appreciate the time limit for execution.

Regarding the operating budget, the authorizations of expenditures of the first semester 2009 were withdrawn in late February by the SDI and in mid March by the health units. Those of the second semester were withdrawn in mid September whatever the structure.

Once the authorizations are withdrawn, the officials entitled to order payment in the health units spend more than half a month to execute those with the highest amount. In return, the heads of decentralized services take much more time (twofolds the time taken in the FSs). An analysis by semester shows that the gaps are less pronounced in the second semester than in the first. This could be justified by the fact that, the preparation of some expenditures for the second semester is anticipated by the officials entitled to order payment, just at the beginning of reception of the first authorizations of expenditures of the financial year.

**Table 22 : Average time elapsed between the withdrawal of the operating authorisations of expenditures and the execution of those with the highest amounts, according to the area of establishment (in months)**

	Health units		Intermediary decentralized services	
	1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester	1 <sup>st</sup> Semester	2 <sup>nd</sup> Semester
<b>Urban</b>	0.79	0.52	1.44	1.32
<b>Rural</b>	0.77	0.58		
<b>Total</b>	0.77	0.53	1.44	1.32

Source : NIS/PETS2, 2010

For the investment budget, the first authorizations of expenditures executed are those with the highest amount. They were executed about 10 days after withdrawal for the health units and after more than a month for the intermediary decentralized health services. We equally note that for the health units, the execution time limits are much more reduced in the rural area than in the urban area.

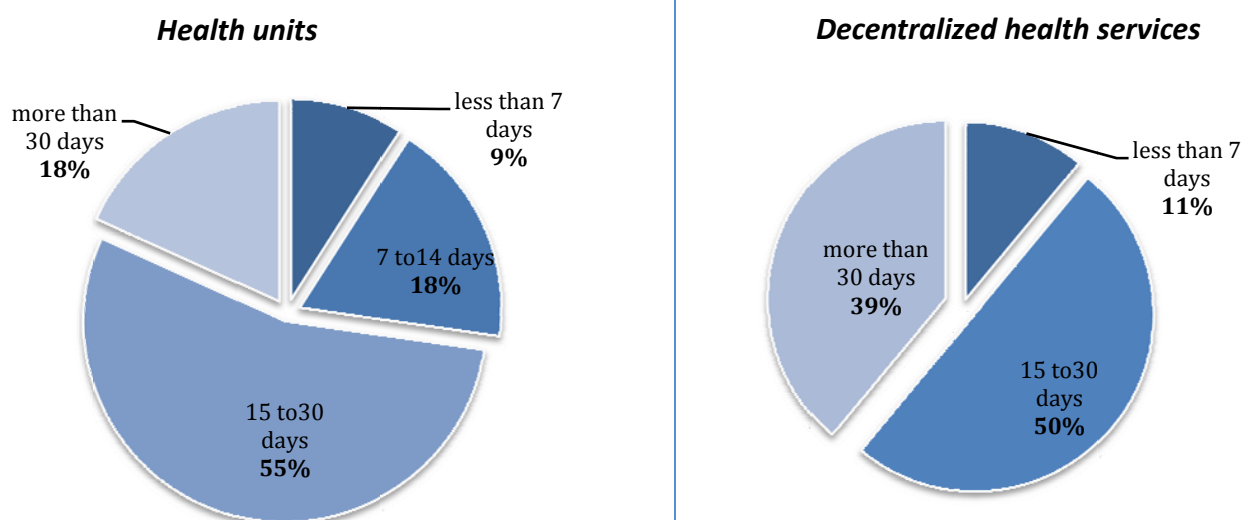
**Table 23 : Time limit indicators for the investment budget according to the area of establishment**

	Health units		Intermediary decentralized services	
	Time elapsed between the withdrawal time of the AD and the first execution	Time elapsed between the withdrawal time of the AD and the execution of the one with the highest amount	Time elapsed between the withdrawal time of the AD and the first execution	Time elapsed between the withdrawal time of the AD and the execution of the one with the highest amount
<b>Urban</b>	0.52	0.63	1.13	1.71
<b>Rural</b>	0.13	0.033		
<b>Total</b>	0.32	0.33	1.13	1.71

Source : NIS/PETS2, 2010

Half of the managers of health units and decentralized health services believe that the contract commissions take on average two weeks to one month to grant a contract. Some few commissions take a little more time (more than a month) to grant a contract. We record 18.2% among health units and about 40% among decentralized health services.

**Figure 3 : Percentage of health units and decentralized health services according to the average time made by the contract commission to grant a contract**



Source : NIS/PETS2, 2010

#### 4.3.4 The execution rates of the budget

Concerning the execution of the operating budget and with the exception of the South region, this rate is relatively favourable in health units than in the intermediary decentralized health services.

However, in either case, it approaches 100%, despite the least execution rate observed in the decentralized services of the South West region (73%). This could make us think that the time limit observed between the withdrawal of the autorisation of expenditure and the start of their executions could be sufficient for a good management of financial resources.

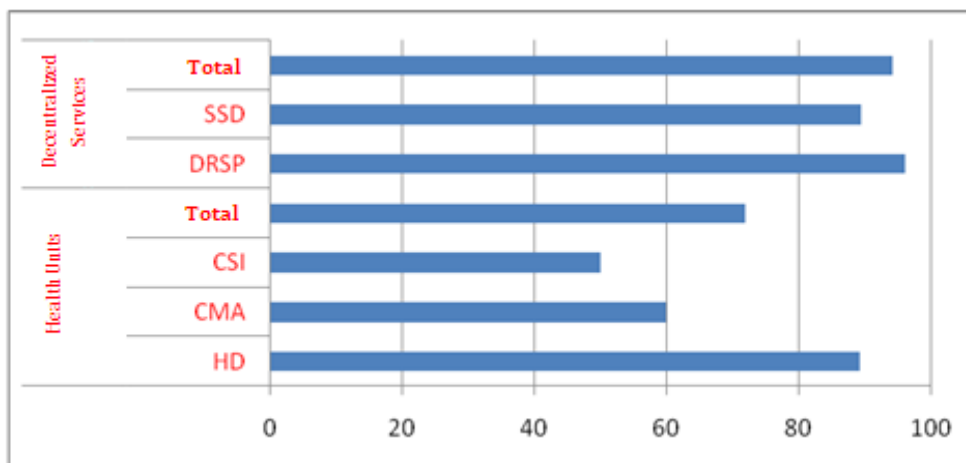
**Table 24 : Execution rate of the operating budget (payment order basis)**

Region	Douala	Yaounde	Adamawa	Centre	East	Far North	Littoral	North	Nord-West	West	South	South-West	Total
Financial execution rate of the operating budget of health units	100.0	100.0	100.0	99.5	99.7	99.5	100.0	100.0	100.0	100.0	83.4	100.0	100.0
Financial execution rate of the operating budget of decentralized services	94.7	99.5	96.9	98.3	96.2	99.4	92.3	98.3	96.9	97.0	100.0	73.0	97.9

Source : NIS/PETS 2. 2010

As regards to the execution of the investment budget, the performances are not as good as that of the operating budget.

It is equally important to note that as we move from a lower level to a higher level, the execution rate of the investment budget increases significantly. For health units for example, it varies from 50% for CSI to 60% for CMA and 90% for HD.

**Figure 4 : Execution rate of the investment budget**

Source : NIS/PETS 2, 2010

#### 4.3.5 The losses of resources recorded in the expenditure circuit

The estimation of the amount of losses in the expenditure circuit using the elaborated questionnaires did not produce reliable results. However, off microphone conversations with actors of this sector have helped to estimate the average difference between the amount inscribed in the finance act and the one used to effectively carry out activities.

Because of the multiplicity of interveners in the expenditure circuit, a greater proportion of budgetary resources is lost by decentralized services to take care of different links of the expenditure circuit. In general, the most affected lines are "purchase of *current equipment*" and "purchase of *supplies*".

The situation of health units appears more worrying due to the fact that the majority is established in the rural area. The fact that the withdrawal of their authorizations of expenditures is sometimes done by an authority of the locality (an elected person, an elite or an administrative authority), it may worth a compensation. This could justify the strong involvement of the latter in the loss of resources recorded by health units. Both in urban and rural areas, the budgetary lines the most subjected to losses of resources for the health units are respectively "purchases of drugs", "office supplies" and "hardware equipment".

The estimation of losses that was made for the operating budget has been very difficult for the investment budget, whose management is not always done at the local level.

**Table 25 : Percentage of resources declared lost by managers of decentralized health services to take care of the interveners in the expenditure circuit**

	Hierarchies and administrative authorities	Finance services	Stores accounting	Contract commission	Representatives of the work master
Purchase of supplies	19.9	23.3	10.5	4.0	42.3
Purchase of current equipment	7.0	48.0	4.0	7.7	33.2
Purchase of small equipment	18.7	41.1	6.2	9.7	24.2
Fuel and lubricants	18.3	28.3	7.0	8.4	38.0
Maintenance and repair of vehicles	21.2	35.5	5.9	0	37.5
Mission allowances	7.0	35.1	4.2	0	53.8

Source : NIS/PETS 2, 2010

**Table 26 : Percentage of health unit managers who lost resources to take care of interveners in the expenditure circuit according to the area of establishment**

	Hierarchies and administrative authorities			Finance services			Stores accounting			Contract commission			Representatives of the work master		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
Purchase of drugs	35.6	27.3	32.0	15.0	2.6	9.7	17.8	20.1	18.8	15.5	42.5	27.2	16.1	7.5	12.4
Office supplies	41.2	36.3	37.8	25.4	4.2	11.0	6.8	3.3	4.4	4.6	41.4	29.7	22.1	14.8	17.1
Hardware equipment	11.3	65.9	40.4	15.2	5.9	10.2	4.3	2.2	3.2	1.8	0.4	1.0	67.4	25.6	45.1
Office maintenance	0.8	34.3	27.9	31.7	3.7	9.0	14.4	0.7	3.3	0.0	56.2	45.5	53.0	5.1	14.2
Fuel	1.2	78.8	69.9	26.7	2.6	5.4	1.4	0.9	0.9	0.0	0.2	0.1	70.6	17.5	23.6
Staff bonuses	-	35.4	35.4	-	1.4	1.4	-	1.4	1.4	-	57.4	57.4	-	4.4	4.4

Source : NIS/PETS 2, 2010

#### 4.3.6 The appreciation of the functioning of contract commissions

Managers of health units were asked to give their opinions on some important aspects of the contract commission to better understand its functioning and to appreciate the impact of its decisions on beneficiaries' satisfaction.

As regards to the deliberations of commissions, 7 out of 10 managers believe that they correspond to their expectations. This proportion is higher in the urban area (90.9%) than in the rural area (50%). The main reasons given by unsatisfied managers are: Opacity in the granting of contracts (25%), disorder in the granting of contracts (18.5%) and favouritism (18.5%).

The same observation is made on the satisfaction of contracts granted by the commission, but in reduced proportions on the overall and in the urban area. Those unsatisfied with services rendered gave as main reasons, the non taking into account of their view points (33.3%) and the non taking into account of instructions from technical services (33.3%).

It should be noted that the officials entitled to order payment in health structures are in fact, members of the contract commission, although they are being represented. But for the commissions that decide on the centrally managed investment budget, they are not often consulted. Among those who effectively take part in works of the commission, just over 2 out of 5 believe they should play a more important role such as giving their view points on the awaited results and the suppliers to be retained.

**Table 27 : Some opinions of health unit managers on the functioning of the contract commission**

	urban	rural	total
% of health unit managers who believe that the deliberations/results of the commission correspond to their expectations	90.9	50.0	76.5
% of health unit managers who believe they are satisfied with contracts granted by the commission	76.9	50.0	68.4
% of health unit managers who believe that they ought to play a different role within the commission	42.9	50.0	44.4

Source : NIS/PETS 2, 2010

#### 4.3.7 The management of subventions given to private health units

The State provides financial resources in the form of subventions to private health units in order to assist them in their functioning expenses.

About 74% of private health unit managers interviewed, declared not having received State's subventions in 2009. We can understand that they do not have information on this subject given that subventions are generally paid to founders of these health units (who are not necessarily the managers in post).

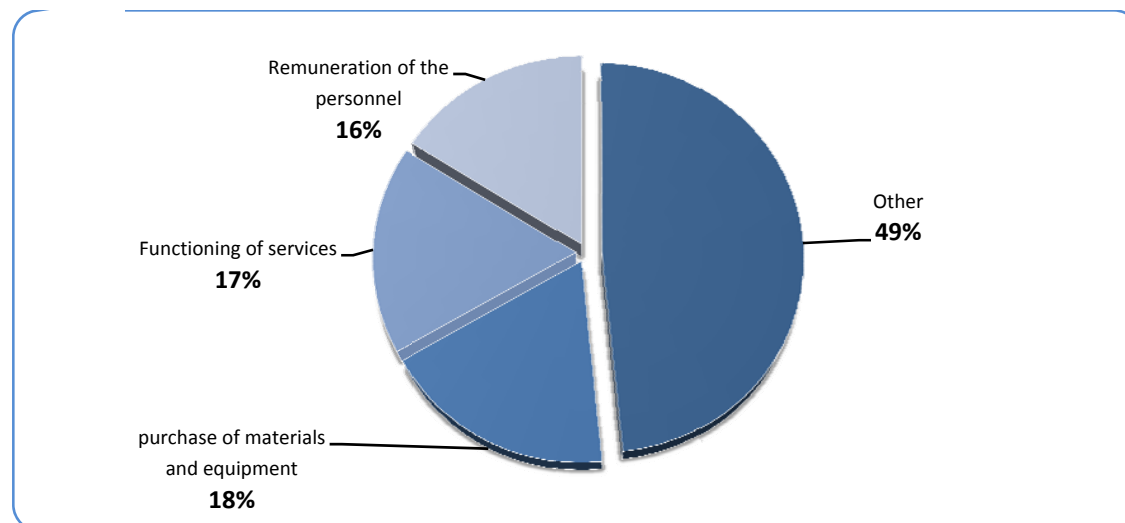
Among the structures beneficiaries of subventions in 2009, about 42% were informed in advance on the amount allocated to them.

The scale of distribution of subventions is subjected to criteria not known by all managers/founders of health units. Less than 42% of the managers are aware of these criteria and 60% consider them acceptable.

Managers/founders of private health units have difficulties to be in possession with the subventions allocated to their structures. The three main problems mentioned are i) the arrival of subventions in instalments (41.7%), ii) administrative heaviness (33.3%) and iii) bank worries (16.7%).

Subventions are paid to private health units to support the charges of the staff, notably salaries and allowances. The survey reveals that in 2009, the subventions received by private health units have largely been used for expenses other than those related to the staff. This is the case of material and equipment expenditures and expenditures related to the running of services. Only 16% of these subventions were used to take care of the staff.

**Figure 5 : Use of the State's subventions allocated to private health units**



Source: NIS/PETS 2, 2010

#### 4.4 The main difficulties encountered in budgetary execution

In 2009, managers of health units and intermediary decentralized health services have virtually experienced the same difficulties in the execution of their operating and investment budgets. Although the proportions vary from one area to another, the same problems are regularly reported.

The two big cities, Yaounde and Douala, however, enjoy certain facilities due to their proximity to decision centres. These difficulties are more pronounced in the rural area certainly because of the enclavement some areas are subjected to.

In order of importance, we note:

- ✓ Insufficiency and inadequacy of credits;
- ✓ Administrative slowness;
- ✓ Worries in the payment;
- ✓ Delays in the reception of cartons.

##### i) Insufficiency and inadequacy of credits

The insufficiency of credit is one of the main difficulties in the execution of the operating budget. In general, more than half of the structures are dissatisfied with their operating budget allocations. For the CMA and CSI, the dissatisfaction rate is higher in the urban area than in the rural area. This could be explained by the fact that the structures in the urban area express more needs than those in the rural area. As regards to the inadequacy of credits, it's another consequence of not taking into account the real needs of health units. It's a question here of the attribution of budgetary allocations to structures that can not use them. This is for example the case of the attributions of fuel lines to structures with no vehicles. The consequence is that managers tend to use these funds for other

activities, thus leading to numerous conflicts with financial controllers, who refuse to validate such practices. It also represents one of the causes of losses of budgetary resources.

**ii) Administrative slowness**

They are due to the multiple stages in the validation of files. The masses of visas lead inevitably to delays in the release of payment decisions. This practice discourages suppliers and takes away any enthusiasm to deliver the services on time.

**iii) Worries**

As from the liquidation phase, suppliers are faced with many delays caused by the accountants of health units. Corruption and lack of liquidity practices in the accounting items lead to payment worries. The consequence is that the new outbreak of these difficulties does not encourage suppliers to offer their services.

**iv) Delays in the reception of the authorizations of expenditures**

It is one of the major causes of the difficulties in the execution of the operating budget. Indeed, in some regions such as Adamawa and East, it takes at least 2.5 months after the start of the financial year to withdraw the authorizations of expenditures. This reduces the execution time of the budget.

It should however be noted that many errors observed in the authorizations of expenditures have strongly influenced the choice of this modality. In fact, when an authorization of expenditure has an error, (wrong accounting and/or geographical assignment, very large amount, ...), its correction requires to go back to the central administration of MINFI. This situation considerably increases the delay in the reception of the authorizations of expenditures.

**v) Other difficulties**

Other difficulties encountered in the execution of the operating budget of health units and decentralized services are linked either to suppliers, notably their bad faiths and the delays they are responsible of, or to the structures themselves, of which the managers delay in carrying out engagements.



## CHAPTER 5 : THE CHARACTERISTICS OF THE PROVISION OF SERVICES

The provision of service is described in this chapter through the basic infrastructures, human resources, availability of essential drugs and supervision of health services.

### 5.1 Availability of basic infrastructures and equipment

The infrastructures and equipment of a health unit comprise among others of laboratories, mortuaries, consultation rooms, pharmacy or pro-pharmacy, delivery equipment and hospitaliation beds.

#### 5.1.1 Basic Infrastructures

- **Medical laboratory**

On average, 8 out of 10 health units have medical laboratories. This proportion drops as we move from a higher category health unit to a lower category. Only 5% of health units of the urban area lack a laboratory, as against 33% for the rural area.

- **Mortuary**

Overall, 13% of health units possess a mortuary. However, this average hides some disparities that exist between different categories of health unit: HD (47.4%), CMA (6.3%). Equally, according to the area of residence, 18% of health units of the urban area possess a mortuary, as against 8% in the rural area.

- **Operation room**

In general, 2 health units out of 5 possess an operation room. Following the technical plateau, 9 out of 10 HD possess an operation room, as against 4 out of 10 for CMA and about 2 out of 10 for CSI.

- **Pro-pharmacy**

On the whole, 95% of health units have a pro-pharmacy. Whatever the category of the health unit or the area of establishment, low disparities are observed.

**Table 28 : Percentage of health units with certain basic services**

	Mortuary	Medical Laboratory	Consultation room	Operation room	Pro-pharmacy
<b>Category of health units</b>					
HD	47.4	97.4	100.0	92.1	92.1
CMA	6.3	93.8	100.0	43.8	96.9
CSI	1.1	69.1	95.7	17.0	94.7
<b>Area of establishment</b>					
Urban	17.5	95.0	97.5	52.5	92.5
Rural	8.4	66.3	97.6	26.5	96.4
Total	12.8	80.5	97.6	39.6	94.5

Source : NIS/PETS2, 2010

### 5.1.2 Basic equipment of health units

- **Delivery box, caesarean section box, delivery table**

For maternal health, the availability of delivery equipment is part of the important elements of the technical plateau of a health unit. We observe on the whole that 75% of health units possess a delivery box, 88% of them possess delivery tables and 32% possess caesarean section boxes. By category, we observed that the proportion of FSs with basic medical equipment decreases as we move from a higher category to a lower category. The same observation is made according to the area of establishment.

- **Dry and water sterilization system material**

Sterilization equipment is useful in the prevention against infectious diseases like tuberculosis or HIV. In general, one health unit out of two possesses dry and water sterilization system. This material is more available in the urban area than in the rural area.

- **Vaccination equipment, freezer, functional microscopes, hospitalization/observation beds**

Vaccination falls within the minimum package of activities in any basic FS. Vaccination equipment and cold chain equipment are indispensable for the implementation of this activity. In 2010, about 9 out of 10 FSs, regardless of the category or the area of establishment possess vaccination equipment or a freezer/refrigerator. Apart from the CSI of which one out of five doesn't possess functional microscopes, all the other health units do possess. In general, FSs in the urban area are well equipped with medical equipment than those in the rural area

**Table 29 : Percentage of health units with some medical equipment**

	Delivery box	Dry sterilization system material	Water sterilization system material	caesarean section box	Delivery table
<b>Category of health units</b>					
HD	89.2	89.5	71.1	78.9	97.4
CMA	75	65.6	43.8	33.3	96.9
CSI	70.2	46.8	40.4	11.6	81.9
<b>Area of establishment</b>					
Urban	78.5	77.5	52.5	42.9	91.3
Rural	72.3	43.4	43.4	21.1	85.5
Total	75.5	60.4	48.2	32.5	88.4

Source : NIS/PETS2, 2010

**Table 30: Percentage of health units with some medical equipment (continuation)**

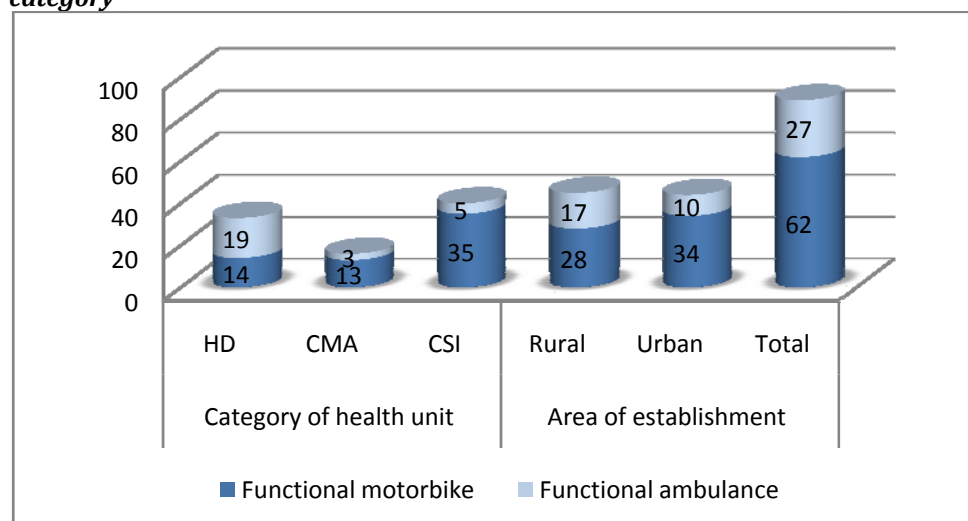
	Freezer/ refrigerator	Vaccination equipment	Functional microscopes	hospitalization/observation beds
<b>Category of health units</b>				
HD	89.2	78.9	100.0	100.0
CMA	93.8	93.8	100.0	100.0
CSI	80.9	90.4	79.8	91.5
<b>Area of establishment</b>				
Urban	89.9	87.5	96.3	97.5
Rural	80.7	89.2	80.7	92.8
<b>Total</b>	<b>85.3</b>	<b>88.4</b>	<b>88.4</b>	<b>95.1</b>

Source : NIS/PETS2, 2010

### 5.1.3 Transport means in health units

The availability of rolling stock in health units is apprehended through the number of functional ambulances and motorbikes. The importance of ambulances is seen in the frame work of referral and counter referral, and that of motorbikes in the frame work of advanced strategy in other to enable managers of health units to provide health care in distant villages.

One district hospital out of five has a functional ambulance. It should be noted that structures located in the rural area are less endowed with these transport facilities. In the rural area, one health unit out of ten possesses an ambulance while about 3 out of 10 have a functional motor bike. This remarkable presence of motor bikes in the rural areas can be justified by the non viabilization of these localities.

**Figure 6: Percentage of health units with transport means according to the area of establishment and the category**

Source : NIS/PETS2, 2010

### 5.1.4 Basic services in health units

#### ▪ Electric energy supply

Seven health units out of ten have access to electrical energy network. This access to electrical energy network is higher in the urban area. In the rural area, one FS out of two is connected to AES-Sonel network. As expected, the access to electricity decreases as we move from a higher to a lower category health unit.

Overall, managers of FSs deplore power cuts, whose duration vary from 11 to 16 hours. The damages caused by these power cuts in 2009, have led to losses estimated at millions of CFA francs for some health units. To remedy this situation, 50% of health units resorted to alternatives sources like solar energy and generators (78.9% for HD, 43.8% and 33.3% for CMA and CSI respectively).

**Table 31 : Percentage of health units with electricity and running water**

	Electricity	Running water
<b>Category of health units</b>		
HD	94.7	83.8
CMA	87.5	51.6
CSI	54.3	30.0
<b>Area of establishment</b>		
Urban	90.0	70.9
Rural	50.6	21.8
<b>Total</b>	<b>70.1</b>	<b>46.8</b>

Source : NIS/PETS2, 2010

- **Running water supply**

The supply of running water in health units is essential. The findings of this study reveal that only 46.8% of health units have access to running water. It should be noted that one health unit out of 5 gets water supply from a sinking well, almost the same value from harnessed springs and wells and about 15% elsewhere (rivers, non harnessed springs ...). In the rural area, only 2 out of 10 health units have access to water, as against 7 out of 10 in the urban area. Running water supply is also rare as one moves from HD to CSI.

## 5.2 Human resources and essential drugs

### 5.2.1. Personnel of the health units

In 2010, basic health units have an average size of 24 persons among which 20 permanents and 4 temporaries. For the permanent personnel, the average number stands at 14 for the public and 35 for the private. The personnel number varies depending on the status and category of the FS. Regarding the temporary personnel, the average number per health unit stands at 4 for the public and 3 for the private.

**Table 32 : Average number of health personnel according to the status and the category of the health unit**

Type	Status	HD	CMA	CSI	Total
Permanent personnel	Public	40	12	4	14
	Private	96	29	12	35
	<b>Total</b>	<b>55</b>	<b>18</b>	<b>6</b>	<b>20</b>
Temporary personnel	Public	11	4	1	4
	Private	3	9	1	3
	<b>Total</b>	<b>9</b>	<b>6</b>	<b>1</b>	<b>4</b>

Source : NIS/PETS2, 2010

- **Medical and paramedical personnel**

Regarding the medical and paramedical personnel of health units, medical coverage by specialized doctors stands on average at about 2 for a HD, almost 1 for a CMA and virtually zero for an CSI. The coverage by general practitioners is almost identical to that of specialized doctors for HD, but two folds for CMA and CSI. A reduced number of CSI, likewise private clinics and consulting rooms have general practitioners or specialized doctors working part time. Regarding non specialized nurses, this coverage stands at 27 for a HD, 10 for a CMA and 3 for an CSI. In addition, one can note that in the CSI, we almost do not have radiology technicians.

**Table 33 : Average number of medical and paramedical personnel by category of the health unit**

	Specialized doctor	General practionner	Pharmacist	Specialized nurse	Non specialized nurse	laboratory technician	Radiology technician
<b>HD</b>	1.9	2.1	0.3	4.8	27.2	4.2	0.5
<b>CMA</b>	0.7	1.3	0.2	3.5	9.7	2.0	0.4
<b>CSI</b>	0.1	0.2	0.3	0.7	3.3	0.8	0.0

Source : NIS/PETS2, 2010

### 5.2.2. Qualification of the personnel consulted by patients

Six patients out of ten have not met a medical doctor during a consultation. The majority address themselves to a chief nurse. Patients consult medical doctors more in private health units. As such, nearly 5 out of 10 patients met a medical doctor in a private health unit and only 3 out of 10 in a public health unit. Consultation by a medical doctor is essentially an urban phenomenon, while that of a chief nurse remains a rural phenomenon. We equally note that it's in the rural area, where the other health personnel (nurses, nursing auxiliaries...) are the most consulted.

**Table 34 : Distribution (in %) of patients according to the qualification of the personnel consulted**

	Medical doctor	Chief nurse	Other health personnel	Total
<b>Area of establishment</b>				
<b>Urban</b>	47.6	31.8	19.8	100.0
<b>Rural</b>	22.8	49.7	26.0	100.0
<b>Actual status of the FS</b>				
<b>Public</b>	30.9	43.2	24.5	100.0
<b>Private</b>	51.4	30.7	17.9	100.0
<b>Total</b>	<b>37.2</b>	<b>40.6</b>	<b>22.2</b>	<b>100.0</b>

Source : PETS Cameroon, 2010

### 5.2.3. Availability of essential drugs in the health units

The national system for the supply of essential drugs is responsible for the acquisition, storage and distribution of essential drugs in FSs over the entire national territory. It includes the public and private purchasing centres. In its capacity as a public purchasing centre, the CENAME ensures the regular supply of quality drugs at lower costs to the intermediate supply structures (CAPP) and in pharmacies and propharmacies of health units. The availability of

essential consumables was apprehended through the presence in stock of thirteen drugs and essential consumables needed permanently in FSs, to render efficient the minimum package of activities (MPA). It concerns the treatment of malaria (Coartem, Quinine and paracetamol), antibiotics (amoxicillin capsules, Cotrimoxazole, Metronidazole and Rifampicin), contraceptives (intra-uterine device and Lofemenal), some EPI vaccines (against measles, and DTP/DPT vaccine) and HIV prevention (the next day's treatment).

- ***Availability of drugs***

Apart from Rifampicin, intra-uterine device and the next day's treatment (HIV/AIDS), at least 7 out of 10 health units possess the other drugs of the package. It should also be noted that the number of private health units possessing certain drugs competes with that of the public. An example is the case of coartem and quinine that private FSs are numerous to possess.

- ***Run out of stock of essential drugs***

Despite the supply mechanism of essential drugs put in place, stock run outs of almost all sorts of drugs experienced in health units were deplored. This phenomenon is more observed in the CSI than in HD. Health units are more often in shortage of Coartem, Amodiaquine (tb) + Artesunate and Cotrimoxazole(tb).

Concerning the duration of stock run out, it varies from 3 to 19 days. Coartem represents the product that experienced more shortages and for a long duration in health units (19 days on average), contrary to quinine for which the shortage lasts at most 3 days. Seven drugs out of thirteen are more often unavailable in public health units than in the private ones.

### **5.3 Supervision**

Supervision constitute one of the measures of the national public health policy that enables efficient management of health structures, and ensures at all levels of the system, the inclusion of orientations defined by the central services. This supervision is done in both public and private structures on the basis of specification whose criteria should normally be known by both parties (supervisor and the supervised).

#### **5.3.1. Intermediary decentralized services**

The decentralized intermediary services interviewed include the regional delegations of public health and the district health services. The regional delegations of public health which are supervised by the central services of the Ministry of Public Health, supervise in return the district health services. Thus, these latter receive supervision visits and should in return supervise the activities of health units within their areas of command.

**Table 35 : Supervision of intermediary decentralized health services**

	DRSP	SSD	Total
Average number of supervision visits carried out	19.6	12.1	13.5
Has a supervision programme	75.0	77.1	76.7
Average number of supervision visits received	5.0	3.8	4.0
Knowledge of supervision criteria	50.0	77.1	72.1
<b>Appreciation of supervision visits received (%)</b>			
Indispensable	28.6	38.2	36.6
Useful	57.1	50.0	51.2
Useless	14.3	2.9	4.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : PETS Cameroon, 2010

In the intermediary decentralized services, managers have received on average 4 supervision visits. Moreover, in more than one health unit out of ten, managers reported having received one supervision visit during the year 2009.

The knowledge of supervision criteria must be shared. Yet, nearly 3 out of 10 managers declared not knowing them, thus representing one manager out of two for regional delegates and one manager out of four for district health services.

Concerning the appreciation of supervision visits, nevertheless, we have some managers (5%) who find them useless. In terms of percentage, the regional delegates are the most numerous to think so.

### 5.3.2. Supervision in health units

In a health district, health units are supervised by the head of the district health service. The health unit managers who reported having received a supervision visit during the year 2009 represent 92% of the total. The average number of supervision visits by health unit stands at 5 in 2009.

All health units do not benefit the same level of supervision. Following the health unit category, the CMA and the CSI are more frequently supervised with an average of 6 and 5 visits respectively than the HD, which received an average of 3 visits per year. Similarly, one private health unit out of five has not received a supervision visit throughout the year 2009. However, the average number of supervision visit received is virtually identical in the public and in the private.

Although they are about a quarter to declare not mastering supervision criteria, health unit managers are almost unanimous on the usefulness of this activity in the monitoring mechanism for the implementation of the national health policy.

**Table 36 : Supervision of health units according to the category, the status and the area of establishment**

	Area of establishment		Category of the health unit			Actual status of the health unit		Total
	Urban	Rural	HD	CMA	CSI	Public	Private	
Structures supervised (%)	90.8	93.6	86.5	100.0	92.3	96.5	81	92.3
Average number of supervision	5.5	4.2	2.6	6.3	5.4	4.8	5.2	4.9
Knowledge of supervision criteria	69.6	80.7	73.7	67.7	77.7	75.4	73.3	74.8
<b>Appreciation of supervision visits received (%)</b>								
Indispensable	39.2	40.8	38.9	44.8	38.4	44.1	27.5	39.7
Useful	58.1	59.2	55.6	55.2	61.6	55.9	67.5	58.9
Useless	2.7	0.0	5.6	0.0	0.0	0.0	5	1.3

Source : PETS Cameroon, 2010



## CHAPTER 6: THE CHARACTERISTICS OF THE DEMAND OF HEALTH SERVICES

The demand of health services tackled in this study is relating to the profile and socioeconomic characteristics of patients and their personal motivations. The analysis of this issue will be focused on the attendance of basic health units, the determinants of the choice of these health units and the appreciation made on the quality of services received by the beneficiaries.

### 6.1. Attendance of basic health unit

The characteristics of the demand of health services are perceived through the number of patients as well as their profiles.

- *Number of patients*

In 2009, health units have received on average 12 patients per day of which 2 were hospitalized. Health units located in the urban area received on average 12 patients per day, as against 8 in the rural area.

This demand also varies according to the category and the status of the health unit. Indeed, the HD received on average 22 patients per day, as against 8 for the CMA and 6 for the CSI. Moreover, the private health units seem more solicited than those of the public. Private health units received on average 15 patients per day while those of the public received 8.

**Table 37 : Average number of patients received per day in health units**

		For consultation	For hospitalization	Total
<b>Actual status of the health unit</b>	<b>Public</b>	8	2	10
	<b>Private</b>	15	4	17
<b>Category of the health unit</b>	<b>HD</b>	22	7	27
	<b>CMA</b>	8	3	10
	<b>CSI</b>	6	1	7
<b>Area of establishment</b>	<b>Urban</b>	12	4	15
	<b>Rural</b>	8	1	9
<b>Total</b>		<b>10</b>	<b>2</b>	<b>12</b>

*Source : PETS Cameroon, 2010*

- *Patients' profiles and category of health units visited*

As reminder, PETS2 focused on three categories of health units, namely the district hospitals, the sub divisional medical centres and the integrated health centres, of the public or private sector, located both in the urban and rural areas.

The study reveals that in 2009, three out of four patients visited a public health unit. This reflects the magnitude of the provision and geographical coverage in public health infrastructures. According to the area of establishment, 69% of patients resorted to a health unit located in the urban area.

Moreover, following the health unit category, 33% of patients resorted to HD, 21% to CMA and 46% to CSI. HD have more been visited in the urban area (33% of patients). It should also

be noted that women visit health units more than men. Indeed, among 10 patients received in health units during the last three months preceding the survey, about 7 are of the female sex. This trend is observed both in the urban and rural areas, where respectively 73% and 63% of patients are of the female sex.

Persons aged 21 to 55 years, constitute the majority of patients consulted in the health units interviewed, irrespective of the category and the area of establishment of the health unit. More than half of the population of this age group visited a health unit located in the urban area.

Regarding the socio-economic group of patients, persons with precarious social status (labourer, independents, family helps, apprentice, students, unemployed) are those who visit the CSI the most; they are about half to go there.

**Table 38 : Distribution of patients by socio-economic group, according to the area of establishment and the category of health unit visited**

Socio-economic group	Area of establishment							Total			
	Urban				Rural			HD	CMA	CSI	Total
	HD	CMA	CSI	Total	CMA	CSI	Total				
Executive	31.8	31.8	18.2	81.8	4.5	13.6	18.2	31.8	36.4	31.8	100.0
Qualified employee/worker	54.8	19.4	12.9	87.1	3.2	9.7	12.9	54.8	22.6	22.6	100.0
Semi qualified employee/worker	48.5	12.1	18.2	78.8	3.0	18.2	21.2	48.5	15.2	36.4	100.0
Labourer	16.7	20.0	30.0	66.7	6.7	26.7	33.3	16.7	26.7	56.7	100.0
Employer/ Own account	32.5	6.8	22.3	61.7	9.2	29.1	38.3	32.5	16.0	51.5	100.0
Family help, Apprentice	24.3	10.8	32.4	67.6	5.4	27.0	32.4	24.3	16.2	59.5	100.0
Unemployed	26.0	20.0	30.0	76.0	8.0	16.0	24.0	26.0	28.0	46.0	100.0
Student	26.7	13.3	31.1	71.1	11.1	17.8	28.9	26.7	24.4	48.9	100.0
Other inactive	42.6	14.8	11.1	68.5	7.4	24.1	31.5	42.6	22.2	35.2	100.0
<b>Total</b>	<b>33.3</b>	<b>12.8</b>	<b>22.8</b>	<b>68.9</b>	<b>7.7</b>	<b>23.4</b>	<b>31.1</b>	<b>33.3</b>	<b>20.5</b>	<b>46.3</b>	<b>100.0</b>

Source : PETS Cameroon, 2010

## 6.2. Consumption of health services

### 6.2.1. Availability of health services

- **Reason of consultation**

Several diseases and services have been retained to analyze the reasons of consultation in health units. Among these diseases included: (i) malaria, fever, headaches, (ii) influenza and cough, (iii) diarrhoeal diseases, (iv) fracture or bone malformation. Services retained included: Mouth and dental care, family planning, antenatal and postnatal cares, vaccinations, medical tests including that of HIV/AIDS.

Following the patients' declarations, the group malaria, fever, headaches is by far the first reason of health consultation. About one out of two patients goes to the hospital for the treatment of malaria, which represents the first cause of mortality in Cameroon.

**Table 39 : Distribution (in %) of patients according to the reason of consultation, the area of residence and the status of the health unit**

		Malaria/fever/ head ache	Influenza/cough	Diarheol diseases	Mouth and dental care	Family planning	Prenatal cares	Postnatal cares	Vaccination	HIV/AIDS test	Examination and other test	Fractures or bone malformation	Other	Total
Area of residence	Urban	41.9	8.9	6.6	3.0	0.4	2.6	1.3	2.4	0.2	3.7	2.5	26.6	100.0
	Rural	43.4	9.6	8.3	1.4	0.2	3.4	1.0	2.2	0.3	1.4	2.2	26.7	100.0
Status	Public	42.3	6.2	7.1	2.4	0.4	3.4	1.4	3.3	0.3	3.8	3.1	26.4	100.0
	Private	41.8	7.7	7.0	2.8	0.4	2.8	1.4	1.6	0.0	2.6	1.9	30.0	100.0
<b>Total</b>		42.1	6.7	7.0	2.6	0.4	3.2	1.4	2.7	0.2	3.4	2.7	27.7	100.0

*Source : PETS Cameroon, 2010*

▪ **Motivations of the choice of a health unit**

Overall, patients declared the proximity of the health unit as the first element that motivates their choice (35%), followed by good quality services received in health units (28%).

These reasons predominate regardless of the area of residence. In the rural area, the choice of a health unit is more influenced by the recommendation of a practionner. Private health units are also more solicited for the quality of the service offered than those of the public. Indeed, 2 out of 5 patients visit a private health unit for this reason, as against one patient out of four in a public health unit.

**6.2.2. Cost of health cares**

▪ **Consultation expenditure**

In general, the average expenditure for a consultation stands at 1 381 CFA F. It stands at 1 840 CFA F for the HD, 1 252 CFA F for the CMA and 1 097 CFA F for the CSI. In the urban area, patients spend on average 1 849 CFA F for a consultation, of which 2 329 CFA F in a HD, 1 812 CFA F in a CMA and 1 256 CFA F in an CSI. In the rural area, the average expenditure for a consultation stands at 850 CFA F.

**Table 40 : Average consultation expenditure in health units according to the declarations of patients met on the spot (in CFA F)**

Area of establishment	Status of the health unit	Average expenditure (in CFA F)
Urban	HD	2 329
	CMA	1 812
	CSI	1 256
	Total	1 849
Rural	HD	748
	CMA	426
	CSI	1 002
	Total	850
Total	HD	1 840
	CMA	1 252
	CSI	1 097
	Total	1 381

Source : PETS Cameroon, 2010

- **Appreciation of the cost of services received**

Regarding the appreciation made on the service received in FSs, 67% of patients met, believe that the amount paid is sufficient or normal and 23% find it excessive or very excessive as compared to the result obtained.

**Table 41 : Appreciation of the cost of services received by patients according to the category of the health unit (in %)**

	HD	CMA	CSI	Total
Very excessive	13.1	5.8	1.7	6.5
Excessive	22.9	22.3	10.3	17.0
Sufficient/normal	57.7	6.6	74.7	67.1
Less	5.1	1.9	6.5	4.9
Negligible	1.1	3.8	7.3	4.5
Total	100.0	100.0	100.0	100,0

Source : PETS Cameroon, 2010

### 6.3. Appreciation of the quality of health care

The quality of health care in health units was appreciated by patients through the duration of consultation, the quality of consultation, of personnel consulted and of reception received.

- **Waiting time before consultation**

More than half (57%) of the patients who visited a health unit in 2009 took less than 30 minutes before being received for consultation, 29% took between half an hour to an hour and 14% took more than one hour. This trend is the same regardless of the type of health unit. More patients take less time to be received for consultation in the CSI (63% took less than 30 minutes) than in HD (54% took less than 30 minutes).

- **Duration of consultation**

Overall, the patient spends an average of half an hour for a medical consultation. This duration is slightly higher in health units established in the urban area (30 minutes) than

those located in the rural area (28 minutes), and is virtually the same in a public health unit (29 minutes) than in the private sector. It is slightly higher in CMA (32 minutes) than in HD (30 minutes) and CSI (27 minutes).

- **Quality of the consultation**

About 9 out of 10 patients are satisfied with the quality of consultation and consider it good and even complete. Following the area of establishment, the judgment is more favourable for health units in the rural area (92%) than those in the urban area (89%). Following the status of the health unit, the quality of consultation is better appreciated in private health units (94%) than in public ones (89%). According to the category of the health unit, the quality of the consultation is best appreciated in the CMA (94%), despite the fact that it lasts longer.

- **Qualification of the personnel consulted**

In general, patients more consult nurses (40%) regardless of the area of establishment of the health unit, and especially in the CSI (58%) and in health units of the public sector (43 %). This result reflects the situation of the provision of medical personnel, medical doctors being mostly in HD and in private clinics.

**Table 42 Qualification of the personnel in health units according to the status, the category and the area of establishment**

Qualification of the personnel	Category of the FS				Status of the FS			Area of establishment		
	HD	CMA	CSI	Total	Public	Privé	Total	Urbain	Rural	Total
Medical doctor	57.7	51.9	14	36.5	30.9	51.4	36.5	47.6	24.6	36.5
Chief nurse	24.0	26.0	57.6	39.8	43.2	30.7	39.8	31.8	48.4	39.8
Health personnel (nurse, midwife, ...)	16.6	20.2	26.3	21.7	23.2	17.9	21.7	19.1	24.6	21.7
Trainee	1.1	1.0	0.8	1.0	1.33	0.0	1.0	0.7	1.2	1.0
Other	0.6	1.0	1.3	1.0	1.33	0.0	1.0	0.7	1.2	1.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : PETS Cameroon, 2010

- **Quality of reception**

Overall, about 9 out of 10 patients think that the reception is satisfactory or very satisfactory regardless of the area of establishment, the type or status of the health unit. According to the status, the appreciation made by patients on the quality of reception is more favourable to private health units.

#### 6.4. Appreciation of the provision of services in health units

The quality of the provision of services in health units is appreciated through the following parameters: The state of the premises, the state of toilets, hygienic conditions, availability of drugs and the state of equipment.

- **State of premises**

In general, most patients appreciate positively the state of premise where they had their last consultation: 38% consider it acceptable, 33% good and 13% very good.

Following the category of the FS, patients complained more on the state of premises of the CSI (19%). According to the status, the state of premises is more decreed in public FSs (20%) than in private ones (6%).

**Table 43 : Distribution of households following their appreciations on the state of premises of FSs visited (in %)**

General appreciation on the state of premises	Category of the health unit			
	HD	CMA	CSI	Ensemble
In very good state	16.0	13.5	11.4	13.4
In good state	36.6	36.5	28.8	33.0
In an acceptable state	33.1	37.5	41.1	37.7
In bad state	11.4	8.7	15.3	12.6
In very bad state	2.9	3.8	3.4	3.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Source : PETS Cameroon, 2010

- **State of toilets**

Users of health units have a very negative appreciation on the state of toilets. About 1 patient out of 3 believes that toilets of health units visited are clean. Toilets patients consider cleanest are those of the CSI (52.1%), contrary to those of FSs with a higher technical plateau.

- **Hygienic conditions**

Seven patients out of ten consider the hygienic and salubrity conditions good or very good in health units, while 15.8% consider them bad or very bad.

- **Availability of drugs in the pharmacy of the FS**

At least one patient out of two met in the FS thinks that pharmacies are either fairly well furnished or well furnished. For those who are fairly well furnished, 53% are located in the urban area. Private health units, notably the confessional private health units are considered to be the best furnished by patients.

- **State of general equipment and logistics of FSs**

About three patients out of ten think that general equipment and logistics of health units visited are decrepit but well maintained.

The overall judgment made by patients on health units is satisfactory. Indeed, 77% of patients were either satisfied with the services received or found them acceptable.

## 6.5. Assessment of the satisfaction level of health services beneficiaries

The objective of this section is to estimate a global level of satisfaction of beneficiaries of health services according to some characteristics of individuals and those of the households where they reside. For this purpose, it is a question to firstly construct an indicator of satisfaction. This indicator is constructed using a Multiple Correspondence Analysis (MCA), completed by an automatic classification which enables to deduced a grouping by class of this index.

**Box 4 : Methodology for the construction of the satisfaction index****Multiple Correspondence Analysis**

The MCA aims at studying the associations existing between different modalities of variables or at seeking groups of individuals who resemble to a certain metric. This method uses exclusively the categorical variables and is part all the methods of factor analysis. It is a combination of two other methods of factor analysis: The Factor Correspondence Analysis (FCA) and Principal Component Analysis (PCA). A FCA is performed on the Burt table (resulting from the complete disjunctive table) and two PCA are performed on marginal column profiles and marginal row profiles of this table, profiles being characterized by their factorial coordinates and resulting from the FCA.

The tools for the interpretation in MCA are the quality of representation of an individual or a variable point (appreciated by the cosine square) and the contribution of one point to the formation of a factorial axis. An individual or variable point, which following a factorial axis has a cosine square "close" to zero is very poorly represented by this axis, and well represented if the cosine square is "close" to one. The relative contribution of a point to the formation of an axis is the proportion of inertia of this axis explained by this point. We improve the clarity of the factor analysis by putting in supplementary, points having "strong" contributions.

The factorial coordinates are data that define the position of projected points on the plane generated by the factorial axes.

**Construction of the indicator**

The construction of the indicator of satisfaction of health services beneficiaries is based on a multidimensional approach and aims at defining a composite indicator for each beneficiary of the sample. A preliminary MCA is performed and at the end of this operation, variables having a "poor" representation quality are recoded, while individuals are put in supplementary. The final variables that will contribute to the construction of the indicator are thus selected. A final MCA is performed to obtain final weight coefficients, which are standardized scores on the first factorial axis.

The functional form of the indicator for a beneficiary  $b$  is defined as follows:  $I_b = \frac{\sum_{k=1}^K \sum_{j=1}^J w_{jk}^b S_{jk}^b}{K}$

Where  $w_{jk}^b$  is the weight coefficient of the modality  $j$  and of variable  $k$  for the beneficiary  $b$ , that is to say, the score value (coordinate) obtained in the MCA and standardized by the first eigen value; the indication of the modality  $j$  of variable  $k$  for the beneficiary  $b$ ; and  $K$  the number of categorical indicator (variables)

Once the coordinates of individuals on the factorial axes are obtained after the application of the MCA, an Agglomerative Hierarchical Clustering (AHC) is performed on individuals along side with all the factorial coordinates.

The AHC is a technique that aims to classify individuals on the basis of a number of resemblances, so that two individuals belonging to the same class resemble at most and differ from two others belonging to two different classes.

For the construction of the index, two types of variables are used: the variables used to construct the indicator of satisfaction and those used to identify the determinants of satisfaction of household beneficiaries.

**Table 44 : Preliminary list of variables retained**

Indicator of satisfaction	<ul style="list-style-type: none"> <li>- the opinion on the reception in the health unit;</li> <li>- the opinion on the duration of the consultation;</li> <li>- the opinion on the consultation;</li> <li>- the opinion on the attitude of the health personnel;</li> <li>- the opinion on the effect of drugs prescribed.</li> </ul>
Determinants of the satisfaction	<ul style="list-style-type: none"> <li>- the sex ;</li> <li>- the living standards;</li> <li>- the stratum of residence ;</li> <li>- the religion of the household head;</li> <li>- the level of education of the household head.</li> </ul>

Source : NIS/PETS 2

✓ **Calculation of the satisfaction index and class grouping**

The realization of the second MCA has yielded preliminary results to be used in the construction of the indicator of satisfaction of beneficiaries of health services. The first factorial axis, which represents 17.69% of the total inertia is the one that best describes the satisfaction of beneficiaries. In fact, the terms of each variable used for this analysis are arranged along this axis (Appendix, figure 2), and thus, having individuals either with the lowest level of satisfaction to the highest level or with the highest level of satisfaction to the lowest level.

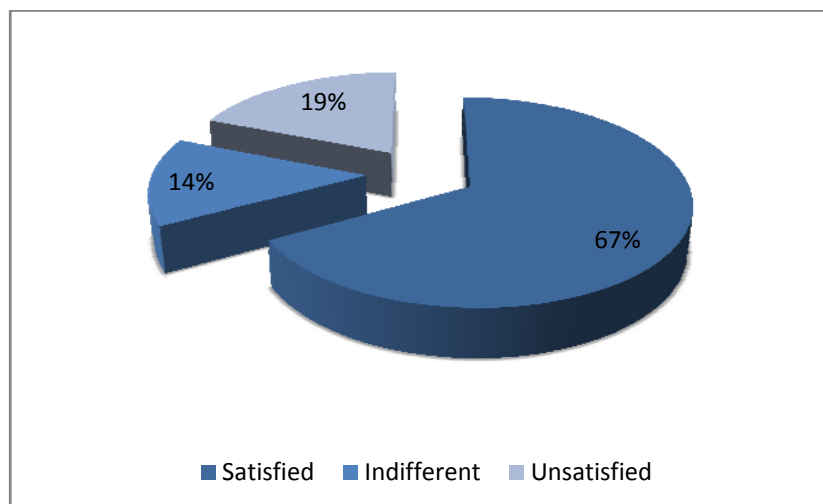
The pooling of these two study methodologies (calculation of the indicator and classification) of the satisfaction of beneficiaries of health services, reveal that a typology of beneficiaries from the indicator calculated through thresholds does not produce the classification desired. In fact, while the indicator varies from 0.53 to 0.91 for "Satisfaction", it varies from 0.48 to 1 for "Indifferent" and from 0.00 to 0.74 for "Unsatisfied".

This cast out that a classification based on thresholds on the indicator calculated does not produce a convergent result with the classification on factors. We therefore retains the qualitative indicator obtained from the classification in three classes.

Moreover, the only consideration of 17.69% of the total inertia in the construction of the indicator couldn't only reveal part of the information contained in the original questions addressed to the beneficiaries. While the agglomerative hierarchical clustering on all beneficiaries in the sample, characterized by their factorial coordinates on the completeness of axes represents 100% of the projected inertia.



**Figure 7: Distribution of beneficiaries of health services according to their levels of satisfaction**



Source : PETS Cameroon, 2009

The classification of the beneficiaries of health services into three classes gives a distribution presented by the above figure. It emerges that majority of the beneficiaries of these services are satisfied. In fact, we have 67% satisfied, 14% neither satisfied nor unsatisfied and 19% unsatisfied.

The use of a sub sample of households interviewed in ECAM3 has helped to put in relation the level of satisfaction of beneficiaries of health services and households' living standards.

#### ***Satisfaction level and profile of beneficiaries of health services***

The table below shows a non-sensitive difference between health services satisfaction for men (80%) and that of women (80,36%). Moreover, poor persons are more satisfied with health service provisions (81%) than non-poor (80%). This can be explained by the fact that the non-poor persons are more demanding when it comes to health, while the poor persons are content with the bare minimum. The analysis is similar regarding the education level, since a person with a high education level is better placed to appreciate the imperfections of the health system. Thus, persons whose household heads have no education level are more satisfied with health service provisions (82%) than those whose heads have the primary school level (81%) and secondary school level or more (79%). The results also show spatial disparities for the satisfaction level of household beneficiaries so far as health services provision is concerned. Indeed, households residing in the rural area (84%) are generally more satisfied with health services than those of the urban area (83%). Finally, households whose heads are catholics are the least satisfied with health service provision, while households whose heads are animists are the most satisfied.

**Table 45 : Distribution of persons according to their level of satisfaction on the provision of health services (in %)**

<b>Variables</b>	<b>Modalities</b>	<b>Percentage of satisfied persons</b>
Sex	Male	79.71
	Female	80.36
Living standards	Poor	81.13
	Non poor	79.55
Stratum of residence	Urban	78.57
	Semi urban	82.68
	Rural	83.69
Religion of the household head	Catholic	76.91
	Protestant	83.21
	Muslim	79.72
	Animist	85.00
	Other	81.01
Level of education of the household head	Without level	81.89
	Primary	80.63
	Secondary or more	78.98

Source : NIS/PETS

## **CHAPTER 7: ANALYSIS OF THE EFFICIENCY OF THE CAMEROON'S HEALTH SYSTEM**

This chapter goes beyond the problems raised by respondents and intends to link the provision and the demand of health services in order to clear areas for improvement of the Cameroon's health system, both on the health care administered to patients and on the traceability of budgetary information.

### **7.1. The aims of the health system organisation reform**

The reforms of the health system, undertaken for the past years by the Cameroon Government, aim at viabilising all health districts for the achievement of the MDGs. In this context, the health sector strategy was elaborated and implemented since 2001. This strategy which is accompanied by a quantified multi-year plan action, takes into account the orientations of the current health policy expressed in the National Plan for Health Sector Development (PNDS), whose main objectives are: To make health districts functional and performant, fight against the disease especially HIV/AIDS, develop and put in place at the level of health districts, decentralized mechanisms for financing health care and an efficient system of mutual health risk. Specifically, the reform of the health system in Cameroon in 2015, aims at:

- i) Bringing 80% of the 178 existing health districts to complete at least the consolidation phase of the viabilization process of a health district;
- ii) Bring 100% of health structures at strategic and intermediary levels to carry out their roles of supports and that of pattern referral;
- iii) Reduce by 1/3 the disease burden for the poors and the most vulnerable populations;
- iv) Reduce by 2/3 the mortality of children below 5 years;
- v) Reduce maternal mortality by 2/5.

For a health district to be viable, it must possess a network of health units whose infrastructures and equipment meet with the norms in force, a staff quantitatively and qualitatively in conformity with the requirements of the WHO. However, the implementation of reforms clashes with many problems of the system. Indeed, in the process of viabilization of health districts, we note a shortage of qualified human resources that reduces the effectiveness of the system. Similarly, the poor distribution of available human resources, the poor state or the decrepitude of infrastructures and equipment available does not enable to ensure quality services.

Although the decentralization of the health system is effective in the aspects of management of financial, human and material resources, its implementation is hampered by the insufficiency of skills at the level of health districts. For this to be possible, the Government should reinforce the capacities of officials in results based management (RBM), in the elaboration of the budget and the MTEF and in the management of human resources.

### **7.2. Problematic of the financing of health in Cameroon**

The health financing is the raising of funds that enables to ensure to beneficiaries, better access to health services but also to protect them from impoverishment, which is due to the payment of these

services.

Many technical and financial partners support the Cameroon Government in its health policy. Apart from bilateral backers, we enumerate 26 UN agencies, 20 global and regional funds and 90 global initiatives working in Cameroon for health..

Funding for the health sector through international assistance has been fluctuating between 2007 and 2009. In 2009, the Health Sector received an assistance of 10 733 387 740 CFA F.

Primary health cares are generally the main destination of this funding, this is in conformity with the national health policy.

**Table 46: Annual evolution of expenditures by domain of intervention of the health sectoral strategy (in millions of CFA F)**

Domain of intervention	2007	2008	2009
Health of the mother, the adolescent and the child	10 617	6 135	2 447
Fight against the disease	66 187	16 143	24 996
Health promotion	265	934	0
Viabilization of the health district	68 926	75 480	89 296
<b>Total</b>	<b>145 995</b>	<b>98 691</b>	<b>116 739</b>

*Source : MINSANTE*

The spatial allocation of international aid is less efficient because of the insufficient coordination of the various co-operations by the Ministry of Public Health. The strengthening of capacities of several officials in RBM will certainly enable achieve the objectives of good management, in view of improving the beneficiaries' satisfaction for health services.

The need to be protected against financial risks related to health care is made necessary. The social security (provided by the NSIF) which doesn't yet incorporate health coverage in its services, protects only formal sector workers and civil servants. This practice excludes a significant part of the population which is regrouped in informal agricultural sector and the informal non-agricultural sector. Similarly, private insurance companies, financially inaccessible to many, partially meet with the health insurance needs of a minority of wage earners. Sickness insurance whose effectiveness is recognized in some countries therefore appears to be the necessary tool for this new approach.

Face to the difficulties encountered, the communities organize solidarity, through informal mechanisms of support. This solidarity is observed in Cameroon within mutual health organizations and especially associations and "tontine", in which we find the rubric "assistance" which aims to support a part of medical expenses incurred by one of the members whose contributions are up to date. However, these approaches generally remain insufficient to overcome the problems of health care financing.

### **7.3. Implication of the civil society in the budgetary execution and control**

The civil society in Cameroon is made up of associations and clubs, NGOs, religious communities, the media and journalists' associations, employers' organizations, trade unions, research institutes, etc.. Apart from conception and public contracts, the civil society is also involved in the implementation, monitoring and evaluation of programmes. It also participates in commissions in charge of control and execution of the budget, especially in the control of public contracts. The civil society only acts at the level of the public investment budget (PIB). The PIB is a tool that enables the state to promote

development and achieve its objectives in the fight against poverty. Thus, the civil society participates regularly in commissions in charge of budgetary execution and control, especially in the control of public contracts.

These actors come together generally in networks to play a role of:

- Anti-establishment force in public debates;
- Pressure force beside decision makers;
- Structure of inquiry and proposals in the elaboration and implementation of public policies and cooperation strategies;
- Denunciation of budgetary drift.

The civil society only acts at the level of the public investment budget (PIB). The PIB is a tool that enables the state to promote development and achieve its objectives in the fight against poverty. Thus, the civil society participates regularly in commissions in charge of budgetary execution and control, especially in the control of public contracts. The results of the contribution of representatives of the civil society in budgetary execution and control still remain mitigated.

In order to monitor the achievements of the Cameroon Government and to banish the evils which constitute an obstacle to economic and social development of the State, the participation of the civil society must be improved. For this purpose, it is advisable to carry out the following actions among others:

- Collaborate with parliamentarians, especially during debates preceding the vote of the budget;
- Establish a real decentralization policy that aims at transferring a substantial part of budgetary management to decentralized State collectivities;
- Sensitize citizens on budgetary issues so as to increase their interest in this aspect.

#### **7.4. Consolidation of the health information system**

The health sector, like the national statistical system in general, has a rich potential as regards to the production of statistical information. Unfortunately, the study of the traceability of public expenditures in relation to health in Cameroon has encountered some difficulties, mainly due to the non availability of budgetary information. In addition, information on the provision and demand of health services is still less known, not updated and do not therefore enable to make good decisions. This arises from the inefficiency of coordination between the various structures and vertical health programmes that produce information (non harmonization of data collection methodologies and questionnaires used).

Looking at the importance given to priority sectors like health to boost growth in Cameroon, the process of decision making at every organizational level passes through the establishment of an efficient health information system. Hence, there is need to define a capacity building plan of the health system in order to equip the various actors on the keeping and management of health information. This capacity building will enable to have routine information at regular intervals, and mechanisms destined to produce useful information:

- Statistics of health services,
- Administrative data,
- Financial data,
- Epidemiological data,
- Epidemiological control,

- Other information resulting from ponctual data collection operation such as household surveys and various studies and researches.

For a better statistical coverage of the health sector, the methodological approach to be developed should include all bodies and all levels identified, and train the staff in charge of statistics according to corresponding levels.

## 7.5. Provision and demand of health services

### 7.5.1. Present health coverage

In Cameroon, there exist public, parapublic (managed by public organisations) and private (lay and confessional) health units. The present organization of the public sector foresees the establishment of health units right up to the peripheral levels, in order to serve a maximum number of people. In 2009, we noted an improvement in hospital coverage: A ratio of 118 330 inhabitants per hospital, which is reasonable as compared to the WHO's standard, that sets a ratio of 100 000 inhabitants for a hospital. However, it does not only suffices to increase the number of health units but to ensure their functioning, notably the presence of sufficient human and material resources.

*Table 47: Situation of health coverage indicators per inhabitant in 2009*

Region	Average population per hospital	Average population per health centre
Adamawa	169 270	7 468
Centre	125 917	5 808
East	57 283	4 860
Far-North	145 017	10 775
Littoral	159 211	10 459
North	146 445	11 082
North-West	112 793	6 332
West	93 962	4 452
South-West	153 810	6 786
South	43 259	3 104
WHO's standard	100 000	10 000
Total of the country	118 330	6 923

*Source* : Ministry of Public Health, 2009

Private health units that accompany the government in providing health services to populations mostly have as promoters, medical doctors working in the public sector. Indeed, many patients who consult public health units are referred by medical doctors to their private health centres for medical care. However, many risks are observed in this practice, among which a very high workload for medical doctors who are forced to work continuously in both the public and in their private structures. This may have a negative impact on their performances although many patients find their services satisfactory. One of the findings is that many patients are dissatisfied with the services provided in public health units because of poor reception they are subject to.

Additional efforts must be done by the Government to train and recruit more medical personnel, notably medical doctors, dental surgeons and pharmacists to fill the gap relative to the WHO's standards. The hope is possible when we know that actions are being implemented in direction of the opening of new faculties of medicine and new branches.

**Table 48: Situation of health coverage indicators in the public sub sector**

Indicators	2007	2010	WHO's standard
Nombre of inhabitants for 1 medical doctor	13 685	14 418	10 000
Nombre of inhabitants for 1 dental surgeon	472 298	606 441	105 882
Nombre of inhabitants for 1 pharmacist	484 727	718 744	15 000
Nombre of inhabitants for 1 nurse	2 239	2 545	5 000
Nombre of inhabitants par medico sanitary personnel	1 868	2 190	3 000

Source: MINSANTE 2009

### ✓ Equity challenge in the distribution of health units

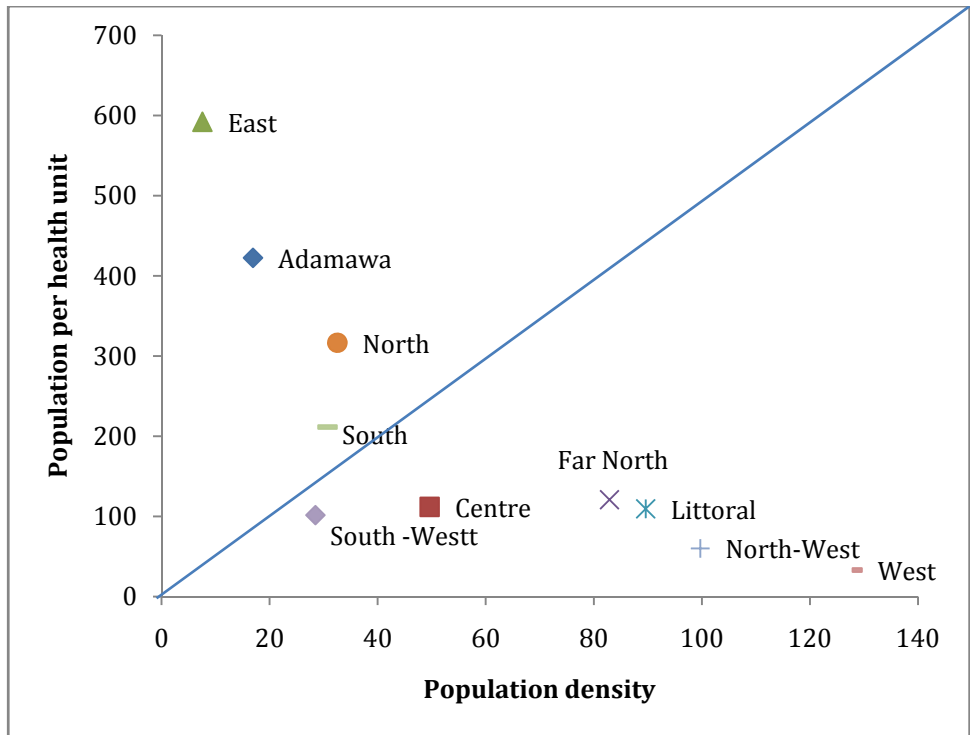
Equity also remains a fundamental concern for the health system in Cameroon.

Based on projections obtained from the Third General Population and Housing Census data (3<sup>rd</sup> GPHC) and information from the health map, the analysis of the distribution of health units across the country shows a high inequity which enables to distinguish two main groups:

- iii) The group of those who are better served, characterized by a high population density and a low population/health unit ratio, that is to say a high concentration of FSs as compared to the population. Included in this group and in decreasing order of health unit possession are: West, North West, Littoral, Far North, Centre and South West regions.
- iv) The group of the underprivileged, characterized by a high population/health unit ratio and a low population density. Belonging to this group and with a low possession of health units are the East, Adamawa, North and South regions.

In this classification, the Centre and the Littoral regions should certainly fall under the underprivileged group, if we exclude Yaounde and Douala that concentrate many of the health districts and health units nationwide coverage.

**Figure 8 : Equity in the distribution of health units**

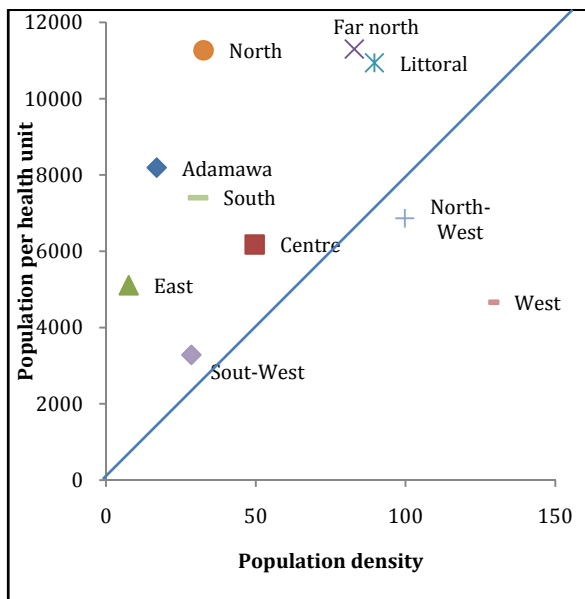


Source : BUCREP/GPHC and MINSANTE, 2009

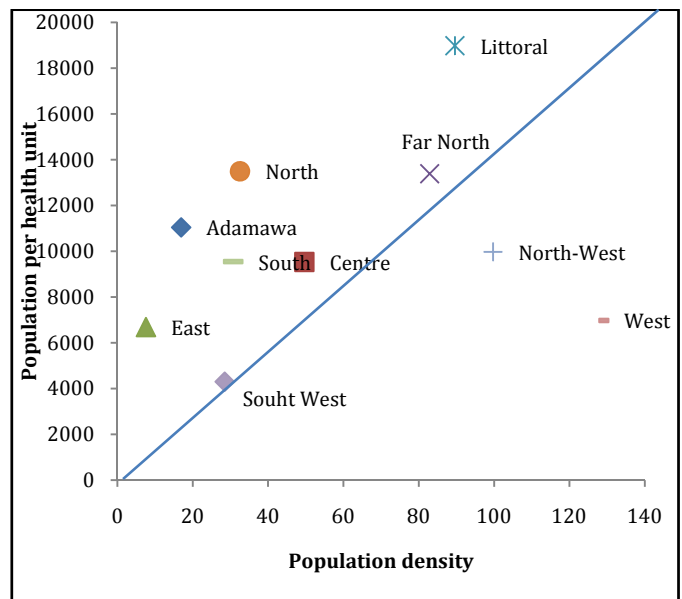
If we are interested in primary health care, only the West and the North West regions remain in the group with a concentration of health units higher than that of the population. Even when limited to public health centres, the changes observed do not modify the composition of the preceding groups.

In any case, the North, Far North and the Littoral regions appear to be regions where access to primary health care faces a low endowment of health centres. On average, in these three regions, over 10 000 people are served by one health centre.

**Figure 9 : Equity in the distribution of health centres**



**Figure 10 : Equity in the distribution of public CSI**



Source : BUCREP/GPHC and MINSANTE



### **7.5.2. Training, deployment and motivation of the health personnel**

In Cameroon, the training of the medico sanitary personnel is ensured by the MINSANTE, which manages and supervises only the public and private schools approved and placed under its tutelage. The MINEFOF also authorizes the creation and opening of schools for the training of medico sanitary personnel. State universities and private universities are responsible for the training of medical personnel under the auspices of the Ministry of Higher Education. For nearly two decades (1990-2009), these schools have trained about 30 338 medical personnel, but at December 31<sup>st</sup>, 2008 only one tenth is used in health services.

The freeze of recruitments imposed by the Structural Adjustment Programme has resulted in the reduction of health personnel. Moreover, the drastic drop in wages, experienced in the public service has increased the brain drain; this had as consequence the further widening of the deficit created by retirements and deaths.

Following the Government's advocacy during the years 2002-2007, financial backers have authorized recruitments on funds resulting from debt reduction initiatives (HIPC and C2D). The precarious situation of these personnel (long periods without salaries) results in brain drain, desertion of health personnel, lack of enthusiasm and motivation to work, the persistence of corruption in FSs.

During the same period, other staffs were recruited locally by health units (through the management committees of councils and local administrative authorities). These staffs considered in a precarious situation, drew their salaries from budgets of the user structure or councils.

Although recruitments have increased in the sector, the deployment of personnel through out the national territory is not always optimal. Indeed, the centralized management of the personnel at the national level, hinders the mastery of the personnel in its deployment and its daily management. Furthermore, the majority of the health personnel lack motivation due to absence of visibility in the status, the career profile, the bonuses, the means, and the working environment. The reward of the personnel through the financial aspect is crucial for its involvement in work. Thus, if the personnel is interested in the results obtained by the health unit and his work in this health unit, there will be an encouragement to work better. So when the link between income and work input shall be clearly visible, we could expect a different type of behaviour from the personnel.

### **7.5.3. Health units equipment**

The equipment level of health units depends on their category. For the past years, considerable resources have been engaged by the State to raise the technical plateau of reference hospitals of the public sector. Despite government efforts to improve the provision of health services, we still note a significant deficit in medical equipment in FSs of the peripheral level (CSI, CMA, HD), which are the closest to the population.

Moreover, it is important to point out that many of these equipment are not always functional due to their decrepitude and breakdown natures. Sudden power cuts, coupled with the poor use of equipment acquired are also cited as sources of malfunction. For example, the new haemodialysis centre whose construction in Bamenda required substantial resources, experienced damage of devices due to power cut. This situation calls upon the Government and main managers of health units on the establishment of a maintenance system in each health unit having a medical device of great importance. The absence of qualified technical personnel for maintenance/repair of medical equipment in these health units remains a major problem. In this perspective, the State should think of opening in national schools, branches for the training of personnel in charge of the maintenance of medico sanitary equipment.

#### 7.5.4. Availability of drugs

The national system for the supply of essential drugs is responsible for the acquisition, storage and distribution of essential drugs in FSs over the entire national territory. It includes the public (CENAME) and private purchasing centres. In its capacity as a public purchasing centre, the CENAME ensures the regular supply of quality drugs at lower costs to the intermediate supply structures (CAPP) and in pharmacies and pro-pharmacies of health units. It is also in charge of notifying any malfunction in the distribution network of drugs..

Despite the control mechanism put in place by the structure, drugs availability in health units continues to be a concern looking at the conclusions on the monitoring of some essential drugs. In fact, the distribution mechanism put in place by the MINSANTE, of which CEMAME is in charge of the implementation, should enable all health units to permanently hold a minimum stock of drugs. It should be noted for it to be decried that in 2009, about 30% of health units have not had the required minimum stock of medicines. Stock run out sometimes goes up to 19 days, evidence that the quality of the distribution network is still to be improved.

#### 7.6. Hospital governance

It's the set of measures taken to ensure the proper functioning of a health unit. Governance here is grasp through practices in FSs.

##### ✓ *Display of consultation prices*

The last PETS had recommended that consultation prices display system should be established in health units, in order to facilitate patients' information and prevent corruption that could cause troubles. The problem still persists. Indeed, for about 43% of the patients interviewed, the consultation rates are not displayed. Even when displayed, they are done in areas not quite visible to the public.

##### ✓ *Costs applied and those recommended in the provision of service*

The costs of medical care in hospitals today are far from obeying the decree **No. 87/529 of 21st April 1987** setting the general nomenclature of medical deeds; decree amended by a ministerial decree (MINSANTE) of the 8<sup>th</sup> June 1994, setting the list of goods and services whose prices and rates are subjected primarily to prices approval procedure, following the effects induced by the devaluation and technological evolution. In public health units for example, the costs of medical care vary depending on whether you solicit a reference hospital, a district hospital, a CMA or an CSI on the one hand, and on the personnel you wish to meet on the other hand.

#### 7.7. Summary of key problems raised by respondents

By exploiting the different responses given by managers of health units interviewed on problems related to the traceability of public expenditure, and those of health service beneficiaries on their level of satisfaction, the following substantially problems can be raised:

##### ✓ *On the expenditure circuit*

- Low participation of heads of decentralized services and dialogue structures in the budget preparation;
- Non respect of the budget preparation timetable;
- Insufficient consideration of needs expressed by structures at the level of central services;

- High concentration of the PIB's management;
- High diversion of resource at the level of financial controls and administrative authorities;
- Strong asymmetry of information between managers of health units and beneficiaries;
- Insufficient knowledge or poor application of budgetary management principles by some officials;
- Total or partial unavailability of archives on budgetary information;
- Non respect of budgetary execution time and delay in the reception of authorizations of expenditures;
- Weak decision powers of managers within the local public contract commissions;
- Poor quality of expenditures;
- Persistent difficulty in programming a "Budget Tracking" survey type at regular intervals.

✓ ***In relation to the level of beneficiaries' satisfaction***

- Insufficient equipment needed to provide medical care worthy of the technical plateau of the health unit solicited;
- Sanitation problems in health units;
- Inadequate supply of electricity especially in the rural area;
- Run out of stock of essential drugs in health units;
- Insufficient qualified health personnel in health units;
- Non display of the official rates and incompatibility between these rates and those used in the FSS;
- Poor reception of patients in health units and especially those of the public sector;
- Persistence of some diseases (influenza and malaria).

## **7.8. Recommendations**

In view of the definition of a matrix of actions to improve financial management and access to quality health services, the following recommendations could be made:

✓ ***On the expenditure circuit***

- Involving more the officials of decentralized services and dialogue structures in budget preparation;
- Decentralize the technical structure of budget preparation;
- Take into account the real needs expressed by health units;
- Allow managers of structures to define their priorities;
- Create a Planning - Programming - Budgeting - Monitoring committee (PPBS) in the MINSANTE;

- Decentralizing as much as possible the management of the PIB;
- Revise the role of financial controls and administrative authorities in the expenditure circuit;
- Systematically make available to the public (through dialogue structures such as management committees) information on budgetary resources and their uses;
- Make available the manual of budgetary and accounting procedures and facilitate its acquisition and its use to officials;
- Establish an archiving system of budgetary documents;
- Improve the time-limit of transmission of authorizations of expenditures;
- Increase the decision power of officials entitled to order payment within local contract commissions ;
- Sufficiently fill out technical specifications to exclude adventurer service providers;
- Consider the financial and technical capacities of bidders in the granting of contracts;
- Establish a mechanism to appropriate the "Budget tracking" exercise in the Ministry of Public Health.

✓ ***In relation to the level of beneficiaries' satisfaction***

- Adequately equip health units;
- Improve the quality of health services provision especially in the rural and inaccessible areas;
- Promote modern methods of waste disposal while respecting environmental protection;
- Ensure access to drinking water to all FSs ;
- Ensure access to electricity to all FSs;
- Make available essential medicines, vaccines and consumables as well as laboratory tests at all levels of the health system, especially in rural areas and area with difficult access;
- Make available and motivate the qualified personnel in FSs especially in rural areas and areas with difficult access;
- Clearly define an orientation system of patients' in health units;
- Improve the quality of equipment of health units to meet the demand and intensify the fight against some priority diseases such as malaria.

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## APPENDIX

### Appendix 1 : Problems raised by respondents and their suggestions

#### Main problems of respondents

- *At the level of health units*

- Insufficient credit / low budget
- Lack of water
- Delay in the reception of the carton
- Lack of electricity
- Suppliers deliver services with high percentage
- Lack of infrastructure
- Administrative slowness
- Ageing personnel
- Lack of liquidity
- Lack/insufficiency of equipment
- Delay of suppliers
- Illicit sale of drugs to patients
- Worries in payments
- Lack of rest houses for the personnel
- Irregular salaries
- Insecurity
- Non respect of needs
- High taxes
- Poor evaluation of priorities
- Bad faith of suppliers
- Insufficiency of drugs
- Scarcity of suppliers
- Drug supply
- Loss of resources at all levels
- No budgetary lines for fuel and lubricant
- Delay at the level of the engagement
- Embezzlement of budgetary lines by the hierarchy
- Many activities realized out of the budgetary lines
- Delay of the accountant/worries of the accountant
- Excess procedures for the payment
- Enclavement problem
- Conflicts with financial controllers
- Disappearance (embezzlement)
- Price applied (those of the market price list considered high)

- Long circuit of the budget execution
  - Limited financial means of suppliers
  - Suppliers imposed by the hierarchy
  - Late arrival of payment decisions
- ***Solutions to problems encountered in the health units***
    - Recruitment of qualified personnel
    - Provide transport means/Disenclavement
    - Provide communication means
    - Renew the infrastructures
    - More substantial budget
    - Provide advanced payment
    - Equip FSs/arrange premises
    - Construction and equipment of FSs
    - Reduction of interveners in the circuit
    - Improve the salary according to the output
    - Training and recycling of the personnel
    - Construction and extension of FSs
    - Repair of building
    - Posting of qualified personnel
    - Rejuvenate the personnel
    - Maintain credit lines
    - Create pharmacies
    - Motivation of the personnel
- ***Measures susceptible to improve access to health care in the FS***
    - Reduce the cost of drugs
    - Recycle the health personnel
    - Creation of mutuals
    - Harmonization of tariffs
    - Improvement of the reception
    - Reduction of cost of cares
    - Improve the reception capacity
    - Increase the number of nursing personnel
- ***Measures susceptible to improve the quality of health cares in the locality***
    - Improve the income of the health personnel
    - Recycling of the personnel
    - Motivation of the personnel
    - Sanction of indelicate personnel
    - Recruitment of more health personnel
    - Improvement of the monitoring of patients
    - Allocation of considerable subventions
    - Improvement of the technical plateau

- Provide health units with drugs

### **Main problems of respondents**

- ***At the level of decentralized services***

- Drug supply
- Insufficient personnel
- Lack of electricity
- Lack of infrastructure
- Absence of transport means
- Ageing personnel
- Absence/Insufficient equipment
- Carton delay
- Indiscipline of the personnel
- Proposal not taken in to account by the hierarchy
- Organizational chart unadapted

### ***Solutions to problems encountered in the SDI***

- Recruitment of qualified personnel
- Provide transport means/disenclavement
- Provide communication means
- Renew the infrastructures
- More substantial budget
- Provide advanced payment
- Equip/arrange premises
- Equipment of structures
- Reduction of interveners in the circuit
- Improve the salary according to the output
- Training and recycling of the personnel
- Repair of building
- Divide district centres
- Posting of qualified personnel
- Rejuvenate the personnel
- Maintain credit lines
- Create pharmacies
- Motivation of the personnel
- Provide electricity/water
- Decentralization of management

### ***Measures susceptible to improve the access to health cares in the locality***

- Creation of mutuels
- Harmonization of tariffs
- Improvement of the reception
- Reduction of the cost of health cares
- Improve the reception capacity
- Increase the number of nursing personnel



- Recruit health personnel

***Measures susceptible to improve the access to health cares in the locality***

- Improve the income of the health personnel
- Recycle the personnel
- Motivation of the personnel
- Sanction of indelicate persons
- Recruit more health personnel
- Improvement of the monitoring of patients
- Allocation of substantial subventions
- Improvement of the plateau
- Provide health units with drugs

***Main problems of respondents***

***At the level of beneficiary households***

- Favouritism in the services rendered/ populism of the personnel
- Poor reception reserved to patients
- Absenteeism of medical doctors/specialists
- Indifference of the nursing personnel
- Bad quality service
- Decrepitude of premises
- High cost of health cares
- Poor management of hospital waste
- Insufficient nursing personnel
- Lack of water
- Lack of electricity

***Measures susceptible to improve the quality of health cares in the locality***

- Improvement of the reception of patients
- Reward conscientious personnel
- Promote the assiduity of medical doctors/specialists
- Well remunerate the personnel
- Train/recycle the personnel
- Recruit nursing personnel
- Improve the maintenance of premises
- Reinforce the technical plateau of health units
- Equip/Rehabilitate health units

***Actions to be undertaken by Government in order to improve the access to health care***

- Recruit health personnel
- Build health units
- Equip health units
- Facilitate access to drugs
- Train more medical doctors/other health personnel
- Fight against corruption and embezzlements

- Encourage and reward the health personnel
- Organize campaigns for the prevention of diseases
- Generalize social security actions

***Main problems of respondents***

***At the level of beneficiary patients***

- Favouritism in the service rendered/ populism of the personnel
- Poor reception reserved to patients
- Absenteeism of medical doctors/specialists
- Indifference of the nursing personnel
- Poor quality service
- High cost of health care
- Decrepitude of premises
- Improve the reception of patients
- Reward conscientious personnel
- Promote the assiduity of medical doctors/specialists
- Well remunerate the personnel
- Train/well recycle the personnel
- Recruit nursing personnel
- Improve the maintenance of premises

***Measures susceptible to improve the quality of health cares in the locality***

- Improve the reception of patients
- Reward conscientious personnel
- Promote the assiduity of medical doctors/specialists
- Well remunerate the personnel
- Train/well recycle the personnel
- Recruit nursing personnel
- Improve the maintenance of premises

## Appendix 2 : Additional tables

**Table 49: Percentage of health units with basic services**

	Electricity	Running water	Medical laboratory	Mortuary	Consultation room	Operation room	Pro-pharmacy
<b>Category of health units</b>							
HD	94.7	83.8	97.4	47.4	100.0	92.1	92.1
CMA	87.5	51.6	93.8	6.3	100.0	43.8	96.9
CSI	54.3	30.0	69.1	1.1	95.7	17.0	94.7
<b>Area of establishment</b>							
Urban	90.0	70.9	95.0	17.5	97.5	52.5	92.5
Rural	50.6	21.8	66.3	8.4	97.6	26.5	96.4
<b>Survey area</b>							
Douala	100.0	87.5	100.0	18.8	100.0	62.5	87.5
Yaounde	87.5	50.0	87.5	.0	100.0	50.0	75.0
Adamawa	46.2	30.8	76.9	23.1	100.0	38.5	92.3
Centre	87.5	31.3	81.3	18.8	100.0	56.3	93.8
East	53.3	7.1	60.0	6.7	93.3	26.7	93.3
Far North	38.5	27.3	69.2	15.4	92.3	23.1	92.3
Littoral	71.4	53.8	71.4	21.4	100.0	35.7	100.0
North	41.7	25.0	75.0	.0	100.0	25.0	91.7
North West	80.0	80.0	93.3	13.3	100.0	26.7	100.0
West	73.3	53.3	86.7	6.7	100.0	33.3	100.0
South	69.2	25.0	61.5	23.1	100.0	38.5	100.0
South west	85.7	76.9	100.0	.0	85.7	57.1	100.0
<b>Total</b>	<b>70.1</b>	<b>46.8</b>	<b>80.5</b>	<b>12.8</b>	<b>97.6</b>	<b>39.6</b>	<b>94.5</b>

Source : PETS Cameroon, 2010

Table 50: Percentage of health units with basic equipment by survey area

	Delivery box	Freezer/refrigerator	Vaccination equipment	Material for dry sterilization system	Material for water sterilization system	Operation table	Cyaltic	Surgical box	Caesarean section box	Delivery table	Functional microscopes	Hospitalization/observation bed	Sterilizer
<b>Category of health units</b>													
HD	89.2	89.2	78.9	89.5	71.1	86.8	68.4	84.2	78.9	97.4	100.0	100.0	48.6
CMA	75.0	93.8	93.8	65.6	43.8	36.7	26.7	46.7	33.3	96.9	100.0	100.0	45.2
CSI	70.2	80.9	90.4	46.8	40.4	15.1	9.3	25.6	11.6	81.9	79.8	91.5	26.6
<b>Area of establishment</b>													
Urban	78.5	89.9	87.5	77.5	52.5	44.2	39.0	51.9	42.9	91.3	96.3	97.5	46.3
Rural	72.3	80.7	89.2	43.4	43.4	28.9	15.8	35.5	21.1	85.5	80.7	92.8	23.5
<b>Survey area</b>													
Douala	93.8	100.0	100.0	87.5	50.0	50.0	50.0	50.0	43.8	93.8	100.0	100.0	31.3
Yaounde	75.0	87.5	87.5	87.5	50.0	37.5	37.5	62.5	62.5	87.5	100.0	87.5	50.0
Adamawa	75.0	83.3	84.6	61.5	46.2	41.7	33.3	58.3	41.7	92.3	84.6	100.0	15.4
Centre	75.0	87.5	87.5	56.3	56.3	43.8	37.5	56.3	37.5	93.8	93.8	93.8	43.8
East	66.7	53.3	80.0	40.0	40.0	28.6	7.1	21.4	28.6	66.7	73.3	86.7	.0
Far North	84.6	84.6	76.9	53.8	38.5	18.2	9.1	36.4	18.2	92.3	100.0	100.0	38.5
Littoral	57.1	85.7	92.9	57.1	42.9	28.6	28.6	21.4	21.4	92.9	78.6	100.0	21.4
North	91.7	75.0	83.3	33.3	50.0	25.0	16.7	33.3	25.0	83.3	83.3	83.3	33.3
North West	73.3	100.0	93.3	53.3	53.3	40.0	20.0	40.0	26.7	86.7	100.0	93.3	60.0
West	66.7	86.7	93.3	73.3	33.3	30.8	23.1	46.2	23.1	93.3	86.7	100.0	13.3
South	69.2	76.9	84.6	46.2	46.2	44.4	33.3	44.4	33.3	84.6	61.5	92.3	23.1
South west	78.6	100.0	92.9	78.6	71.4	50.0	28.6	64.3	35.7	92.9	100.0	100.0	100.0
<b>Total</b>	75.5	85.3	88.4	60.4	48.2	37.0	27.3	44.2	32.5	88.4	88.4	95.1	35.2

Source : PETS Cameroon, 2010

**Table 51: Distribuion (in %) of beneficiary households according to the category and the status of the FS visited and by region**

Region	Category of the FS			Present status of the FS		Number
	HD	CMA	CSI	Public	Private	
Douala	37.7	39.6	22.6	56.6	43.4	53
Yaounde	52.6	23.7	23.7	65.8	34.2	38
Adamawa	36.6	7.3	56.1	65.9	34.1	41
Centre	40.8	28.6	30.6	65.3	34.7	49
East	29.6	44.4	25.9	85.2	14.8	27
Far North	35.0	12.5	52.5	77.5	22.5	40
Littoral	32.6	13.0	54.3	82.6	17.4	46
North	35.7	7.1	57.1	100.0	0.0	42
North West	29.4	23.5	47.1	66.7	33.3	51
West	30.6	18.4	51.0	81.6	18.4	49
South	22.0	9.8	68.3	73.2	26.8	41
South West	23.7	15.8	60.5	60.5	39.5	38
<b>Area of establishment</b>						
Urbain	23.7	10.1	18.1	35.7	16.1	267
Rural	10.3	10.1	27.8	37.1	11.1	248
<b>Total</b>	<b>34.0</b>	<b>20.2</b>	<b>45.8</b>	<b>72.8</b>	<b>27.2</b>	<b>515</b>

Source : PETS Cameroon, 2010

Table 52: Distribution of patients according to the reason of consultation, the category, the area of establishment

Survey area	Malaria/fever/headache	Influenza/cough	Diarrhoeal diseases	Mouth and dental care	Family planning	Prenatal care	Postnatal care	Vaccination	HIV/AIDS Test	Examinations and other test	Fractures or bone malformation	Other	Total
Douala	38.9	6.8	6.8	3.1	0.6	6.2	0.0	1.9	0.6	5.6	1.2	28.4	100.0
Yaounde	31.2	9.2	6.4	5.7	0.0	2.8	2.8	2.8	0.0	5.7	2.8	30.5	100.0
Adamawa	38.8	5.1	8.2	4.1	0.0	6.1	3.1	6.1	0.0	0.0	2.0	26.5	100.0
Centre	41.5	0.0	13.2	1.9	0.9	3.8	0.0	0.9	0.0	3.8	.9	33.0	100.0
East	40.5	2.7	9.5	0.0	0.0	9.5	2.7	8.1	0.0	1.4	5.4	20.3	100.0
Far North	44.4	19.8	10.8	0.7	0.3	2.1	1.7	1.4	0.0	1.4	1.7	15.6	100.0
Littoral	44.0	9.0	3.0	1.0	0.0	1.0	2.0	0.0	0.0	4.0	2.0	34.0	100.0
North	47.2	5.6	6.9	0.9	0.4	1.3	0.9	2.2	0.0	0.4	2.2	32.0	100.0
North West	45.1	13.8	3.1	2.6	0.5	0.0	0.0	3.6	1.0	2.1	1.5	26.7	100.0
West	44.1	9.0	4.8	4.3	0.5	2.1	0.5	2.7	0.0	3.7	2.7	25.5	100.0
South	40.4	6.4	9.2	8.3	0.0	2.8	0.0	1.8	0.9	10.1	5.5	14.7	100.0
South West	43.4	5.0	5.0	0.0	0.0	3.1	1.9	0.0	0.0	0.6	3.8	37.1	100.0
<b>Area of establishment</b>													
Urban	41.9	8.9	6.6	3.0	0.4	2.6	1.3	2.4	0.2	3.7	2.5	26.6	100.0
Rural	43.4	9.6	8.3	1.4	0.2	3.4	1.0	2.2	0.3	1.4	2.2	26.7	100.0
<b>Status of the FS</b>													
Public	42.3	6.2	7.1	2.4	0.4	3.4	1.4	3.3	0.3	3.8	3.1	26.4	100.0
Private	41.8	7.7	7.0	2.8	0.4	2.8	1.4	1.6	0.0	2.6	1.9	30.0	100.0
<b>Total</b>	<b>42.1</b>	<b>6.7</b>	<b>7.0</b>	<b>2.6</b>	<b>0.4</b>	<b>3.2</b>	<b>1.4</b>	<b>2.7</b>	<b>0.2</b>	<b>3.4</b>	<b>2.7</b>	<b>27.7</b>	<b>100.0</b>

Source : PETS Cameroon, 2010

**Table 53: Average consultation rate (in CFA F) in health units according to the patients met on the spot**

	Area of establishment								Total			
	Urban				Rural							
	HD	CMA	CSI	Total	HD	CMA	CSI	Total	HD	CMA	CSI	Total
Douala	2800	2858	2600	2774	.	.	.	.	2800	3065	2600	2857
Yaounde	1640	1678	1183	1571	.	.	.	.	1640	1678	889	1471
Adamawa	11125	.	3000	8909	480	300	3831	2796	6153	300	3152	4041
Centre	1893	.	1357	1714	2000	578	157	776	1921	578	743	1229
East	.	.	.	.	0	343	250	279	517	450	250	417
Far North	1754	250	267	1071	200	250	361	329	1643	250	314	824
Littoral	2338	950	1000	1438	1300	.	790	936	1713	1300	916	1226
North	600	200	600	500	238	500	275	272	407	300	296	336
North West	673	2400	961	1011	.	422	285	341	700	917	569	689
West	880	1100	694	834	550	400	520	511	770	700	574	657
South	1500	600	1000	1220	.	300	1210	1167	1500	525	1104	1136
South West	633	733	1262	1052	500	.	.	500	589	733	1543	1189
<b>Total</b>	<b>2329</b>	<b>1812</b>	<b>1256</b>	<b>1849</b>	<b>748</b>	<b>426</b>	<b>1002</b>	<b>850</b>	<b>1840</b>	<b>1252</b>	<b>1097</b>	<b>1381</b>

Source : PETS Cameroon, 2010

**Table 54: Average duration of consultation (in minutes) by region and by category of the FS (patient's approach)**

Region	HD	CMA	CSI	Total
Douala	23.2	31.0	18.3	25.2
Yaounde	33.5	66.1	35.6	41.7
Adamawa	40.7	53.3	39.1	40.7
Centre	28.0	23.9	16.5	23.3
East	25.0	18.8	37.1	25.4
Far North	29.6	17.0	20.8	23.4
Littoral	24.4	36.3	25.6	26.6
North	34.7	25.0	29.0	30.7
North West	34.3	21.9	18.2	23.8
West	20.0	46.1	37.6	33.8
South	43.3	26.3	23.0	27.8
South West	24.4	28.3	22.5	23.9
<b>Total</b>	<b>29.9</b>	<b>31.7</b>	<b>26.5</b>	<b>28.7</b>

Source : PETS Cameroon, 2010

**Table 55: Distribution of patients according to the socioeconomic group, the area of establishment and the type of health unit visited.**

	Area of establishment								Total			
	Urban				Rural							
	HD	CMA	CSI	Total	HD	CMA	CSI	Total	HD	CMA	CSI	Total
Executive	18.2	27.3	4.5	50.0	13.6	4.5	13.6	31.8	31.8	36.4	31.8	100.0
Qualified employee/worker	45.2	19.4	12.9	77.4	6.5	3.2	9.7	19.4	54.8	22.6	22.6	100.0
Semiqualfied employee/worker	30.3	12.1	9.1	51.5	12.1	3.0	18.2	33.3	48.5	15.2	36.4	100.0
Labourer	16.7	16.7	23.3	56.7	0.0	6.7	26.7	33.3	16.7	26.7	56.7	100.0
Employer/own account	22.3	4.9	18.0	45.1	4.4	9.2	29.1	42.7	32.5	16.0	51.5	100.0
Family help, Apprentice	21.6	10.8	27.0	59.5	2.7	5.4	27.0	35.1	24.3	16.2	59.5	100.0
Unemployed	19.6	12.5	19.6	51.8	10.7	7.1	14.3	32.1	33.9	25.0	41.1	100.0
Student	22.2	13.3	31.1	66.7	2.2	11.1	17.8	31.1	26.7	24.4	48.9	100.0
Other inactive	25.9	7.4	11.1	44.4	14.8	7.4	24.1	46.3	42.6	22.2	35.2	100.0
<b>Total</b>	<b>23.7</b>	<b>10.1</b>	<b>18.1</b>	<b>51.9</b>	<b>6.6</b>	<b>7.6</b>	<b>23.2</b>	<b>37.4</b>	<b>34.0</b>	<b>20.2</b>	<b>45.7</b>	<b>100.0</b>

Source : PETS Cameroon, 2010

**Table 56: Distribution (in %) of households following their appreciations on physical characteristics of health units visited**

	HD	CMA	CSI	Total
General appreciation on the state of the FS's premises				
In very good state	16.0	13.5	11.4	13.4
In good state	36.6	36.5	28.8	33.0
In an accepted state	33.1	37.5	41.1	37.7
In bad state	11.4	8.7	15.3	12.6
In very bad state	2.9	3.8	3.4	3.3
Opinion on the state of of the FS's toilets				
Very clean	8.6	7.7	10.2	9.1
Clean	33.1	36.5	41.9	37.9
Indifferent/ Don't know	14.9	15.4	21.2	17.9
Dirty	24.0	28.8	9.3	18.3
Very dirty	14.3	5.8	3.4	7.6
Non existent	2.3	1.0	5.5	3.5
Acceptable	2.9	4.8	8.5	5.8
General apprecitaion on the hygiene and sanitation conditions				
Very good	17.1	6.7	14.0	13.6
Good	54.3	56.7	61.9	58.3
Indifferent/ Don't know	12.6	14.4	11.4	12.4
Bad	12.6	17.3	11.0	12.8
Very bad	3.4	4.8	1.7	2.9
Total	100.0	100.0	100.0	100.0

Source : PETS Cameroon, 2009



**Table 57: Appreciation made on the total amount paid in the health unit with respect to the results obtained, according to the socioeconomic group of the household head**

	Very excessive	Excessive	Sufficient/normal	Less	Negligible	Total
Executive	0	3.4	5.0	4.0	4.5	4.3
Qualified employee/worker	6.1	4.6	5.8	8.0	13.6	6.1
Semiqualfied employee/worker	12.1	6.9	6.4	4.0	0.0	6.5
Labourer	0	5.7	6.7	4.0	4.5	5.9
Employer/own account	48.5	39.1	39.9	36.0	36.4	40.0
Family help, Apprentice	9.1	4.6	7.3	8.0	13.6	7.3
Unemployed	12.1	11.5	11.1	8.0	9.1	11.0
Student	6.1	9.2	8.5	16.0	4.5	8.6
Other inactive	6.1	14.9	9.3	12.0	13.6	10.4
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source : PETS-2

**Table 58: Appreciation of the quality of services in the health unit according to the status, the category and the area of establishment**

	Type of the FS				Present status of the FS			Area of establishment		
	HD	CMA	CSI	Total	Public	Private	Total	Urban	Rural	Total
<b>Quality of the personnel you consulted</b>										
Medical doctor	57.7	51.9	14	36.5	30.9	51.4	36.5	47.6	24.6	36.5
Nurse	24	26	57.6	39.8	43.2	30.7	39.8	31.8	48.4	39.8
Health personnel (nurse, mid wife, ...)	16.6	20.2	26.3	21.7	23.2	17.9	21.7	19.1	24.6	21.7
Trainee	1.1	1	0.8	1	1.33	0	1	0.7	1.2	1
Other	0.6	1	1.3	1	1.33	0	1	0.7	1.2	1
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Judgment on the reception in this FS.</b>										
Very satisfactory	28.6	20.2	32.3	28.6	24.9	38.6	28.6	28.1	29.1	28.6
Satisfactory	61.1	71.2	63	64	67.1	55.7	64	62.5	65.6	64
Indifferent	7.4	3.8	3	4.7	5.1	3.6	4.7	5.6	3.6	4.7
Unsatisfactory	2.9	4.8	1.7	2.7	2.9	2.1	2.7	3.7	1.6	2.7
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Opinion on the consultation</b>										
Complete/good	89.1	94.1	89.3	88.8	94.1	90.2	89	89	91.5	90.2
Light/superficial	9.2	4.9	9.4	9.4	5.9	8.4	9.1	9.1	7.7	8.4
Bad	1.7	1	1.3	1.9	0	1.4	1.9	1.9	0.8	1.4
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source : PETS Cameroon. 2010

**Table 59: Distribution (in %) of households following their appreciations on physical characteristics of health units visited**

	HD	CMA	CSI	Total
<b>General appreciation on the state of the FS premises</b>				
In very good state	16.0	13.5	11.4	13.4
In good state	36.6	36.5	28.8	33.0
In an accepted state	33.1	37.5	41.1	37.7
In bad state	11.4	8.7	15.3	12.6
In very bad state	2.9	3.8	3.4	3.3
<b>Opinion on the state of toilets of the FS</b>				
Very clean	8.6	7.7	10.2	9.1
Clean	33.1	36.5	41.9	37.9
Indifferent/ Don't know	14.9	15.4	21.2	17.9
Dirty	24.0	28.8	9.3	18.3
Very dirty	14.3	5.8	3.4	7.6
Non existent	2.3	1.0	5.5	3.5
Acceptable	2.9	4.8	8.5	5.8
<b>General appreciaion on the hygiene and sanitation conditions</b>				
Very good	17.1	6.7	14.0	13.6
Good	54.3	56.7	61.9	58.3
Indifferent/ Don't know	12.6	14.4	11.4	12.4
Bad	12.6	17.3	11.0	12.8
Very bad	3.4	4.8	1.7	2.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

*Source : PETS Cameroon, 2009*

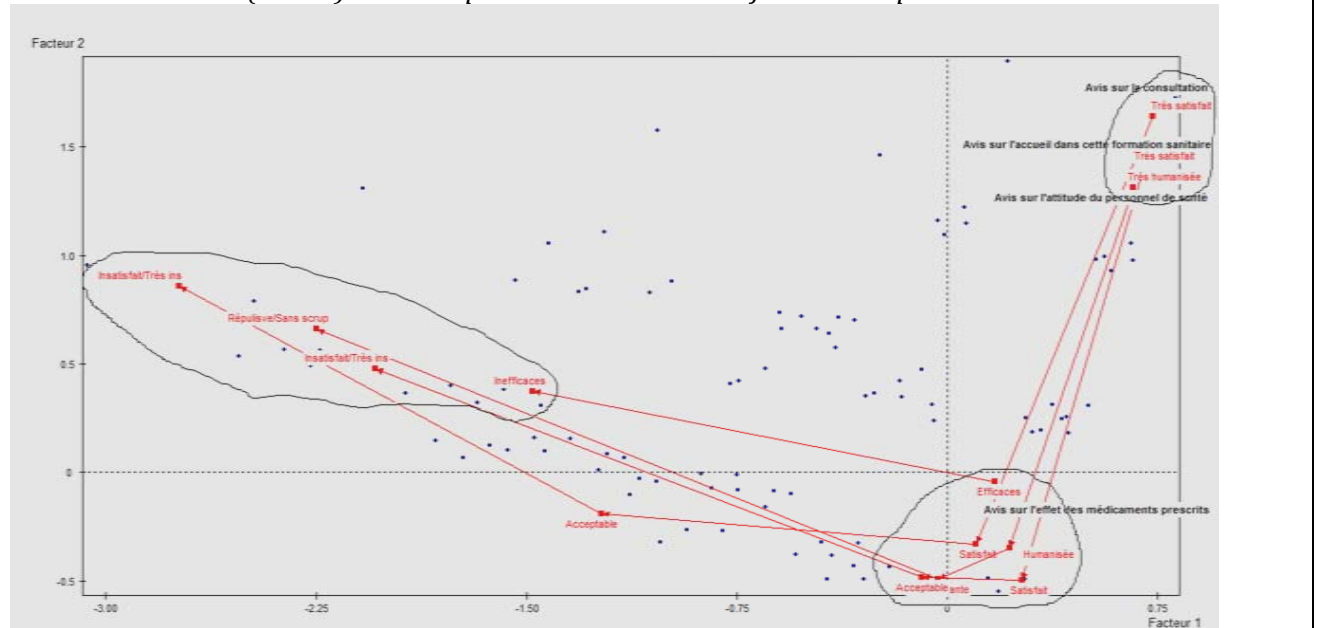
**Table 60 : Multiple Correspondence Analysis**

MODALITES		COORDONNEES					CONTRIBUTIONS								
COSINUS CARRES															
IDEN	LIBELLE	P.REL	DISTO	1	2	3	4	5	1	2	3	4	5	1	2
3	4	5													
8 . Avis sur l'accueil dans cette formation sanitaire															
S301	- Très satisfait	4.15	3.82	-0.63	-1.38	0.08	0.09	0.01	4.3	25.7	0.1	0.2	0.0	0.10	0.50
0.00	0.00	0.00													
S302	- Satisfait	8.30	1.41	-0.28	0.48	-0.69	0.25	-0.09	1.6	6.1	17.5	2.3	0.4	0.05	0.16
0.34	0.04	0.01													
S303	- Acceptable	5.30	2.77	0.07	0.49	1.06	-0.22	-0.30	0.1	4.2	26.3	1.2	2.4	0.00	0.09
0.40	0.02	0.03													
S304	- Insatisfait/Très ins	2.26	7.87	2.03	-0.38	-0.10	-0.56	1.02	23.8	1.0	0.1	3.3	12.0	0.52	0.02
0.00	0.04	0.13													
CONTRIBUTION CUMULEE = 29.7 37.1 44.1 7.0 14.8															
10 . Avis sur la consultation															
S301	- Très satisfait	2.77	6.22	-0.69	-1.66	0.25	-0.01	0.15	3.3	24.8	0.8	0.0	0.3	0.08	0.44
0.01	0.00	0.00													
S302	- Satisfait	15.33	0.30	-0.12	0.33	-0.08	-0.15	-0.03	0.6	5.5	0.4	1.5	0.1	0.05	0.36
0.02	0.07	0.00													
S303	- Acceptable	1.05	18.00	1.30	0.14	1.37	2.47	1.83	4.6	0.1	8.8	29.8	18.1	0.09	0.00
0.10	0.34	0.19													
S304	- Insatisfait/Très ins	0.85	22.47	2.77	-0.77	-1.05	-0.39	-2.20	16.8	1.6	4.2	0.6	21.3	0.34	0.03
0.05	0.01	0.22													
CONTRIBUTION CUMULEE = 25.3 32.0 14.1 31.9 39.7															
11 . Avis sur l'attitude du personnel de santé															
S301	- Très humanisée	3.42	4.85	-0.62	-1.33	0.04	-0.11	-0.29	3.4	19.8	0.0	0.2	1.5	0.08	0.37
0.00	0.00	0.02													
S302	- Humanisée	9.95	1.01	-0.23	0.33	-0.54	0.24	0.23	1.3	3.5	12.8	2.7	2.7	0.05	0.11
0.29	0.06	0.05													
S303	- Compatisante	4.70	3.26	0.02	0.49	1.14	-0.03	-0.62	0.0	3.7	27.1	0.0	9.4	0.00	0.07
0.00	0.00	0.00													
S304	- Répulsive/Sans scrup	1.93	9.36	2.22	-0.53	-0.06	-0.97	0.83	24.4	1.8	0.0	8.4	6.9	0.53	0.03
0.00	0.00	0.00													
CONTRIBUTION CUMULEE = 29.1 28.7 39.9 11.3 20.5															
23 . Avi_duree_cons_recodé															
V101	- Courte	3.77	4.30	0.47	-0.30	0.05	1.46	-0.26	2.1	1.1	0.0	37.5	1.3	0.05	0.02
0.00	0.00	0.00													
V102	- Normale	16.23	0.23	-0.11	0.07	-0.01	-0.34	0.06	0.5	0.3	0.0	8.7	0.3	0.05	0.02
0.00	0.00	0.00													
CONTRIBUTION CUMULEE = 2.6 1.3 0.0 46.3 1.6															
24 . Avis_effetmedicament															
V201	- efficace	17.93	0.12	-0.17	0.04	0.05	-0.07	0.16	1.4	0.1	0.2	0.4	2.4	0.26	0.01
0.00	0.00	0.00													
V202	- inefficace	2.07	8.67	1.49	-0.33	-0.43	0.57	-1.41	11.8	0.7	1.7	3.1	21.0	0.26	0.01
0.00	0.00	0.00													
CONTRIBUTION CUMULEE = 13.2 0.8 1.9 3.5 23.4															

Source : NIS/PETS

**Table 61 : Agglomerative Hierarchical Clustering**

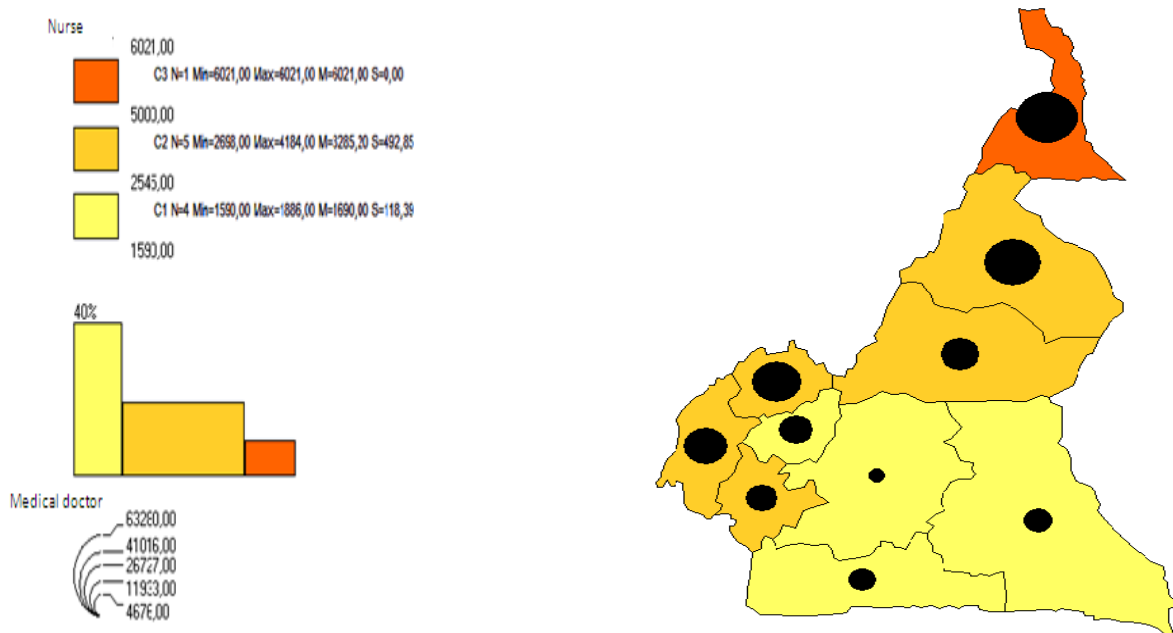
Axis 1 which represents the axis of satisfaction, puts in opposition the unsatisfied (located on the negative side of the axis) and the satisfied (positive side). In addition, three variables contributed to 86.9% of the total inertia of this axis. They include: The opinion on the reception in the health unit (31.2%); the opinion on the consultation (25.1%) and the opinion on the attitude of the health personnel.



Source : NIS/PETS

## Appendix 3: Medical Coverage according to the regions

**Figure 1: Medical coverage of medical doctors and nurse personnel**



### Appendix 3 : List of interveners

#### 1. Technical and financial partners

N°	Name and first name	Administration	Telephone	E-mail
1	CAILLAUD Fadila	World Bank	74 28 87 49	fcaillaud@worldbank.org
2	DEME Mamadou	World Bank		mdeme@worldbank.org
3	XIAO YE	Consultant/WB		

#### 2. Steering committee

Administration	N°	Name and first name	Telephone	E-mail
National coordinator	1	TEDOU Joseph		
Deputy national coordinator	2	OKOUDA Barnabé		
Technical coordinator	3	ABANDA Ambroise	77 60 45 26	Abanda_ambroise@yahoo.fr
MINEDUB	1	NCHINGOU Idrisse	75 92 05 32	
	2	KWEKEU Jules	77 81 41 24	kwekeuj@yahoo.fr
MINESEC	3	AJOUNTIMBA Louis	77 65 73 02	ajountimba@yahoo.fr
	4	NDIP Remes	99 66 46 60	remesndip@yahoo.fr
MINSANTE	5	KENMOGNE Donatien	77 32 90 93	dkenmogne@yahoo.fr
	6	George Eric EBOLO	99 88 40 71	Gerbole2000@yahoo.fr
DGEPIP/MINEPAT	7	AMOUGOU Gabriel	77 72 04 14	Gab_amougou@yahoo.fr
DGB/MINFI	8	MBIENA Abel	77 69 30 26	mbiena2008@yahoo.fr
CTS	9	BAYIHA Claudine	99 91 58 00	babyclo2001@yahoo.fr
CTS	10	NJOH Michelin		
PRCTC	11	LAMERO Jacques	99 92 50 36	jaclamero@yahoo.fr

#### 3. Technical secretariat (NIS)

- N° Name and first name**
1. TATSINKOU Christophe
  2. TCHAMAGO Olivier
  3. KANA Christophe
  4. TCHOMTHE Séverin
  5. DZOSSA Anaclet
  6. AMOUGOU René Aymar Bertrand
  7. ESSAMBE BOME Vincent
  8. MODOU SANDA
  9. NGAH Adèle Zoriphie
  10. DJEUKWI Vicky Laure

**4. Support personnel**

<b>Fonction</b>	<b>N°</b>	<b>Name and first name</b>
Administrative and financial support	1.	NDJIWOUA KOMBOE Joseph
	2.	OTELE MBEDE Marie Régine
	3.	MENWABO Thérèse
Mail and connection	4.	ELOMO Marthe
	5.	TABUE Félix
Secretariat	6.	MBENTY Jacqueline
Other support personnel	7.	NHANAG Samuel
	8.	ELANGA MENDOUGA
	9.	NGATTI Ambrouasse
	10.	NANA Jean
	11.	SONGO Martin
Reprography service	12.	IKOUMA MINDANG
Driver	13.	MENGUELE Gabriel

**5. Regional control team of the NIS**

<b>N°</b>	<b>Region</b>	<b>Name and first name</b>
1	Adamawa	DJITUPURI Emmanuel
2	Centre	TCHOUANGTE Robert
3	East	TAKOUGANG ZEUKENG Eric
4	Far-North	LIENOU
5	Littoral	TAMCHE Joseph
6	North	CHOUNDONG Norbert
7	North-West	ZAFACK Martin
8	West	NGO NYEMB
9	South	MBARGA OWONA Paul
10	South-West	ETO Guy Sylvain

**6. Team of data collection supervisors**

<b>N°</b>	<b>Region</b>	<b>Name and first name</b>
1	Douala	AMOUGOU René Aymar Bertrand
2	Yaounde	DEFFO G. Guy Ferdinand
3		NGAH Adèle Zoriphie
4	Adamawa	NGATTI Ambrouasse
5		TSOMBOU KINFAK Christian
6	Centre (excluding Yaounde)	ABANDA Ambroise
7		ESSAMBE BOME Vincent L.
8	East	KANA KENFACK Christophe
9		NGUENANG KAPNANG Christian
10	Far-North	TATSINKOU Christophe
11		TSAMO Duplex
12	Littoral (excluding Douala)	MATENE SOB Angélique L.
13	North	TIOMO DEMANOU Dieunedort
14		AZEBAZE William
15	North-West	DZOSSA Anaclet
16		TINANG NZESSEU Jules
17	West	ELANGA MENDOUGA Etienne Jodelle.
18		KENGNE TAGNE Alex
19	South	TCHAMAGO KOUEDEU Olivier
20		FEUJIO VOUFFO Rodrigue
21	South-West	TCHOMTHE Séverin
22		DJOSSAYA Dove



**7. Team of data collection interviewers and controllers****DOUALA survey region****N° Name and first name****Controllers**

- 1 KEMKUINI NEGO Rosine Epse TAGNE
- 2 SEN NKAKE Esabel
- 3 TCHOUMTA NANA Lénine

**Interviewers**

1. DEMDE Sabine Laure
2. DJUELA Nadège Flore
3. DJUIKOUO SOFFO Florence
4. ETAME Elvire Stephane Epse NGOLLO
5. KAPP HEBHANG Christelle
6. KINGUE POH Alexis
7. KOUHALAL EKIBI
8. MOUKETE EPANGLO Innocent Parfait
9. NSSOE OTTO Georges Michel
10. NZINOUE Florence Aimée
11. SOMAN Luc
12. TSAYEM Judith Carole

**YAOUNDE survey region****N° Name and first name****Controllers**

- 1 KABEYENE ZOUAM Rosalie
- 2 AMOUGOU GILBERT Faustin
- 3 ZAMBO Maryline Edwige

**Interviewers**

- 1 MOUMEMI AROUNA
- 2 MBAZO'O ENGONGA Antoinette
- 3 EDZIMBI MVONO Prosper
- 4 CHABIFOR KASSE Rodrigue
- 5 MENGUE MENDOUGA Edwige
- 6 KOM LIENOU Michelle
- 7 NELLE NGALLE Emma
- 8 ABANDA Joël
- 9 NGUEWOUO Liliane Carole
- 10 NGONO OSSONGO Marie Joseph
- 11 BELINGA MEZANG Jean Bertrand
- 12 MVONDO Robert

**ADAMAWA survey region****N° Name and first name****Controllers**

- 1 IBRAHIMA Kami Roger
- 2 MANDENG KAMEN Antoine F.
- 3 NGONO Marie Anne

**Interviewers**

- 1 AISSATOU AMADOU
- 2 BONDOMA II Sidoine
- 3 CHEICK IBRAHIMA TALL
- 4 DIA ADAMA
- 5 DJAKBA Raphaël
- 6 EMOH SANDJALI Guy Marcel
- 7 GAGNOCK OUSMANOU Serge Armand
- 8 IBRAHIMA MOHAMADOU MOSSA
- 9 MAGAM WANVOUM Tatiana
- 10 NSUN-NFON Adeline
- 11 WELWOU NYAKREO

**CENTRE survey region****N° Name and first name****Controllers**

- 1 EYA BANA Pierre Célestin
- 2 MBASSI NSOMBO Serge Alexis
- 3 MENDANA Patience Régine

**Interviewers**

- 1 ATEBA Athanase Joël
- 2 BAKOLON EGNEGUE Michel
- 3 BETSEM NDIOMO Ousmane
- 4 BINGAN Serge
- 5 BITANGOU NDJOMO Gabin
- 6 FEGUE François
- 7 DANG à BIDIAS Michelle
- 8 MBEMBE KIMAYE Elisabeth Patricia
- 9 MEMBANDA BEKONO Amélie
- 10 ETOUNDI MBIA Yolande Michèle
- 11 MBANA MEKE Jacinthe Joëlle
- 12 WETTE NGASSA Clarisse
- 13 ZAMBO BENGONO Firmin
- 14 TOMO NDONG Gaétan Victor

<b>EAST survey region</b>		<b>FAR-NORTH survey region</b>	
<b>N°</b>	<b>Name and first name</b>	<b>N°</b>	<b>Name and first name</b>
<b>Controllers</b>		<b>Controllers</b>	
1	HAOUA	1	AMADOU Elie
2	OUAFO FOTSING Pierre	2	NYLON Bernard
3	WAMBO WAMBO Guy Colbert	3	NAÏ Israël
		4	KADARA Paul
<b>Interviewers</b>		<b>Interviewers</b>	
1	AZANG METO Cyrille Stéphanie	1	BELE Janvier
2	FOKOU SONGOU Sylviane Laure	2	DIDJA YANGAÏ
3	GBANMAN Michel	3	GASSISSOU HAMANA
4	KWAMOU Antoinette	4	BEINE Juliette Clarisse
5	LEMDONG NDOZENG Rachelle	5	NDOUVNA DOUMBA
6	MINDZIE ANDENG Marie Ange	6	TIWE DAMPETE
7	NOAH BESSALA Gabriel	7	AISSA Honorine Kada
8	POUNGAM RENGOU Hortense	8	KITMO Samuel
9	SOLIFACK Thomas	9	MOUDJIMAÏ Benjamin Aimé
10	TSAD NKOUMBA Duplex	10	ADJI BOUBA
11	YONKEU Dorine Towa	11	DJANABOU
12	YONKOUA Lisiane Péguy	12	MOFFI Ibrahim
		13	ABDOULAYE BALLO
		14	KALWANDA

<b>LITTORAL survey region</b>		<b>NORTH survey region</b>	
<b>N°</b>	<b>Name and first name</b>	<b>N°</b>	<b>Name and first name</b>
<b>Controllers</b>		<b>Controllers</b>	
1	SIKE ETOA Stella A.	1.	HAMAN GODJE Gaspard
2	SONE ENONE Bertin	2.	PADAMA NGUEMBRA
3	TIOGUE François	3.	SOULEYMANOU
<b>Interviewers</b>		<b>Interviewers</b>	
1.	BILLE BOME Serge Merlin	1.	DJANABOU MOUSSA
2.	EDIENGO Charlemagne D.	2.	DJAOURO Idriss
3.	EKOLLO Joseph Georges DICKA	3.	DJENABOU KOFA
4.	EWANG Roger	4.	DTAINE DTAIDJARE
5.	KAMGA Oriente Ruphine	5.	FADIMATOU MADINA OUMATE
6.	KAMSEU MOGO Michel	6.	HAOUA BOUKAR
7.	MBENDJE Jacques Albert	7.	HINGOMBO Casimir
8.	MBOME BISSA Serge Walter	8.	MOHAMMED TODOU
9.	NDEWE FILS A. F.	9.	NZIAKO TCHUEMENI ALAIN THIBAUT
10.	NGO NGOK Cathy Ernestine	10.	ONANA MBALLA Eric Brice
11.	NNANGA NNANGA Robert Jean Noël	11.	OUSMANOU
12.	NTEKI José Arantes	12.	PATOUMA Emmanuel
13.	TEGNANG WOUMFO Alain Blaise	13.	WALGA Pascal

**NORTH-WEST survey region****N° Name and first name****Controllers**

1. FRU BERTHA ASA
2. KUDI FELIX UNJI
3. KWALAR LAWRENCE SEATON
4. MIMMA PERPETUA DINGA

**Interviewers**

1. ANITA MAKIHGHO NKEH
2. BEBONGKOH DIVINE NKEMATEH
3. CHINANGA JULIET FRI
4. DJILA TCHOUDI ANNE MARIE
5. FLORENCE MBENG FUNGE
6. JIGI GLORY EPSE TSE ATONJI
7. JUDITH SHIRI CHO
8. KEAWI ANDIENSA KARINE
9. KEZWAICHU MARTIN
10. KIEN MANGIE ATONJI
11. KWANDE MERCY CHECHE
12. NGIMNDOH SHIRLY KIYANGFE
13. NNELI EDWIN FRU
14. PEMENZI MFETIE RAFIATOU L.
15. TAMONKIA ALAIN DOREAN
16. TENNU PATIENCE WEOPONG

**WEST survey region****N° Name and first name****Controllers**

1. TSAFACK MATSOP Antoine Sygnola
2. SIPOWA rose
3. FAH Clément
4. NOUTSA FOBANG aimé

**Interviewers**

1. TENGHO serge Marcellin
2. NOGHENG KOGNE louis
3. OBAME Yves Valery
4. NOMO Boniface
5. KEGNE Lauriette
6. NJUMELI TELEZING jean Gustave
7. NDJABA WANDJA Linda Patricia
8. YONGO Solange
9. MOGHMMYIE FOTSO Etienne Aurélien
10. GUEMKAM TEHOUA Antoinette
11. TSOGO AWONO Mélanie
12. KAMDOM FONON Josseline
13. TCHOUOMKO FOSSI doris laurie
14. DEMANOU Sulamite
15. GNEKOU TIEDJONG pascal aubain
16. FEUDJIO Pierre René

**SOUTH survey region****N° Name and first name****Controllers**

1. ETOUNDI ETOUNDI Dieudonné
2. EWOLO Théophile
3. NANAN LEKOGMO Hermann

**Interviewers**

1. AMOUGOU MBARGA Estelle C.
2. ENOH ENOH Adrien
3. MOUHIK NDOUMBE Marie
4. MVONDO NKOULOU Michel Armand
5. NDOUMOU Daniel Fabrice
6. NGAMVONG MBARGA Lucie S.
7. NGO NYEKI Emma-Orthance
8. NKO'O EYENGA Michel-Ange
9. NNA ESSAM Nestor D.
10. NNA Roger Charlot
11. OBAA Elise Josiane

**SOUTH-WEST survey region****N° Name and first name****Controllers**

1. HUMPHRY MUNYENGE NAKOMO
2. NDIFON EGBE Alfred
3. NJONGUO Maurine ZENKEANG
4. Séraphine EBENYE MOKAKE

**Interviewers**

1. ADAH Consoler TERKULA
2. ANGEL-BECKY YETTAH NDUMA
3. BERINYUY DZENZEI KIGHAM
4. BETEK QUINTA BAKUME
5. DJEUTSOP DEMFACK Marie
6. EGBE NCHONG Anna
7. Fidalice TEGUM AKOH
8. FIEMENA FESTUS
9. GAMNGONG Eveline KFUKFU
10. LONTSI DJIOGO Alexis
11. LONTSI JATSA Patrick
12. LUM CHINE Pamela
13. NGO KALDJOB Cécile Christelle
14. NGOYANGA Colette AGBOR
15. NNANGA LUCIE Nadège
16. YI RITA NDEH FOMBA

## 8. Data processing team

### N° Data entry and codification controller

- 1 BEKOLO Bernard
- 2 EBODE ONANA Aloys
- 3 KOUASSEU L. Thierry
- 4 LISSOUCK MBATSOGO Corine Patricia
- 5 TAME DJOKAM Thierry

### N° Codification agents

- 1 ABANDA NDJONO Armand Francky
- 2 MENDO Christian Wilfried Yannick
- 3 AMBAH AYI Serge C.
- 4 ANGOULA Alain Thierry
- 5 AVOUZOA ABANDA Jeanne
- 6 EDZIMBI Mvono Prosper
- 7 METOGO Simon Joël
- 8 MEZUI ZUE Thiery
- 9 MVONDO Robert Nicaise
- 10 NDONG TOMO Stevie Handy
- 11 NGOM MAKASSO Stéphane Landry
- 12 SIA Brice Gaël

## 9. Data entry team

### N° Name and first name

- 1 ABESOLO Marcelin
- 2 AKAMBA Bertrand
- 3 ANGAZOMO Jeanine Rachel
- 4 BEDIASE ABITSEGUI Harlinde Waudru B.
- 5 BIYO BINYAM Sévère André
- 6 DEFFO TCHANGUE Brice
- 7 ENGOLA NDEGUE Jean Merci
- 8 FEUDJIO Séraphine Laure
- 9 MBIA Tècle Charlyse
- 10 MESSOMO ATEBA Philomène
- 11 NGUEDIA KENGNI Aline Babette
- 12 NGO NEMY Rose
- 13 NGONO Charlotte Jeanne
- 14 NOKAM OUAMBO Gwladys
- 15 PAMEN Alix Laurette Diane
- 16 POUOKAM FOTSO Gertrude
- 17 TCHUENGNO FONDJO Pauline Hortense
- 18 TEFFOZE DONGMI Ruth Yolande
- 19 ZANA MBOH Olga Virginie
- 20 ZOBO ATAH Sylvie