

## Introduction

The 2014-2018 Strategic Plan determines the objectives that the Ministry of Health and Social Action (MSAS) is committed to achieving over the next five years.

Its purpose is to guide the actions of organizations and professionals providing care surgical services to the Senegalese population. It is fully consistent with the National Plan for Health Development (PNDS) 2009-2018 and takes into account the conclusions of the Consultations National on Health and Social Action of January 2013.

The supply of surgical care occupies an important place in the priorities of the PNDS through the strengthening access, quality and integration of health services.

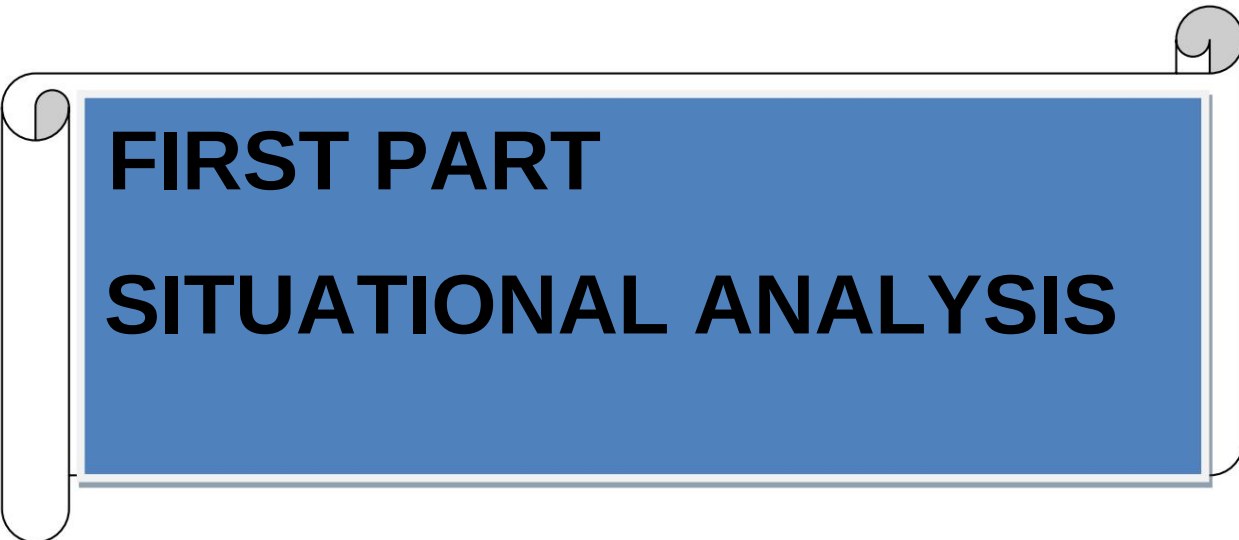
The orientations of the plan are partly drawn from the experiences of recent years on decentralization of the supply of surgical care.

In a results-based management context, this plan will be operationalized through plans annual actions.

The plan is structured around three parts: the situation analysis, the strategic framework and the implementation framework.  
implemented.

[Strategic plan for the development of the supply of surgical care in Senegal]

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# **FIRST PART**

## **SITUATIONAL ANALYSIS**

## Part One: Situation Analysis

### I. Presentation of Senegal

#### 1.1 Physical environment

The Republic of Senegal is located in West Africa, between 12°8 and 16°41 latitude north and 11°21 and 17°32 west longitude. Its area is 196,722 km<sup>2</sup>. It is bounded to the north by Mauritania, to the east by Mali, to the south by Guinea and Guinea Bissau. To the west, Senegal is open to the Atlantic Ocean with 700 km of coastline. Its western tip is the westernmost of all continental Africa. The Gambia, which is an enclave of land on the lower course of the river of the same name, is located between the regions of Kaolack and Kaffrine in the North and Ziguinchor, Sédhiou and Kolda in South.

Senegal's hydrographic network is made up of four major rivers: the Senegal, the Gambia, the Casamance, the Saloum and by tributaries to which are added some temporary watercourses. THE climate is tropical and is characterized by a long dry season from November to June and a wet season from July to October. This one is longer in Casamance in the south of the country where the annual rainfall are the largest, with an average of 1,400 mm. These fall considerably in the North, with less than 381 mm. Like the other countries of the Sahel, Senegal is facing desertification since many decades.

#### 1.2 Demography

According to projections from the last General Population and Housing Census

(RGPH 2002) 2, the population of Senegal is estimated in 2011 at nearly 12,855,153 inhabitants, i.e. an average density of 65 inhabitants per km<sup>2</sup>, very unevenly distributed between the regions and with a high rate of urbanization (41.7%).

The Dakar region is home to 22.4% of the total population while it only covers 0.3% of the national area. The least populated regions are those of Tambacounda (including Kédougou) and Matam with respectively 11 and 16 inhabitants per km<sup>2</sup>. These are also the regions

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the largest in the country with respectively 30.4% and 14.8% of the national territory.

<sup>2</sup> Estimated total population of the 14 regions of Senegal from 2008 to 2012 –

National Agency for Statistics and Demography (ANSD). Dakar-Senegal.

Table 1. Distribution of the population by broad age groups

(In 2011 headcount) table to be updated

|                         | 2009                      | 2010                      | 2011                      | 2012                      |
|-------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| <b>Age groups</b>       | <del>2008</del> 4,978,218 | <del>2009</del> 5,111,931 | <del>2010</del> 5,419,569 | <del>2011</del> 5,592,362 |
| 15-64 years old         | 6,441,600                 | 6,633,339                 | 6,601,593                 | 6,955,367                 |
| 65 and over             | 421 305                   | 425,994                   | 488 272                   | 307,425                   |
| <b>Workforce of the</b> |                           |                           |                           |                           |
| <b>Total population</b> | <b>11,841,123</b>         | <b>12,171,265</b>         | <b>12,509,434</b>         | <b>12,855,153</b>         |

Source: Estimate of the total population of the 14 regions of Senegal from 2008 to 2012 – Agency National Statistics and Demography (ANSD). Dakar - Senegal.

(In 2011)

table to update

| <b>G0-r 14age ouapnses</b> | <b>200842%</b> | <b>200942%</b> | <b>201043%</b> | <b>201144%</b> |
|----------------------------|----------------|----------------|----------------|----------------|
| 15-64 years old            | 54%            | 55%            | 53%            | 54%            |
| 65 and over                | 4%             | 3%             | 4%             | 2%             |
| <b>Total</b>               | <b>100%</b>    | <b>100%</b>    | <b>100%</b>    | <b>100%</b>    |

Source: Estimate of the total population of the 14 regions of Senegal from 2008 to 2012 – National Agency for Statistics and Demography (ANSD). Dakar - Senegal.

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This table shows that the population of Senegal is very young; indeed, in 2011, the children under the age of 15 make up 44% of the total workforce and people over the age of 65 years are only 2%. This rejuvenation has been an ongoing process since 2008. The aging is reduced from 4% in 2008 to 2% in 2011.

**Table 2 Distribution of the population by sex**

| Years | Total      | Men       | women     | Men/<br>Women<br>(%) | Rate<br>growth<br>(%) |
|-------|------------|-----------|-----------|----------------------|-----------------------|
| 2008  |            |           |           |                      |                       |
| 2009  | 11,841,123 | 5,854,717 | 5,986,406 | 49.44%               | 50.56%                |
| 2010  | 12,171,265 | 6,020,515 | 6,150,750 | 49.46%               | 50.54%                |
| 2011  | 12,509,434 | 6,175,077 | 6,334,357 | 49.36%               | 50.64%                |
|       | 12,855,153 | 6,350,667 | 6,504,486 | 49.40%               | 50.60%                |

Source: Estimate of the total population of the 14 regions of Senegal in 2008 to 2012 – National Agency for Statistics and Demography (ANSD).

Dakar - Senegal.

This table shows that the distribution of the population by sex is quite homogeneous and remained constant over the period 2008-2011.

### 1.3 Economic context

Like the African countries, the Senegalese economy is essentially based on farming. Livestock, although important, has also suffered from the drought cycle. There fishing, both artisanal and industrial, is booming. The area industry plays a significant role in the national economy as well as industry tourism which is unfortunately experiencing disruptions in the South.

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In order to overcome these obstacles, Senegal has implemented strategies for growth and poverty reduction (DSRP3 1&2, DPES and recently the SNDES4) since 2001 with a growth rate target of 7 to 8% to halve poverty in 2015.

Significant economic and financial results have been recorded during these last years. Real economic growth averages around 3.5% per year in a context of inflation of 4.3% in 2011.

**Table 3: Economic indicators**

table to update

| Indicators                               | 2008   | 2009   | 2010   | 2011   | 2012 |
|------------------------------------------|--------|--------|--------|--------|------|
| Amount of GDP billion CFA                | 1558.2 | 1592.4 | 2230.7 | 2704.2 |      |
| national debt Amount of (billions)       | 761.9  | 858.6  | 987.8  | 930.6  |      |
| and % of economic expenditure (billions) | 0.1    | 0.1    | 0.1    | 0.1    |      |
| health in the Budget annual              | 1020   | 1001.5 | 1050   | 1960   |      |
| income per capita (USD fluent)           |        |        |        |        |      |
| % Population living below poverty line   | 50.7%  | 42.6%  | 27%    | 46.8%  |      |
| poverty line Unemployment rate           |        |        | 30.6%  |        |      |
| staff from health                        | 7.8%   | 0.9%   | 1.4%   | 4.3%   |      |

Inflation rate

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#### ***1.4 Political context***

Senegal has 14 administrative regions subdivided into 45 departments, 151 communes, 118 boroughs and 363 rural communities.

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Graphic: Administrative map of Senegal

Law 96-06 of March 22, 1996 on regionalization granted significant powers to local authorities by transferring powers to them, particularly in the field of health. The Health Commission of the National Assembly and the Union of Associations of Elected Officials Local (UAEL) are dynamic bodies that support the development of health policies.

### 1.5 Sanitary situation

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In Senegal, the epidemiological profile is characterized by the predominance of certain diseases including malaria. It occupies the first place for the causes of morbidity in spite of a decrease significant over the past ten years.

Indeed, the morbidity rate fell from 38% in 2001 to less than 20% in 2008. other most important conditions are respiratory diseases (12.3%) cases of morbidity, diarrheal diseases (7.9%), skin diseases (7.5%), diseases emerging as hypertension (4.5%).

Malaria continues to be the main cause of morbidity, 20% in Senegal.

Diarrheal diseases and acute respiratory infections, with morbidity rates of 20% in Senegal and 18% in Mali and Benin are quite well mastered unlike the Cameroon where the cumulative rate is 77%.

The situation of maternal, neonatal and infantojuvenile morbidity and mortality is a concern widely shared within the Ministry in charge of Health.

Despite the efforts of the State, technical and financial partners and despite the commitment of parliamentarians for safe motherhood, we see that the reduction of the maternal mortality is barely around 1% per year against a requirement of 5.5% per year. Among the eight essential goals of the MDGs are the reduction of maternal mortality and childhood, fertility control and the fight against HIV/AIDS and other diseases.

<sup>6</sup> Source: HRH profile document of the countries mentioned

Regarding AIDS, the prevalence in the general population is 0.7%. Arterial hypertension affects 4.5% in Senegal.

In the context of the fight against Tuberculosis, we note an evolution of indicators following free treatment. However, we are witnessing a increase in multi-resistant cases to major anti-tuberculosis drugs.

The main factors affecting the health status of populations are:

- o water supply difficulties;
- o basic sanitation and hygiene issues;
- o the lack of systematization of preventive measures;
- o late consultation;
- o difficulties related to geographical and financial accessibility  
health structures due to the poor quality of the roads  
and poverty;
- o the problems of patient care by qualified personnel,
- o the availability of quality surgical care throughout the  
National territory ;
- o the accessibility of quality surgical care throughout the  
National territory.

## II. HEALTH SYSTEM

### 2.1. Organization of the health system

Senegal's health system is in the form of a pyramid with three levels: the peripheral level (district), the intermediate level (region medical) and the strategic level (central level).

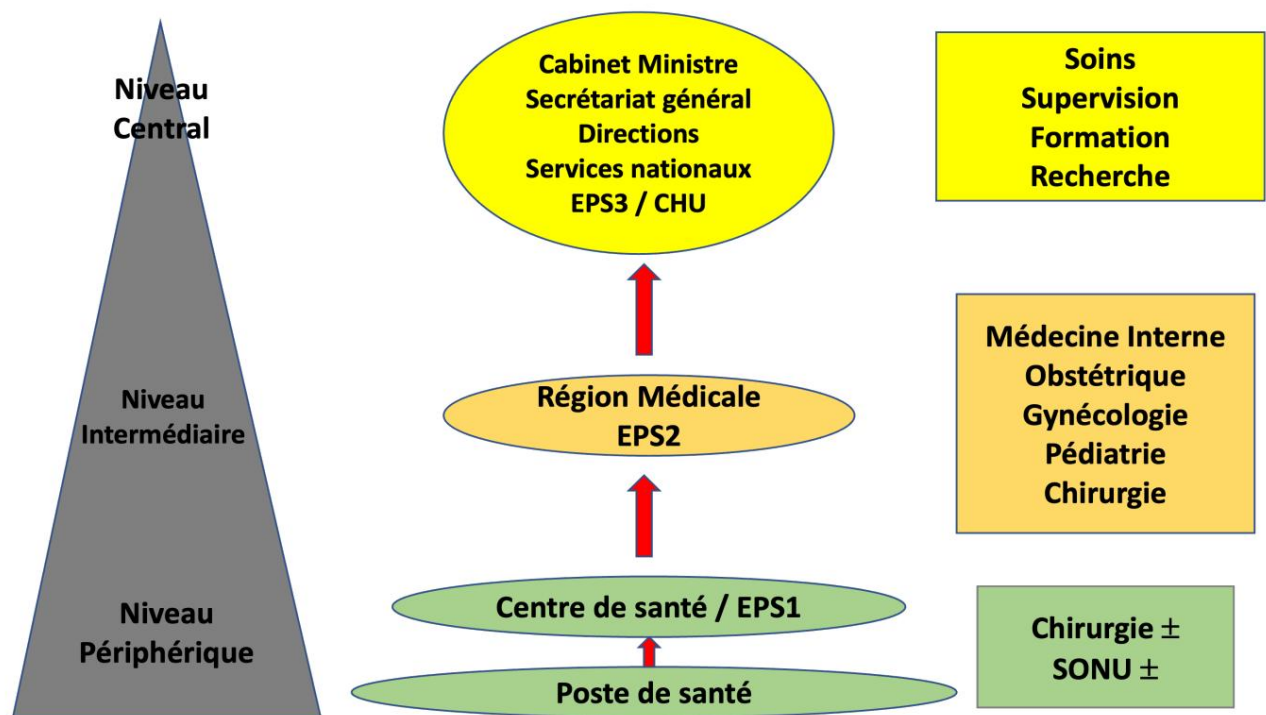
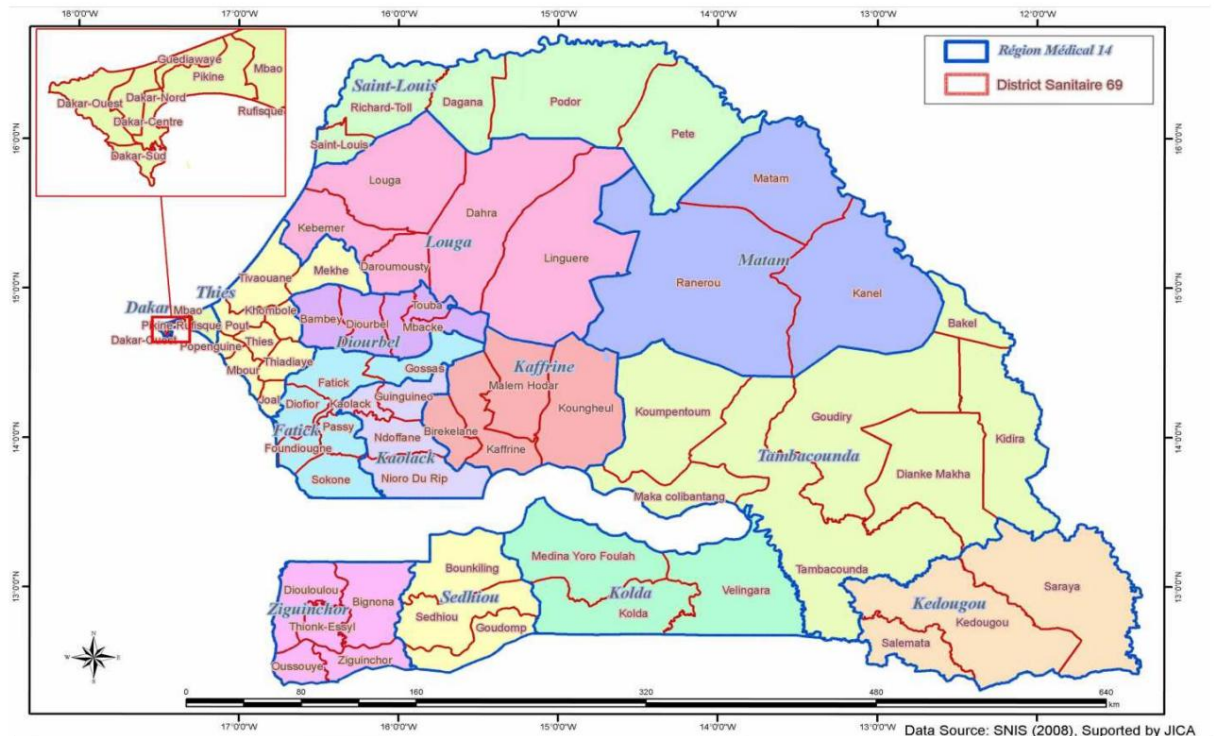


Chart 2: organization of the health system

Senegal has 14 medical regions, 76 health districts polarizing 88 Health Centers and 1248 Health Posts



Graph 2: Map of Senegal (to be updated)

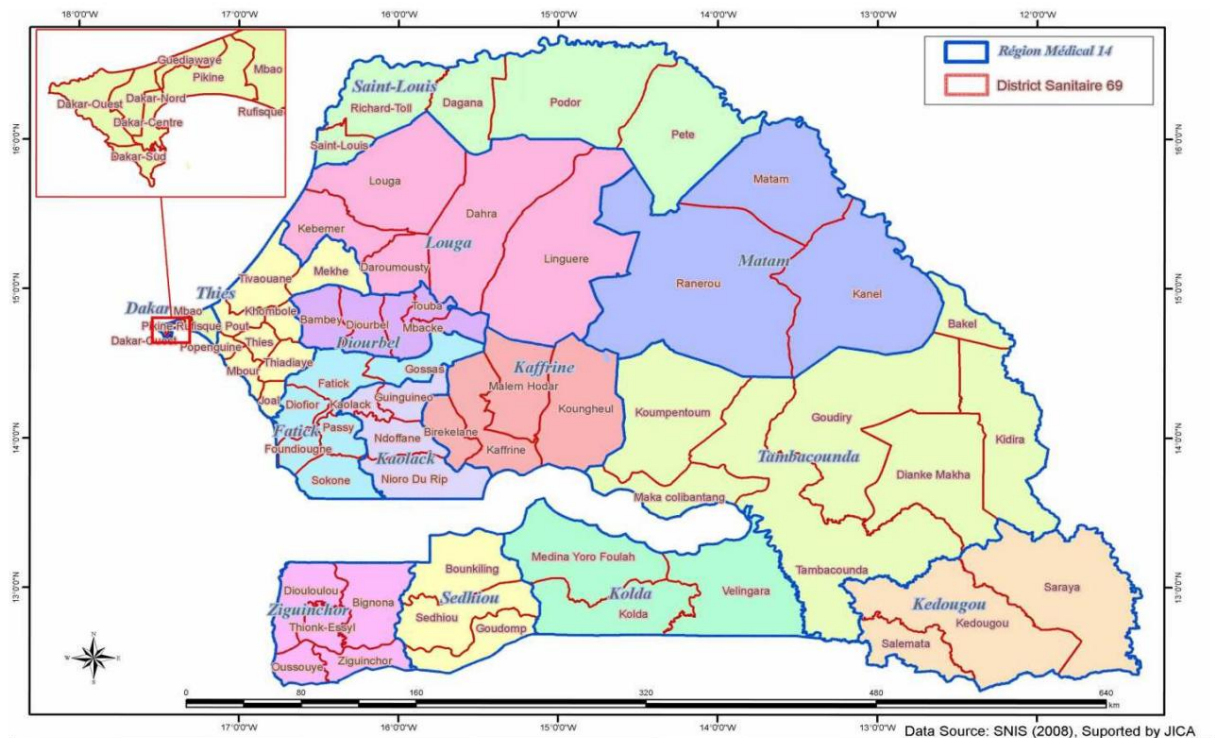
**The peripheral level** corresponds to the health district. The health district is assimilated to an operational zone comprising at least one center health centers and a network of health posts. It covers an area geographical area that can marry an entire department or a part of department. Each district or operational area is managed by a District Chief Medical Officer (MCD). The health posts are located in the communes, rural communities or villages and are managed by nurses or midwives. At the rural level, health posts polarize rural health centers and maternities.

**The intermediate level**, which corresponds to the medical region, comprises 14 medical regions. This is the coordination structure at the regional level or

intermediary and it corresponds to an administrative region. She is directed by a Regional Chief Medical Officer (RCM), specializing in public health. He is the main leader of the executive team made up of all the heads of service attached to the medical region. At the level of each region, the regional reference is represented by a hospital or public institution of health (EPS) level 1 or 2. The Ministry of Health initiated the signature of performance contracts with the regional Chief Medical Officers in which indicators related to HIV/AIDS, malaria and tuberculosis occupy a prominent place.

**The strategic level** includes, in addition to the minister's office, 2 directorates general, the 13 directorates and attached services, the 7 hospitals level 3 national or public health establishments. It provides support strategic by defining objectives; strategic options in terms of health policies, resource mobilization and rationalization of the use of resources aimed at improving management; mechanisms monitoring and evaluation; collaboration with health-related sectors universities and non-governmental organizations (NGOs) and the multisectoral collaboration.

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Graph 2: Map of Senegal (to be updated)

Insert the EPS 1,2,3 distribution map

## 2.2 Health care financing

The aim of the health system is to produce quality care in sufficient quantity and in an equitable manner for the entire population. There health therefore does not have a price but has a cost that must be financed.

The budget allocated to the department for the 2012 financial year amounted to CFAF 110,505,288,086. The 2013 budget of the Ministry of Health and Social Action is stopped, for the 2013 management, at the sum of 123,692,173 FCfa 500, i.e. an increase of FCfa 13,186,885,414 in absolute value and 11.93 percent in relative value.

The solution to the various problems related to health financing will pass, among other things, through the development of the Public-Private Partnership (PPP). In this Indeed, some public and private companies directly offer their

employees of free or subsidized health services, developing in within them, a health activity.

Mutual health organizations are community initiatives that will undoubtedly contribute to financing the demand for health care.

### ***2.3 Health information system***

In Senegal, the health information system for management purposes (GIS) is provided by the Health and Social Information Division housed within the Department of Planning, Research and Statistics, which has developed a computerized data management tool sanitary.

The SYSNIS tool allowed the feedback of data from the districts where it is housed at the health center level. Health posts record their data on the registers and draw up a monthly report which they send to the level of the health center where the seizure is made. Precautions are taken to ensure the security of the software with a good identification of the authorization levels and access codes to grant privileges to users. Notable progress was subsequently noted with the standardization of management tools and harmonization of procedures for data collection at health district level.

### **The hospital medical information system**

Within each Public Hospital Health Establishment (EPSH), the actors of the SIMs are:

- v the Medical Information Unit (CIM).
- v medico-surgical and diagnostic assistance services for EPSH.
- v the Directors of the EPSH.

At the level of the Ministry of Health and Social Action, the actors are:

- v the Department of Health Establishments (DES).
- v the National Health Information Service (SNIS).

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Each medical, surgical and diagnostic assistance service must send the Medical Information Unit or CIM, for the 10th of the month following the month of the report, the following reports:

v the monthly activity report, for the departments that carry out hospitalizations (Model I). This report includes the sections following:

- § number of functional beds;
- § number of entrants in the month;
- § number of hospital days;
- § number of leavers in the month;
- § number of deaths.

v The monthly activity report is provided by the departments with a consulting activities (Models II):

- § Number of consultations;
- § Number of specialized consultations;
- § Number of procedures by type (Example: number of ECGs, Upper digestive fibroscopies,...for medical services and number of wound sutures, small surgical acts performed in external activity, by doctors, for the services of surgery).

v the Laboratory Services must send the Unit

Medical information or CIM, before the 10th of the month following the month of the report, the following report (Model III):

- § number of examinations carried out during the month by type of examination and by type of patient (example: Number of blood glucose levels, number ionograms, number of blood cultures, for the benefit of patients hospitalized or seen in consultations...);
- § the Medical Imaging or Radiology Services must do reach the Medical Information Unit or CIM, no later than

no later than the 10th day of the month following the month of the report, the report including the number of examinations carried out in the month by type number of examinations and by type of patient (Example: number of standard x-rays, number of x-rays with preparation, number of ultrasounds, number of scans, benefit of patients hospitalized or seen in consultations, etc.).

The Medical Information Unit or CIM aims to provide activity data on the operation of the hospital. She introduces medicalized data in the hospital activity dashboard. THE pathologies are coded with the International Classification of Diseases or WHO CIM 10 and surgical procedures with the Catalog of Procedures Medical or CDAM.

## ***2.2. Supply and demand of health services***

The service offer must be analyzed as a function with several variables (infrastructure, equipment, drugs and human resources).

**Regarding infrastructure**, the public sector health system is composed of thirty-four (34) hospitals, eighty-eight (88) health centers health and one thousand two hundred and forty-eight (1248) health posts. The ratios by to the population are:

1 hospital for 378,093 inhabitants against the Health Card standard<sup>7 4</sup>

which fixes 300,000 inhabitants for an EPS 2 regional hospital;

- 1 health center for 146,081 inhabitants against Map standard 3

Health which establishes a health center for 150,000 inhabitants;

- 1 health post for 10,301 inhabitants against standard 2 on the Map

Health which establishes a rural health post for 5,000 inhabitants and the standard 1 which sets for one urban health post per 10,000 inhabitants.

The Service des Armées has personnel and medical structures in

level of the 14 regions (hospital, health center and health post). These services are concentrated in areas of difficult geographical accessibility, borders and conflict and post-conflict regions.

The private sector plays an important role in the health system. We distinguish between the private for-profit sector and the non-profit sector (sector denominational and company medicine). This private sector has: 4 hospitals, 24 clinics, 414 medical practices and medical services companies, 700 pharmacies and around twenty laboratories medical analyses.

At the top, the hospital constitutes the last reference with the services specialists (surgical and medical specialties) that are available at the level of EPS 3, all located in Dakar except one in the region of Diourbel.

General medicine, general surgery and caesarean section are available at the level of the EPS 2 located in the regional capitals.

Senegal has an operational referral / counter system reference materialized by a joint from the health post to the level 3 hospital.

The important role of the hospital as a reference structure has brought public authorities to initiate a reform in 1998 in order to improve the quality hospital services.

At the strategic and operational level, basic health care, including including maternity and dental care, are available at the level of health centers and a few health posts. It is also the place privilege of preventive and promotional activities.

In addition, traditional medicine constitutes a component particular aspect of health and is one of the priorities of the PNDS. She deserves to be valued.

**In terms of equipment,** the 1998-2007 PNDS enabled an improvement the technical platform of health structures, strengthening the means of

supervision and improvement of the conditions for the evacuation of patients. On the maintenance plan, shortcomings were noted in the operation normal due to a lack of organization and a lack of qualified personnel.

**With regard to medicines**, reforms in the pharmaceutical sector have undertaken to ensure access for all to essential medicines for quality and at lower cost. This is the erection of the National Pharmacy of Supply (PNA) in EPS, strengthening of the Laboratory National Medicines Control (LNCM), the training of pharmacist inspectors, the approval of drug prices and medical-surgical products, the introduction of traditional medicines (MTA), the fight against the illicit market of medicines and development of a national pharmaceutical policy.

**Human resources** are the most determining factor. Her development required the elaboration in 1996 of a national plan for training of health personnel, reinforced in 2002, by the opening of Centers Regional Training Centers, the creation in 2003 of the Resources Department (HRD) and the implementation of a policy of contracting. Despite efforts to increase the workforce, staff coverage indicators show that we are still very far standards already proposed in the 1998-2007 PND. This situation arises certain factors:

- o the insufficient number of staff admitted at the level of the training, particularly in universities;
- o the lack of control of the recruitment process in the public service which is within the competence of the ministry in charge which ultimately decides on the timing and nature of the staff to be recruited;
- o the absence of software for /computerization of the management system;
- o insufficient incentives to retain staff and achieve a better geographical distribution for the benefit of the areas

difficult.

The shortage of personnel is especially significant in the difficult areas and far from Dakar. One of the causes is the instability of the staff due to a lack of motivation and an adequate living environment. Added to this is the absence of a succession plan. Initiatives have been taken to improve coverage by personnel in these areas (distance allowances, contracting of positions in structures located in difficult areas).

However, they have remained at the experimental stage and therefore deserve to be continued and strengthened.

**The demand for care** does not always follow the availability of structures health and this, due to blocking factors whose nature varies between the socio-cultural aspects and financial constraints.

### **III. Analysis of the needs and supply of surgical care**

#### **3.1 Needs Analysis**

The needs analysis highlights the immensity of the care needs surgical. Resulting in :

- the considerable share of surgical care in the volume of consultations in the level of health centers and hospitals;
- the high prevalence of road traffic injuries, hernias and prostate tumors and other chronic surgical pathologies in the health facilities;
- the high number of medical evacuations due to surgical emergencies.
- pathologies which can be treated by surgery relatively simple continue to weigh down at an ever-increasing rate the burden of morbidity of the populations without the system having brought a convincing response and above all struggles to find an adequate response.

#### **3.2 Response analysis**

The analysis of the response is constructed through the infrastructures, equipment and human resources.

- **Infrastructure and equipment**

The limited and unequally distributed surgical infrastructures throughout the national territory do not promote the care of all population needs for surgical care.

This structural shift has the effect of penalizing the most remote populations. surgical basins and to weaken the most disadvantaged citizens for the benefit mainly from the Dakar region and to a lesser degree, Thiès and St Louis.

Although the surgical care activity is concentrated in Dakar and in some regional capitals, it really poses a problem of taking charge of the high demand for surgical care of the populations.

These malfunctions noted in this context have a major impact on the demand of outlying populations for surgical care and contribute to deepening the especially social and financial inequalities:

- importance of transport and accommodation costs;
- multiplication of treatment costs (additional examinations, etc.);
- family estrangement;
- increase in the average length of hospital stays.

A particular effort must focus on the desire to rebalance the supply of care surgical units by developing a policy of partial decentralization involving all players in the sector.

Building a partnership around the values of equity and social justice allows to partially but rapidly improve the situation of the geographical areas less accessible.

The Ministry of Health, in collaboration with the various "societies scholars" with a surgical vocation and the CHU, by organizing a program of decentralization based on mutual aid and solidarity, must allow progress rapid access to surgical care throughout the country.

The provision of regional health structures, internal surgeons and/or in the process of specialization represents a real opportunity for exchange constructive.

Surgery is offered at hospitals (public and private), clinics and some reference health centres.

o Hospitals

Senegal currently has thirty-one (31) public hospitals, including 10 at the level 1; 11 level 2 and 10 level 3. We must add the construction sites of the hospitals of Fatick, Matam, Peace of Ziguinchor, and Dalal Jamm of Guédiawaye.

o Health centers

The number of health centers is ninety (90) including 25 health centers of reference, distributed in 76 health districts. The estimated new health districts twelve (12) in number do not yet have functional health centres.

o Private hospitals and clinics

The private sector has 2 denominational private hospitals and 32 clinics.

Overall, health coverage is moderately satisfactory for health centers. health and unsatisfactory for hospitals. This situation is aggravated by a poor geographical distribution of hospitals, Dakar concentrating all the EPS 3 in except for the EPS of Touba and the majority of clinics.

The lack of equity in the provision of surgical care is even more marked with the distribution of functional operating rooms. Dakar has room for 49,500 inhabitants, while Sédhiou only has one room for 420,000 inhabitants.

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The table below clearly illustrates this imbalance.

TABLES XXX STATUS OF REFERENCE HOSPITALS AND HEALTH CENTERS

| Regions         | Population | Hopi<br>rate | S<br>op | GAP | District<br>sanitary | Function<br>they | No<br>functional | Special<br>ity | Operating rooms<br>functional | Distribution |
|-----------------|------------|--------------|---------|-----|----------------------|------------------|------------------|----------------|-------------------------------|--------------|
| Dakar           | 2,622,408  | 8            | 46      | 2   | 8                    | 5                | 1                |                | 51                            | 51,420       |
| Thies           | 1,471,754  | 2            | 6       | 5   | 9                    | 2                | 2                |                | 8                             | 183,969      |
| Diourbel        | 1,316,308  | 2            | 6       | 6   | 4                    | 1                | 0                |                | 7                             | 188,044      |
| Saint Louis     | 837 583    | 2            | 6       | 6   | 5                    | 1                | 3                |                | 7                             | 119,655      |
| Louga           | 777,085    | 1            | 2       | 4   | 5                    | 1                | 2                |                | 3                             | 259,028      |
| Kaolack         | 757 743    | 1            | 6       | 0   | 4                    | 1                | 0                |                | 7                             | 108,249      |
| Fatick          | 627 804    | 0            | 0       | 6   | 6                    | 3                | 0                |                | 3                             | 209 268      |
| Tambacou<br>nes | 610 550    | 1            | 3       | 3   | 7                    | 2                | 0                |                | 5                             | 122 110      |
| Kolda           | 553 708    | 1            | 2       | 4   | 3                    | 0                | 1                |                | 2                             | 276,854      |
| matam           | 533,385    | 1            | 2       | 4   | 3                    | 0                | 2                |                | 2                             | 266,693      |
| kaffrin         | 492,685    | 0            | 0       | 6   | 4                    | 2                | 0                |                | 2                             | 246 343      |
| zigzag          | 474 374    | 1            | 4       | 2   | 5                    | 0                | 3                |                | 4                             | 118,594      |
| Sedhiou         | 418 278    | 0            | 0       | 6   | 3                    | 1                | 1                |                | 1                             | 418 278      |
| Kedougou        | 118,921    | 0            | 0       | 6   | 3                    | 2                | 1                |                | 2                             | 59,461       |
| TOTAL           | 11,612,586 | 20           | 83      | 36  | 69                   | 21               | 16               |                | 104                           | 111,659      |

**Table ....Distribution of operating theaters by region**

| REGIONS      | POPULATION        | OPERATING ROOM<br>EPS 2&3 | ROOMS<br>OP EPS 1<br>& CSR | TOTAL<br>ROOMS | Ratio: population per one<br>room |
|--------------|-------------------|---------------------------|----------------------------|----------------|-----------------------------------|
| Dakar        | 2,622,408         | 48                        | 5                          | 53             | 49,479.40                         |
| Thies        | 1,471,454         | 6                         | 2                          | 8              | 183,931.75                        |
| Diourbel     | 1,316,308         | 6                         | 1                          | 7              | 188,044.00                        |
| Saint Louis  | 837 583           | 6                         | 1                          | 7              | 119,654.71                        |
| Louga        | 777,085           | 2                         | 1                          | 3              | 259,028.33                        |
| kaolack      | 757 743           | 6                         | 1                          | 7              | 108,249.00                        |
| Fatick       | 627 804           | 0                         | 3                          | 3              | 209,268.00                        |
| Tambacounda  | 610 550           | 3                         | 2                          | 5              | 122,110.00                        |
| Kolda        | 553 708           | 2                         | 0                          | 2              | 276,854.00                        |
| matam        | 533,385           | 2                         | 0                          | 2              | 266,692.50                        |
| kafrin       | 492,685           | 0                         | 2                          | 2              | 246,342.50                        |
| Ziguinchor   | 474 374           | 4                         | 0                          | 4              | 118,593.50                        |
| Sedhiou      | 418 278           | 0                         | 1                          | 1              | 418,278.00                        |
| Kedougou     | 118,921           | 0                         | 2                          | 2              | 59,460.50                         |
| <b>Total</b> | <b>11,612,586</b> | <b>83</b>                 | <b>21</b>                  | <b>104</b>     | <b>111,659.48</b>                 |

- **Human resources**

The staff training policy is crucial in the surgical sector, it can be divided into two distinct and complementary issues:

- the short-term problem largely meeting criteria  
geographical distribution of human resources in the sub  
sector;
- the long-term problem responding to structural and political criteria  
which weaken the system through a real lack of training for  
personal.

Concerning the geographical distribution of qualified personnel, there are still bottlenecks preventing the networking of specialized human resources.

This is reinforced by the absence of a real motivation and incentive policy but also the inadequacy or non-existence of basic social services contribute to the resistance of specialists to serve there.

If the number of practicing surgeons appears to be relatively sufficient to theoretically meet the coverage of surgical needs as a whole, the lack of recognition and lack of career prospects represent a decisive obstacle to the establishment of competent personnel in the regions, especially far from the big cities, especially for new graduates.

This situation leads to anarchic strategies of a provisional system of surgery performed by non-specialized practitioners<sup>1</sup> presenting at term two main hazards:

- the devaluation of the surgical function causing the acceleration of the process of alienation of specialist practitioners;
- the imbalance in the remuneration system which penalizes all of the stakeholders in the sector and contributes to accentuating this process of disaffection.

Deeper and more disturbing is the current deficit in the training of surgeons in tomorrow. The imprecision of the estimate of the needs for personnel trained directly in relation to the evolution of populations, the lack of establishment of a real training policy based on realistic projections and the implementation of the "numerus clausus" largely suggests, without a quick reaction from the powers public authorities, a shortage of qualified personnel in the medium term.

This situation, if it is to continue, should weaken the surgical offer in its together and increase the phenomenon of desertification of the sub-sector: lack of students in specialization courses, unavailability of training grants, absence of formal and reciprocal contracts between the state and the professionals it finance.

Harmoniously combine incitement and coercion to allow the installation of qualified personnel in the regions must be a political priority for the authorities public.

Undertake a campaign to reassess, recognize and promote the surgeon status represents the cornerstone of the system and a guarantee of sustainability.

The study on the inventory carried out in 2009 reveals a cruel shortage of personnel trained paramedics operating in surgical departments, particularly in regions. This shortage further accentuates the inequity of the system and the profound discrepancy existing between Dakar and the regions.

These unqualified and opportunistically trained "on the job" personnel create makes a fragile corporation with an indefinite status which participates in the devaluation of the system as a whole.

At the same time, the recent and unplanned proliferation of training structures for various offers, if it characterizes the dynamism of the sector implies the risk of too great liberalism.

The training of paramedical personnel, and particularly in the courses applied to surgery (non-existent to date) must meet specific criteria and previously identified needs.

The State, to ensure the match between the trained personnel and the needs specific, and in order to avoid "dead end formations", must intervene in a way practice to ensure the cohesion of the training system.

Quantify needs by specialty, standardize training content and standardize the value of diplomas, are all necessities to harmonize the offer future in terms of paramedical human resources allowing a better system irrigation for more efficiency.

o Breakdown of surgeons by region (standard; existing; gap, in training)

**TABLE xxx MEDICAL SPECIALTIES**

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## [Strategic plan for the development of the supply of surgical care in Senegal]

| CATEGORY<br>SOCIO-PROFESSIONAL |          | STANDARD<br>REGION | SURGERY<br>DISTRICT | POLES<br>OF EXCELLENCE<br>E | TOTAL     |
|--------------------------------|----------|--------------------|---------------------|-----------------------------|-----------|
| SURGEON<br>GENERALIST          | Existing | 5                  | 1                   | 9                           | 15        |
|                                | Standard | 14                 | 27                  | 12                          | 53        |
|                                | Gap      | 9                  | 26                  | 3                           | <b>38</b> |
| SURGEON<br>PEDIATRICIAN        | Existing | 0                  |                     | 0                           | 0         |
|                                | Standard | 7                  |                     | 12                          | 19        |
|                                | Gap      | 7                  |                     | 12                          | <b>19</b> |
| DOCTOR<br>ANESTHETIST          | Existing | 0                  |                     | 3                           | 3         |
|                                | Standard | 14                 |                     | 12                          | 26        |
|                                | Gap      | 14                 |                     | 9                           | <b>23</b> |
| GYNECOLOGIST                   | Existing | 5                  | 13                  | 10                          | 28        |
|                                | Standard | 14                 | 27                  | 12                          | 53        |
|                                | Gap      | 9                  | 14                  | 2                           | <b>25</b> |
| ORTHOPEDIST                    | Existing | 4                  |                     | 5                           | 9         |
|                                | Standard | 7                  |                     | 12                          | 19        |
|                                | Gap      | 3                  |                     | 7                           | <b>10</b> |
| UROLOGIST                      | Existing | 1                  |                     | 4                           | 5         |
|                                | Standard | 7                  |                     | 12                          | 19        |
|                                | Gap      | 6                  |                     | 8                           | <b>14</b> |
| OPHTHALMOLOGIST<br>E           | Existing | 4                  |                     | 3                           | 7         |
|                                | Standard | 7                  |                     | 12                          | 19        |
|                                | Gap      | 3                  |                     | 9                           | <b>12</b> |
| ENT                            | Existing | 0                  |                     | 2                           | 2         |
|                                | Standard | 7                  |                     | 12                          | 19        |
|                                | Gap      | 7                  |                     | 10                          | <b>17</b> |
| DOCTOR<br>REHABILITATOR        | Existing |                    |                     | 0                           | 0         |
|                                | Standard |                    |                     | 12                          | 12        |
|                                | Gap      |                    |                     | 12                          | <b>12</b> |
| ENGINEER<br>ORGANIC MEDICAL    | Existing | 0                  |                     | 1                           | 1         |
|                                | Standard | 7                  |                     | 12                          | 19        |
|                                | Gap      | 7                  |                     | 11                          | <b>18</b> |

### o Distribution of paramedics and technicians (standard; existing; gap, in training)

**TABLE XX PARA-MEDICAL AND TECHNICAL SPECIALTIES**

| CATEGORY<br>SOCIO-PROFESSIONAL |          | STANDARD<br>REGION | SURGERY<br>DISTRICT | POLES<br>OF EXCELLENCE | TOTAL      |
|--------------------------------|----------|--------------------|---------------------|------------------------|------------|
| ENGINEER<br>ORGANIC MEDICAL    | Existing | 0                  |                     | 1                      | 1          |
|                                | Standard | 7                  |                     | 12                     | 19         |
|                                | Gap      | 7                  |                     | 11                     | <b>18</b>  |
| TS ANESTHESIA                  | Existing | 9                  | 24                  | 21                     | 54         |
|                                | Standard | 42                 | 54                  | 84                     | 180        |
|                                | Gap      | 33                 | 30                  | 63                     | <b>126</b> |
| TS KINESI<br>THERAPY           | Existing | 3                  |                     | 14                     | 17         |
|                                | Standard | 7                  |                     | 18                     | 25         |
|                                | Gap      | 4                  |                     | 4                      | <b>8</b>   |
| TS OPHTHALMO                   | Existing | 3                  |                     | 14                     | 17         |
|                                | Standard | 21                 |                     | 12                     | 33         |
|                                | Gap      | 18                 |                     | -2                     | <b>16</b>  |
| IBODE                          | Existing | 0                  | 0                   | 0                      | 0          |
|                                | Standard | 14                 | 27                  | 12                     | 53         |
|                                | Gap      | 14                 | 27                  | 12                     | <b>53</b>  |
| HELP<br>OPERATOR               | Existing | 37                 | 0                   | 105                    | 142        |
|                                | Standard | 84                 | 54                  | 150                    | 288        |
|                                | Gap      | 47                 | 54                  | 45                     | <b>146</b> |
| TECHNICIAN<br>MAINTENANCE      | Existing | 10                 | 9                   | 10                     | 29         |
|                                | Standard | 28                 | 27                  | 24                     | 79         |
|                                | Gap      | 18                 | 18                  | 14                     | <b>50</b>  |

- Organization of the surgery offer

The supply of surgical care essentially boils down to the activity of general surgery in regional hospitals and that of national hospitals.

There is no formal framework to support the surgical activity of the regions by Dakar specialists. The only initiatives noted are individual or the assets of the CHU and technical and financial partners: cataract camps, repair surgery for fistulas, caesarean sections; transitional placements of the DES of surgery in hospitals and health centers; ENT missions.



## **SECOND PART**

## **STRATEGIC FRAMEWORK**

## Part Two: Strategic Framework

### Vision

Quality surgical care accessible to all without any form of exclusion.

### Aim

Provide quality surgical care nationwide.

### Goals

#### Main objective :

Contribute to the economic and socio-health development of Senegal through the strengthening of the surgical care delivery system. Or

Contribute to improving the health of populations by strengthening the surgical care delivery system.

#### Specific objectives :

- improve the availability of quality surgical care;
- improve the use of surgical care;
- strengthen the partnership for a supply of quality care.

#### • Principles of implementation

- **professionalism:** Respect, integrity, honesty, justice, fairness and maintaining skills.
- **collaboration:** teamwork, sharing of responsibilities, openness to others.
- **expertise:** The task performed with the highest skill, quality, efficiency.
- **confidentiality:** The task performed with the utmost discretion, the protection of customer rights.

- **Issues**

- the availability and quality of surgical care;
- geographic and financial accessibility to quality surgical care;
- the development of human resources composing the surgical teams and diagnostic aid.

## **Strategic axes**

### **Summary of the strategic axes of the strategic plan**

**SO1 :** Improve the availability of quality surgical care.

**1.1 Reinforcement of coverage in operating theaters and operating rooms equipped;**

**1.2 Strengthening of human resources;**

**1.3 Installation of Poles and Centers of Excellence.**

**SO 2:** Improve utilization of surgical care.

**1.1 Establishment of a referral-to-referral system;**

**1.2 Revision of administrative procedures for taking charge of  
EMERGENCIES ;**

**1.3 Improved quality and safety of surgical care;**

**1.4 Development of decentralized surgery;**

**1.5 Development of Mobile Surgery.**

**OS:** Strengthen the partnership

**3.1 Strengthening of public-public partnership;**

**3.2 Strengthening of public-private partnership;**

**3.3 Strengthening of partnership with TFPs.**

### Description of the strategic axes

Some districts have health centers with operating theaters whose some are not operational. Their functionality is related to the insufficiency technical platform and human resources.

The same problems are found at the level of regional and national hospitals where in addition, there is a lack of specialists.

However, pre-established references and standards in terms of the provision of care surgical units at different levels of the healthcare pyramid, in terms of infrastructure, equipment, personnel and organization of activities are defined. Setting implementation of said strategic plan is part of the application of the reference document of the provision of surgical care.

The situation analysis identifies thirty six (36) operating rooms to be built at the hospitals, five (05) at the level of Health Centers; fifty three (53) rooms at operational in the hospitals and ten (10) in the Health Centers of reference.

#### **1.1 Reinforcement of coverage in operating theaters equipped with structures**

The aim is to make the reference districts and regional hospitals operational and nationals.

The civil engineering program essentially concerns the rehabilitation of blocks existing.

For new achievements, priority will be given to new regions of Sédhiou and Kedougou. This choice is explained by the significant deficit which cannot be reabsorbed within five years.

The rehabilitation and equipment of the blocks will be done according to MSAS standards. A Harmonization effort will be made in the acquisition of equipment.

A total of 16 blocks will be rehabilitated and 04 new ones built.

### **1.2 Strengthening of human resources**

Priority will be given to building the capacity of human resources in emphasizing initial and continuous training. The use of recruiting medico-surgical personnel and supporting healthcare professionals and to their Assignment to areas deemed difficult to access will be strongly recommended.

For this, candidates for the Diploma of Specialized Studies in General Surgery (DES) and surgical specialties will be systematically recruited and scholarships will be allocated to them with a commitment to serve in the targeted regions in order to close the gap within five years. At the same time, any new outgoing specialist will be recruited.

Bonuses will be granted to medical specialists practicing in the regions of Kédougou, Ziguinchor, Sédhiou, Kolda and Matam. In addition, surgeons working in these areas will be provided with supervision vehicles and a career plan will be defined to them.

A State Certified Operating Room Nurses (IBODE) course will be created in training schools. It supports the training of stretcher-bearers, paramedics, plasterers, sterilization specialists.

**Staff motivation system in the targeted structures.****FINANCIAL MOTIVATION**

A financial incentive system is defined according to the table below:

| <b>CATEGORIES<br/>SOCIO-PROFESSIONAL</b>     | <b>REGIONS AND POLES<br/>OF EXCELLENCE</b> | <b>DISTRICT</b> |
|----------------------------------------------|--------------------------------------------|-----------------|
| Specialist doctors                           | 150,000                                    | 200,000         |
| Senior Technicians                           | 75,000                                     | 100,000         |
| IBODE                                        | 50,000                                     | 75,000          |
| Auxiliary staff (labourer,<br>laundry staff) | 15,000                                     | 25,000          |

Training grants of 250,000 FCFA are granted to professionals and registration fees are insured. ,

**NON-FINANCIAL MOTIVATION**

Non-financial motivation is material or immaterial.

**MATERIAL MOTIVATION**

It's about :

- Ø provide the targeted health structures (districts, standard region and poles) of excellence) in functional housing;
- Ø provide staff with adequate logistical resources;
- Ø to facilitate access to land ownership for agents who have done at least 3 years of service (DMC loans, cooperatives);
- Ø ensure access to water and electricity supply (particularly at the landlocked districts);
- Ø to facilitate the exploitation of new technologies to promote distribution of information in real time (memos, scholarship offers, training opportunities, participation in workshops and seminars).

## **INTANGIBLE MOTIVATION**

It is :

- Ø make the decentralization of human resource management effective;
- Ø encourage the participation of agents, working in these difficult areas, in the national and international conferences, seminars and congresses;
- Ø favor agents in service in the areas targeted by the program in the granting of scholarships and continuing education;
- Ø establish a merit recognition system for these agents (decorations, etc.) ;
- Ø set up a quota exclusively reserved for this staff for pilgrimages to holy places;
- Ø set up a health insurance and pooling system for the real support for these personnel and their families;
- Ø ensure better management of mobility after a legal period of three years minimum by awarding points in proportion to the distance based on the experience of the Ministry of National Education;
- Ø recognize the status of the specialist by the Public Service.

## TRAINING PLAN

A training program is initiated and submitted for financing by the State and partners for the next five years according to the following plan:

TABLE XXXX HUMAN RESOURCES TRAINING PLAN

| SOCIAL CATEGORY<br>PROFESSIONAL | EXISTING STANDARDS GAP |     |     | TRAINING    |             |             |             |             |       | GAP/<br>SURPLUS<br>S |
|---------------------------------|------------------------|-----|-----|-------------|-------------|-------------|-------------|-------------|-------|----------------------|
|                                 |                        |     |     | 1st<br>year | 2nd<br>year | 3rd<br>year | 4th<br>year | 5th<br>year | Total |                      |
| Gene Surgery                    | 15                     | 53  | 38  | 5           | 2           | 3           | 6           | 6           | 22    | -16                  |
| Gynecologist                    | 28                     | 53  | 25  | 8           | 8           | 8           | 3           | 2           | 29    | 4                    |
| Orthopedics                     | 9                      | 19  | 10  | 2           | 3           | 0           | 2           | 11          | 18    | 8                    |
| Ophthalmologist                 | 7                      | 19  | 12  | 1           | 1           | 3           | 1           | 2           | 8     | -4                   |
| Urology                         | 5                      | 19  | 14  | 2           | 3           | 0           | 2           | 2           | 9     | -5                   |
| ENT                             | 2                      | 19  | 17  | 0           | 3           | 3           | 1           | 0           | 7     | -10                  |
| Pediatrician Surgery            | 0                      | 19  | 19  | 2           | 0           | 2           | 1           | 2           | 7     | -12                  |
| Vas Cardio Surgery              | 0                      | 0   | 0   | 1           | 0           | 0           | 0           | 0           | 1     | 1                    |
| Neurosurgery                    | 0                      | 0   | 0   | 0           | 0           | 2           | 0           | 4           | 6     | 6                    |
| Rea anesthesia                  | 3                      | 26  | 23  | 11          | 6           | 4           | 6           | 13          | 40    | 17                   |
| Rehabilitation doctor           | 0                      | 12  | 12  | 0           |             |             |             |             | 0     | -12                  |
| Biomed Engineer                 | 1                      | 19  | 18  | 0           |             |             |             |             | 0     | -18                  |
| TSS Anesthesia                  | 54                     | 180 | 126 |             |             |             |             |             | 0     | -126                 |
| TSS Ophthalmo                   | 17                     | 33  | 16  |             |             |             |             |             | 0     | -16                  |
| TSS Kinesis                     | 17                     | 25  | 8   |             |             |             |             |             | 0     | -8                   |
| Maintenance technician          | 29                     | 79  | 50  | 8           | 9           | 7           |             |             | 24    | -26                  |
| IBODE                           | 0                      | 53  | 53  |             |             |             |             |             | 0     | -53                  |
| HELP OPE/PAN                    | 142                    | 288 | 146 |             |             |             |             |             | 0     | -146                 |

The gap will be filled by recruiting surgeons who have completed their training in the meantime. The surplus will be deployed in the new structures put in place by the plan.

### **1.3 Installation of poles and centers of excellence**

This involves either reorganizing or reorienting existing structures into poles or centers of excellence to reduce inequity and improve quality in the provision of care surgical or to proceed with new constructions. A bundle of activities additional ones will be added to the existing one. Additional infrastructure, equipment and human resources will be done. Eligibility criteria are defined.

The poles of excellence or centers of excellence are structures that will make it possible to do heavy surgery with skill concentration. Two categories poles will be considered: university poles and non-university poles.

Non-university centers will be built or erected within regional hospitals.

In the latter case, it will be a question of improving the existing one.

#### **Creation of specialized centers**

- Oncology
- Major burns
- Organ transplant
- National reference center (all disciplines combined)

#### **Areas where standard centers of excellence are located**

- Tambacounda
- Kaolack
- Matam

**Areas where university centers of excellence are located**

- Thies
- Ziguinchor
- St. Louis

On an experimental basis, a center of excellence will be set up in Kaolack.

the Diamniadio hospital will be set up as a specialized mother-child center of excellence.

An organ transplant center will be created in Dakar.

## SO1 results framework

### Impact indicator: Hospital mortality rate in surgical departments

| Strategic axes                                                                            | indicators                                                                    | Targets |       |       |       |       |
|-------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|---------|-------|-------|-------|-------|
|                                                                                           |                                                                               | Year1   | Year2 | Year3 | Year4 | Year5 |
| Reinforcement of coverage<br>in operating theaters and theaters<br>of operations equipped | Block percentage<br>surgical rehabilitated                                    |         |       |       |       |       |
|                                                                                           | Number of blocks<br>constructed and<br>functional                             |         |       |       |       |       |
|                                                                                           | Percentage of<br>departments with<br>operating theaters<br>functional         |         |       |       |       |       |
| Resource building<br>human                                                                | Percentage of<br>available surgeons<br>according to regulations               |         |       |       |       |       |
|                                                                                           | Percentage of<br>paramedical personnel<br>available according to<br>standards |         |       |       |       |       |
|                                                                                           | Percentage of<br>officiating specialists<br>in known areas<br>difficult       |         |       |       |       |       |
|                                                                                           | Number of doctors<br>with a scholarship<br>DES training                       |         |       |       |       |       |
| Installation of Poles and Centers<br>of excellence                                        | percentage of poles<br>of excellence<br>functional                            |         |       |       |       |       |
|                                                                                           | Percentage of acts of<br>major surgery<br>carried out in the PEs              |         |       |       |       |       |
|                                                                                           | percentage of centers<br>of excellence<br>functional                          |         |       |       |       |       |
|                                                                                           | Percentage of acts of<br>major surgery<br>carried out in the EC               |         |       |       |       |       |

## **Description of the strategic axes of OS2**

### **2.1 Setting up a counter-reference referral system**

An organized counter-reference referral system will be put in place. The references to heat require an effective control system.

### **2.2 Revision of administrative procedures for taking charge emergencies**

Administrative procedures for dealing with emergencies will be simplified and harmonized in all surgical emergency departments.

### **2.3 Improving the quality and safety of surgical care**

The reference document for the surgical care offer defines the insurance policy quality and safety. It provides an integrating vision of quality assurance, harmonizes the different quality evaluation and assessment mechanisms and specifies the procedures for implementing and monitoring established quality and safety standards.

### **2.4 Promotion of decentralized surgery**

Decentralized surgery aims to strengthen the capacities of health districts in order to that they can best take charge of the health problems of their population related to surgery. It makes it possible to reinforce geographical accessibility and cost of surgical care, to raise the quality of surgical care by the intervention of high-level specialists; and improve the cost benchmark for benefit.

For the smooth running of decentralized surgery, the theaters and rooms district operations are brought up to standard; adequate equipment is provided arrangement ; the reference-counter-reference system is functional.

The development of decentralized surgery will be continued and extended to other health districts.

With regard to standards, organization of care and eligibility criteria and prioritization see the reference document.

## **2.5 Development of mobile surgery**

The aim is to strengthen geographical and financial accessibility to surgical care; raise the quality of surgical care; to promote the development of mobile surgery for the peripheral level and to improve the cost reference of benefit.

In the development of mobile surgery, teams of specialists will be deployed in the regions every quarter. Mobile units will be acquired by the own funding or public-private and public-public partnership.

Mobile surgery activities are carried out in the fixed structures that are the regional hospitals, centers of excellence, surgical departments in districts not still included in the district program, and in the mobile structures (trucks operating theatres, dismountable hospitals).

The resources to be mobilized within the framework of this activity will be:

- material resources and infrastructure of regional structures and districts (district surgery departments, regional hospitals and centers excellence);
- specific instruments by surgical specialty which will be moved and to be used mainly for mobile surgery missions (see reference document).

For team transport methods, all-terrain vehicles with drivers in sufficient numbers must be mobilized for the movement of the missionaries. THE air transport (private companies, military aviation if necessary) and sea transport may be required for some missions.

The passage of the missions will be quarterly for each surgical specialty.

The duration of the mission depends on the specialties concerned. However, it varies between 5 to 7 days and is accompanied by a post-graduate teaching component.

The schedule of missions will be established jointly between the Faculty of Medicine and the Ministry of Health and Social Action (MCRs and regional surgeons). He will depend on the requests established by the latter, the surgery program of district and the availability of surgical teams. He will be arrested after the meeting the staff of the heads of surgical specialties and the coordinators of the district and mobility programs. This calendar must be available at least one months before its entry into force.

The teams on mission will be accommodated in health structures, hotels, and premises dedicated and reserved for this purpose. The administrative and health authorities and the local elected officials will be asked to facilitate this accommodation.

Traveling teams will benefit from health and accident insurance. Of the allowances (rates and sources see reference document) will be granted to the teams moving. The material and human resources are the same as those used in fixed structures.

Missions may be dispatched in the event of disasters to support the fixed structures at the request of the health authorities (MSAS, MCR and regional hospital surgeons).

An appointed Committee made up of surgeons, doctors, administrative managers and financiers will be responsible for evaluating the surgical mobility program. External mobility programs must have the approval of the committee of coordination of the mobility program.

In total, ninety (90) missions are carried out per year in the first years with the different surgical specialties across the country. These assignments make it possible to strengthen the offer of major surgery and specialty surgery;

participate in the district surgery program and provide ongoing training postgraduate and supervision of surgical activity in the regions and districts.

The human resources used in this context are made up of:

- surgical teams from national hospitals, regional hospitals, centers of excellence
- Senior surgeons (universities and regional hospitals), doctors anesthesiologists (university and regional hospitals), radiologists and biologists;
- Hospital interns, students of surgery and specialties **DES** surgical;
- Networks of surgeons by surgical specialty bringing together all the surgeons of the same specialty (academics, regional surgeons, DES students, interns in the specialty, doctors and technicians, anesthesiologists affiliates, paramedics and support specialists).

The material resources to be mobilized as part of this activity will be:

- material resources and infrastructure of regional structures and districts (see district surgery department standards, regional hospitals and centers of excellence of the reference document in the appendix);
- specific instruments by surgical specialty which will be moved and to be used mainly for mobile surgery missions (see reference document attached).

Team transport is provided by:

- all-terrain vehicles with a sufficient number of drivers must be mobilized for the movement of missionaries;
- air transport (private companies, military aviation if necessary) and maritime may be required for some missions.

The passage of the missions will be quarterly for each surgical specialty.

The duration of the mission depends on the specialties concerned. However it varies between 3 to 7 days and is accompanied by a post-graduate teaching component. The schedule of missions will be established by the national coordinator in collaboration with the regional MCRs and surgeons. It will depend on the established requests by them, the district surgical program, and the availability of surgical teams. He will be arrested after the meeting of the staff of those responsible for surgical specialties and coordinators of district and mobility.

This calendar must be available at least one month before its entry into force.

The teams on mission will be accommodated in health structures, hotels, and premises dedicated and reserved for this purpose.

Administrative and health authorities and local elected officials will be called upon to facilitate this accommodation.

Mobile teams traveling will benefit from health insurance and accidents. Compensation (rate and sources to be defined) will be granted to the teams in shift.

The material and human resources are the same as those used in the fixed structures. These structures can be used in the event of disasters in plus requests made by MCRs and regional hospital surgeons.

An appointed Committee made up of surgeons, doctors, administrative managers and financiers will be responsible for evaluating the surgical mobility program.

External mobility programs must have the approval of the committee of coordination of the mobility program.

## SO2 RESULTS FRAMEWORK

**Impact indicator:** Satisfaction rate of beneficiaries of surgical care

| Strategic axes                                                      | Indicators                                                                                        | Targets |       |       |       |       |
|---------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|
|                                                                     |                                                                                                   | Year1   | Year2 | Year3 | Year4 | Year5 |
| <b>Establishment of a system of reference against reference</b>     | percentage of cases referred by health posts<br>healthcare taken care of at Health Centers        |         |       |       |       |       |
|                                                                     | percentage of cases referred by health centers<br>healthcare taken care of at EPS 1&2 emergencies |         |       |       |       |       |
|                                                                     | percentage of cases referred by hospitals<br>regional supported at EPS 3                          |         |       |       |       |       |
|                                                                     | percentage of cases referred by EPS 3 taken<br>in charge of the poles and Centers of Excellence   |         |       |       |       |       |
|                                                                     |                                                                                                   |         |       |       |       |       |
| <b>Improved quality and the safety of care surgical</b>             | Number of security measures taken                                                                 |         |       |       |       |       |
|                                                                     | Number of surgical procedures performed per year                                                  |         |       |       |       |       |
| <b>Development of surgery decentralized</b>                         | Number of surgical missions decentralized                                                         |         |       |       |       |       |
|                                                                     | Number of acts performed in surgery decentralized                                                 |         |       |       |       |       |
|                                                                     | Percentage of surgical teams having participated                                                  |         |       |       |       |       |
|                                                                     | Percentage of health centers having received a decentralized surgery mission                      |         |       |       |       |       |
| <b>Development of Surgery mobile</b>                                | percentage of mobile surgery missions organized                                                   |         |       |       |       |       |
|                                                                     | Number of acts carried out in mobile surgery                                                      |         |       |       |       |       |
|                                                                     | Percentage of surgical teams having participated                                                  |         |       |       |       |       |
|                                                                     | Percentage of EPS 1 & 2 having received mobile surgery mission                                    |         |       |       |       |       |
| <b>Review of procedures administrative support emergency charge</b> | Number of urgent cases received and taken care of within the next hour.                           |         |       |       |       |       |

### **3.1 Strengthening public-public partnership**

Partnerships are forged with local authorities and other sectors (Forces Armies, National Education, Universities...).

The promotion of contractualization with public establishments and companies national will be pursued and encouraged.

### **3.2 Strengthening of public-private partnership**

- The areas of partnership relate to the partnership with the companies of surgery, private health facilities. They target, among other things:
  - Reinforcement of infrastructure and the technical platform through financing contracts (leasing, BOT or others) with the private sector.
  - Exchanges of services between public and private structures.
  - The use of contractualization in the purchase of services to the private sector and supply of services (equipment);
  - cooperation between health services;
  - supply of technical facilities and beds from the private sector;
  - joint operation of biomedical equipment;
  - development of integrated healthcare networks;
  - training of health professionals;
  - experimentation with new forms of management
- Peripheral supervision and assistance,
- The promotion of the multi-sectoral approach by bringing all the companies of surgery to work synergistically.

### **3.3 Strengthening of the partnership with TFPs**

As part of the implementation of the strategic plan, technical and financial support development partners are called upon in the construction of blocks and operating rooms and the acquisition of their equipment, as well as in the financing of mobile and decentralized surgery missions and the provision of medical and surgical personnel.

## SO3 RESULTS FRAMEWORK

### Impact indicator: the share of the State in the financing of the PSDOSC

| AXES<br>STRATEGIC                                   | INDICATORS                                                                                                              | TARGETS |       |       |       |       |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------|-------|-------|-------|-------|
|                                                     |                                                                                                                         | Year1   | Year2 | Year3 | Year4 | Year5 |
| <b>Strengthening of public partnership audience</b> | Number of agreements signed between the MSAS and the universities in relationship with the supply of surgery.           |         |       |       |       |       |
|                                                     | Number of agreements signed between the MSAS and the Communities local in relation to the offer of surgery.             |         |       |       |       |       |
| <b>Strengthening of public partnership private</b>  | Number of contracts/agreements signed as part of the offer of surgery between structures public and private structures. |         |       |       |       |       |
|                                                     | Number of contracts/agreements leasing between the public and the private as part of the offer of surgery               |         |       |       |       |       |
|                                                     | Number of surgical cases taken into load under the contracts/agreements between public and private sectors              |         |       |       |       |       |
| <b>Strengthening of partnership with TFPs</b>       | Number of agreements of financing signed as part of the surgery offer                                                   |         |       |       |       |       |
|                                                     | The share of TFPs in the financing of the strategic plan                                                                |         |       |       |       |       |

# **THIRD PART**

## **IMPLEMENTATION FRAMEWORK**

### **Part Three: Implementation Framework**

The desire to improve people's access to surgical care services quality goes through the following objectives:

- ensure the institutional capacities of the programme;
- promote partnership;
- strengthen performance monitoring and evaluation;
- improve the financing mechanisms of the programme.

To do this, administrative and financial procedures are developed which respect the principles of organizational deconcentration and those of handing over markets in force in Senegal.

#### **I. Institutional and Organizational Framework**

For the surgical care network to be effective and above all efficient, it is necessary to have a framework in charge of the animation and the management of the activities surgeries in Senegal.

This manager, housed at the Directorate General for Health, will be responsible for organizing and coordinate the planning, monitoring, evaluation of activities and the implementation of this present plan.

Coordination will be ensured by various bodies

- i) a steering committee which plays the political and advocacy role. It is chaired by the Minister of Health and Social Action. It is composed of representatives of MSAS, UEAL, the National Assembly and the faculties of medicine;
- ii) a technical committee chaired by the Director General of Health;
- iii) a regional coordination committee for the implementation of the activities of the strategic plan chaired by the Chief Medical Officer of the Region.

## **II. Coordination mechanisms**

The steering committee meets every six months. And the technical committee on convened by its President as well as the regional coordination committee of the implementation of the activities of the strategic plan.

## **III. Planning system**

The identification of the activities of the annual action plan is the responsibility of the technical committee under the supervision of the General Directorate of Health. An action plan is drawn up central level and at the level of each region.

Implementation is ensured by the General Directorate of Health, which relies on the technical committee. Each year, a physical and financial follow-up of the action plan of the plan is made to improve its efficiency and performance. Plan follow-up of action is carried out through the channel of follow-up sheets comprising indicators of process and results that are developed by the technical committee.

## **IV. Monitoring-evaluation mechanisms**

### **V. Monitoring**

The structure for monitoring the implementation of this strategic plan will develop, at the level of the Directorate General for Health, the tools and mechanisms necessary to the implementation of the monitoring and analysis framework, in collaboration with the other departments, services, programs and structures for the management of surgery, in particular with a view to obtaining reliable data, the development of databases data, their updating and their dissemination.

Regular quarterly meetings held at the General Directorate of Health by the authority with all the centers of responsibility (Medical Regions, Districts, EPS, private etc.) will serve as a pretext to reflect and discuss major news of the moment, a reorientation or a refinement of the strategies on hedging surgical.

## [Strategic plan for the development of the supply of surgical care in Senegal]

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At the regional level, the RCM and the EPS surgeon will act as the focal point of the said committee.

Joint Supervision Missions will ensure the follow-up of the execution of the activities programmed at the level of the establishments selected jointly with the resource persons (Chair Professors, Professors associates, medical specialists etc.) and also technical and financial partners and at the development.

They take place every six months and will involve the services of the Ministry and the Faculty of Medicine, Pharmacy and Odontology (FMPO).

The supervision report is accompanied by recommendations which will be the subject of a problem solving plan.

### **VI. Evaluation**

In order to ensure the proper functionality of the programs put in place to improving the supply of surgical care, all the establishments selected are putting implement a policy for the evaluation of their surgical activities.

The implementation of this policy is the subject of an annual report presented by the person in charge of the structure to the authorities of the steering committee.

The practical methods for implementing this internal evaluation are set by order of the Minister in charge of Health on the proposal of the steering committee.

Evaluation reports will be drawn up and particularly satisfaction surveys with users and health professionals will be carried out in accordance with the national surveys planned in the continuous DHS.

The strategic plan will be evaluated mid-term in 2016 and the final evaluation will take place in 2019.

## VII. Funding

The financing of the strategic plan consists of the rehabilitation of the existing, the construction and equipment of operating rooms, the training of specialists and the coverage of specialist allowances, the motivation of specialists, the costs implementation management, evaluations and review of the strategic plan.

The rehabilitation of an operating theater costs eighty million (80,000,000) CFA francs.

The construction and equipment of an operating room is valued at one hundred and twenty million (120,000,000) CFA francs.

The DES training scholarship is set at 150,000 FCFA per month

The monthly motivation of specialists in areas known to be difficult is assessed at 150,000 FCFA for medical specialties and 75,000 FCFA for specialties paramedics.

For mobile surgery missions, a lump sum compensation of 150,000 FCFA is granted to each missionary.

For decentralized surgery, a DES student placed on an internship in the areas deemed difficult receives, in addition to the allocated scholarship, the monthly incentive. A supervising professor benefits from a fixed disinterestedness of 150,000 FCFA per mission.

**Table xx Summary of financing**

| <u>Expenditure headings</u>                     | <u>Number<br/>of units</u> | <u>Cost<br/>unitary</u> | <u>Annual costs</u> |        |        |        |        | <u>Total</u> |
|-------------------------------------------------|----------------------------|-------------------------|---------------------|--------|--------|--------|--------|--------------|
|                                                 |                            |                         | Year 1              | Year 2 | Year 3 | Year 4 | Year 5 |              |
| Rehabilitation of<br>Infrastructure / Equipment |                            |                         |                     |        |        |        |        |              |
| Construction of<br>Infrastructure / Equipment   |                            |                         |                     |        |        |        |        |              |
| Training scholarships in                        |                            |                         |                     |        |        |        |        |              |

## [Strategic plan for the development of the supply of surgical care in Senegal]

|                              |  |  |  |  |  |  |  |  |
|------------------------------|--|--|--|--|--|--|--|--|
| OF THE                       |  |  |  |  |  |  |  |  |
| Motivation of specialists    |  |  |  |  |  |  |  |  |
| mobile surgery               |  |  |  |  |  |  |  |  |
| Decentralized surgery        |  |  |  |  |  |  |  |  |
| Lease costs                  |  |  |  |  |  |  |  |  |
| Implementation monitoring    |  |  |  |  |  |  |  |  |
| Mid-term evaluation          |  |  |  |  |  |  |  |  |
| Final evaluation of the plan |  |  |  |  |  |  |  |  |
| Plan review                  |  |  |  |  |  |  |  |  |