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REPUBLIC OF CAMEROON  
Peace-Work-Fatherland

Ministry of Economy, Planning and Regional  
Development

# Public Expenditure Tracking Survey in the areas of Health, Nutrition, Water-Hygiene-Sanitation and Education

## Final Report

### Nutrition Component

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# TABLE OF CONTENTS

|  |           |
|--|-----------|
| <b>LIST OF TABLES.....</b>   | <b>3</b>  |
| <b>LIST OF GRAPHS.....</b>   | <b>3</b>  |
| <b>LIST OF BOXES .....</b>   | <b>3</b>  |
| <b>LIST OF FIGURES .....</b>   | <b>3</b>  |
| <b>ACRONYMS AND ABBREVIATIONS .....</b>  | <b>4</b>  |
| <b>FOREWORD .....</b>  | <b>6</b>  |
| <b>EXECUTIVE SUMMARY .....</b>   | <b>8</b>  |
| <b>CHAPTER 1: PRESENTATION OF THE STUDY .....</b>  | <b>12</b> |
| 1.1 Background and justification of the study.....   | 12        |
| 1.2 Objectives of the study .....  | 13        |
| 1.2.1 General objective .....  | 13        |
| 1.2.2 Specific objectives.....   | 13        |
| 1.3 Methodological approach of the study.....  | 13        |
| 1.3.1 Scope of the study .....   | 13        |
| 1.3.2 Observation units .....  | 13        |
| 1.3.3 Sampling .....   | 14        |
| 1.3.4 Observation and collection method.....   | 14        |
| 1.3.5 Data processing and estimation.....  | 15        |
| 1.4 Limitations and difficulties encountered.....  | 15        |
| <b>CHAPTER 2: ORGANISATION AND OPERATION OF INTEGRATED MANAGEMENT OF SEVERE ACUTE MALNUTRITION IN CAMEROON .....</b> | <b>16</b> |
| 2.1 National nutrition policy in Cameroon.....   | 16        |
| 2.1.1. Policy strategic axes .....   | 16        |
| 2.1.2. Expected results.....   | 19        |
| 2.1.3. Priority interventions.....   | 19        |
| 2.2 Integrated Management of Severe Acute Malnutrition .....   | 20        |
| 2.2.1. Objectives.....   | 20        |
| 2.2.2. Organisation of IMSAM .....   | 20        |
| 2.2.3. Mechanisms for implementation and monitoring-evaluation.....  | 22        |
| 2.3 State of play in the management of severe acute malnutrition in Cameroon in 2017.....                            | 22        |
| <b>CHAPTER 3: FINANCING OF INTEGRATED MANAGEMENT OF SEVERE ACUTE MALNUTRITION ....</b>                               | <b>25</b> |
| 3.1 Planning and programming of activities.....  | 25        |
| 3.1.1. UNDAF cooperation framework .....   | 25        |
| 3.1.2. Country programme document UNICEF .....   | 25        |
| 3.1.3. Country Programme Action Plan (CPAP) .....  | 26        |
| 3.2 Activity budgeting.....  | 26        |
| 3.3 Resource mobilisation .....  | 26        |
| 3.4 IMSAM resource management mechanisms (HACT) .....  | 27        |
| <b>CHAPTER 4: IMSAM RESOURCE MANAGEMENT IN 2017.....</b>   | <b>28</b> |
| 4.1 The flow of financial resources, RUTFs and essential drugs .....   | 28        |
| 4.2 Management of financial resources.....   | 29        |
| 4.2.1 Allocation of IMSAM financial resources.....   | 29        |
| 4.2.2 Use of financial resources.....  | 30        |
| 4.3 Management of Ready-to-Use Therapeutic Foods and Essential Drugs.....  | 32        |
| 4.3.1 Input allocations .....  | 32        |
| 4.3.2 Tracking in input management.....  | 33        |
| 4.4 Difficulties, measures and suggestions in input management in 2017 .....   | 35        |
| 4.4.1 Main difficulties.....   | 36        |
| 4.4.2 Measures taken to overcome the difficulties.....   | 36        |

|   |           |
|---|-----------|
| 4.4.3 Proposals to improve input management .....     | 37        |
| <b>CONCLUSION AND RECOMMENDATIONS .....</b>           | <b>39</b> |
| Main problems identified .....                        | 39        |
| Main recommendations .....                            | 40        |
| <b>BIBLIOGRAPHY .....</b>                             | <b>41</b> |
| <b>APPENDICES .....</b>                               | <b>I</b>  |
| Appendix 1: Summary table of the main indicators..... | II        |
| Appendix 2: List of stakeholders .....                | III       |

## LIST OF TABLES

|  |    |
|--|----|
| Table 1: Cluster sample size by region .....   | 14 |
| Table 2: Sample of nutritional centres and community health workers by region .....  | 14 |
| Table 3: Evolution between 2016 and 2017 of the number of nutritional centres and new patient admissions for IMSAM .....                                     | 23 |
| Table 4: Evolution between 2016 and 2017 of some performance indicators of nutritional centres .....   | 23 |
| Table 5: Amount of financial resources made available by UNICEF in 2017 according to structure levels and expenditure lines (in CFA francs) .....            | 30 |
| Table 6: Amount of 2017 financial resources justified on time by beneficiaries according to levels of structures and expenditure lines (in CFA francs) ..... | 31 |
| Table 7: Input inventories in Regional Delegations of Public Health as of December 31, 2016 by region and type .....   | 32 |
| Table 8: Quantity of inputs provided by UNICEF to Regional Delegations of Public Health in 2017 by region and type .....                                     | 32 |
| Table 9: Overall allocations of inputs to Regional Delegations of Public Health in 2017 by region and type .   | 33 |
| Table 10: Input exit rate from warehouses in 2017 by region and type .....   | 33 |
| Table 11: Rate of justified input removals from warehouses in 2017 by region and type .....  | 34 |
| Table 12: Quantities of RUTFs and drugs removed from storage without justification by region and type ....   | 35 |
| Table 13: Proportion (%) of the overall allocation removed from storage and unjustified by region and type   | 35 |
| Table 14: Main difficulties encountered in input management in 2017 by level of structure .....  | 36 |
| Table 15: Main measures taken to address the difficulties inherent in input management in 2017 by level of structure .....                                   | 37 |
| Table 16: Main suggestions by the actors in the system for the improvement of input management in 2017 by level of structure .....                           | 38 |

## LIST OF GRAPHS

|  |    |
|--|----|
| Graph 1: Amount of financial resources justified in 2017 beyond the deadline (in CFA francs) ..... | 31 |
|--|----|

## LIST OF BOXES

|  |    |
|--|----|
| Box1: Criteria for referral of community to the nutritional centre ..... | 22 |
| Box 2: Approach to assessing input losses .....                          | 34 |

## LIST OF FIGURES

|   |    |
|---|----|
| Figure 1: Normal flow of financial resources, RUTFs and essential drugs ..... | 28 |
| Figure 2: Real flow of financial resources, RUTFs and essential drugs .....   | 29 |

## ACRONYMS AND ABBREVIATIONS

|          |   |
|----------|---|
| ANJE     | Infant and Young Child Feeding                          |
| AIDS     | Acquired Immune Deficiency Syndrome                     |
| ATPE     | Ready-to-use Therapeutic Food                           |
| BSFP     | Blanket Supplementary Feeding Programme                 |
| CAP      | Computed Assisted Personal Interviewing                 |
| CHW      | Community Health Worker                                 |
| CPAP     | Country Programme Action Plan                           |
| CSP      | Census and Survey Processing System                     |
| DHP      | Department of Health Promotion                          |
| DHS      | District Health Service                                 |
| EMSP     | Economic Management Support Programme                   |
| FACE     | Funding Authorisation and Certification Expenditure     |
| FAD      | Home Food Fortification                                 |
| GBV      | Gender-based Violence                                   |
| GESP     | Growth and Employment Strategy Paper                    |
| HACT     | Harmonised Approach to Cash Transfer                    |
| HD       | Health District   |
| HD       | District Hospital                                       |
| HF       | Health Facility   |
| HFF      | Iron and Folic Acid Supplementation                     |
| HIPCI    | Heavily Indebted Poor Countries Initiative              |
| HIS      | Health Information System                               |
| HIV      | Human Immunodeficiency Virus                            |
| IHC      | Integrated Health Centre                                |
| IMCD     | Integrated Management of Childhood Diseases             |
| IMSAM    | Integrated Management of Severe Acute Malnutrition      |
| ISTEEBU  | Institute of Statistics and Economic Studies of Burundi |
| ITNC     | Internal Therapeutic Nutritional Centre                 |
| LFF      | Large Scale Food Fortification                          |
| MDG      | Millennium Development Goal                             |
| MINADER  | Ministry of Agriculture and Rural Development           |
| MINEDUB  | Ministry of Basic Education                             |
| MINEE    | Ministry of Water Resources and Energy                  |
| MINEPAT  | Ministry of Economy, Planning and Regional Development  |
| MINESEC  | Ministry of Secondary Education                         |
| MINFI    | Ministry of Finance                                     |
| MINSANTE | Ministry of Public Health                               |
| MTSP     | Medium Term Strategic Plan                              |
| n.a.     | Not applicable  |

|        |  |
|--------|--|
| n. a.  | Not available  |
| NAPN   | National Action Plan for Nutrition                               |
| NC     | Nutritional Centre   |
| NCSAM  | Ambulatory Nutrition Centre for Severe Acute Malnutrition        |
| NGO    | Non-Governmental Organisation                                    |
| NIS    | National Institute of Statistics                                 |
| PB     | Brachial Perimeter   |
| PETS   | Public Expenditure Tracking Survey                               |
| PEZ    | Priority Education Zone  |
| PMTCT  | Prevention of Mother-to-Child Transmission                       |
| RDPH   | Regional Delegation of Public Health                             |
| RNFP   | Regional Nutrition Focal Point                                   |
| RUSF   | Ready-to-Use Supplement Food                                     |
| SDFN   | Sub-Department of Food and Nutrition                             |
| SDG    | Sustainable Development Goal                                     |
| SMART  | Standardized Monitoring and Assessment for Relief and Transition |
| UNS    | United Nations system  |
| SMC    | Sub-divisional Medical Centre                                    |
| SPSS   | Statistical Package for the Social Sciences                      |
| TFP    | Technical and Financial Partner                                  |
| ToR    | Terms of Reference   |
| UNDAF  | United Nations Development Assistance Framework                  |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| UNICEF | United Nations Children's and Emergency Fund                     |
| VAS    | Vitamin A Supplementation  |
| WASH   | Water, Sanitation and Hygiene                                    |
| WHO    | World Health Organisation  |

## FOREWORD

The Ministry of Economy, Planning and Regional Development (MINEPAT), Ministry of Finance (MINFI), Ministry of Public Health (MINSANTE), Ministry of Basic Education (MINEDUB), Ministry of Secondary Education (MINESEC) and Ministry of Water Resources and Energy (MINEE) of Cameroon have decided, for the year 2018, to conduct a study to track public expenditure in the areas of health, nutrition, water-hygiene-sanitation and education, with technical and financial support from UNICEF. The National Institute of Statistics, whose missions are, among other things, to make available the statistical data and indicators necessary for economic and social management, was involved in order to ensure the technical coordination of this study.

The study to track public expenditure aims to provide the Cameroonian government and partners involved in the areas of health, nutrition, education and WASH with the information needed to objectively assess the performance of public expenditure in these four areas in 2017. This study is subsequent to the first two carried out in 2003/2004 and 2010 which covered only the areas of health and education. PETS3 study is intended to be more focused in terms of the specific budget lines to be monitored in each of the above-mentioned areas that have been selected. It is also important to underline that PETS3 study is conducted in a context marked by the transfer of certain skills in education, health and WASH, to regional and local authorities.

The nutrition survey is conducted for the first time ever in Cameroon, which has become the pioneer in Africa. This is a reflection of the importance that the Government of the Republic and its development partners give to the health issues of children and pregnant women in general, and those related to their nutrition in particular.

This resulting report presents an analysis of the financial and input resource allocations (ready-to-use therapeutic foods and essential drugs for severe acute malnutrition), their uses and the losses that may have been recorded in 2017 across the entire management chain of Integrated Management of Severe Acute Malnutrition (IMSAM).

The production of this important publication, was conducted by the National Institute of Statistics (NIS) and made possible by the effective and sustained involvement of the main stakeholders. These include the Prime Minister's Office, represented by a member of the Interministerial Committee for the Fight against Malnutrition, Ministry of Public Health through officials in its Sub-Department of Food and Nutrition (SDFN), which ensures the national coordination of IMSAM, Ministry of Economy, Planning and Regional Development (MINEPAT) represented in working sessions by officials in charge of Cooperation, Ministry of Agriculture and Rural Development (MINADER) represented by food and nutrition experts from the main technical and financial partner, namely the United Nations Children's Emergency Fund (UNICEF). May each of these actors find in this piece of work, the personal satisfaction of a well accomplished mission and recognition of the NIS for the efforts made. They deserve our sincere appreciation.

This is also an opportunity for us to thank all those who contributed to the data collection that served as the basis for this piece of work. We are particularly referring to refer to the managers of the devolved services of the Ministry of Public Health (MINSANTE), data providers namely: the regional delegations of the Far North, North, Adamawa and East, their District Health Services, their health centres including IMSAM nutrition centres as well as community health workers who do a great job working with local people. We also think about the entire data collection and coaching team that provided the best of itself for the successful completion of the project.

This study was fully co-funded by the State and UNICEF, its technical and financial partner of yesterday, today and tomorrow.

**The Minister of Economy, Planning and  
Regional Development**





## EXECUTIVE SUMMARY

Analyses made as part of this study mainly focus on the resources mobilised during the the 2017 financial year for the Integrated Management of Severe Acute Malnutrition (IMSAM), which are of two types: (i) financial resources primarily for staff training, acquisition of supplies, supervision missions, and (ii) material resources such as Ready-to-Use Therapeutic Food (RUTF) and essential drugs for patients. This study was aimed at analysing the uses that are made in light of allocations made.

### **Flow of financial resources, RUTFs and essential drugs**

Financial resources are, upon request of the beneficiary structures, disbursed by UNICEF and made available by transfer to an account of the Sub-Department of Food and Nutrition (SDFN) or Regional Delegation of Public Health (RDPH). Some of the resources made available to the Regional Delegations of Public Health are for the covered district health services. It may also happen that some health districts receive financial resources directly from UNICEF to facilitate transactions.

Concerning RUTFs and essential drugs for the management of severe acute malnutrition, acquisitions are made by UNICEF on the basis of the needs previously expressed by the State through the Ministry of Public Health (MINSANTE). Inputs acquired are sent to the Regional Delegations of Public Health, which store them directly in central and/or ancillary warehouses in the outskirts to facilitate the distribution of products. Depending on the needs expressed through requests, they are made available quarterly to district health services which convey them to the covered nutritional centres (Internal Therapeutic Nutrition Centres in District Hospitals, Ambulatory Nutrition Centres for Severe Acute Malnutrition in District Health Centres and Integrated Health Centres).

### **Management of financial resources**

Analysis of the management of the financial resources of the Integrated Management of Severe Acute Malnutrition (IMSAM) took into account the allocations provided to the central and devolved structures of the Ministry of Public Health, as well as the uses that were made of them during the year 2017.

For the 2017 financial year, more than 102 million CFA francs were transferred to the dedicated accounts of the Sub-Department of Food and Nutrition (SDFN) and Regional Delegations of Public Health of the East, Adamawa, North and Far-North according to the expressed needs. Over half of these resources (56%) were allocated to activities similar to studies (data validation, Integrated Management of Severe Acute Malnutrition (IMSAM) bottleneck analysis, surveys, analysis workshop, consultation) and mainly carried out by the central coordination structure of the Integrated Management of Severe Acute Malnutrition (IMSAM), which is the Sub-Department of Food and Nutrition (SDFN).

Almost all the financial resources devoted to the Integrated Management of Severe Acute Malnutrition (IMSAM) in 2017 were used/justified by the beneficiaries (over 101 million CFA francs or 99%) on time, which can effectively indicate that the needs expressed were real and have been satisfied. The fact that expenditure is triggered from the "Funding Authorization and Certification Expenditure" (FACE) and that there is a real obligation for the beneficiaries to report directly to the donor, are certainly arguments that lead to very high rates of consumption of financial resources.

Resources that were not justified in time, i.e. 557,830 CFA francs were actually used by the beneficiaries in the dedicated lines. This is precisely 474,830 CFA francs for SMART (Standardized Monitoring and Assessment for Relief and Transition) surveys carried out by the

Sub-Department of Food and Nutrition (SDFN) and the holding of the data validation workshop of the Integrated Management of Severe Acute Malnutrition (IMSAM) of the Adamawa region. However, related supporting documents were only made available after the deadlines.

### **Management of Ready-to-Use Therapeutic Foods and Essential Drugs**

The management of RUTFs (plumpynut, F75 therapeutic milk, F100 therapeutic milk) and essential drugs (amoxicillin) for the management of severe acute malnutrition was analysed from the perspective of their supply and their use in the national distribution chain.

Analysis of total input supplies showed that for therapeutic foods, the sanitary system benefited from large and sufficient quantities of plumpynut (7,531,462 sachets of 92g, i.e. 50,210 boxes), F75 therapeutic milk (333,052 sachets of 102.5g, i.e. 2,775 boxes) and F100 therapeutic milk (247,126 sachets of 114g, i.e. 2,746 boxes).

However, the Far North region alone accounted for over half of the input supplies: 58.4% of plumpynut, 84.7% of F75 milk and 90.5% of F100 milk. The same was true of the drug "amoxicillin" where nearly 75.8% of the 84,023 oral boxes (sus 125mg/5ml/BOT-100ml) available were supplied to this same region.

Globally, 2,586,897 plumpynut sachets (17,246 boxes) were signed for. The analysis of the data showed that the difference between the overall allocation and inventories in 2017 does not correspond to the quantity signed for. The observed differences were interpreted as losses.

### **Evaluation of losses**

Losses are perceived as the observed differences between inputs removed from storage and inputs signed for. These are inputs that are not justified and analysed as they are.

Contrary to what could be expected, and regardless of the products and even regions, the quantities of inputs signed for do not always correspond to the quantities removed.

Analysis of the reception acknowledgement slips made by the RDPH focal points shows that, globally, nearly 80% of the plumpynut removed from storage was signed for by the beneficiaries.

The F75 and F100 therapeutic milk removed from storage was signed for very little, especially in the Far North and Adamawa regions, where approximately 13% and 17% were recorded for F75 and F100 milk in the Far North and 29% and 19% for F75 and F100 milk in Adamawa.

With regard to amoxicillin, nearly 55% of removals in the Far North region in 2017 were not justified.

Analysis of the data provided by IMSAM focal points in Regional Delegations of Public Health shows some cases of loss of inputs at the level of regional warehouses. While it is difficult to make an objective assessment of the losses of some inputs in some regions (mainly due to the quality of inventory and reception data), relatively significant losses can be noted.

It appears that 1,296,812 sachets (8,645 cartons) of plumpynut removed from storage in 2017 were not signed for. With regard to the overall allocation, it may be observed that the East and Far North regions each removed about 22% of this food without justification.

For F75 therapeutic milk, the "losses" in absolute terms are estimated at 64,695 sachets (539 cartons) including 44,699 (372 cartons) in the Far North. However, they are relatively higher in the Adamawa (57.2%) and East (51.5%) regions.

As regards F100 therapeutic milk and amoxicillin, the evaluation of losses was not made for the North region because of the very poor keeping of statistics on removals and receptions of these products.

In absolute terms, the largest losses were recorded in the Far North region: 45,426 sachets (505 cartons) for F100 therapeutic milk and 25,411 boxes for amoxicillin. In terms of overall allocations, while the phenomenon is even of greater concern in this region for amoxicillin (39.9%), it is more prevalent in the Adamawa region for F100 milk (46.9%).

### **Difficulties encountered in the management of inputs and suggestions by officials for improvement**

The most recurrent difficulty is related to stock-outs, particularly in terms of operational structures responsible for distributing inputs to patients.

One regional delegation out of two has problems in the transportation of inputs, including the lack of rolling inventory for secondary distribution under minimum conditions, and low capacity of the vehicle used for transportation of inputs. This same proportion of regional delegations also expressed difficulties related to the lack of qualified personnel for handling inputs, which can complicate management and lead to delays in transmission.

Transportation difficulties arise from the lack of means of transport, high transport costs, poor road conditions, long distances to reach target villages and isolation.

In order to improve the management of inputs, the main actors proposed the following measures: (i) distribution of inputs according to the needs of the nutrition centres, (ii) introduction of check-lists for the management of input inventories, (iii) human resource capacity building, (iv) strengthening of input storage conditions; (v) strengthening of financial and logistical means for transportation of inputs; and (vi) strengthening of awareness raising and supervision which will contribute to a better tracking of the various flows of input inventory used.

In conclusion, it appears that the issue of development of human capital to support the country's growth remains a major concern of the Government, which enjoys strong support from its numerous partners, particularly UNICEF, which is particularly involved in the fight against malnutrition of the most vulnerable segments, namely children and pregnant women.

Many nutritional centres are operational in the four regions concerned and provide satisfactory services to patients detected and referred by community health workers. Therapeutic foods and essential drugs reach these centres, even though they sometimes experience stock-outs because of delays in supply.

Regarding input losses, even though those recorded between the Regional Delegations of Public Health and nutritional centres are globally contained in view of initial allocations, there is reason to be more concerned about any losses that may be recorded between nutritional centres and patients, and that were not estimated in this study.

With respect to the funding of other actions which contribute to the achievement of the objectives of the Integrated Management of Severe Acute Malnutrition (IMSAM), the problem of resource availability does not arise. Their tracking is much easier and more precise, mainly because of the transfer procedures and constraints on the clearance of expenditure within a formal time frame.

### **Main problems identified**

In general terms, the two main problems relate to:

- The difficult access to management information as well as to statistical information mainly due to (i) refusal/absence or insufficient archiving of management information, (ii) weakness of the statistical information system and (iii) apprehensions that information providers have about the use of individual data collected by the structures in charge of statistics.

- The input distribution channel, observed in the field, which differs significantly from the normal channel. It is expected that the inputs will reach the nutritional centres through the Regional Delegation of Public Health and Health Districts. However, for the purpose of facilitating distribution, given the logistical problem, several nutritional centres are directly supplied by the Regional Delegation of Public Health on which they depend.

At the financial level:

- The package of so-called "regular" activities of Regional Delegations of Public Health (staff training, coordination of activities, compilation of statistical data) is not supported for all regions.

At the level of input management:

With regard to the management of therapeutic foods and essential drugs for severe acute malnutrition, the main challenges are related to:

- The fact that several intermediary structures have difficulty getting inputs to the nutritional centres. All means are used, including logistical opportunities offered by parallel health programmes and sometimes by individuals. In some cases, nutrition centre managers travel at their own expense to be served at supply points (Regional Delegations of Public Health, Health Districts).
- Cases of frequent stock-outs of inputs in some nutritional centres although regional warehouses have sufficient reserves at the end of the year.
- Cases of loss of inputs due to unintentional destruction during handling, expiry dates exceeded, theft, etc.

In the light of the above-mentioned observations and difficulties, and with a view to improving the monitoring of public expenditure on the nutrition component of health, a few recommendations are made, mainly to the Ministry of Public Health, and their implementation is strongly encouraged.

### **Main recommendations**

1. Establish a genuine statistical information sub-system relating to IMSAM.
2. Review the input distribution channel by adapting it to the realities on the ground and promoting its effective application.
3. Make the department of Health Promotion of the Ministry of Public Health play a role of effective coordination of the activities of the devolved structures relating to IMSAM.
4. Build the capacities of the devolved structures of the Ministry of Public Health in the keeping of statistics.
5. Strengthen the conditions of conservation and mechanism of control of input inventories and the follow-up of individual patient records.
6. To strengthen the financial and logistical means for the transport of inputs.
7. Develop an interactive database with possibilities of archiving and retrieval of data at the level of the central coordination via a server.

# CHAPTER 1: PRESENTATION OF THE STUDY

## 1.1 Background and justification of the study

The Ministry of Economy, Planning and Regional Development, Ministry of Finance, as well as the Ministries of Health, Basic Education, Secondary Education and Water Resources and Energy of Cameroon have decided, for the year 2018, to conduct a study to track public expenditure in the areas of health, nutrition, water-hygiene-sanitation and education, with support from UNICEF.

The purpose of this study is to gradually track the flow of resources at all levels of the public administration (central and devolved), as well as at the level of councils, in order to be able to quantify the share of the budgetary resources which actually reaches the final providers. By collecting and comparing data at multiple levels (from central to peripheral levels such as health centres and schools through devolved and local administrations), PETS (Public Expenditure Tracking Survey) enables to determine resources deviated from their original destinations.

Cameroon has already conducted two PETS surveys in the areas of health and education. The first such operation, PETS 1, commissioned by the government, was carried out in Cameroon in 2003/2004 by the NIS. It was one of the triggers for reaching the completion point of the Heavily Indebted Poor Countries (HIPC) public debt relief initiative. The second operation, PETS 2, was part of the implementation of Law No. 2007/006 of December 26, 2007 on the financial system of the State, that operationalised the transition to Results-Based Management (RBM). In relation to this law, which lays down the principles of sincerity and transparency in public accounts, PETS2 has positioned itself as an instrument for monitoring and evaluating the implementation of this new financial system.

Given the importance of governance issues in the Government policy, which is supported by results-based management, it has been recommended in view of the results of these initial PETS surveys that such an operation be generalised to all sectors and priority areas and carried out periodically to assess the effectiveness of public expenditure and the level of satisfaction of beneficiaries. The 2018/2019 PETS study, which has broadened the scope of the areas of nutrition, water-hygiene-sanitation, falls in line with the implementation of this recommendation while maintaining the areas of health and education.

With regard to the area of nutrition, the PETS3 study drew on existing diagnosis elements, particularly the forms of malnutrition encountered are: chronic malnutrition, acute malnutrition, underweight, micronutrient deficiency, overweight and obesity. To address these problems, the government has set up about fifteen operational (preventive and curative) programmes related to nutrition.

Preventive programmes include, among others, Vitamin A Supplementation and Deworming, Home Fortification, Infant and Young Child Feeding, Iron and Folic Acid Supplementation, Salt Iodisation Programme, Blanket Supplementary Feeding Programme and Large-Scale Food Fortification. Curative programmes include mainly the Integrated Management of Severe Acute Malnutrition (IMSAM), financed by the funds mobilised by UNICEF and the State, in a formula of 80-20 and consisting of medical and nutritional management of children suffering from severe acute malnutrition for a certain period, at the level of some public health facilities.

From the analysis of all these programmes, it appears that the most important according to its extent and level of funding is IMSAM. It covers the regions of the Far North, North, Adamawa and East that have the highest number of cases of malnutrition. It accounts for \$ 5 million out of the \$ 7 million invested in nutrition, that is over 70%. On average, 60,000 children are cared for each year in all 4 regions since 2012.

## **1.2 Objectives of the study**

PETS studies, originally promoted by the World Bank, make it possible to track public expenditure in a given area, through various resource flow administrative levels (central, regional, divisional, sub-divisional/council, service provider, beneficiary) in order to determine the proportion of these resources which initially allocated (human, financial, in-kind), reach the final provider. In other words, the PETS is a useful method for detecting bottlenecks, fund losses and problems of deployment of human, material and financial resources.

### **1.2.1 General objective**

The study aims to provide the Cameroonian Government and partners involved in the area of Nutrition with the information needed to objectively assess the performance in the management of public expenditure during the 2017 financial year.

### **1.2.2 Specific objectives**

Specifically, the study aims to:

- i) track the management of financial resources relating to the monitoring of the implementation of IMSAM;
- ii) track the management of Ready-to-Use Therapeutic Foods (RUTFs);
- iii) track the management of essential drugs for severe acute malnutrition.

## **1.3 Methodological approach of the study**

The study is based on data collection that covered all programme areas. The data and information collected mainly concern financial resources and inputs acquired for the year 2017. They are used to monitor public expenditure made under IMSAM throughout the chain, from one stakeholder to another.

### **1.3.1 Scope of the study**

Geographically, the nutrition component of the study covers mainly the regions of the Far North, North, Adamawa and East which are home to the highest number of cases of malnutrition, and to which the main nutrition-related development projects/programmes are oriented.

All the hierarchical levels of the Ministry of Public Health and health service providers, namely health facilities are concerned.

### **1.3.2 Observation units**

Data is collected from the various links in the distribution chain of financial resources, RUTFs and essential drugs for IMSAM. Gradually, there are:

- community health workers who detect patients eligible for the programme;
- health facilities offering outpatient IMSAM services (Ambulatory Nutrition Centre for Severe Acute Malnutrition) and those offering in-house IMSAM services (Internal Therapeutic Nutrition Centre);
- health districts;
- Regional Delegations of Public Health;
- the central service of the Ministry of Public Health (Sub-Department of Food and Nutrition);
- United Nations Children's and Emergency Fund.

### 1.3.3 Sampling

The study covering several areas, including nutrition, the sample design used enabled to have a sample for each area. The drawing common to all areas was that of councils. From the councils, each area derived its sample. The units sampled were the nutritional centres (NCSAM and ITNCs).

The type of survey chosen is a stratified and cluster survey, the cluster being the council. The stratification consisted in distributing the sample in each of the 4 regions, and for each region having councils as well as sub-divisional councils.

#### 1.3.3.1 Sampling frame for the drawing of councils (clusters)

The sampling frame comprises all 122 council units, including 111 councils and 11 sub-divisional councils.

#### 1.3.3.2 Size and distribution of the sample

The number of councils in each region concerned by the nutrition component took into account the territorial distribution of nutritional centres in these regions. The following table shows the details of the sample distribution of the clusters in the regions concerned.

**Table 1:** Cluster sample size by region

| Regions               | Councils   |           | Sub-divisional councils |          | Total      |           |
|-----------------------|------------|-----------|-------------------------|----------|------------|-----------|
|                       | Total      | Sample    | Total                   | Sample   | Total      | Sample    |
| Adamawa               | 18         | 2         | 3                       | 1        | 21         | 3         |
| East                  | 31         | 3         | 2                       | 1        | 33         | 4         |
| Far North             | 44         | 5         | 3                       | 1        | 47         | 6         |
| North                 | 18         | 2         | 3                       | 1        | 21         | 3         |
| <b>National total</b> | <b>111</b> | <b>12</b> | <b>11</b>               | <b>4</b> | <b>122</b> | <b>16</b> |

Source: NIS

#### 1.3.3.3 Cluster sample drawing method

The cluster sample drawing method was the simple random drawing from the list of councils by type and region, the size being already known.

Once the council was selected, all the Ambulatory Nutrition Centres for Severe Acute Malnutrition and Internal Therapeutic Nutrition Centres it contained were systematically reviewed. All devolved structures covering the selected Ambulatory Nutrition Centres for Severe Acute Malnutrition and Internal Therapeutic Nutrition Centres were surveyed. In addition, three IMSAM community health workers randomly selected from the list of workers at each sampled nutrition centre were interviewed.

**Table 2:** Sample of nutritional centres and community health workers by region

| Regions         | NCSAM      | ITNC      | CHW        |
|-----------------|------------|-----------|------------|
| Adamawa         | 21         | 1         | 52         |
| East            | 19         | 3         | 53         |
| Far North       | 23         | 2         | 72         |
| North           | 52         | 4         | 154        |
| <b>Cameroon</b> | <b>115</b> | <b>10</b> | <b>331</b> |

Source: NIS

### 1.3.4 Observation and collection method

The face-to-face interview method was used in the field. The collection staff would visit a sample structure and conduct interviews with the managers, interviews relating to the expenditure system.

These interviews were informed by records relating to the management of resources and inputs mobilised by the IMSAM programme. Any relevant information that may emerge during these interviews was also recorded for future use.

Collection was computerised (Computed Assisted Personal Interviewing or CAPI). However, a set of paper questionnaires was printed to deal with all eventualities.

### **1.3.5 Data processing and estimation**

The data was collected electronically. Processing was performed at three levels:

- a first level during data collection, carried out by the interviewers themselves; this enabled to directly correct any errors;
- a second level carried out by the collection management team; this enabled to contact interviewers while they were still in the field for corrections;
- a third level called clearance, performed by the IT team. Overall consistency checks as well as other processing operations were performed at this level.

Several software were used including CPro for collection and initial processing, SPSS for clearance and production of tables, Excel for production of graphs and calculation of some indicators, Word for analysis report write-up.

Analyses focused, among other things, on the loss of financial resources and inputs across the distribution chain.

## **1.4 Limitations and difficulties encountered**

The nutrition component of the study did not cover all the aspects taken into account in the various projects and programmes implemented by the government, in accordance with the national nutrition policy. As mentioned above, only the integrated management of severe acute malnutrition was monitored, given its significant weight in the area.

During data collection, archiving was an acute problem at all levels of collection and especially at the level of devolved structures that are the Regional Delegations of Public Health, Health Districts and Nutritional Centres. The high mobility of staff at the head of these services, coupled with the lack of culture of systematic securing of documentation, did not enable to have complete information on all the variables sought. It appears that records are considered as personal documents and are not always made available to the service, even less to successors to positions.

The project team had to carry out additional data collection from IMSAM regional focal points in the four regions. However, the results, which remain mixed, made it possible to analyse allocations and uses of RUTFs and some essential drugs.

In addition, this study makes a partial estimate of input losses across the distribution chain. The loss registered between nutritional centres and patients (the last level of distribution) was not estimated. Patient records had to be scrutinised for the calculation of this indicator, which could not be done by the interviewers during the data collection phase.



## CHAPTER 2: ORGANISATION AND OPERATION OF INTEGRATED MANAGEMENT OF SEVERE ACUTE MALNUTRITION IN CAMEROON

This chapter summarises the national strategy for reducing malnutrition and organising the Integrated Management of Severe Acute Malnutrition (IMSAM) in Cameroon, while emphasising the roles of the main actors and their interactions.

### 2.1 National nutrition policy in Cameroon

The National Nutrition Policy is part of Cameroon's overall development reference framework, defined in its long-term vision of development and which considers the improvement of the nutritional status of the population as both a social development objective and an objective of economic growth.

Its aim is to guarantee the Cameroonian population, especially the most vulnerable groups, an optimal nutritional status that will enable them to enjoy the intellectual, physical and psycho-affective capacities to live an active and productive life and contribute to reducing morbidity and mortality rates among children, adolescents, women of childbearing age, adults and the elderly.

It primarily aims to:

- contribute to reducing levels of undernutrition;
- contribute to reducing morbidity and mortality from diet and lifestyle-related noncommunicable diseases;
- increase the production and consumption of wholesome foods with high nutritional value, including in ecological zones most vulnerable to natural disasters (drought, flood, etc.) in order to ensure sustainable food security for Cameroonian populations by 2030;
- ensure the establishment of a single and sustainable system of coordination of food and nutrition actions in various areas and at different levels;
- ensure the integration of food and nutrition issues into various development plans and programmes, including the allocation of significant resources at all level.

Interventions are implemented in synergy with all the areas concerned namely Health, Education, Water-Hygiene-Sanitation, Agriculture and Livestock, Research, Women Empowerment and Family, Social Sector, Private Sector, with a particular emphasis on community participation.

#### 2.1.1. Policy strategic axes

The National Nutrition Policy comprises eleven strategic axes.

##### **Axis 1. Promotion of infant feeding, young child feeding, and nutrition of pregnant and breastfeeding women.**

This axis aims to:

- contribute to the survival, growth and development of the child by improving infant and young child feeding as well as the nutrition of pregnant and breastfeeding women in Cameroon by 2030;
- strengthen the legislative and regulatory environment to protect, support and encourage infant feeding.

The strategies to be developed are related on the one hand, to the promotion, support, protection and encouragement of maternal and child nutrition from conception to 5 years, including in special situations, and to the promotion of essential family practices.

## **Axis 2. Fight against under-nutrition and micronutrient deficiencies**

It aims to:

- reduce the prevalence of stunting, underweight and micronutrient deficiencies below the thresholds defined by WHO as a public health problem;
- reduce the prevalence of global acute malnutrition in the most affected areas (prevalence above 5%);
- promote elderly people's access to appropriate nutrition.

To achieve this, the strategy consists in promoting a package of integrated interventions to address under-nutrition, including chronic malnutrition, increased micronutrient intakes and promotion of community-based nutritional surveillance.

## **Axis 3. Prevention and management of the disease in children, pregnant or breastfeeding women**

This axis aims to:

- contribute to the improvement of nutritional status by reducing the incidence of common diseases among children and pregnant women;
- promote a synergy of actions between nutrition programmes and other health programmes;
- provide specific nutritional care for sick children.

The strategy consists in providing Integrated Clinical and Community Management of Childhood Illnesses and carrying out mass campaigns.

## **Axis 4. Household food security**

This axis is intended to:

- ensure the nutritional and health well-being of the Cameroonian population by guaranteeing the quantitative and qualitative availability of foodstuffs to fight against hunger and poverty;
- promote the consumption of foods with high nutritional value by vulnerable groups and other specific groups in the country;
- ensure the production, availability and consumption of food and access to food for every Cameroonian in adequate quantity and quality.

To achieve this, the strategy consists in (i) sustainably increasing, diversifying and intensifying agricultural, livestock and fisheries production, (ii) strengthening national capacity to build up security inventories, processing and preserving food, (iii) revitalising the monitoring and intervention system in order to reduce the effects of cyclical food insecurity, and (iv) promoting production and consumption of high nutritional value foodstuffs.

## **Axis 5. Food safety**

This axis aims to:

- ensure a good microbiological, chemical and organoleptic quality of the food consumed in Cameroon;
- ensure compliance with national and international standards and standards for the production, distribution and marketing of foodstuffs

Strategies to be developed under Axis 5 focus on strengthening the legislative, normative and regulatory framework for quality control of foodstuffs, and on strengthening the food quality

monitoring system on the market and at the level of production, processing, distribution and consumption sites.

#### **Axis 6. Water, hygiene and sanitation**

This axis aims to:

- contribute to improving nutritional status through household access to safe drinking water and basic sanitation, including hygiene services;
- ensure a synergy of actions between the nutrition programmes and the Water, Hygiene and Sanitation Programme.

To this end, the strategies to be developed consist in strengthening the drinking water supply and sanitation policy in rural areas and in all regions of the country, strengthening the public-private partnership in the WASH sector, strengthening actions of "WASH in Nutrition" and capacity building of nutrition stakeholders in the WASH sector.

#### **Axis 7. Fight against overnutrition and diseases related to food and lifestyle**

The objectives here are to (i) contribute to reducing the prevalence of nutrition and lifestyle-related diseases and (ii) provide dietary management for people suffering from nutrition and lifestyle-related diseases. The strategies to be developed are focused on promoting health-enhancing behaviours and lifestyles, including for children under 18 years of age, screening and comprehensive management of non-communicable diseases in health facilities and at the local level of the community, monitoring of nutrition and lifestyle related diseases.

#### **Axis 8. Preparedness and emergency response and community resilience**

This axis aims to:

- help save lives in times of crisis and disaster and to respond to humanitarian needs in the country;
- develop and implement resilience mechanisms at all levels.

As such, strategies focus on coordinating all stakeholders in preparedness and emergency response, strengthening emergency preparedness and care for victims, improving the operational capabilities of stakeholders and communities and involvement of local and regional authorities in preparedness and crisis management.

#### **Axis 9. Research, training and capacity building in the area of nutrition**

The objective of this axis is to make available to the national community, professionals of all levels and scientific evidence for the resolution of nutritional problems.

The actions to be implemented relate to the integration of nutrition education at all levels (nursery, primary, secondary and higher education) taking into account the nutritional realities of the country, strengthening of the research component relating to intervention in the area of nutrition geared towards national priorities and popularisation of results, advocacy for the allocation of resources, recruitment of nutrition professionals and creation of their profession at the level of the civil service, and capacity building of the various actors in nutrition.

#### **Axis 10. Food and nutritional support for socio-economically vulnerable people**

This axis aims to:

- improve the accessibility of socio-economically disadvantaged groups to adequate nutrition and nutritional care;

- develop within these groups resilience projects covering key areas.

To achieve this, the policy provides for the strengthening of the food supply and nutrition and health care and the implementation of social safety nets such as cash transfers, vouchers (packaged or not) and financial assistance for work.

## **Axis 11. Education and communication for development**

This axis primarily aims to:

- improve capacities, knowledge, attitudes and practices on food and nutrition through all known and used communication techniques;
- create an enabling environment for social change at all levels in favour of nutrition.

Strategies to be developed in this context are of three types: (i) planning, development and implementation of advocacy for nutrition, (ii) promotion of social mobilisation and community participation and (iii) strengthening of communication for behaviour change and social communication about food and nutrition.

### **2.1.2. Expected results**

The expected outcomes of the National Action Plan for Nutrition (NAPN) in Cameroon are the reduction of neonatal, infant and child mortality rates related to undernutrition and overnutrition (SDGs 2 and 3). The implementation of the National Nutrition Policy will enable by 2030 to reduce morbidity and mortality rates related to undernutrition and overnutrition in children, adolescents, pregnant or breastfeeding women and the elderly, through the improvement of their nutritional status in accordance with Sustainable Development Objective No. 2: *“End hunger, achieve food security and improved nutrition and promote sustainable agriculture”*.

### **2.1.3. Priority interventions**

The government's priority nutrition interventions focus on:

- promotion of good infant and young child feeding practices through early and exclusive breastfeeding for up to six months, introduction of complementary feeding from the age of six months and continuation breastfeeding up to 24 months;
- promotion of community nutrition in health areas at the national level;
- prevention of micronutrient deficiencies, including vitamin A supplementation and deworming of children 6-59 months of age, the use of zinc in the treatment of diarrhoea, iron and folic acid supplementation of pregnant women and breastfeeding women and home fortification using micronutrient powders;
- implementation of the baby-friendly hospital initiative; and
- improvement of the management of acute malnutrition, particularly through the implementation of the National Protocol for the Integrated Management of Acute Malnutrition.

## **2.2 Integrated Management of Severe Acute Malnutrition**

The Integrated Management of Severe Acute Malnutrition is a Government programme designed and implemented with the technical and financial support of technical and financial partners including UNICEF. It is part of the overall strategy to reduce malnutrition in Cameroon and targets all people affected by severe acute malnutrition but focuses primarily on children under 5, pregnant and breastfeeding women, and people living with HIV/AIDS or tuberculosis.

This programme relies, among other things, on an integrated component at the level of health facilities with a process that starts from passive screening to the orientation of detected cases. This orientation is made either to the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) for the management of cases of severe acute malnutrition without medical complications and with appetite, or to the Internal Therapeutic Nutritional Centres (ITNCs) which take care of cases of severe acute malnutrition with medical complications and/or lack of appetite as well as infants from 0 to 6 months with a nutritional problem.

IMSAM covers the regions of Adamawa, East, Far North and North. It is structured to reach the most distant targets possible.

### **2.2.1. Objectives**

The four objectives pursued by IMSAM through its implementation are:

- involve the local community in awareness raising, prevention, early detection, referral and monitoring of malnutrition cases;
- decentralise points of contact between patients and health facilities, thereby facilitating their care and follow-up to improve coverage;
- use ready-to-use foods (Ready-to-Use Therapeutic Foods);
- integrate IMSAM into the routine care facility package.

### **2.2.2. Organisation of IMSAM**

IMSAM is organised around the central and devolved services of the Ministry of Public Health that interact with local communities.

#### **2.2.2.1. Organisation of IMSAM at the central level**

At the central level, IMSAM is organised around the Department of Health Promotion (DHP) and more particularly the Sub-Department of Food and Nutrition (SDFN) of the Ministry of Public Health. As part of this programme, the Sub-Department of Food and Nutrition (SDFN) is responsible, among other things, for (i) developing and disseminating national protocols, tools and guidelines, (ii) organising training of trainers, (iii) providing nutritional input orders, defining the input supply and distribution system, making it operational and following it up, (iv) creating the framework for consultation and coordination, (v) performing specific bi-annual supervision, (iv) maintaining a database including all the names of structures providing IMSAM services, and (vii) collecting and classifying health region reports, compiling them and incorporating them into the Health Information System (HIS).

#### **2.2.2.2. Organisation of IMSAM at devolved level**

At the devolved level, IMSAM is organised around regional delegations of the Ministry of Public Health, health districts, health areas and at the community level.

##### **1. At the level of regional delegations**

A trained Nutrition Focal Point responsible for IMSAM is designated within the regional delegation to plan, implement, organise, coordinate and manage the programme in the region. They are

responsible for organising monthly coordination meetings at the regional level with all the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) and Internal Therapeutic Nutritional Centres (ITNCs) supervisors, evaluating the needs of the programme and taking the necessary steps in terms of supply, ensuring the flow of therapeutic and additional products from the central level to the district, ensuring the storage of inputs at the district level and their routing from the district to Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) and Internal Therapeutic Nutritional Centres (ITNCs), ensuring regular supervision of the quality of service provided by health workers in the region, organising ongoing training of staff according to needs, maintaining a Nutrition Centre Mapping database, compiling the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) and Internal Therapeutic Nutritional Centres (ITNCs) monthly reports and submitting them to the central level, supporting the community mobilisation strategy and facilitating the activities of Community Health Workers.

## **2. At the level of the health district**

As at the regional level, a nutrition focal point is designated at the district level by the head of the district health service. Working under the authority of the latter, their missions are to: assess the needs of the nutritional centres in RUTF and drugs and send the information to the nutrition focal point of the regional level, provide training supervisions, compile the monthly reports of Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) and Internal Therapeutic Nutritional Centres (ITNCs) and submit them to the nutrition focal point at the regional level, support the community mobilisation strategy and facilitate the activities of the community health workers, ensure the flow of inputs, their storage at district level and their routing from the district to the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM), ensure the provision of Internal Therapeutic Nutritional Centres (ITNCs) in coordination with the Chief Physician of the hospital.

## **3. At the level of Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM)**

Health facility (HF) managers, in addition to the practical implementation of care activities, must: organise the community mobilisation strategy and facilitate the activities of the community health workers and other community volunteers, ensure the management and maintenance of the warehouse for the storage of programme inputs and materials, monitor inventory status to anticipate orders and thereby avoid stock-outs, ensure monthly reporting (completeness and readiness) of activities to the health district level, and ensure monitoring and continuing education of health personnel and volunteers working in the health centre.

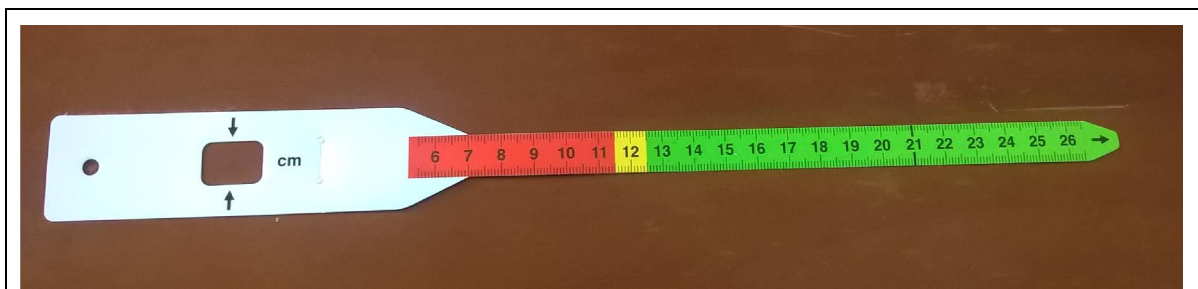
## **4. At the level of Internal Therapeutic Nutritional Centres (ITNCs)**

Internal Therapeutic Nutritional Centres managers, in addition to the practical implementation of care activities, must: monitor inventory status to anticipate orders and thereby avoid stock-outs, ensure monthly reporting (completeness and promptness) of activities to the Internal Therapeutic Nutritional Centre (ITNC) level and ensure management and storage of the inputs and materials of the IMSAM programme.

## **5. At the community level**

The aim is to regularly screen (usually once a month) the target population of the programme. Screening is provided by Community Health Workers who are men and women in the health system, selected, supported by the community, and trained for a short time to deal with health issues under the supervision of the health services. Once screened according to specific criteria, patients are referred by health workers to the appropriate nutrition centres.

**Box1:** Criteria for referral of community to the nutritional centre



Referral is based on the measurement of the Brachial Perimeter (BP) and verification of nutritional oedema. The community health worker work tool is the Shakir Armband or Band that is used to measure Brachial perimeter. Any child with a yellow or red Brachial Perimeter and/or oedema is referred to the nutritional centre for management, which is normally an Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM). However, it may happen that the community health worker for reasons of proximity may refer the patient directly to the Internal Therapeutic Nutritional Centre (NTIC) if it is the closest centre.

**2.2.2.3. Organisation of transportation and storage of RUTF and ready-to-use drugs**

The health district is responsible for collecting the needs of each centre (Ambulatory Nutrition Centres for Severe Malnutrition, Internal Therapeutic Nutritional Centre) for transmission to the Nutrition Focal Point of the region. The focal point can then coordinate with the central level (Sub-Department of Food and Nutrition (SDFN) and UNICEF) to order and supply these inputs. Nutritional inputs and drugs are ordered by UNICEF and sent to central and ancillary warehouses of Regional Delegations of Public Health. A fund is allocated to the various regional focal points who are responsible for delivering these products to the health districts. The health districts, in turn, send them to the health facilities according to the various orders.

UNICEF ensures the availability of a regional warehouse, district warehouse, and health district warehouse for the storage and conservation of IMSAM nutritional inputs (the size of the warehouse should allow intermediate storage of all inputs for all health districts in the region, and Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) and Internal Therapeutic Nutritional Centres (ITNCs) for the health district), as well as the appointment of a staff in charge of warehouse management and maintenance.

At the warehouse level, inputs and drugs stored in cartons are stored on pallets.

**2.2.3. Mechanisms for implementation and monitoring-evaluation**

Integrating the management of acute malnutrition into the health system also involves integrating its monitoring and evaluation mechanisms. These mechanisms should make it possible to interpret programme results and identify weaknesses and bottlenecks. The data collected is important for planning activities, ordering nutritional inputs and drugs, equipment needed, and planning training or technical support requirements. Monitoring and evaluation are also part of the monitoring system to assess the nutritional status of the population.

**2.3 State of play in the management of severe acute malnutrition in Cameroon in 2017**

The Ministry of Public Health, in partnership with UNICEF, has been implementing since 2008, the programme for integrated management of severe acute malnutrition in health facilities with Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) and Internal Therapeutic Nutritional Centres (ITNCs) for the care of children suffering from severe acute malnutrition with medical complications. In 2017, over 800 health facilities were already offering IMSAM services in the 4 priority regions (Adamawa, East, Far North and North). Between 2016 and 2017, there was an increase in the number of new admissions (over 9,000) likely due to the increase in the number of

Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM). The most demanding regions remain the Far North and North, which alone account for nearly 68% of nutritional centres and 82% of new admissions in 2017.

**Table 3:** Evolution between 2016 and 2017 of the number of nutritional centres and new patient admissions for IMSAM

|                  | NCSAM      |            | ITNC      |           | NCSAM + ITNC |            | New admissions |               |
|------------------|------------|------------|-----------|-----------|--------------|------------|----------------|---------------|
|                  | 2016       | 2017       | 2016      | 2017      | 2016         | 2017       | 2016           | 2017          |
| <b>Adamawa</b>   | 68         | 133        | 7         | 7         | 75           | 140        | 4,471          | 5,927         |
| <b>East</b>      | 99         | 110        | 14        | 14        | 113          | 124        | 4,592          | 6,181         |
| <b>Far North</b> | 291        | 324        | 28        | 28        | 319          | 352        | 33,866         | 41,006        |
| <b>North</b>     | 163        | 194        | 13        | 13        | 176          | 207        | 16,962         | 16,047        |
| <b>Total</b>     | <b>621</b> | <b>761</b> | <b>62</b> | <b>62</b> | <b>683</b>   | <b>823</b> | <b>59,891</b>  | <b>69,161</b> |

Source: MINSANTE/SDFN

The latest review of the national protocol of care dates back to 2013. At the end of this review, 1,174 health facility staff in the 4 regions had been trained on the new protocol. However, the level of implementation and supervision methods, as well as the high staff turnover did not significantly improve the quality of the programme. On average, cure rates are consistently above acceptable standards of 75%, but these results hide some disparities between regions. In addition, drop-out rates remain a major problem in the programme, with rates consistently above 15%, especially in the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) that receive most patients for outpatient treatment. These drop-outs can be considered as sources of losses of RUTFs and drugs because the treatment of patients must be resumed entirely in case of return to the programme. With regard to deaths, it is clear that they are more extensively reported in the Internal Therapeutic Nutritional Centres (ITNCs). This is because in-patients are already suffering from severe acute malnutrition with medical complications and difficulties eating well. However, with the combined efforts of the State and its partners, death rates remain below the acceptable threshold of 10%.

**Table 4:** Evolution between 2016 and 2017 of some performance indicators of nutritional centres

|              |                  | Type of centres | Cure rate | Drop-out rate | Death rate |
|--------------|------------------|-----------------|-----------|---------------|------------|
| <b>2016</b>  | <b>Adamawa</b>   | ITNC            | 86.9      | 5.2           | 7.9        |
|              |                  | NCSAM           | 79.7      | 19.7          | 0.6        |
|              | <b>East</b>      | ITNC            | 82.7      | 7.9           | 9.5        |
|              |                  | NCSAM           | 69.9      | 29.0          | 1.2        |
|              | <b>Far North</b> | ITNC            | 92.1      | 3.3           | 4.6        |
|              |                  | NCSAM           | 81.6      | 17.6          | 0.8        |
| <b>North</b> | ITNC             | 82.4            | 8.9       | 8.7           |            |
|              | NCSAM            | 79.1            | 19.9      | 0.9           |            |
| <b>2017</b>  | <b>Adamawa</b>   | ITNC            | 87.5      | 6.4           | 6.1        |
|              |                  | NCSAM           | 77.5      | 21.7          | 0.8        |
|              | <b>East</b>      | ITNC            | 86.8      | 4.8           | 8.3        |
|              |                  | NCSAM           | 83.8      | 15.0          | 1.2        |
|              | <b>Far North</b> | ITNC            | 92.9      | 2.9           | 4.2        |
|              |                  | NCSAM           | 81.8      | 17.7          | 0.6        |
| <b>North</b> | ITNC             | 84.3            | 9.4       | 6.3           |            |
|              | NCSAM            | 76.8            | 22.6      | 0.6           |            |

Source: MINSANTE/SDFN

At the beginning of each month the monthly reports of the nutritional centres are sent to the health district level. They are prepared on the basis of the monthly reports that each community health



worker sends to the person in charge of the centre on the course of his activities over the period. The nutrition focal point of the district (or failing that, the person in charge of monitoring nutritional activities) is then in charge of compiling the reports in a computer database. This database is transferred to the nutrition focal point of the region, who compiles the data into a regional database.

## CHAPTER 3: FINANCING OF INTEGRATED MANAGEMENT OF SEVERE ACUTE MALNUTRITION

### 3.1 Planning and programming of activities

#### 3.1.1. UNDAF cooperation framework

The United Nations Development Assistance Framework (UNDAF) is one of the key instruments for reforming the United Nations system (UN). As such, it describes the collective, coordinated, coherent and integrated response of the United Nations system to national development priorities. It also provides the reference framework for all United Nations system interventions in a country for the duration of the cooperation cycle.

The plan in force in 2017 covered the period 2013-2017. It was prepared after the implementation of the GESP, which focuses on accelerating growth and creating decent jobs, began in 2010.

Also, to accompany the country towards the desired emergence, the United Nations System country team in Cameroon has chosen to express its response to the national priorities formulated in the GESP as part of a UNDAF entitled "For Inclusive Growth and the Protection of Vulnerable Persons". This choice, which, at the very least, places the human being at the heart of the country's development problems, takes into account the comparative advantages of the United Nations system in Cameroon. It is in line with the government's desire to have strong human capital capable of sustaining growth.

One of the major outcomes, expected in 2017, was that populations, both male and female, especially the most vulnerable, would have increased and equitable access to and effective use of quality care, prevention, health and education services. To do this, communities in the intervention areas needed to benefit from packages of prevention and quality health care services including Refocused Reproductive Health, nutrition, HIV/AIDS/PMTCT, water and sanitation, as well as the prevention of harmful practices and gender-based violence (GBV).

#### 3.1.2. Country programme document UNICEF

The programme aims to accelerate progress towards the achievement of the Millennium Development Goals (MDGs) that have become Sustainable Development Goals (SDGs) confirmed as priorities by the GESP and UNDAF, with particular attention to the survival, development and integrated protection of children, especially the most vulnerable.

A set of five outcomes contribute to this goal and are in line with the priorities of UNICEF's Medium-Term Strategic Plan (MTSP), while being strongly linked to the effects of UNDAF. These are:

- (i) high-impact health, nutrition and water and sanitation interventions to help reduce mortality and morbidity among children under 5 years of age and pregnant and breastfeeding women;
- (ii) increase in the proportion of vulnerable children in Priority Education Zones, especially girls, from pre-school who access and complete quality basic education;
- (iii) protection of children, adolescents and their parents against HIV/AIDS and the provision of comprehensive and equitable care in the health districts where the programme operates;
- (iv) child protection system against abuse, violence and exploitation and improved access to citizenship and judicial services;
- (v) inclusion in national, sectoral and local policies of the social protection floor and the equity dimension for the most vulnerable, including children and women.

### **3.1.3. Country Programme Action Plan (CPAP)**

The 2013-2017 Country Programme Action Plan covers all programmes and activities in which UNICEF was called upon to cooperate during the period from January 1, 2013 to December 31, 2017 and replaced all previous plans of operations concluded between the Government and UNICEF.

The 2013-2017 Cooperation Programme consists of four sectoral programme components, including the Young Child Survival Programme and a cross-sectional component. The five programmes are each built around five effects. The Cooperation Programme was expected to provide support for emergency response in accordance with the "Core Collective Commitments for Children in Emergencies".

The Young Child Survival Programme component, defined in line with the Sectoral Health Strategy and the National Health Development Programme, contributes to improving child and maternal survival by reducing morbidity and mortality among children and mothers. This component is implemented through a policy component that aims to influence strategic directions for addressing young children's priorities and an operational component to produce evidence and address the priority problems of the most vulnerable, taking into account the equity approach. The Young Child Survival component has three programme sub-components: (i) Child and maternal health, (ii) Nutrition and (iii) Water, sanitation and hygiene. These various sub-components act in synergy and/or complementarity for child survival, in particular through the implementation of the integrated community-based approach.

The objective of the nutrition sub-component is to contribute to improving the nutritional status of pregnant women, new-borns, young children and children under 5 years of age in the intervention areas, chosen on the basis of unifying criteria (food vulnerability, nutritional vulnerability, population density, access to services, etc.) through preventive and curative interventions. The results aim to ensure that at the end of 2017, i) at least 80% of children aged 6-59 months suffering from severe acute malnutrition are cared for according to national protocol in the Adamawa, East, Far North and North regions; (ii) at least 85 per cent of children aged 6-59 months nationally are supplemented with vitamin A, 85 per cent of children aged 12-59 months are dewormed and 20 per cent of pregnant women in 5 health sub-divisions in the northern region receive iron and folic acid supplements; (iii) improved knowledge and practices of infant and young child feeding in the four regions); and (iv) the institutional and strategic positioning of nutrition is effective.

## **3.2 Activity budgeting**

At the beginning of each year, an activity planning workshop is held during which budgets are prepared. This workshop brings together all the actors involved in the implementation of the programme. An arbitration is subsequently made at UNICEF level depending on available resources and priorities. The result is an annual work plan with budgeted activities and a detailed timeline for implementation.

## **3.3 Resource mobilisation**

As part of its cooperation programme with the Government of Cameroon, UNICEF is mobilising resources to finance specific activities included in the Rolling Work Plan, including IMSAM activities.

This rolling work plan is translated each year into an Annual Work Plan resulting from the planning of activities with the various partners in the sectors concerned.

The financial resources mobilised are then used to implement the planned activities through the various implementing partners.

### **3.4 IMSAM resource management mechanisms (HACT)**

UNICEF makes available to the implementing partner the funds requested for the conduct of planned activities on the basis of a request materialised by the FACE (Funding Authorization and Certification Expenditure) tool. Since 2015 when the HACT (Harmonised Approach to Cash Transfer) became effective, requests for funding of activities and financial reporting are made through this tool.

After implementation of the activities and justification, the partner is required to keep the supporting documents for a period of 5 years. The partner is required to submit to periodic check spots to monitor the effectiveness and quality of the expenditure in relation to the achievement of the planned results.

Programmatic visits are organised to assess the level of achievement of the objectives set.

With regard to the financing of IMSAM, the main partner is the Ministry of Public Health. Financial resources are made available either to the Sub-Department of Food and Nutrition (SDFN)/Ministry of Public Health or to regional delegations of public health depending on the level at which the specific activities are implemented. Most funding allocated to the Ministry of Public Health is intended for Regional Delegations of Public Health.

After validation of the annual input requirements for the support, UNICEF ensures the purchase via funds raised from donors. Inputs are passed on to the partners of the Ministry of Public Health at the level of the regional warehouses of Regional Delegations of Public Health, which ensure their secondary distributions through funds made available by UNICEF.

## CHAPTER 4: IMSAM RESOURCE MANAGEMENT IN 2017

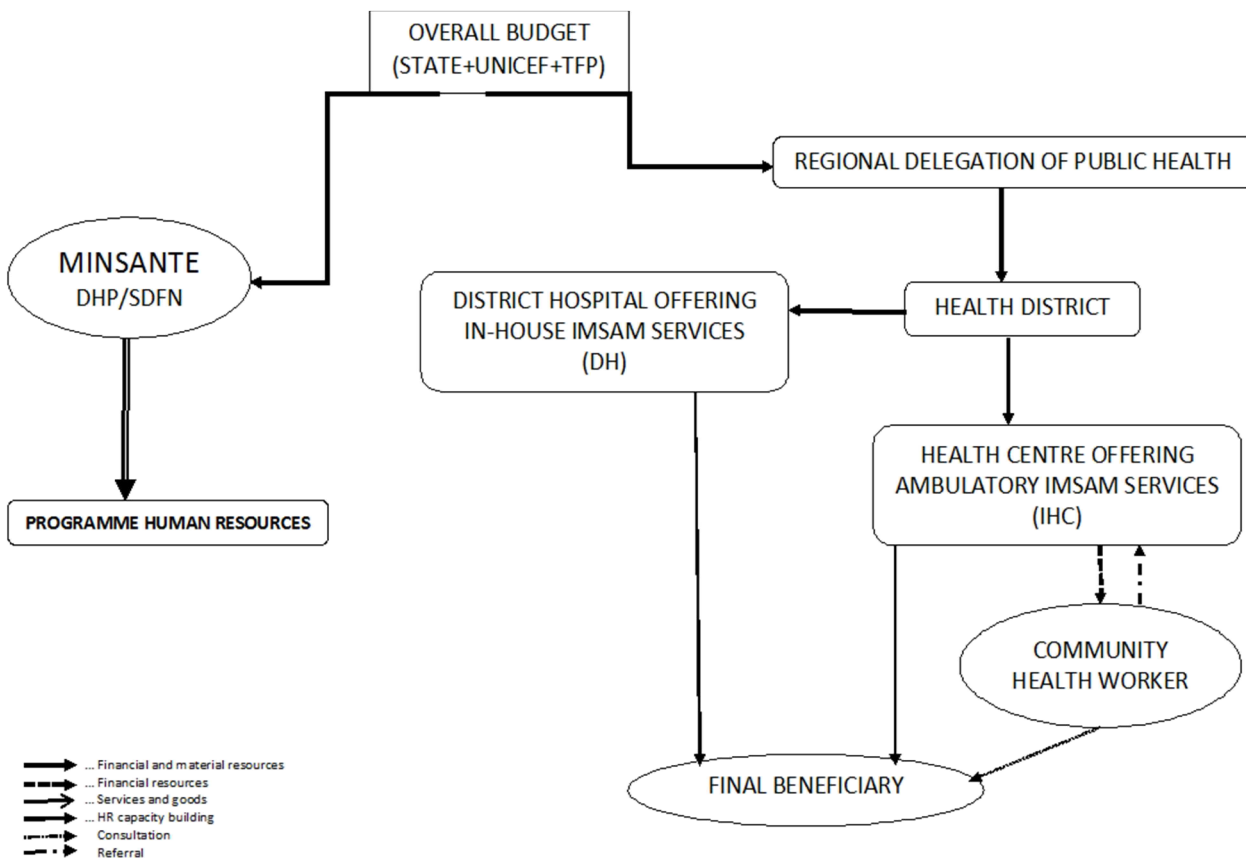
Resources mobilised for IMSAM are of two kinds: (i) financial resources primarily for staff training, acquisition of supplies, supervision missions, and (ii) material resources such as Ready-to-Use Therapeutic Foods (RUTFs) and essential drugs for patients. In this chapter, the uses made of them are analysed in the light of the allocations made.

### 4.1 The flow of financial resources, RUTFs and essential drugs

Financial resources are, upon request of the beneficiary structures, disbursed by UNICEF and made available by transfer to an account of the Sub-Department of Food and Nutrition or Regional Delegation of Public Health. Part of the resources made available to the Regional Delegations of Public Health are intended for the Health Districts, covered for the needs of the nutritional centres.

Concerning RUTFs and essential drugs for the management of severe acute malnutrition, acquisitions are made by UNICEF on the basis of the needs previously expressed by the State through the Ministry of Public Health. Inputs acquired are sent to the Regional Delegations of Public Health, which store them directly in central and/ancillary warehouses in the outskirts to facilitate the distribution of products. Depending on the needs expressed through requests, they are made available quarterly to Health Districts which convey them to the covered nutritional centres (Internal Therapeutic Nutrition Centre in district hospitals, Ambulatory Nutrition Centre for Severe Acute Malnutrition in District Health Centres and Integrated Health Centres).

**Figure 1:** Normal flow of financial resources, RUTFs and essential drugs



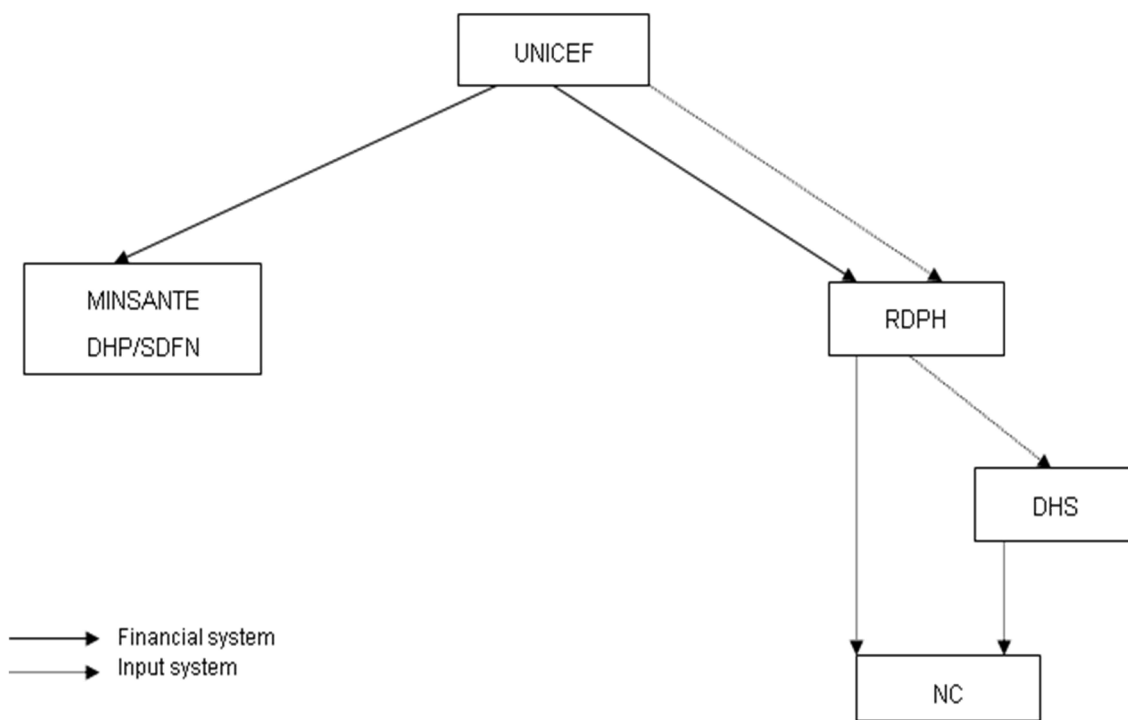
The observation shows that in 2017, no financial resources were transferred from the Regional Delegations of Public Health to the Health Districts and even less from the District Health Services

to the nutritional centres as provided for by the regulations. All costs related to input distribution and capacity building were covered by the regional delegations. No focal point receives financial resources for the routing of inputs, which is contrary to the recommendations of the protocol.

It should be noted that in 2017, community health workers did not receive any financial support related to IMSAM.

Contrary to regulations, it was found in the field that some nutritional centres received their inputs directly from the Regional Delegations of Public Health without going through the Health Districts. Others, on the other hand, have indeed been supplied via the Health Districts.

Figure 2: **Real flow of financial resources, RUTFs and essential drugs**



## 4.2 Management of financial resources

Analysis of the management of IMSAM financial resources takes into account the allocations provided to the central and devolved structures of the Ministry of Public Health, as well as the uses made of them during 2017. Particular emphasis is placed on the time required to justify expenditure incurred by beneficiaries.

### 4.2.1 Allocation of IMSAM financial resources

Every year, UNICEF mobilises financial resources on behalf of the State to ensure satisfactory results in the fight against severe acute malnutrition. These resources are generally shared between human capacity building, monitoring the implementation of actions and evaluation studies.

For the 2017 financial year, over 102 million CFA francs were transferred to the dedicated accounts of the Sub-Department of Food and Nutrition (SDFN) and Regional Delegations of Public Health of the East, Adamawa, North and Far North according to the needs expressed. Over half of these resources (56%) were allocated to activities similar to studies (data validation, Integrated Management of Severe Acute Malnutrition (IMSAM) bottleneck analysis, surveys, analysis workshop, consultation) and mainly carried out by the central coordination structure of the Integrated Management of Severe Acute Malnutrition (IMSAM), which is the Sub-Department of Food and Nutrition (SDFN).

It should be noted that no resources were provided to the Regional Delegations of Public Health of East and Adamawa for regional activity coordination meetings. Similarly, the Far North Regional Delegation of Public Health did not receive any resources for staff training and data validation work from IMSAM. In fact, no requests for these activities have been made to UNICEF by these regions.

While it may be understood, in the case of training, that the Far North region benefited greatly in 2016, it seems disproportionate that activities that appear to be common for Regional Delegations of Public Health are not carried out for a full year. As for coordination meetings, it could be that the Regional Delegations of Public Health of the East and Adamawa finance them with their own fund or with resources from other donors.

**Table 5:** Amount of financial resources made available by UNICEF in 2017 according to structure levels and expenditure lines (in CFA francs)

| Headings                                  | Central structure - Sub-Department of Food and Nutrition | Devolved structures |                   |                   |                   | Total              |
|---|--|---------------------|-------------------|-------------------|-------------------|--------------------|
|   |  | East                | Adamawa           | North             | Far North         |                    |
| Staff training                            | 0  | 3,192,870           | 6,700,340         | 2,990,780         | 0                 | 12,883,990         |
| Input distribution                        | 0  | 3,797,406           | 2,275,420         | 5,687,800         | 9,718,700         | 21,479,326         |
| Supervision missions                      | 910,000  | 581,434             | 2,779,700         | 4,095,000         | 1,485,000         | 9,851,134          |
| Coordination meetings                     | 361,340  | 0                   | 0                 | 56,000            | 399,500           | 816,840            |
| Data validation                           | 0  | 3,025,600           | 799,000           | 1,402,500         | 0                 | 5,227,100          |
| Analysis of bottlenecks in IMSAM          | 0  | 0                   | 0                 | 0                 | 2,412,000         | 2,412,000          |
| SMART surveys                             | 37,684,700   | 0                   | 0                 | 0                 | 0                 | 37,684,700         |
| Mothers' profile surveys                  | 0  | 0                   | 2,123,508         | 3,565,614         | 3,236,404         | 8,925,526          |
| Brachial Perimeter (BP) - Mother workshop | 1,612,500  | 0                   | 0                 | 0                 | 0                 | 1,612,500          |
| Consultation service                      | 1,520,779  | 0                   | 0                 | 0                 | 0                 | 1,520,779          |
| <b>Total</b>                              | <b>42,089,319</b>  | <b>10,597,310</b>   | <b>14,677,968</b> | <b>17,797,694</b> | <b>17,251,604</b> | <b>102,413,895</b> |

Source: UNICEF

#### 4.2.2 Use of financial resources

The use of funds made available to the central and decentralised services of the Ministry of Public Health for IMSAM must be made in accordance with the donor's procedures. The clock starts ticking as soon as the funds are transferred to the bank accounts of beneficiary government bodies. The supporting evidence should be made available within a maximum period of 3 months through a FACE report addressed to UNICEF.

Almost all the financial resources devoted to the Integrated Management of Severe Acute Malnutrition (IMSAM) in 2017 were used/justified by the beneficiaries (over 101 million CFA francs or 99%) on time, which can effectively indicate that the needs expressed were real and have been satisfied. The fact that expenditure is triggered from the "FACE" and that there is a real obligation for the beneficiaries to report directly to the donor, are certainly arguments that lead to very high rates of consumption of financial resources.

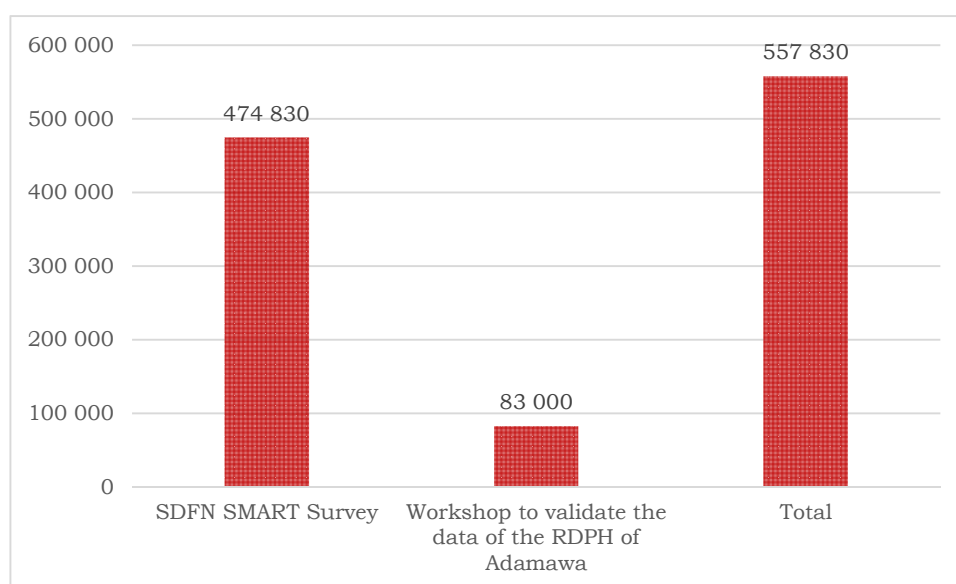
**Table 6:** Amount of 2017 financial resources justified on time by beneficiaries according to levels of structures and expenditure lines (in CFA francs)

| Headings                                  | Central structure - Sub-Department of Food and Nutrition | Devolved structures |                   |                   |                   | Total              |
|---|--|---------------------|-------------------|-------------------|-------------------|--------------------|
|   |  | East                | Adamawa           | North             | Far North         |                    |
| Staff training                            | 0  | 3,192,870           | 6,700,340         | 2,990,780         | 0                 | 12,883,990         |
| Input distribution                        | 0  | 3,797,406           | 2,275,420         | 5,687,800         | 9,718,700         | 21,479,326         |
| Supervision missions                      | 910,000  | 581,434             | 2,779,700         | 4,095,000         | 1,485,000         | 9,851,134          |
| Coordination meetings                     | 361,340  | 0                   | 0                 | 56,000            | 399,500           | 816,840            |
| Data validation                           | 0  | 3,025,600           | 716,000           | 1,402,500         | 0                 | 5,144,100          |
| Analysis of bottlenecks in IMSAM          | 0  | 0                   | 0                 | 0                 | 2,412,000         | 2,412,000          |
| SMART surveys                             | 37,209,870   | 0                   | 0                 | 0                 | 0                 | 37,209,870         |
| Mothers' profile surveys                  | 0  | 0                   | 2,123,508         | 3,565,614         | 3,236,404         | 8,925,526          |
| Brachial Perimeter (BP) - Mother workshop | 1,612,500  | 0                   | 0                 | 0                 | 0                 | 1,612,500          |
| Consultation service                      | 1,520,779  | 0                   | 0                 | 0                 | 0                 | 1,520,779          |
| <b>Total</b>                              | <b>41,614,489</b>  | <b>10,597,310</b>   | <b>14,594,968</b> | <b>17,797,694</b> | <b>17,251,604</b> | <b>101,856,065</b> |

Source: UNICEF

Resources that were not justified in time, i.e. 557,830 CFA francs, were actually used by the beneficiaries in the dedicated lines. These are precisely the SMART surveys (474,830 CFA francs) carried out by the Sub-Department of Food and Nutrition (SDFN) and the holding of the data validation workshop of the Integrated Management of Severe Acute Malnutrition (IMSAM) of the Adamawa region. Relevant supporting documents were made available after the deadline (between 3 and 6 months).

**Graph 1:** Amount of financial resources justified in 2017 beyond the deadline (in CFA francs)



Source: UNICEF



### 4.3 Management of Ready-to-Use Therapeutic Foods and Essential Drugs

As with financial resources, the management of RUTFs and essential drugs for the management of severe acute malnutrition is analysed in terms of their allocation and use in the national distribution chain. The inputs monitored as part of the study are: plumpynut delivered in cartons of 150 sachets of 92g, F75 therapeutic milk delivered in cartons of 120 sachets of 102.5g, F100 therapeutic milk delivered in cartons of 90 sachets of 114g and amoxicillin delivered in boxes.

#### 4.3.1 Input allocations

The overall allocation for 2017 for RUTFs and essential drugs for the management of severe acute malnutrition takes into account the inventories recorded at the end of 2016 and acquisitions made throughout 2017.

The last annual counts, made in December 2016, showed significant reserves of inputs in the various warehouses of Regional Delegations of Public Health (central and annex) in the four study regions.

**Table 7:** Input inventories in Regional Delegations of Public Health as of December 31, 2016 by region and type

|   | Adamawa* | East   | Far North | North  | Total          |
|---|----------|--------|-----------|--------|----------------|
| <b>Therapeutic Foods (RUTFs)</b>                      |          |        |           |        |                |
| Plumpynut ( <i>sachet of 92g</i> )                    | 76,350   | 26,400 | 103,262   | 82,500 | <b>288,512</b> |
| F 75 therapeutic milk ( <i>sachet of 102.5g</i> )     | 120      | 15,480 | 230,452   | 17,400 | <b>263,452</b> |
| F100 therapeutic milk ( <i>sachet of 114g</i> )       | 2,300    | 5,340  | 168,656   | 5,130  | <b>181,426</b> |
| <b>Essential drug</b>                                 |          |        |           |        |                |
| Amoxicillin ( <i>oral sus 125 mg/5ml/BOT-100 ml</i> ) | 2,661    | 240    | 17,600    | 5,045  | <b>25,546</b>  |

Source: Regional Delegations of Public Health, \*Inventory as at December 28, 2016

**Table 8:** Quantity of inputs provided by UNICEF to Regional Delegations of Public Health in 2017 by region and type

|   | Adamawa | East      | Far North | North     | Total     |
|---|---------|-----------|-----------|-----------|-----------|
| <b>Therapeutic Foods (RUTFs)</b>                      |         |           |           |           |           |
| Plumpynut ( <i>sachet of 92g</i> )                    | 420,000 | 1,065,600 | 4,337,900 | 1,419,450 | 7,242,950 |
| F 75 therapeutic milk ( <i>sachet of 102.5g</i> )     | 5,400   | 9,600     | 51,600    | 3,000     | 69,600    |
| F100 therapeutic milk ( <i>sachet of 114g</i> )       | 4,500   | 3,600     | 54,900    | 2,700     | 65,700    |
| <b>Essential drug</b>                                 |         |           |           |           |           |
| Amoxicillin ( <i>oral sus 125 mg/5ml/BOT-100 ml</i> ) | 2,370   | 4,857     | 46,100    | 5,150     | 58,477    |

Source: UNICEF

The analysis of total input supplies showed that for therapeutic foods, the sanitary system benefited from large and sufficient quantities of plumpynut (7,531,462 sachets of 92g), F75 therapeutic milk (333,052 sachets of 102.5g) and F100 therapeutic milk (247 126 sachets of 114g).

It should be noted that the Far North region alone has accumulated over half of the input allocations, i.e. 58.9% plumpynut, 84.7% of F75 milk and 90.5% of F100 milk.

The same is true for the drug "amoxicillin". 84,023 oral boxes of 125mg/5ml/BOT-100ml were available for all four regions, including nearly 75.8% for the Far North region.

As needs are formulated on the basis of patient demand for care, available data show that in 2017, populations were more in demand in the Far North region. This may be explained by the fact that

this region is the most populated in the country but also the poorest according to ECAM4 (74.3% poverty rate for a national average of 37.5%). This state of poverty is accentuated by the exactions of the Boko Haram sect, which has been operating in recent years. In addition, as a border country with neighbouring Chad and Nigeria, it is home to many refugees in search of peace, education, health and, above all, nutrition. This strong orientation of input allocations can therefore be understood.

**Table 9:** Overall allocations of inputs to Regional Delegations of Public Health in 2017 by region and type

|   | Adamawa | East      | Far North | North     | Total     |
|---|---------|-----------|-----------|-----------|-----------|
| <b>Therapeutic Foods (RUTFs)</b>                      |         |           |           |           |           |
| Plumpynut ( <i>sachet of 92g</i> )                    | 496,350 | 1,092,000 | 4,441,162 | 1,501,950 | 7,531,462 |
| F 75 therapeutic milk ( <i>sachet of 102.5g</i> )     | 5,520   | 25,080    | 282,052   | 20,400    | 333,052   |
| F100 therapeutic milk ( <i>sachet of 114g</i> )       | 6,800   | 8,940     | 223,556   | 7,830     | 247,126   |
| <b>Essential drug</b>                                 |         |           |           |           |           |
| Amoxicillin ( <i>oral sus 125 mg/5ml/BOT-100 ml</i> ) | 5,031   | 5,097     | 63,700    | 10,195    | 84,023    |

Source: Our calculations (December 2016 inventories + UNICEF 2017 allocations)

### 4.3.2 Tracking in input management

#### 4.3.2.1. Input distribution

The distribution analysis is based here on the output of inputs from the warehouses. Good inventory management would require that each exit be materialised by a reception acknowledgement form. It would then be logical for the quantities removed to be equivalent to the quantities signed for by the beneficiaries.

To better approach the phenomenon, an indicator is analysed. This is the input exit rate that relates the quantities of inputs removed from warehouses (global allocations 2017 - inventories as at December 31, 2017) to the global allocations for 2017.

Concerning therapeutic foods, while we can be satisfied with the overall plumpynut output rate (88.8%), we should nevertheless be concerned about the output rate of F75 and F100 milk, which are below 30%. It may be that the latter two, which are intended for the most worrying cases of malnutrition, were less in demand throughout 2017, especially in the Far North region, which is the most affected by the phenomenon of malnutrition. Only 18.3% of F75 milk and 24.6% of F100 milk were sent to the nutritional centres in this region. This means that many cases of malnutrition can surely be treated/controlled at the level of Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) (reduction of complications).

For amoxicillin, outside the north region, all other three regions have input outflow rates lower than the national average of about 73%.

**Table 10:** Input exit rate from warehouses in 2017 by region and type

|  | Adamawa | East | Far North | North | Total |
|--|---------|------|-----------|-------|-------|
| <b>Therapeutic foods (RUTFs)</b>                       |         |      |           |       |       |
| Plumpynut ( <i>sachet of 92g</i> )                     | 49.2    | 65.3 | 97.7      | 92.5  | 88.8  |
| F 75 therapeutic milk ( <i>sachet of 102.5g</i> )      | 80.4    | 91.9 | 18.3      | 84.1  | 28.9  |
| F100 therapeutic milk ( <i>sachet of 114g</i> )        | 57.6    | 77.9 | 24.6      | 69.0  | 28.8  |
| <b>Essential drug</b>                                  |         |      |           |       |       |
| Amoxicillin ( <i>oral sus 125 mg/5 ml/BOT-100 ml</i> ) | 51.1    | 69.8 | 72.4      | 90.3  | 73.1  |

Source: Our calculations

### 4.3.2.2. Evaluation of losses

Evaluation of input losses was based on the quantities removed from warehouses and the quantities actually signed for at Regional Delegations of Public Health by Health Districts and nutritional centres. The loss is therefore considered here as the accumulation of inputs that are removed from storage and are not signed for. This is obviously a first level of losses that does not take into account the facts registered on the last link in the chain (nutritional centres and patients).

Estimated losses include expiry, theft, destruction and other uses.

#### Box 2: Approach to assessing input losses

*Assessment of input losses requires complete and quality data at all levels of the supply chain. These include annual allocations for Regional Delegations of Public Health, Health Districts and nutritional centres, as well as uses in terms of transfers to nutritional centres (by Health Districts) and distribution to patients (by nutritional centres).*

*Assessment of the overall loss should be based on the following formula:*

$$\text{Overall loss} = \text{loss 0} + \text{loss 1} + \text{loss 2}$$

*with:*

*Loss 0 = loss between UNICEF and Regional Delegations of Public Health*

*Loss 1 = loss between Regional Delegations of Public Health and Health Districts/Nutritional Centres  
= quantity of inputs removed from warehouses - quantity of outputs justified (receptions)*

*Loss 2 = loss between nutritional centres and patients*

*= quantity of inputs reported as having been distributed by nutritional centres - justified quantity (individual monitoring sheets).*

*The study showed a very low propensity for the main actors to monitor and evaluate the inputs used in the chain. Records are non-existent and when they are found, they are not always of good quality due in part to poor management of input inventories. As a result, the data collected at the level of nutritional centres do not enable even an approximate quantification of the loss between nutritional centres and patients.*

Contrary to what one would expect, and regardless of the products and even the regions, the quantities of inputs signed for do not always correspond to the quantities leaving.

The analysis of the reception acknowledgement slips carried out by the focal points of the Regional Delegations of Public Health shows that, globally, nearly 80% of the plumpynut removed from the warehouses were signed for by the beneficiaries.

For the other products, very small amounts of F75 and F100 therapeutic milk were removed from the warehouses especially in the Far North and Adamawa regions where, for F75 and F100 milk respectively, about 13% and 17% in the Far North, 29% and 19% in Adamawa.

With regard to the drug "amoxicillin", almost 55% of the removals made in the Far North region in 2017 were not justified.

**Table 11:** Rate of justified input removals from warehouses in 2017 by region and type

|  | Adamawa | East | Far North | North  | Total |
|--|---------|------|-----------|--------|-------|
| <b>Therapeutic foods (RUTFs)</b>         |         |      |           |        |       |
| Plumpynut (sachet of 92g)                | 80.6    | 65.2 | 77.5      | 98.2   | 79.9  |
| F 75 therapeutic milk (sachet of 102.5g) | 28.8    | 44.0 | 13.4      | 77.1   | 19.9  |
| F100 therapeutic milk (sachet of 114g)   | 18.5    | 76.5 | 17.4      | 155.2* | 23.9  |
| <b>Essential drug</b>                    |         |      |           |        |       |
| Amoxicillin (box)                        | 98.0    | 71.8 | 44.9      | 117.1* | 58.4  |

Source: RDPH \* : the archives examined show that the quantities signed for are greater than the quantities removed from storage. This is probably a problem of statistics keeping. It is possible that there may have been removals without reception acknowledgement slips.

Analysis of the data provided by IMSAM focal points in Regional Delegations of Public Health shows some cases of loss of inputs at the level of regional warehouses. While it is difficult to make an objective assessment of the losses of some inputs in some regions (mainly due to the quality of inventory and reception data), relatively significant losses can be noted.

It appears that 1,296,812 sachets (8,645 cartons) of plumpynut removed from storage in 2017 were not signed for. With regard to the overall allocation, it may be observed that the East and Far North regions each removed about 22% of this food without justification.

For F75 therapeutic milk, the "losses" in absolute terms are estimated at 64,695 sachets (539 cartons) including 44,699 (372 cartons) in the Far North. However, they are relatively higher in the Adamawa (57.2%) and East (51.5%) regions.

As regards F100 therapeutic milk and amoxicillin, evaluation of losses was not made for the North region because of the very poor keeping of statistics on removals and receptions of these products.

In absolute terms, the largest losses were recorded in the Far North region: 45,426 sachets (505 cartons) for F100 therapeutic milk and 25,411 boxes for amoxicillin. In terms of overall allocations, while the phenomenon is even of greater concern in this region for amoxicillin (39.9%), it is more prevalent in the Adamawa region for F100 milk (46.9%).

**Table 12 :** Quantities of RUTFs and drugs removed from storage without justification by region and type

|   | Adamawa | East    | Far North | North  | Total     |
|---|---------|---------|-----------|--------|-----------|
| <b>Therapeutic foods (RUTFs)</b>                  |         |         |           |        |           |
| Plumpynut ( <i>sachet of 92g</i> )                | 47,376  | 248,150 | 976,278   | 25,007 | 1,296,812 |
| F75 therapeutic milk ( <i>sachet of 102.5 g</i> ) | 3,160   | 12,907  | 44,699    | 3,929  | 64,695    |
| F100 therapeutic milk ( <i>sachet of 114 g</i> )  | 3,192   | 1,637   | 45,426    | n. a.  | n. a.     |
| <b>Essential drug</b>                             |         |         |           |        |           |
| Amoxicillin ( <i>box</i> )                        | 51      | 1,003   | 25,411    | n. a.  | n. a.     |

Source: RDPH – Our calculations

**Table 13: Proportion (%) of the overall allocation removed from storage and unjustified by region and type**

|   | Adamawa | East | Far North | North | Total |
|---|---------|------|-----------|-------|-------|
| <b>Therapeutic foods (RUTFs)</b>                  |         |      |           |       |       |
| Plumpynut ( <i>sachet of 92g</i> )                | 9.5     | 22.7 | 22.0      | 1.7   | 17.2  |
| F75 therapeutic milk ( <i>sachet of 102.5 g</i> ) | 57.2    | 51.5 | 15.8      | 19.3  | 19.4  |
| F100 therapeutic milk ( <i>sachet of 114 g</i> )  | 46.9    | 18.3 | 20.3      | n. a. | n. a. |
| <b>Essential drug</b>                             |         |      |           |       |       |
| Amoxicillin ( <i>box</i> )                        | 1.0     | 19.7 | 39.9      | n. a. | n. a. |

Source: RDPH – Our calculations

#### 4.4 Difficulties, measures and suggestions in input management in 2017

An important aspect of the study is the identification of difficulties in routing inputs to beneficiaries, the idea being to address them to improve management efficiency. The difficulties have been registered at each level of the input distribution chain and the measures taken by the various actors to address these difficulties are presented. These actors also expressed their views on proposals to improve input management.

#### 4.4.1 Main difficulties

Managers at all levels were given the opportunity to express their views on the difficulties they encounter in routing inputs. After processing the information collected, five main difficulties were identified. These, as well as the intensity with which each of them occurs at each level, are presented in the following table.

**Table 14:** Main difficulties encountered in input management in 2017 by level of structure

|   | NCSAM | ITNC | RDPH | HD   |
|---|-------|------|------|------|
| Loss/destruction of inputs                          | 7.8   | 40.0 | 0/4  | 0.0  |
| Lack of qualified staff dedicated to input handling | 26.1  | 20.0 | 2/4  | 17.6 |
| Problem of input transportation                     | 31.3  | 10.0 | 2/4  | 47.1 |
| Input stock-outs                                    | 73.9  | 40.0 | 0/4  | 29.4 |
| Poor storage conditions                             | 7.8   | 0.0  | 4/4  | 23.5 |

Source: NIS, PETS3, 2019

The most recurrent difficulty is related to stock-outs, particularly at the level of nutritional centres. Nearly three-quarters of the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) faced stock-outs. In addition, 4 Internal Therapeutic Nutritional Centres (ITNC) out of 10 reported that they had experienced therapeutic milk stock-outs. At the district health services level, nearly 3 units out of 10 reported stock-outs. As the Regional Delegations of Public Health did not run out of stock, it is logical to think that those reported by the lower structures could be due to routing difficulties, although financial resources are made available to regional delegates by UNICEF for transportation of inputs.

For one Regional Delegation of Public Health out of two problems in the transportation of inputs, in particular the lack of rolling inventory for secondary distribution under minimum conditions, were identified. Similarly, 2 delegations out of 4 also expressed difficulties related to the lack of qualified staff for input handling, which can complicate management and lead to delays in transmission.

These difficulties in transporting and handling inputs were found at all levels of the chain. Health Districts and Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) whose task in the chain includes a strong transportation dimension (they receive and transport inputs) were more aware of these difficulties. Almost one Health District out of two (47.1%) was affected by transportation difficulties, compared to 31.3% for the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM). 10 Internal Therapeutic Nutritional Centres (ITNCs) that receive only inputs were concerned. Among the reasons given were the lack of means of transport, high transportation costs, long distances to villages and isolation.

In addition, Regional Delegations of Public Health faced difficulties in storing inputs. All Regional delegations of Public Health reported that storage conditions were not good. Health Districts are the level most affected after Regional Delegations of Public Health by storage problems, with nearly a quarter of units affected. Internal Therapeutic Nutritional Centres (ITNCs), on the other hand, do not encounter this type of problem, but are rather more affected by input losses (40%).

#### 4.4.2 Measures taken to overcome the difficulties

The measures taken to overcome the difficulties encountered in the routing of IMSAM inputs were collected at all levels from 12 Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM), 1 Internal Therapeutic Nutritional Centre (ITNC), 2 Regional Delegations of Public Health and 6 Health Districts.

The Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM), some of which experienced expiry problems, opted for a redistribution of inputs according to needs. The use of motorcycles as a means of transporting inputs was also observed, for an efficient supply in terms of transportation costs and road praticability. Community relays were also of significant support. To deal with input losses, rigour in securing inputs has been strengthened, and the use of inventory records for management has been introduced.

The observed Internal Therapeutic Nutritional Centre (ITNC) cited as measures taken to overcome the difficulties, the redistribution of inputs as needed, as well as the recruitment of community relays.

Regional Delegations of Public Health, for input distribution, use vehicles from other programmes and that are going to distribution points. Like the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM), to limit input losses, they have reinforced rigour in securing inputs and introduced inventory sheets for management.

**Table 15:** Main measures taken to address the difficulties inherent in input management in 2017 by level of structure

|  | NCSAM | ITNC | RDPH | HD |
|--|-------|------|------|----|
| Direct supply of nutritional centres by the Regional Delegation of Public Health           | 0     | 0    | 0    | 1  |
| Introduction of inventory sheets   | 1     | 0    | 1    | 0  |
| Opening of secondary repositories  | 0     | 0    | 0    | 1  |
| Use of motorcycles for transport   | 9     | 0    | 0    | 1  |
| Recruitment of community relays  | 1     | 1    | 0    | 0  |
| Redistribution of inputs according to needs  | 6     | 1    | 1    | 3  |
| Securing of inputs   | 8     | 0    | 1    | 1  |
| Use of vehicles from other programmes/structures and that are going to distribution points | 0     | 0    | 2    | 2  |

Source: NIS, PETS3, 2019

#### 4.4.3 Proposals to improve input management

Advice from key stakeholders was gathered to improve the management of IMSAM inputs. Actors at all levels engaged in the exercise: 98 Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM), 8 Internal Therapeutic Nutritional Centres (ITNCs), 4 Regional Delegations of Public Health et 11 Health Districts.

These proposals include measures that have been taken to address the challenges, namely the distribution of inputs according to the needs of nutritional centres, the introduction of check-lists for input inventory management, and human capacity issues. The strengthening of input storage conditions has been proposed by about half of the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM). In view of the difficulties they face, almost half of the Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) suggested improving the input distribution system, in particular by strengthening financial and logistical resources (proposal made by 47 Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) out of 98), or by strengthening human capacities (suggested by 28 Ambulatory Nutrition Centres for Severe Malnutrition (NCSAM) out of 98). The experience with community relays seems to have borne fruit.

Issues of greatest concern to the Internal Therapeutic Nutritional Centres (ITNCs) are financial and logistical capacity building (5/8) and human capacity building (4/8), which contribute to the improvement of the input distribution system, explicitly mentioned by 3 Internal Therapeutic Nutritional Centres (ITNCs) out of 8.

Health Districts stand in solidarity with nutritional centres for the reinforcement of input storage conditions (45%), improvement of the input distribution system (36.4%) and reinforcement of

financial and logistical resources (27.3%). However, they focused on strengthening awareness and supervision (36.4%), which could provide better tracking of the various flows of input inventory used.

Finally, the Regional delegations of Public Health prescribe action on human capacity building (3/4), financial and logistical capacity building (2/4), issues that contribute to the improvement of the input distribution system, explicitly proposed by 2 Regional delegations of Public Health out of 4.

**Table 16:** Main suggestions by the actors in the system for the improvement of input management in 2017 by level of structure

|   | <b>NCSAM</b> | <b>ITNC</b> | <b>RDPH</b> | <b>HD</b> |
|---|--------------|-------------|-------------|-----------|
| Improve the input distribution system                   | 48.0%        | 37.5%       | 2/4         | 36.4%     |
| Introduce input check-lists                             | 2.0%         | n. ap.      | 1/4         | 18.2%     |
| Strengthen awareness raising and supervision            | 8.2%         | 12.5%       | n a         | 36.4%     |
| Build human capacities                                  | 28.6%        | 25.0%       | 3/4         | 18.2%     |
| Strengthen input storage conditions                     | 51.0%        | 50.0%       | 1/4         | 45.5%     |
| Strengthen financial and logistical resources           | 44.9%        | 62.5%       | 2/4         | 27.3%     |
| Take into account the real needs of nutritional centres | 13.3%        | 25.0%       | 1/4         | 9.1%      |

Source: NIS, PETS3, 2019

## CONCLUSION AND RECOMMENDATIONS

From the above analyses, it appears that the issue of human capital development to support the country's growth remains a major concern of the Government, which expresses it in its development strategies, plans and programmes. It enjoys strong support from its numerous partners, particularly UNICEF, which is particularly involved in the fight against malnutrition of the most vulnerable segments, namely children and pregnant women. Many nutritional centres are operational in the four priority intervention regions and provide satisfactory services to patients detected and referred by community health workers. Therapeutic foods and essential drugs reach these centres, even though they sometimes experience stock-outs because of delays in supply.

Regarding inputs losses, even though those recorded between the Regional Delegations of Public Health and nutritional centres are globally contained in view of initial allocations, there is reason to be more concerned about any losses that may be recorded between nutritional centres and patients, and that were not estimated in this study.

With respect to the funding of other activities contributing to the achievement of the objectives of the Integrated Management of Severe Acute Malnutrition (IMSAM), the problem of resource availability does not arise. Their tracking is much easier and more precise, mainly because of the transfer procedures and constraints on the clearance of expenditure within a formal time frame.

The study highlighted some difficulties related to the issue of tracking of inputs and organisation of their distribution down to the level of service providers such as nutritional centres.

### Main problems identified

In general, the two main observations relate to:

- The difficult access to management information as well as to statistical information mainly due to (i) refusal/absence or insufficient archiving of management information, (ii) weakness of the statistical information system and (iii) apprehensions that information providers have about the use of individual data collected by the structures in charge of statistics.
- The input distribution channel, observed in the field, which differs significantly from the normal channel. It is expected that the inputs will reach the nutritional centres through the Regional Delegation of Public Health and Health Districts. However, for the purpose of facilitating distribution, given the logistical problem, several nutritional centres are directly supplied by the Regional Delegation of Public Health on which they depend.

At the financial level:

- The package of so-called "regular" activities of Regional Delegations of Public Health (staff training, coordination of activities, compilation of statistical data) is not supported for all regions.

At the level of input management:

With regard to the management of therapeutic foods and essential drugs for severe acute malnutrition, the main challenges are related to:

- The fact that several intermediary structures have difficulty getting inputs to the nutritional centres. All means are used, including logistical opportunities offered by parallel health programmes and sometimes by individuals. In some cases, nutrition centre managers travel at their own expense to be served at supply points (Regional Delegations of Public Health, Health Districts).



- Cases of frequent stock-outs of inputs in some nutritional centres although regional warehouses have sufficient reserves at the end of the year.
- Cases of loss of inputs due to unintentional destruction during handling, expiry dates exceeded, theft, etc.

In the light of the above-mentioned observations and difficulties, and with a view to improving the monitoring of public expenditure on the nutrition component of health, a few recommendations are made, mainly to the Ministry of Public Health, and their implementation is strongly encouraged.

### **Main recommendations**

1. Establish a genuine statistical information sub-system relating to IMSAM;
2. Review the input distribution channel by adapting it to the realities on the ground and promoting its effective application;
3. Make the department of Health Promotion of the Ministry of Public Health play a role of effective coordination of the activities of the devolved structures relating to IMSAM;
4. Build the capacities of the devolved structures of the Ministry of Public Health in the keeping of statistics;
5. Strengthen the conditions of conservation and mechanism of control of input inventories and the follow-up of individual patient records;
6. Strengthen the financial and logistical means for the transport of inputs,
7. Develop an interactive database with possibilities of archiving and retrieval of data at the level of the central coordination via a server.

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## **APPENDICES**

## Appendix 1: Summary table of the main indicators

| No. | Indicator wording   | Value in 2017 |
|-----|---|---------------|
| 1.  | Amount of financial resources allocated to the system by UNICEF for the Integrated Management of Severe Acute Malnutrition (IMSAM) (CFA francs) | 102,413,895   |
| 2.  | Proportion of financial resources allocated for IMSAM and justified after the deadline (CFA francs)   | 0.54%         |
| 3.  | Plumpynut supply (cartons of sachets of 92 g)   | 50,210        |
| 4.  | Rate of removal of plumpynut from storage (sachets of 92 g)   | 88.8%         |
| 5.  | Rate of justified removal of plumpynut  | 79.9%         |
| 6.  | Quantity of plumpynut lost  | 8,645         |
| 7.  | Proportion of plumpynut lost  | 17.2%         |
| 8.  | Allocation of F75 therapeutic milk (carton containing sachets of 102.5 g)   | 2,775         |
| 9.  | Rate of removal of F75 therapeutic milk from storage  | 28.9%         |
| 10. | Rate of justified removal of F75 therapeutic milk   | 19.9%         |
| 11. | Quantity of F75 therapeutic milk lost (in cartons)  | 539           |
| 12. | Proportion of F75 therapeutic milk lost   | 19.4%         |
| 13. | Allocation of F100 therapeutic milk (cartons containing sachets of 144 g)   | 2,746         |
| 14. | Rate of removal of F100 therapeutic milk from storage   | 28.8          |
| 15. | Quantity of F100 therapeutic milk lost in the regions of Adamawa, East and Far North (in cartons)   | 558           |
| 16. | Allocation of amoxicillin (oral sus 125mg/5ml/BOT-100ml)  | 84,023        |
| 17. | Rate of removal of amoxicillin from storage   | 73.1%         |
| 18. | Quantity of amoxicillin lost in the regions of Adamawa, East and Far North (in boxes)   | 26.466        |

## Appendix 2: List of stakeholders

### 1. Technical Group

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