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Niger
Public Expenditure Tracking Survey
Education and Health
(In Two Volumes) Volume I: Main Report

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GOVERNMENT FISCAL YEAR
January 1 – December 31

CURRENCY EQUIVALENTS

Currency Unit	**=**	**CFA Franc (CFAF)**
US$1.00	**=**	**465.28 (as of December 21, 2008)**

WEIGHTS AND MEASURES

Metric System

ABBREVIATIONS AND ACROYNYMS

CAS	Country Assistance Strategy
CFAF	CFA Franc
CHR	Regional Hospital *(Centre hôpital régional)*
COGES/APE	School management committee and Parent Teacher Association
CSI	Integrated Health Center *(Centre de santé intègre)*
DGB	Budget Office (*Direction général du budget)*
DREN	Regional Basic Education Office *(Direction régionale de l'éducation de base et de l'alphabétisation)*
DRFM	Financial Resource and Materials Unit *(Direction des ressources financières et matérielles)*
DRSP	Regional Health Office *(Direction régionale de la santé publique)*
DS	District Health Office *(District Sanitaire)*
FTI	Fast Track Initiative
GDP	Gross Domestic Product
HD	District Hospitals
HIPC	Heavily Indebted Poor Countries
HIV/AIDS	Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome
IEB	District Education Inspection Office *(L'inspection de l'éducation de base)*
INS	Institute of National Statistics *(Institut National de la Statistique)*
MDG	Millennium Development Goal
MEN	Ministry of National Education *(Ministère de l'éducation nationale)*
MEF	Ministry of Economy and Finance *(Ministère de l'Economie et des Finances)*
MEN	Ministry of Education (Ministère de l'Education)
MOE	Ministry of Education (Ministère de l'Education)
MOH	Ministry of Health
MSN	Ministry of National Health *(Ministre de la Santé National)*
MSP	Ministry of Health *(Ministre de la Santé Publique)*
ONPPC	Private Drug Suppliers (Central and regional offices) *(Office National des produits pharmaceutiques et chimiques du Niger)*
PETS	Public Expenditure Tracking Survey
PADEB	Basic Education Project *(Projet d'appui au développement de l'éducation de base)*
PDDE	Niger Ten Year Plan for Education
PEMFAR	Public Expenditure Management and Financial Assessment Review *(Revue des Dépenses Publiques et de la Gestion Financière de l'Etat)*
PPAR	Project Performance Assessment Report for Niger
PRSP	Poverty Reduction Strategy Paper
UNICEF	United Nations Children's Fund

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EXECUTIVE SUMMARY

Niger's first and second PRSPs both emphasize the importance of increasing resources to the priority sectors of education and health in order to improve development outcomes in these areas. As is well known from expenditure tracking surveys done in various countries, success on this front requires that increased resource allocation also be accompanied by improvements in the efficiency of public expenditures to ensure that resources reach their intended beneficiaries.

The immediate objective of the first Public Expenditure Tracking Survey (PETS) for Niger is to increase understanding of the link between public spending and service delivery at the facility level in order to contribute to improving the effectiveness and accountability in the use of public funds. Specifically, **this PETS focuses on identifying the discrepancies, inefficiencies and delays in public spending execution for selected expenditures in the education and health sectors**. The medium to long term goal of this PETS is to launch a process aimed at continuous improvements in public expenditure efficiency and equity by focusing on capacity building in this area in the ministries of education and health and in the Institute of National Statistics (INS).

Thus, **capacity building is an important component of this work**. Under guidance from the Ministry of Finance, an inter-government committee, the PETS national committee, consisting of one representative each from the Ministries of Finance (MEF), Health (MSP), and Basic Education (MEN), as well as from the INS, was established to work with the Bank PETS team. This report is the result of ongoing close and high quality collaboration between the Bank and the PETS national committee, especially with the staff from the INS.

Drawing from international experience, the geographical coverage of the PETS was restricted to three regions as opposed to a countrywide survey so as to allow a better focus on the quality of data collection. As such, it required extensive questionnaires design and pre-testing. **Notwithstanding data limitations in a country such as Niger, the PETS reveals strengths and bottlenecks in public resource distribution**. Although all government agencies have mandated functions that are regulated by the same spending and delivery channels, the patterns of inefficiencies could differ from one region to another due to regional differences in poverty levels, population, and remoteness. As such, the findings of this PETS are most specific to the regions surveyed but are nevertheless very likely to be relevant to the regions that were not surveyed.

Based on requests from the respective ministries, the PETS tracked selected government expenditures in education (textbooks, notebooks and drawing books for students) and in health (food expenditure and hospital supplies, and essential medicines). As customary, the PETS focused on the amount and delivery timing of public resources distributed to end-users facilities.

The main challenge faced by a tracking survey in a country like Niger is the availability and accuracy of records keeping. **The Niger PETS highlights a general lack of systematic information recording.** For example, there were no records on dates when financial transactions took place among central or regional administrative offices whereas such information was often available for material flows at lower level facilities.

The quality of records in the education sector is low and data often incomplete. This is especially a problem when a higher level agency distributes resources to lower level agencies. The absence of down stream records indicates a lack of systems for downward accountability and can facilitate the diversion of resources. This compares unfavorably with a country such as Ghana, where the quality of record is good between the central agency and district offices.[1]

In the health sector, the quality of records is also low and missing records are common. The PETS found significant discrepancies in resource flows even among central level agencies. An exception was food expenditure flows between the Ministry of Health (MSP) and the regional health offices (DRSP), which were relatively well documented. Generally speaking, record keeping is not well institutionalized.

Notwithstanding the limitations on the data, several findings emerged. **For both the education and health sectors, budget increases did not always lead to spending increases. In addition, supplies do not arrive at facilities on a regular basis**. It is frequently the case that an office or a facility received nothing for the whole year. Credit crunch towards the end of fiscal year is apparent, as shown by the lack of any transfer during the fourth quarter.

In the education sector, two methods were used to distribute learning materials. Textbooks were procured by a donor-financed basic education project and were distributed directly by the Ministry of Education to schools, while drawing and notebooks were procured by the MEN and distributed to schools through regional and district education offices. The PETS is therefore able to compare the efficiency of the distribution system between these two methods.

Inefficiencies are apparent for distributions of drawing books and notebooks, especially between district offices and schools. The inefficiencies between MEN and schools are about 50 percent. The direct distribution of textbooks by MEN to schools, bypassing regional and district education offices, reduced inefficiencies to about 25 percent. Textbooks were also occasionally delivered to schools where there were no corresponding classes. Finally, a significant proportion of materials were delivered to schools when the academic year was already well advanced.

[1] Ghana's education system is more decentralized than Niger's. Most of resource flows go from the central agency to district offices directly. Regional offices function mainly in a capacity of coordinating information flows and training. In Niger, resource transfers go through both regional and district level offices.

In the health sector, the spending channels are further complicated due to the existence of donor financed funds that operate outside of the government budget. This may explain some implausible survey data showing service providers receiving more resources than credits released to them. **While district hospitals relied mainly on the government to supply food expenditures and hospital supplies, they relied mostly on their own purchases of essential medicines**. By comparison, clinics relied mainly on publicly distributed essential medicines. Medicine shortages were cited as a problem by 25 percent of clinics, but were rarely cited as such by district hospitals. **Evidence suggests that food expenditure discrepancy between district health offices and service providers is about 40 percent. Furthermore, publicly distributed essential medicines seemed to reach more the richer rather than poorer regions**.

Many factors can contribute to inefficiencies of resource distributions, including lack of human skills and/or incentives. Drawing recommendations on human skills and incentives go beyond the focus of the PETS as it involves issues that need to be addressed in the design of a public administration reform program. The PETS is a tool focusing on identifying the bottlenecks and inefficiencies due to financial management processes and systems. As such the **PETS recommendations** to improve financial management are as follows:

(1) **Improve resource management transparency by developing a reporting system that can easily trace the amount, the quantity and the unit of resource flows, whether financial or material, and the dates at which transactions take place**. Eventually, data on resource flows should be made publicly available and disseminated to stakeholders to improve transparency and foster government's accountability;

(2) Establish mechanisms and channels to ensure transparency and accountability in the use of public resources. This can be only achieved if information can easily be reconciled at each administrative node and is made publicly available through diverse medias that are easily accessible by the population, including bulletin boards, radio shows, and newspapers. In fact, the PETS revealed that when precise records were readily available, the efficiency of public resource distribution tended to be higher; and

(3) **Identify the reasons behind the budget implementation bottlenecks at the ministerial level**. The upcoming Public Expenditure Management and Financial Assessment Review (PEMFAR) is expected to help identify measures to strengthen budget implementation.

District offices are front line agencies that have complex responsibilities to work with a large number of service providers. Given their critical role in linking public supplies with service providers, it is recommended to:

(4) **Evaluate the capacities of district offices against their mandates, including human resources, skills and incentive structures. Based on the**

findings, the government should systematically plan and implement district level capacity building strategies; and

(5) **Evaluate the distribution procedures for textbooks and notebooks in the education sector and compare with other countries' more decentralized procedures**. The findings should point towards ways of simplifying procedures in order to improve efficiency. **The same can also be done for the food expenditures in the health sector**. Distribution systems in other countries could be studied to improve Niger's system.

Having a more effective budget implementation system in place is a prerequisite to improve the equity of public resource allocation between poor and better off regions. Thus, the PETS also recommends to:

(6) Deepen understanding of the inefficiencies and bottlenecks in resource distribution by conducing a more issue-focused analysis (for example, in essential medicine distribution, including procurement of the essential medicines); and

(7) **Specify criteria (based on existing poverty data and estimated resource needs) to determine public resource allocations among regions**.

Despite the inefficiencies revealed by the PETS, there are **encouraging results** in public service delivery:

(1) The **majority of primary school children in the three regions surveyed have access to textbooks**, even if it means sharing with other students;

(2) **There were also several instances, such as for food expenditures flows between Ministry of Health and Regional Health Offices, where records were fully consistent between agencies.** This can provide valuable examples in Niger's expenditure mechanisms that should be replicated for other items for which there remain significant inefficiencies; and

(3) **Although the government appears unable to procure medicines in insufficient quantities, hospitals seem able to supplement their stock through their own purchases**. This, however, does not guarantee the equity of access to the essential medicines as cost recovery requirements, if they are in place, imply that patients may only be able to obtain medicines if they pay for them.

More broadly, it is recommended that an action plan be prepared by the Government to address the issues raised in the PETS, including by involving line agencies and relevant actors in the public expenditure chain.

The Niger PETS also sheds light on two aid effectiveness issues.

First is the trade off between achieving short-term goals and long-term capacity building. Due to weak government capacity in developing countries, donors often rely on non-government organizations or special programs to quickly achieve key sector objectives, such as Education For All, HIV/AIDS treatment and immunization programs. Niger PETS shows an example in the education sector (textbook distributions by the Basic Education Project) that indeed provided efficiency gains. However, the approach selected required government mechanisms on textbook procurement and distribution to be suspended for three years. This suspension could weaken the capacity of the government and it is not sure whether government will be able to operate by relying on its own public expenditure mechanisms once PADEB closes. While this point remains valid in general, we found out at the dissemination stage that the government had decided to continue with book suppliers distributing textbooks to schools directly. Improving procedures will still be needed to strengthen transparency.

Second is the trade off between out-of-budget spending on public services (such as the Global Fund) and M&E. While international donors are keen on making sure that their resources reach intended beneficiaries, the PETS revealed that out-of-budget spending makes M&E difficult. If resource flows are not systematically recorded, it is very time consuming and expensive to follow any particular resources flows. This is partially due to the fact that at the beneficiaries' level it is difficult to separate the origins of resources received. For example, school headmasters did not know for sure whether their textbooks were from the PADEB or from the school management committee. It is probably impossible for beneficiaries to record rigorously the sources of cash and materials received both because it is too tedious to do so and it is almost irrelevant to them.

CHAPTER 1. OBJECTIVES AND METHODOLOGY OF THE NIGER PUBLIC EXPENDITURE TRACKING SURVEY

1.1. MOTIVATION AND OBJECTIVES OF THE FIRST PETS IN NIGER

1.1 The structural constraints of Niger's economy against the significant spending needs for provision of basic social **SERVICES** underscore the imperative of getting the maximum benefit out of public resources. Yet, **as documented in Niger's PEMFAR (2006), the performance in some key social sectors including education and health clearly highlights the presence of significant inefficiencies in public sector delivery of services**. In particular, weaknesses in public expenditure management systems, including problems in directing resources down to service providers, limit the effectiveness of public spending in improving development outcomes.

1.2 Niger's CAS stresses the need to improve management of the scarce public resources if the country's growth rate is to be sustained at a sufficiently high level needed for reducing poverty and meeting the MDG targets. Both the PEMFAR and PRSP specifically identify weaknesses in the allocation and use of resources.

1.3 In light of these constraints, the Government of Niger initiated various public expenditure reforms but while improvements have been made in the area of resource allocation, **expenditure procedures lack reliable mechanisms for tracking and monitoring.** The extent to which public expenditure policy in the education and health sectors is consistent with the country's poverty reduction objectives is directly related to government's ability to ensure an adequate and predictable flow of resources to service centers such as schools and clinics. However, it is not clear whether resources always reach the intended beneficiaries. Timing and quantity delivery are also problematic.

1.4 As a monitoring instrument that focuses on the flow of resources, a Public Expenditure Tracking Survey complements other initiatives undertaken to evaluate and improve public expenditure management. A PETS provides another means of identifying problems related to resource flows, their usage and ultimately their impact on the efficiency and quality of services as it provides detailed insights on the flow of resources from the central to the service delivery levels.

1.5 In general and regardless of the specific design of the corresponding survey, the goal of expenditure tracking is to identify potential failures in public service delivery mechanisms which prevent government spending from reaching intended beneficiaries. These failures are not only related to weaknesses in public spending mechanisms but also to potential difficulties further down the delivery chain at the level of front-line service providers. As such, a PETS can not only be used to help government improve service delivery mechanisms by identifying relevant weaknesses but also to enhance accountability by engaging intended beneficiaries. Thus, the conceptual framework of a PETS encompasses both supply and demand aspects of governance as its dissemination would be expected to improve both transparency and accountability.

1.6 In the case of Niger, the goal of the first PETS is to focus on service delivery mechanisms, especially on leakages and delays, while subsequent PETS could, once these mechanisms are understood and improved upon, focus increasingly on the users' satisfaction. The immediate objective is to enable deeper analysis of the link between public spending and service delivery at the facility level and contribute to improving the effectiveness and accountability in the use of public funds. Specifically, **the PETS focuses on identifying the inefficiencies and delays in public spending execution in the education and health sectors in Niger**.

1.2. BACKGROUND ON NIGER'S EDUCATION AND HEALTH SECTORS

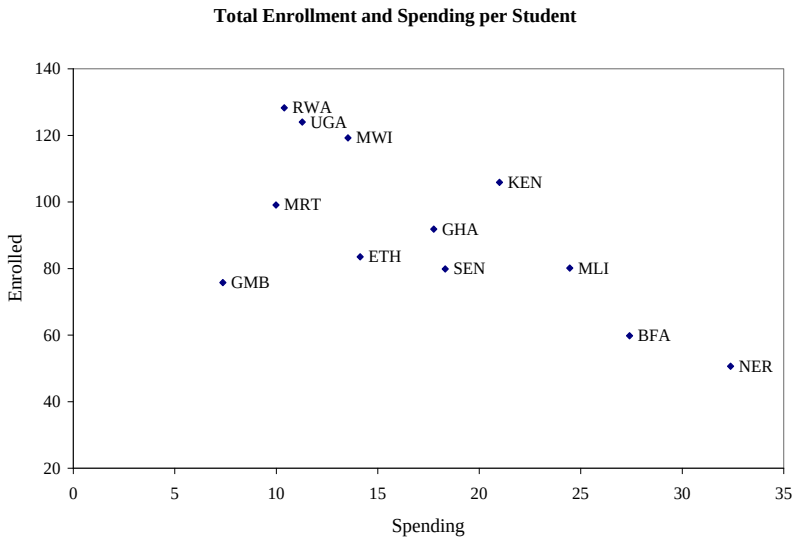
1.7 With an average per capita GDP of US$280 (Atlas method, 2007), Niger remains one of the poorest countries in the world and has consistently scored very low on all social indicators. The civilian government that came into power in 2000 has expended considerable effort to improve the country's fiscal and economic management, including structural measures aimed at improving public expenditures and financial management.

1.8 With this background, the Government of Niger adopted a Poverty Reduction Strategy in 2002 and renewed its commitment in the 2007 "Accelerated Development Strategy and Poverty Reduction Strategy" to fight poverty while furthering good governance. The 2007 strategy's three key pillars are: (i) economic growth; (ii) poverty eradication; and (iii) access to basic services. In particular, the authorities in Niger have stressed the need to deepen the human resource base as a means of promoting sustainable growth. Thus, education and health are recognized as critical to achieving both the MDG's and economic development.

1.9 In the area of education, within the framework of the Fast Track Initiative (FTI) and in line with its poverty reduction strategy, Niger launched a ten-year development plan for education (PDDE) in 2002. The main objectives of this plan are to increase school enrollment rates and improve the efficiency and quality of education. Increasing primary enrollment entails a large and sustained increase in spending and requires continued efforts to reduce unit costs. In this regard, the Bank has recommended a policy agenda that emphasizes doing "more for less" as described in the 2005 Project Performance Assessment Report (PPAR) for Niger.

1.10 Niger's education indicators have been improving over the years although they largely remain lower than those of other countries in the region. In terms of access, the primary enrollment rate increased by more than 50% between 2000 and 2006. While this achievement is noteworthy, the annual rate of growth has declined significantly over this period. Indeed if the country maintains the current growth rate in primary enrollment, it will be far below the MDG targets by 2015. Most importantly, Niger education system remains the least efficient among similar African countries as illustrated by Figure 1.1. Niger has the highest spending per student as a percentage of GDP per capita but the lowest primary enrollment rate.

Figure 1.1: Comparison of the Efficiency of Education Systems

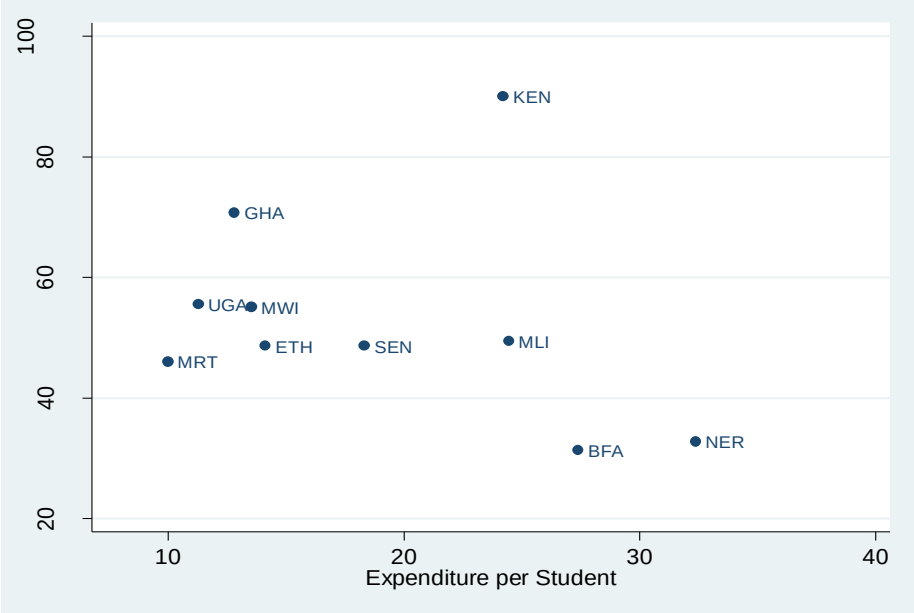


Source: World Bank WDI database

1.11 Indicators have also improved with respect to the quality of education. Completion rates at the primary level increased from 19% in 2000 to 33% in 2006. Following the launch of the PDDE in 2002, expenditure per student went up by 28% between 2003 and 2004 while completion rates increased by 31%. From 2005 until 2007, expenditure per student stayed roughly constant but completion rates decreased by 10%.

1.12 Figure 1.2 shows that Niger has the highest per student expenditure as percent of GDP in primary education but the lowest completion rate. Therefore, to achieve the education MDGs, Niger must improve the efficiency of its financial management.

Figure 1.2: Comparison of Primary Education Spending and Outcomes

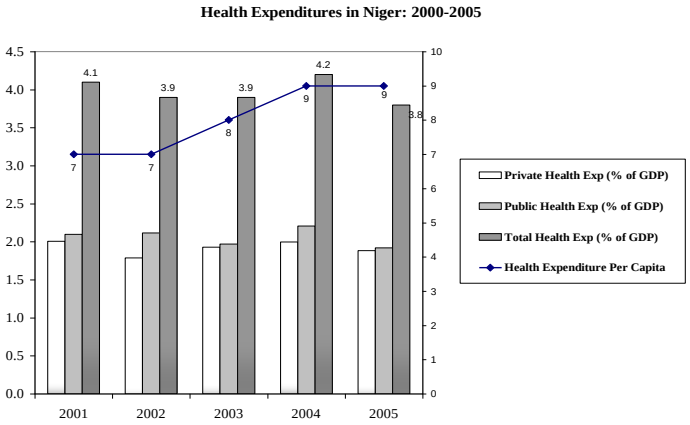


Source: World Bank WDI database

1.13 Similarly in health, Niger is implementing a health development plan aimed at improving the performance of the system. The objectives of the plan include: overall improvement of access to quality health care by the population; increased coverage; availability of essential medicines at affordable prices; and increased utilization of health services. Several challenges have hampered the implementation of the plan. In particular, lack of drugs, materials and personnel has resulted in persistent difficulties with access and quality of health services.

1.14 As shown in Figure 1.3, Niger has one of the lowest spending rates for health in the region with almost no improvement between 2001 and 2005. In fact between 2004 and 2005, total health expenditure (as a percentage of GDP) declined by about 10%.

Figure 1.3: Trends in Public and Private Health Expenditures

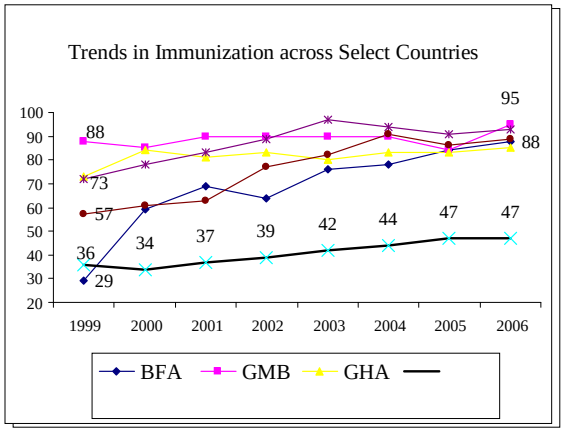


Source: World Bank WDI database

1.15 The health indicators for Niger are, in most cases, far below those of comparator countries in Africa, and the rate of progress is not sufficient to meet the MDGs. At 256 per 1000, the mortality rate for children under five remains one of the highest in the region. The rate declined by about 6% between 1999 and 2006 but the reduction was only in the range of 1% per year between 2005 and 2006. To reach the 2015 MDG target of 107 deaths per 1,000 children, the rate of decline needs to increase to about 10% per year. Niger also has one of the highest maternal mortality rates at 1,800 deaths per 100,000 live births. As of 2006, only 46% of pregnant women received prenatal care in Niger.

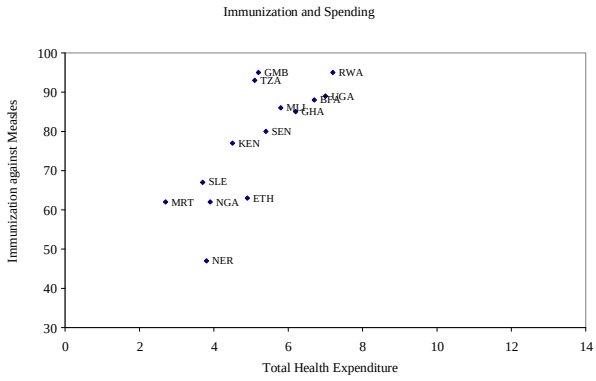
1.16 As shown in Figure 1.4 and in Figure 1.5**,** Niger's immunization of children against measles is lower than that of the rest of the region by a considerable margin. In Niger only 47 children out of a hundred get immunized while the next lowest count is for Nigeria at 62 children per one hundred. However, it is important to note that the immunization rate has been on a consistent upward path although at a much slower pace than other countries. A striking contrast is between the improvement in vaccination rates between Niger and Burkina Faso where Burkina had a lower rate than Niger in 1999 and by 2006 had a vaccination rate that was almost twice that of Niger.

Figure 1.4: Comparison of Health Outcome Trends



Source: World Bank WDI database

Figure 1.5: Health Spending Versus Outcomes



Source: World Bank WDI database

1.3. METHODOLOGY

1.17 The general methodology of a PETS is intuitively simple, consisting of charting budget flows and release mechanisms (funds and materials) through various government agencies and facilities. The in- and out-financial and material flows are compared (ideally reconciled) at each of the consecutive nodes of the observed spending channels that correspond to the specific resource distribution mechanisms. This is often referred to as vertical tracking. In practice, a PETS is inheritably complicated and cumbersome to implement due to the complexity of the financial management system and the generally low quality and availability of data. When a vertical tracking is not possible due to lack of information, an alternative approach, relying less on detailed data, is simply to compare per capita resource flows at each administrative node.

1.18 A PETS can only reveal discrepancies of resource flows between any two spending channel's consecutive nodes, but cannot identify their causes, except possibly during dissemination. This is the case since the findings are only available after the survey and reconciliation exercise (data cleaning and matching) are done. As such a

PETS is not an audit. Rather the value of a PETS is to identify where bottlenecks, resource discrepancies and delays occur in the distribution channels and, whenever possible, make recommendations on how to improve the systems to reduce these inefficiencies.[2]

1.19 There are roughly four stages in which public expenditure channels are structured in Niger. The first stage is allocating the amount for a budget line by the Ministry of Finance. The total budgeted amount, however, is often not available for spending, especially towards the end of a fiscal year. The second stage is releasing the credit and sending authorization to the intended administrative agency or beneficiary for spending. After the intended recipients receive the authorizations, the third stage is for them to procure services and goods from suppliers. This is called engaged credit (*crédit engagé*). In the fourth stage, the suppliers deliver the services and goods to the intended recipients, and obtain proof of their deliveries in order to get reimbursed by the treasury, which is called credit paid (*crédit réglé*). The Niger PETS tracks resource deliveries from the highest to the lowest level of public agencies.

1.4. SAMPLING

1.20 **The PETS sample design was regionally, but not nationally representative**. Such an approach was successfully implemented in Mali (with a PETS in the health sector sampling Bamako, Segou, and Mopti). This choice was made jointly with the authorities and driven primarily by budget and logistic considerations. For the sample to be nationally representative, one would have required to survey remote regions which are sparsely populated. Given that this was the first PETS in Niger, the National Statistical Office (*Institut National de la Statistique*, INS) decided to increase the quality of data collection by limiting geographical coverage. **Three regions, Dosso, Tillabéri and CU Niamey were selected based on their close proximity to the capital. These are three relatively well populated regions, accounting for 38 percent of total population**.[3]

1.21 **Within each region, districts and service providers were randomly selected to ensure data were regionally representative**. Table 1.1 presents number of facilities, by type, surveyed by the PETS. Although the findings of this PETS cannot be judged to be nationally representative, certain lessons could be applicable to other regions as well. This is because expenditure distribution mechanisms are similar across regions. However, the patterns of inefficiencies could vary between regions, due to differences in remoteness, population density and poverty levels.

[2] However, shortfalls in material flows normally indicate leakages since materials are much less fungible among different budget lines.

[3] Institut central des statistiques, 2006.

Table 1.1: Niger: Number of Offices and Contractors/Services Providers surveyed

Offices surveyed	**Number of surveyed**	**Out of**
Ministry of Finance (MEF)	1	1
Education Sector		
Ministry ofEducation (DRFM/MEN)	1	1
Book suppliers (to MEN)	1	2 major ones in Niger
Regional Education Office (DREN)	3	8
District Education Office (Inspection offices of Basic Education, IEB)	21	21 existed in 2005/06 in the 3 regions surveyed
Primary Schools	299	2,736 in the 3 regions surveyed
Number of students	1,061	63,341
Health Sector		
Ministry of National Health (MSP)	1	1
Private Drug Suppliers (ONPPC) Central and Regional	1	1
Regional Health Offices	3	8
District Health Offices (District Sanitaire, DS)	14	14 in the 3 regions surveyed
District Hospitals (Hôpital District, HD)	11	11 in the 3 regions surveyed
Clinics (Centre de Santé Intégré, CSI)	70	223 in the 3 regions surveyed

Source: Niger National Statistical Institute

1.5. IMPLEMENTATION OF THE PETS

1.22 The PETS was conducted jointly and in close collaboration with all concerned agencies of the Government of Niger. Under guidance from the Ministry of Finance, an inter-government committee, the PETS national committee, consisting of one representative each from the Ministries of Finance, Health, and Basic Education, as well as from the INS, was established to work with the Bank PETS team.

1.23 The Bank PETS team worked with the social sectors counterparts to select the critical expenditures for tracking. The criteria for selecting expenditures for tracking were twofold: (i) the spending chain should be sufficiently important in terms of the proportion of the budget; and (ii) the chain should be sufficiently representative of the distribution mechanisms to warrant tracking. More precisely, **the PETS tracks selected resource flows, both financial and materials, that account for a significant proportion of the sectors' recurrent non-salary spending or that go through expenditure execution procedures/agencies which are prone to leakages, waste and delays**.

1.24 Based on the above criteria, the **Ministry of Education selected textbooks and notebooks in primary schools**. The textbooks and notebooks are important learning materials to education outcomes and constitute a large proportion (approximately 60%) of the Ministry of Education's spending for non-wage and subsidies. They are normally distributed through all the administrative channels that the ministry relies on to distribute its public resources to schools. The Committee decided to survey only primary schools because primary education is free and accounts for a large proportion of the total education budget.

1.25 For the health sector, the Ministry of Health selected the patient food expenditures and hospital supplies, and essential medicines. Together, these expenditures account for approximately 40% of non-wage and subsidies of health spending. The two expenditure lines (food expenditures and hospital supplies on one hand and essential medicines on the other) are delivered to service providers through different distribution channels. Specifically, essential medicines are procured at the central government level and distributed as materials to the health service providers, while food expenditures are distributed as financial resources to districts.

1.26 Tracking these expenditures allows an evaluation of delays and inefficiencies that occur in both procurement and distribution channels, thus facilitating identification of measures aimed at improving the efficiency of public resource management.

1.27 Based on the above selected expenditures, the Bank PETS team worked closely with the experts from the Ministries of Finance, Education, and Health, as well as the senior staff from the National Statistical office, to design a set of questionnaires to track public resource flows through each spending channel node down to facility levels, including 4 questionnaires for the Ministry of Finance, 6 questionnaires for the education sector, and 8 questionnaires for the health sector All questionnaires are attached in the Appendix.

1.28 A field survey was conducted in May and June 2008 to collect data, and the data were then analyzed by matching and comparing budget allocated, credit released, resources distributed and received. As stated earlier, whenever such a detailed comparison was not possible due to the scarcity of data, average amounts were compared between each node. Thus, all resource flows were reconciled in and out of each spending channels node.

1.29 The rest of report is organized as follows: Chapter II, for the education sector, presents the analysis of flows for textbooks, notebooks and drawing books; Chapter III, for the health sector, presents the analysis of flows for food expenditures and hospital supplies; and Chapter IV, for the health sector as well, presents the analysis of flows for essential medicines.

CHAPTER 2. TRACKING TEXTBOOKS, NOTEBOOKS AND DRAWING BOOKS IN PRIMARY SCHOOLS

2.1. PROCUREMENT AND DISTRIBUTION CHANNELS OF TEXTBOOKS AND NOTEBOOKS

2.1 The procurement and distribution of textbooks, notebooks and drawing books in Niger go through the following procedures. First, the Ministry of Finance decides the budget for books and supplies at the beginning of each year. It then releases the credit in tranches, in principle four times a year. Since school years start in September, books and supplies are financed by credit released the previous year. For example, the 2005 budget finances expenditures for the academic year 2005/2006.

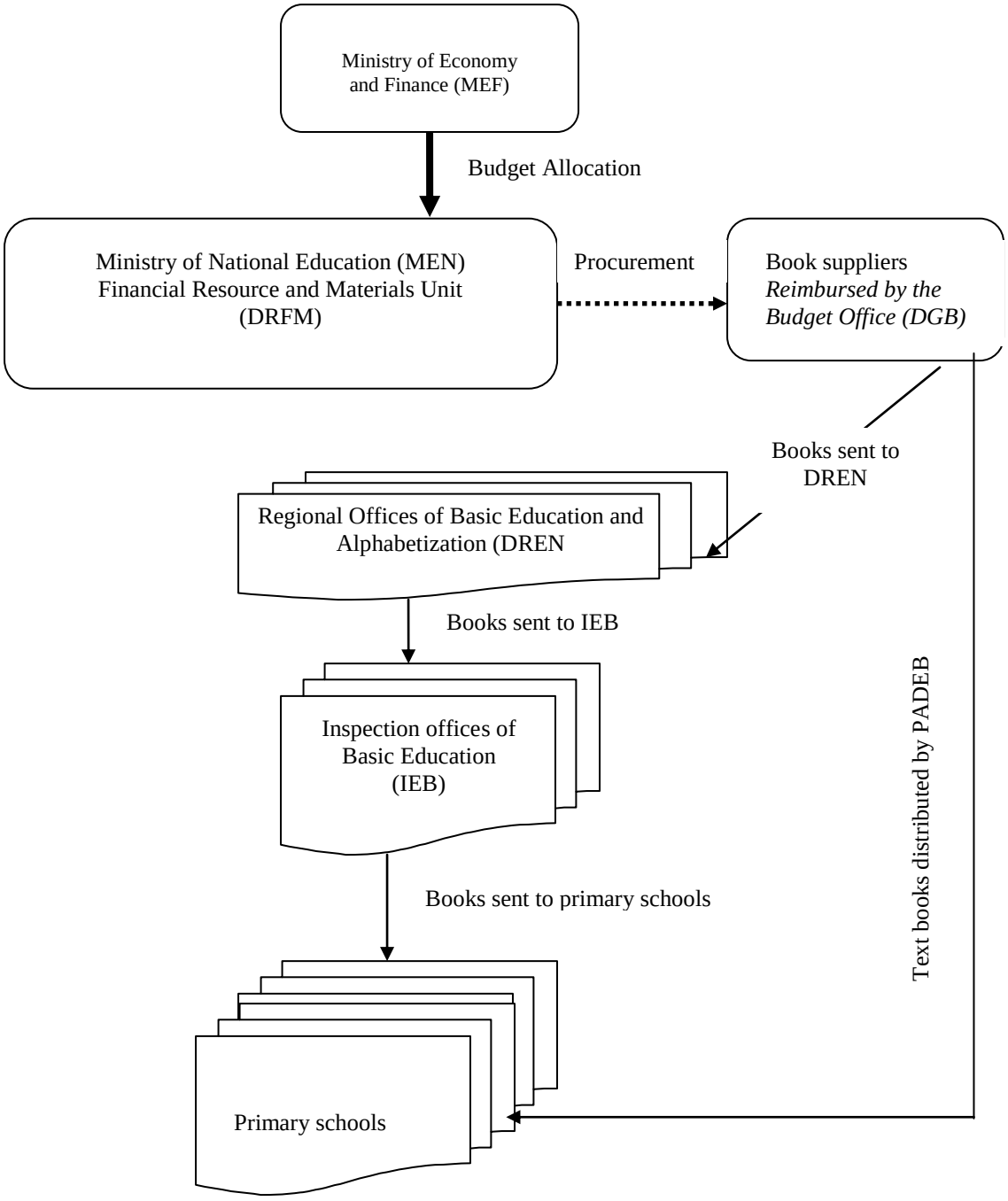
2.2 The Ministry of Education has a procurement unit responsible for the procurement of books and supplies. Once suppliers are selected and quantities and prices are agreed, the funds released become the engaged credit (*crédits engagés*). This amount reflects best the budget actually spent at the central level. Once engaged credits are received, suppliers deliver books to regional education offices.

2.3 It is at the level of the procurement unit of MEN that financial credits are turned into materials, namely books and supplies. It is at this stage that record keeping becomes more complex since materials are varied while tracking funds is much simpler in terms of record keeping. In addition, government agencies from this point down do not usually keep a tag on detailed costs of the materials distributed to them.

2.4 Book suppliers are critical links in the system where financial resources are turned into materials. They send materials to the regional education offices based on their contracts and receive financial payments for the services rendered. From the level of the regional education offices and down, all flows are materials requiring rigorous records to reconcile flows between any two points. After the regional offices receive notebooks textbooks and drawing books from suppliers, they distribute the supplies to district education offices, which in turn transfer the materials to schools.

2.5 For the past two academic years, however, the textbooks did not go through the regular government distribution channels as described above. Instead, a multi-donor supported Basic Education Project (*Projet d'Appui au Développement de l'Education de Base, PADEB*) supplied text books to schools directly. The PADEB, however, did not supply drawing books and notebooks, which were still financed and distributed though the usual government channels. Figure 2.1 shows the exact flows for the two years that the PETS surveyed.

Figure 2.1: Tracking Drawing Books and Notebooks



Source: Discussions with experts from MEN and INS

2.6 It is worth noting that neither the education sector government members of the PETS team nor the INS officials were aware of the fact that the textbooks procured and distributed in 2005/06 and 2006/07 bypassed the regular distribution channels. This information was only discovered during the field testing of questionnaires with the INS. This fact is surprising and highlights the importance of significantly improving internal communication in government.

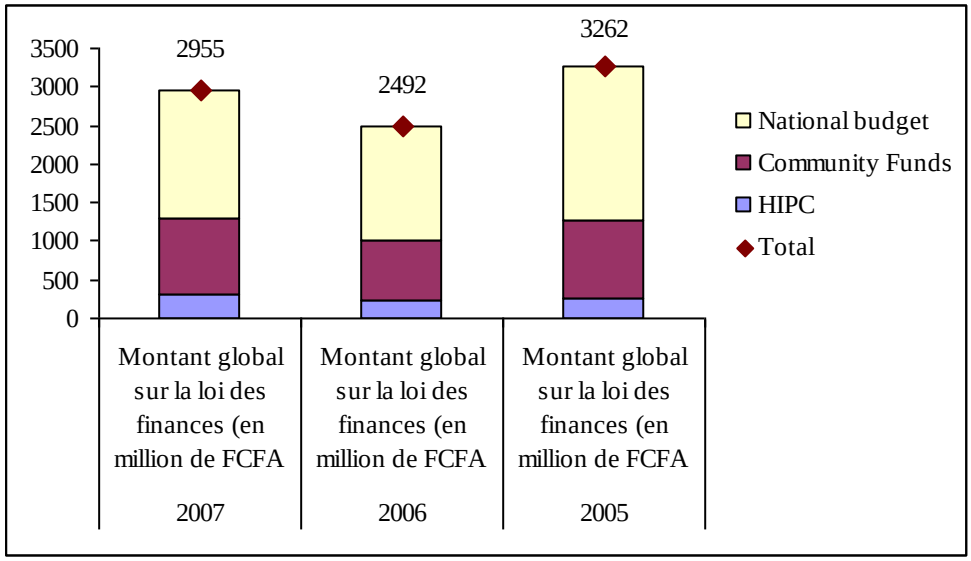
2.7 Although we could not track textbook distributions through each administrative node of the regular distribution channels, it was nevertheless possible for the PETS to compare the quantity of textbooks distributed by the PADEB and the quantity received by schools on a per student basis to determine whether there might still be leakages in the project distribution mechanism. The textbook program aims to provide every primary school student with one textbook for each of the three core subjects, Mathematics, French, and Sciences.

2.8 Drawing books and notebooks during 2005/06 and 2006/07 were procured and distributed by MEN through its regular distribution channels, including at the regional and the district offices. This enabled a full survey to track resource flows at the each administrative point and identify bottlenecks and inefficiencies. In light of the different distribution channels for drawing books, note books and textbooks, we were able to compare the efficiencies of the two distribution mechanisms, one going through all the administrative points and the other going from the top directly to schools (bypassing the established government procedures). The rest of chapter provides the detailed analysis on resource flows.

2.2. MINISTRY OF FINANCE: BUDGETING AND ENGAGED CREDIT

2.9 The budget allocation for drawing books, notebooks and supplies has declined between 2005 and 2007 by about 10 percent. This is due to the fact that the Ministry of Education adopted a new package of learning materials which is cheaper than what was distributed before 2007.

Figure 2.2: Education Budget for Books and Office Supplies



Source: Ministry of Education.

2.10 Table 2.1 shows the engaged credit for notebooks from 2005 to 2007. The Ministry of Education indicated that the decline of the engaged credits for 2006/07 is due to the replacement of the 100, 200 and 300 page notebooks with 48 and 32 page notebooks.

Table 2.1: Engaged Credit for Drawing Books and Notebooks, million CFAF

Période	**Amount**
2006/2007	238,819,938
2005/2006	680,000,000
2004/2005	525,518,976
Total	1,444,338,914

Source: Ministry of Education.

2.3 MINISTRY OF EDUCATION: PROCUREMENT OF DRAWING BOOKS AND NOTEBOOKS

2.11 Between the academic years 2004/05 and 2006/07, the Financial Resource and Materials Unit of the Ministry of Education procured only drawing books and notebooks. It was the PADEB that procured more than 2 million textbooks in the academic year 2005/06, distributing them directly to 7,524 primary schools.[4] Although the PETS could only track notebooks, the findings drawn from tracking notebooks should be just as valuable as tracking textbooks since they, in principle, go through the same distribution mechanisms. In addition, as stated earlier, it was also possible to compare the quantity of

[4] Note Sur La Mission de Suivi de la Composante des Manuels Scolaires du PADEB, du 19 au 26 Juin 2007.

textbooks received by schools and the quantity distributed by the project on a per student basis.

2.12 Table 2.2 presents all textbooks and notebooks that were distributed by MEN and by the PADEB, respectively. A few noticeable facts and inconsistencies are worth noting. First, MEN reported to have spent 240 million CFAF in 2006/07 on drawing/notebooks, equivalent to only 30 percent of the 810 million engaged credit CFAF reported by MEF for this budget line. This apparent discrepancy is explained by the fact that engaged credits recorded by MEF are probably for the whole education sector while the MEN's procurement is only for primary education.[5]

2.13 Second, at the ministry level, financial records are only kept for the total cost per procurement lot which includes different types of notebooks/textbooks. In order to monitor the cost effectiveness of government procurement, it would be necessary to know the unit cost of each item purchased. While the unit cost of notebooks can be found from the government's contracts with suppliers, the lack of details at the ministerial level records makes it impossible to evaluate the cost effectiveness for each specific item. This may not be an important issue for notebooks since they are more or less homogenous products, but it matters for textbooks since their unit costs are likely to differ depending on the subject and grade.

2.14 It was also noted that there was a 35 percent reduction in spending on notebooks between 2005/06 (2005 budget) and 2006/2007 (2006 budget). This is due to the efficiency gains from switching to a new learning material package for students. Specifically, the MEN procured notebooks of 32 and 48 pages in 2006/07 while in 2005/06 the notebooks procured were all at least 100 pages or more, resulting in 1 million more drawing/notebooks at the cost of 130 million CFAF less. At the central level, the government procured on average 2.2 notebooks per student in 2006/07 instead of 1.8 in 2005/06.

[5] This point needs to be verified at the dissemination stage.

Table 2.2: Procurement of Textbooks, Drawing Books and Notebooks by MEN

	2006/07		2005/06	
	# of books, millions	Total Cost, CFAF million	# of books, millions	Total Cost, CFAF million
All textbooks	0	0	0	0
Drawing notebook	1.2		0.7	
32 page notebook	1.4	**238.8**		**205.0**
48 page notebook	1.1			
100 page notebook			1.4	
200 page notebook			0.5	**160.4**
300 page notebook			0.2	
Total # of drawing/notebooks/cost	**3.7**	**238.8**	**2.7**	**365.3**
Average CFAF per student		**201**		**338**
Memo item: Total # of textbooks distributed by PADEB			**2.2 million**	

Source: Niger 2007 PETS survey

2.15 Table 2.3 presents the average number of notebooks allocated per student at the central level of MEN and the average number of textbooks allocated by PADEB. While there is an increase in the number of notebooks per student between 2005/06 and 2006/07, each student had fewer pages. In 2006/07, each student on average had 84 notebook pages compared to 250 pages in 2005/06.[6] The supply of drawing books, however, has increased significantly at the ministry level, from 0.6 to 1.0 per student between 2005/06 and 2006/07. The textbooks distributed by PADEB averaged about two books per student, which were financed by donors.

Table 2.3: Number of Drawing, Notebooks and Textbooks Procured at the Central Level

	2006/2007	**2005/2006**
Total # of Drawing notebook	1,154,790	650,000
Total # of notebooks	3,709,527	2,650,000
Total Cost, million CFAF	238.8	365.3
Average CFAF per drawing/notebook [7]	64.4	137.8
Total # of textbooks distributed by PADEB		2,200,000*
Number of students	1,187,461	1,081,149
Average # of drawing notebook per student	1.0	0.6
Average # of notebook per student	2.2	1.8
Average # of textbooks per student distributed by PADEB		1.9*

Source: Niger 2007 PETS survey

*Note: 2.2 million is an approximate number. The average books per student were calculated using the 2.2 million divided by the average number of students in the two academic years. This is because it was apparent that the books were distributed through out both academic years.

[6] Expert opinion will be sought at the dissemination stage on whether 84-page notebooks are sufficient for coursework.

[7] The exchange rate at the time was a little over 500 CFAF per US$, so this is equivalent to about 12 to 25 cents per notebook.

2.16 In conclusion, based on the procurement done at the level of Ministry of Education and the PADEB, each pupil should have received on average about one drawing book and two notebooks in 2006/07 and two textbooks in the two years surveyed.

2.17 After book suppliers receive contracts from the Financial Resource and Materials Unit of the Ministry of Education, including number of books to be purchased and their cost, they are expected to deliver the supplies to regional education offices within the time frame specified. Although the book suppliers chose not to respond to questionnaires or participate in the survey, this ultimately did not matter for textbooks since it turned out that they were provided directly to schools by the PADEB.

2.4. REGIONAL EDUCATION OFFICE: RECEPTION AND DISTRIBUTION OF NOTEBOOKS

2.18 The PETS selected three Regional Education Offices to survey, including Dosso, Tillabéri and CU Niamey. However, the only person who was in charge of record keeping at Niamey had died shortly before the survey. At the time of survey, no other person in the regional office knew where records were or if indeed records existed. **This highlights the importance of institutionalizing record keeping procedures instead of relying exclusively on specific individuals**. Consequently, the analysis at the regional level is only based on data from Dosso and Tillabéri. Of these two regions, however, one region did not have information on the drawing books and notebooks distributed to district offices. All in all, only one region out of the three had complete receipts and distribution data at the aggregated level.[8]

2.19 Table 2.4 presents a comparison between the total number of notebooks and drawing books (*cahiers*) obtained from MEN's and Regional Education Office's records. MEN had complete records on materials distributed to each region for both years (total of six records) while only 3 records were available at the regional level. Tillabéri regional office claimed not to have received any notebooks/drawing books while Niamey did not provide any information. In addition, Dosso regional office reported to have received 15 percent more notebooks than that recorded by MEN. This could be due to the fact that notebooks given by donors were mistaken for government's ones. All in all, only one out of six records matched completely (Tillabéri's 2005/06 record). This highlights the need for consistent and adequate record keeping practices.

[8] By aggregate level information we meant that total books received and total books distributed without specifying the destinations of the distributions. Distribution data with specific destinations are even scarcer.

Table 2.4: Drawing books/Notebooks: distribution records by MEN and Reception records by Regional Education Offices

	Dosso		Tillabéri		Niamey	
	By Regional Education office	By Ministry of Education	By Regional Education office	By Ministry of Education	By Regional Education office	By Ministry of Education
2006/07	691930	602596	0	394453	N/A	603952
2005/06	677134	509198	433,840	430800	N/A	285680

Sources: Niger 2007 PETS and comments provided by MEN.

2.20 Table 2.5 presents drawing books and notebooks received by Dosso and Tillabéri Regional Education Offices between 2005/06 and 2006/07 based on information received from Regional Education Offices. For drawing books there was a significant variation between Tillabéri and Dosso. While Tillabéri claimed to have received nothing in 2006/07, Dosso received on average 0.8 drawing book per student, somewhat close to the national average of 1 drawing book per student. As an economically more developed region, Dosso also received more notebooks than Tillabéri, a poor region of the country.

Table 2.5: Reception of Drawing books/Notebooks by Regional Education Offices

	Dosso		Tillabéri		Total of the two regions	
	2006/07	2005/06	2006/07	2005/06	2006/07	2005/06
Drawing notebook	161,680	101,200	0	3,200	164,880	101,200
32 page notebook	235,200	0	0	14,800	250,000	0
48 page notebook	295,050	102,205	0	23,400	318,450	102,205
100 page notebook	0	327,793	0	253,320	253,320	327,793
200 page notebook	0	109,856	0	112,480	112,480	109,856
300 page notebook	0	36,080	0	26,640	26,640	36,080
Total number of notebooks	530,250	575,934	0	430,640	960,890	575,934
Number of students	188,942	167,821	207,121	181,476	370,418	374,942
Average # of drawing book per student	0.86	0.60	0.00	0.02	0.4	0.3
Average # of notebook per student	2.81	3.43	0.00	2.08	1.3	2.9

Source: Niger 2007 PETS survey

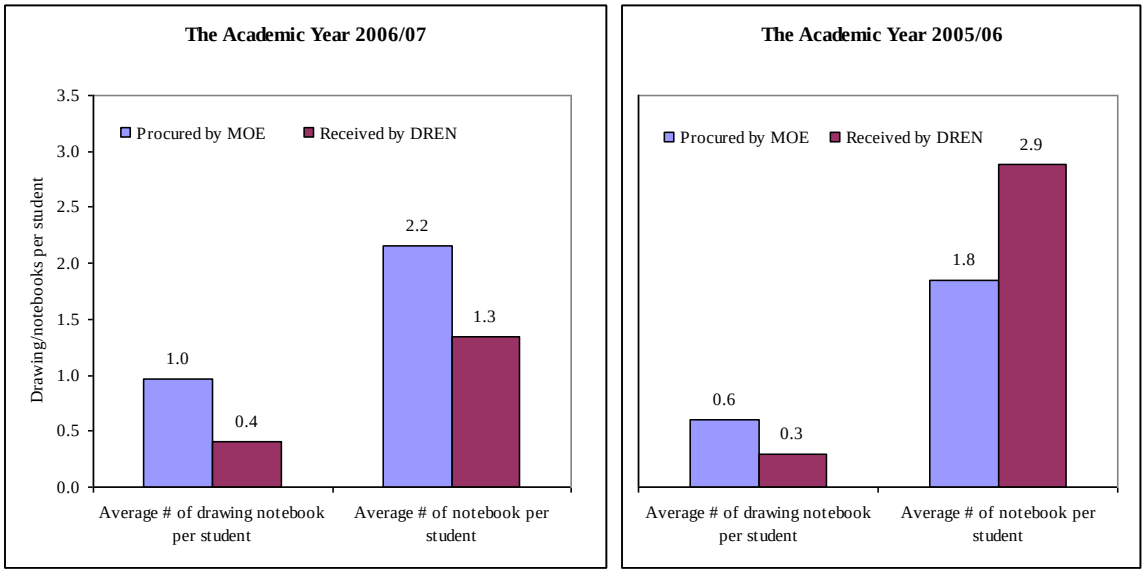
2.21 It is noteworthy that while at the ministry level more drawing books/notebooks were procured between 2005/06 and 2006/07, this did not translate into an increase at the regional level. On average, regional offices received fewer notebooks per student in the same period. Tillabéri's experience also highlights the unpredictability of supplies with nothing received for 2006/07.[9]

[9] An unlikely explanation for this reduction is that other regions that the PETS did not survey received higher than national average resources, resulting in reduced resources in the two regions that the PETS surveyed. With the limited sample, it seems that richer regions and closer by regions tend to get more resources than remote regions and poor regions. This point needs to be verified at the dissemination stage.

2.22 In terms of timely deliveries for the academic calendar, in 2006/07, most of the drawing books and notebooks were delivered to Dosso in early August and September, which was a big improvement over the late October deliveries in 2005/06. Thus, there were no delays for the deliveries to this regional office for the 2006/07 academic year.

2.23 In conclusion, the analysis of resource flows identified significant inefficiencies between the MEN and the two regional education offices that provided data. Figure 2.3 shows the magnitude of the resource reductions in 2006/07, as well as in 2005/06. While the Dosso regional office received more notebooks per student than the national average in 2006/07, as a result of much higher than national average distribution to Dosso, lack of information from the suppliers makes it difficult to pinpoint exactly where the discrepancy occurred. [10]

Figure 2.3: Average Drawing/Note Books per Students Procured by MEN and Received by DREN (Dosso and Tillabéri only)



Source: Niger 2007 PETS survey

2.5. DISTRICT EDUCATION OFFICES: DELAYS AND QUANTITIES OF MATERIALS RECEIVED

2.24 Niger's school year consists of three trimesters, October to December, January to March and April to June. There are two types of delays that can occur. One is the time lapsed between when the regional offices and when the district education offices (*Inspection d'éducation de base, IEB*) received materials and another is whether deliveries to schools are made at the beginning of each trimester.

[10] A few possibilities could explain this inconsistency. It could be that the left over stock from the previous year was distributed this year, or it could be that the other regions that were not surveyed received fewer than national average notebooks. It also could be that the reception in 2005/06 was actually delayed deliveries from the previous year. Inaccurate records also could contribute to this inconsistency. More definite explanations need to be discussed at the dissemination stage.

2.25 We found that during the two years a significant amount of time elapsed between receipts of supplies by regional offices and by district offices. For 2005/06, while Dosso and Tillabéri regional offices received their supplies mostly between August and October, IEBs in Dosso and Tillabéri only received their deliveries in March of the following year. There were even June and July deliveries, at the very end of the school year.

2.26 For 2006/07, Dosso received one third of their supplies before July and 60 percent in March, corresponding to the fall and spring trimesters, with few deliveries made for the winter trimester. Tillabéri had a very similar pattern of deliveries. For Niamey, about 50 percent of deliveries were made in April, in time for the spring trimester while another 50 percent of deliveries were made in time for the fall trimester. Like in Dosso, there were hardly any deliveries made for the winter trimester.

2.27 There were visible improvements in delivery planning between 2005/06 and 2006/07 academic years, partly due to the on-time deliveries to the regional education offices in 2006/07. For 2005/06, the bulk of November deliveries to Tillabéri IEBs fell right in the middle of the fall trimester. This delay, however, was due to no fault of the regional office since they only received the supplies in late October. For Dosso IEBs, they received more than 40 percent of their deliveries in October, too late for the supplies to be transferred to schools at the beginning of the fall trimester. There were no winter trimester deliveries and close to 30 percent of total supplies were delivered for the spring trimester, as indicated in Table 2.6.

2.28 In short, there were significant time lapses between when the regional offices received supplies and when the supplies were transferred to IEBs. However, it appeared that the regional offices acted as distribution centers that regulated school supply deliveries to coincide with the school calendars, with exceptions of the small deliveries made in the winter trimesters.[11]

Table 2.6: Percent of Notebooks and Drawing Books Received by District Education Offices (IEB)

	2006/07			2005/06		
	Dosso	Tillabéri	Niamey	Dosso	Tillabéri	Niamey
November		16%			45%	17%
December						
January	2%	4%		2%	18%	
February		1%				
March	60%	55%		28%	12%	
April	6%		48%		0.4%	
May		8%		27%	22%	15%
June	21%					
July	11%	15%	22%			
August						
September		0.3%				52%
October			30%	43%	3%	16%
Total	100%	100%	100%	100%	100%	100%

Source: Niger 2007 PETS survey

[11] This point needs to be checked with the sector experts at the dissemination stage. It is possible that winter trimester use the fall trimester supplies.

2.29 In terms of supply sources, the state remains virtually the sole provider to IEBs, with the exception of IEB Dosso which received a significant donation. To track the quantity of notebooks distributed by DREN and received by IEB, we compared the average notebooks per student distributed by DREN and received by IEB as shown in Table 2.7. Several interesting facts emerge. First, for the 3 regions that we surveyed, drawing books on average were reduced by about 25 percent in 2006/07 between the MEN and the IEBs, which could be an indication that some leakages occurred. However, it is also possible that the deliveries fell into the following school years and/or that the regions not surveyed received a higher than the average number of drawing books.[12] It is also noteworthy that the discrepancies between MEN and IEB declined from 50 to 24 percent between the two years. This represents a substantial improvement in efficiency.

Table 2.7: Comparisons of Drawing Books and Notebooks per Student at Each Level

Drawing books						
		Received by IEB from DREN	Distributed by DREN to IEB	Received by DREN from suppliers	Procured by MEN	% difference between MEN and IEB
	Dosso	0.8	0.9	0.9	1.0	-20%
2006/07	Tillabéri	0.8	N/A	0.0	1.0	-18%
	Niamey	0.6	N/A	N/A	1.0	-35%
	All 3 regions	0.8	N/A	N/A	1.0	-24%
	Dosso	0.5	0.6	0.6	0.6	-25%
2005/06	Tillabéri	0.2	N/A	0.0	0.6	-73%
	Niamey	0.3	N/A	N/A	0.6	-53%
	All 3 regions	0.3	N/A	N/A	0.6	-53%
Notebooks						
		Received by IEB from DREN	Distributed by DREN to IEB	Received by DREN from suppliers	Procured by MEN	% difference between MEN and IEB
	Dosso	2.1	3.1	2.8	2.2	-2%
2006/07	Tillabéri	2.3	N/A	0.0	2.2	8%
	Niamey	2.7	N/A	N/A	2.2	24%
	All 3 regions	2.3	N/A	N/A	2.2	5%
	Dosso	2.9	3.4	3.4	1.8	59%
2005/06	Tillabéri	2.3	N/A	2.1	1.8	27%
	Niamey	6.8	N/A	N/A	1.8	267%
	All 3 regions	3.4	N/A	N/A	1.8	85%

Source: Niger 2007 PETS survey

[12] This explanation is theoretically possible but somewhat unrealistic. The reality is that better off and close by regions often receive higher resources than the remote and poor regions. This point needs to be discussed at the dissemination stage.

2.30 **In terms of notebooks, in 2006/07, we found no evidence of leakages between the MEN and IEBs**. Niamey had a somewhat higher than average level of deliveries, which could be due to its close proximity to the center. In 2005/06, all three regions had higher than the national average deliveries. If these records are true, it would mean that other regions, mostly further away from the capital than the ones that we surveyed, must have received supplies that were lower than the national average level. It is noteworthy that for the three regions surveyed, the regional disparity has narrowed significantly in 2006/07, judged by the close to national average distributions for the three regions.

2.31 Ideally one should be able to track the distribution and reception of notebooks between the DREN and the IEB by matching the records from the DREN indicating the number of notebooks distributed against corresponding records from the IEBs. However, such an analysis proved to be infeasible due to poor record matching.

2.32 For 87 records where we could match the origins and the destinations between DREN and IEBs, 24 records, or nearly 30 percent of observations, had implausible matches, with IEBs claiming to have received about twice the number of notebooks distributed by the DREN. These high numbers could have contributed to the higher than national average receipts of notebooks per student. The remaining records had 9 almost perfect matches and 54 records showed much lower quantities of books received than what was distributed.

2.33 In conclusion, the detailed matching exercise does reveal inefficiencies between the DRENs and the IEBs, while the average numbers mask the big variations among the IEBs. More than 60 percent of IEBs reported to have received fewer notebooks than what was distributed by DREN.

2.6. SCHOOLS: DELAYS AND QUANTITY RECEIVED

2.34 The distributions of drawing books and notebooks to schools from IEBs do not often correspond with the beginning of each trimester. Table 2.8 presents the receipts of drawing books and notebooks by month. Schools in Dosso received their supplies pretty much through the year with significant middle of trimester deliveries. Tillabéri schools received most of their supplies in March and April, in time for the spring trimester while Niamey schools received their supplies mostly in time for the fall trimester.

Table 2.8: Percent of Drawing Books and Notebooks Received by Schools, 2006/07

	Dosso	Tillabéri	Niamey	All three regions
November	9%	7%	0%	5%
December	4%	2%	0%	2%
January	4%	5%	4%	4%
February	4%	1%	0%	1%
March	15%	30%	0%	18%
April	11%	41%	0%	23%
May	5%	1%	5%	3%
June	7%	1%	32%	11%
July	20%	8%	16%	13%
August	0%	2%	0%	1%
September	8%	0%	0%	2%
October	15%	3%	43%	17%

Source: Niger 2007 PETS survey

2.35 It is not surprising that there seemed to be significant delays between the IEBs and the schools. The logistics of handling school deliveries are more complicated than handling the IEB deliveries due to the higher number of schools with diverse and often remote locations. This reveals that strengthening capacities at the district level should be a key priority in ensuring timely deliveries to schools.

2.36 In terms of the quantities received Table 2.9 shows that schools received on average 0.3 notebook per student, much lower than what was procured at the central level or what was received by IEB. The average quantity of drawing books received by schools is also much lower than that procured at the central level and than that received by the IEB. Schools received very few notebooks from COGES/APE (school management committee) or from other donors. The state is essentially the sole supplier of learning supplies to schools.

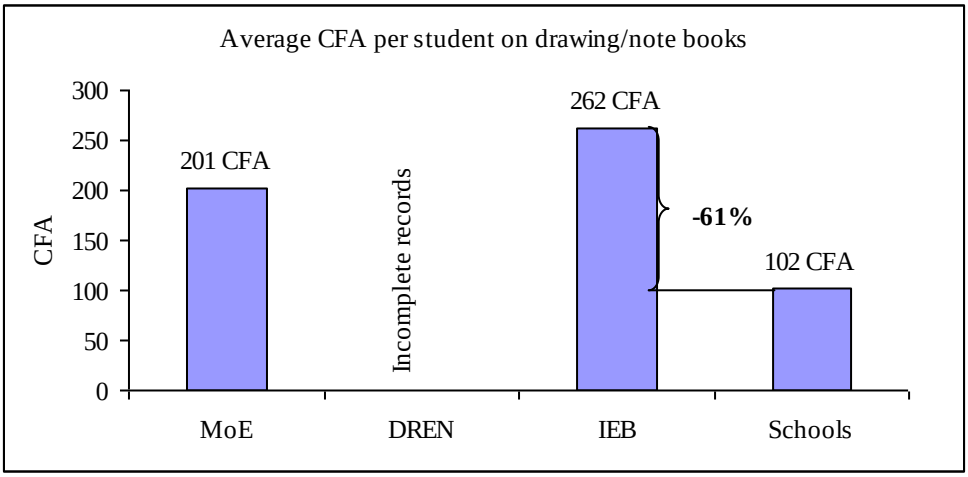
Table 2.9: Average Number of Drawing Books and Notebooks per Student Received by Schools

	Drawing books		Notebooks	
	2006/07	2005/06	2006/07	2005/06
Dosso	0.27	0.11	0.80	0.97
Tillabéri	0.46	0.09	1.41	0.62
Niamey	0.39	0.56	1.67	3.80
All three regions	0.37	0.20	1.22	1.37

Source: Niger 2007 PETS survey

2.37 One can also look at the average cost of the drawing/notebooks spent on each student to show inefficiencies, or possible leakages between the central and the school level as shown in Figure 2.4. Between the MEN and schools there was about 50 percent reduction in CFAF spent per student. Thus, it appears that a significant proportion of resource did not reach the intended beneficiaries.

Figure 2.4: Average Cost of Drawing/Notebooks per Student Supplied to Schools, 2006/07



Source: Niger 2007 PETS survey

2.7. TEXTBOOK DISTRIBUTIONS OF THE BASIC EDUCATION PROJECT: DELAYS AND QUANTITIES

2.38 Although there were no textbooks passing though the regional and the district education offices, a significant proportion of primary school directors reported to have received textbooks for both 2005/06 and 2006/07. This is consistent with the fact that the basic education project distributed textbooks to schools directly. Since there was no other known significant sources for textbook distributions, we considered both years' textbooks received by schools to have come from the project. In fact, we included textbooks received from all sources.[13].

2.39 Of the 299 schools surveyed, a total of 160,000 books were received between the two academic years that we surveyed, with 60 percent received in 2005/06 and 40 percent in 2006/07. Table 2.10 shows that during the first year more than two thirds of books were delivered before the fall trimester, but in the second year, the deliveries were made throughout the whole year. About 25 percent deliveries in the second year were made between November and June, well into the middle of the academic year. **Therefore, we estimate that about 45 percent of books were delivered on time assuming the project goal was to deliver all the textbooks in 2005/06**.

[13] School directors were asked to identify sources of the books received, including IEB, COGES/APE and donors. Apparently it was difficult for them to distinguish among these three sources. Thus, we calculated textbooks received by schools by adding all three sources together, knowing that by far the majority of drawing/notebooks were given by IEB and the textbooks were given by the education project.

Table 2.10: Time Frame for Textbooks Delivery

	2005/06	2006/07
January	4%	2%
February	1%	0%
March	1%	7%
April	0%	9%
May	21%	1%
June	1%	4%
July	1%	5%
August	10%	0%
September	15%	0%
October	5%	8%
November	1%	2%
December	0%	1%
Total	60%	40%

Source: Niger 2007 PETS survey

2.40 **The education project distributed about 2.2 million books to schools. It worked out to be 1.9 textbooks per student**. The objective of the project is to provide each student with one text book for each core subject, Math, French and Science. Table 2.11 presents average textbook per student per subject received by schools from all sources.[14] **It implies about 2 to 3 students sharing a book per subject which falls short of the project objective. On average, schools received about 1.4 textbooks per student for all subjects combined, about 25 percent lower than the 1.9 textbooks per student procured at the project level**.

[14] We used the most inclusive method to calculate average books received per student. First, we treated all books received at school level as given by the education project, a reasonable assumption since there were no book distributions from the government or any other sources of significant quantity. Most importantly, schools also received textbooks in 2006/07, which we also treated as the books received from the project since there was no other known book distributions in 2006/07 either. We essentially treated book receipts from both academic years as if they were received in one year.

Table 2.11: Books Received: Average per Student by Subject by Year and from Both Years

	2006/07	2005/2006	Total from both years[15]
MATH CM2	0.13	0.31	0.42
MATH CM1	0.09	0.26	0.36
MATH CE2	0.11	0.23	0.33
MATH CE1	0.08	0.36	0.43
MATH CP	0.00	0.18	0.19
MATH CI	0.00	0.00	0.00
PLPE CM2	0.11	0.36	0.44
PLPE CM1	0.14	0.25	0.39
PLPE CE2	0.12	0.25	0.37
PLPE CE1	0.09	0.38	0.46
PLPE CP	0.11	0.41	0.49
PLPE CI	0.12	0.35	0.49
SVT CM2	0.11	0.39	0.47
SVT CM1	0.09	0.30	0.39
Etude du millieu CE2	0.11	0.30	0.41
Etude du millieu CE1	0.12	0.39	0.50
Orthographe-grammaire CM2	0.00	0.00	0.00
Orthographe-grammaire CM1	0.00	0.00	0.00
Average number of textbooks per student regardless of subjects			1.4

Source: Niger 2007 PETS survey

2.41 In reality, however, average textbooks per student are likely to be slightly lower than the 1.4 books due to the distribution inefficiencies. For example, a small percentage of books were delivered to schools where there were no corresponding classes. Table 2.12 shows that in 2005/06 10 percent of the textbooks were delivered to schools where there were no corresponding classes while it was 5 percent in 2006/07, showing an improvement in matching textbooks with corresponding classes between the two years. Each year, however, only about 40 percent of students received any textbooks.

[15] Total textbooks received from both years per student were calculated using the *sum* of textbooks received in both years divided by *average* number of student between the two years.

Table 2.12: Inefficiencies in Textbook Distributions

	2006/07		2005/06	
	% of Books Received	% of Students	% of Books received	% of Students
Books distributed to schools w/ corresponding classes	95%	37%	90%	38%
No books distributed	0%	63%	0%	62%
Books distributed to schools w/o corresponding classes	5%	0%	10%	0%

Source: Niger 2007 PETS survey

2.8. STUDENTS' ACCESS TO TEXTBOOKS AND NOTEBOOKS

2.42 The beneficiaries of public spending are students. The tracking, however, could not be undertaken at the student level since students also receive used textbooks from the schools and parents may have paid for the drawing books and notebooks. Nevertheless, one could investigate the access to the learning materials from the students' perspectives. For this purpose, at each school we randomly surveyed up to 4 students in the third grade or higher, totaling 1,061 students.

2.43 Table 2.13 presents the findings from the student questionnaires. Despite inefficiencies and possible leakages, the majority of students have access to books for most subjects by sharing books with others. About half or more students needed to share books with 2 other students. This could affect learning outcomes unfavorably since a significant number of students do not have access to textbooks away from school. This compares unfavorably with the experience from Ghana, where the government is committed to providing each student with a new textbook each year for all subjects and sharing textbooks among students is not common. It is worth noting that schools are the only significant suppliers of textbooks to students. Parents' contributions remain small.

Table 2.13: Students' Access to Learning Textbooks

	% students received books from any sources	% students received books from schools	% Students shared books with others	With number of students	% students have access to books
MATH CM2	47.9	43.1	46.4	2.1	72.3
MATH CM1	46.4	39.2	54.9	2.6	86.6
MATH CE2	52.5	45.0	50.5	2.5	93.5
MATH CE1	46.7	40.4	61.2	2.7	96.6
Orthographe-grammaire CM2	9.2	7.9	72.0	2.1	16.2
Orthographe-grammaire CM1	11.1	10.5	90.0	2.2	22.7
SVT CM2	46.4	43.0	47.3	2.5	78.6
SVT CM1	49.5	43.3	48.9	2.3	80.9
PLPE CM2	67.8	61.0	51.6	2.2	100.0
PLPE CM1	60.6	54.8	57.0	2.4	100.0
PLPE CE2	71.0	61.2	60.4	2.3	100.0
PLPE CE1	61.6	55.0	67.6	2.7	100.0
Etude du millieu CE2	58.6	50.9	54.7	2.3	100.0
Etude du millieu CE1	43.1	39.6	65.0	2.7	91.5
HIST/GEO CM2	27.5	24.9	60.7	2.4	50.1
HIST/GEO CM1	43.0	37.2	61.0	2.5	81.5
History/Geography CE2	44.4	27.8	40.0	2.5	71.1
History/Geography CE1	44.4	22.2	50.0	2.5	77.8

Source: Niger 2007 PETS survey

2.44 We also found that students on average received 0.4 drawing books per student which is very close to 0.37 drawing book received by schools. Students also on average have received 1.2 notebooks, same as what had been received by schools. Thus, schools seemed to have distributed all the notebooks and drawing books that they received.

2.9. CONCLUDING REMARKS

2.45 Record keeping in the education sector is a problem preventing greater transparency and potentially facilitating divergence of resources. Compared to the Ghana PETS findings in the education sector, the Niger PETS highlights that more should to be done in terms of record keeping. In Ghana, it was found that the records between the central and the district offices were of very good quality. The availability and accuracy of records only become somewhat problematic at the level between district offices and schools. Even at that level, a significant proportion of records could be matched to draw meaningful conclusions.

2.46 In comparison, **the Niger PETS reveals that the records are incomplete even at the central level**. It is also a common practice not to indicate the exact delivery dates for financial transactions, such as the date when a credit is released. Furthermore, **the availability and quality of records is also problematic at the regional education office level** to the extent that it prevents robust diagnostic analysis of leakages. The

distribution data from higher to lower level administrative offices are especially incomplete, indicating poor downward accountability. For example, a significant proportion of district level records were seemingly implausible on distributions to schools. Experience in other countries shows that increasing governmental agency's accountability to beneficiaries is a very effective way to improve resource distribution efficiency.[16] **Data at the school level, however, appeared to be good in general, which is also the experience in other countries**.

2.47 Nevertheless, in spite of the data limitations, several conclusions can be drawn as they do not require rigorous records. These findings can still contribute to improving efficiency in financial management. First, **engaged credit does not always follow the increases in the credit released. This is the first level where resources intended for beneficiaries are not fully utilized even though the credit is available**. Second, government supplies of materials appeared to be unpredictable as shown by the Tillabéri data for the academic year 2006/07.

2.48 Third, inefficiencies seem to materialize between the central and the school level, mostly between district offices and schools. The discrepancies for drawing books and notebooks, which were distributed through the regular administrative systems, were around 50 percent, while they were about 25 percent for textbooks, which were distributed to schools directly by bypassing the governmental administrative systems.

2.49 Realizing inefficiencies created by layers of bureaucracy, the basic education project implemented by MEN has designed a mechanism for book suppliers to distribute textbooks directly to schools. While PETS indeed found efficiency gains by this approach, inefficiencies and delays still existed. This shows the importance of adopting consistent and transparent record keeping mechanisms while simplifying administrative procedures. (**Note: Paragraphs 2.48, 2.49 and 2.50 were deleted here**)

2.50 Finally, it was observed that schools largely passed on the resources received to their students. In addition, despite all the apparent inefficiencies in the resource distribution systems, schools in the three regions surveyed manage to ensure that most students had access to textbooks by sharing books between two or three students and probably also by using used books.[17]

2.51 In order to address the above issues, the first priority should be to improve transparency of resource flows by easing the difficulties of M&E. The bottleneck is the lack of a systematic aggregation of the information on a regular basis. The existing financial system seems to rely on maintaining records on a transaction by transaction basis. Since there are tens of thousands of transactions each year, it is very difficult to monitor and evaluate total resource flows at the level of the entire sector. Furthermore, records are mostly available for the receipts of resources but not for their distribution, suggesting inadequate mechanisms to enforce transparency to beneficiaries. This is also the case for the health sector as shown in Chapters 3 and 4.

[16] R. Reinikka and J. Svensson, The power of information: evidence from a newspaper campaign to reduce capture, March 2004, World Bank Policy Research Working Paper, WPS 3239.

[17] The three surveyed regions are better off and close to the capital. In more remote regions, the availability of textbooks may even be less.

2.52 To make M&E a routine procedure, a systematic reporting system should be developed for the education sector. Specific record keeping forms should be designed for financial and resource flows consistent between each administrative level to allow regular monitoring and evaluation of resource flows. Frequency of reporting should be obligatory and institutionalized. Most importantly, the reporting requirement should also be extended to private suppliers.

2.53 The mechanisms of distributing textbooks, notebooks and drawing books should be reviewed. Ghana provides a good example of a more decentralized system where book suppliers deliver books directly to district offices. In Niger, all learning materials go through both regional and district level offices. This increases transaction times and the possibilities of inefficiencies.

2.54 Finally, the explanations for the gaps between budget and spending should be investigated to improve the predictability of resource flows. Regional and district level indicators should also be brought to the M&E front line to shed light on the reasons behind regional disparity. The resource distribution formula should be reviewed to evaluate whether the criteria take into sufficient consideration regional income disparity and remoteness of locality.

CHAPTER 3. TRACKING PATIENTS' FOOD EXPENDITURES AND HOSPITAL SUPPLIES

3.1. ADMINISTRATIVE STRUCTURE OF THE HEALTH SECTOR

3.1 The administrative structure of the Niger health care system consists of three levels. The central level of Ministry of Health (MSP) is responsible for policy making and resource allocations within the framework of the budget allocated by the MEF. The Regional Health Offices (DRSP) are responsible for technical support for the implementation of health sector policies and operations. District Health Offices (DS) and their network of clinics and health centers are the front line health service providers.

3.2 Table 3.1 shows an overview of the administrative structure of the health sector in Niger. The bolded offices and facilities are those we surveyed and the numbers in the parenthesis are the number of the offices and facilities in the country in 2004.

Table 3.1: Administrative Structure of the Health Sector in Niger

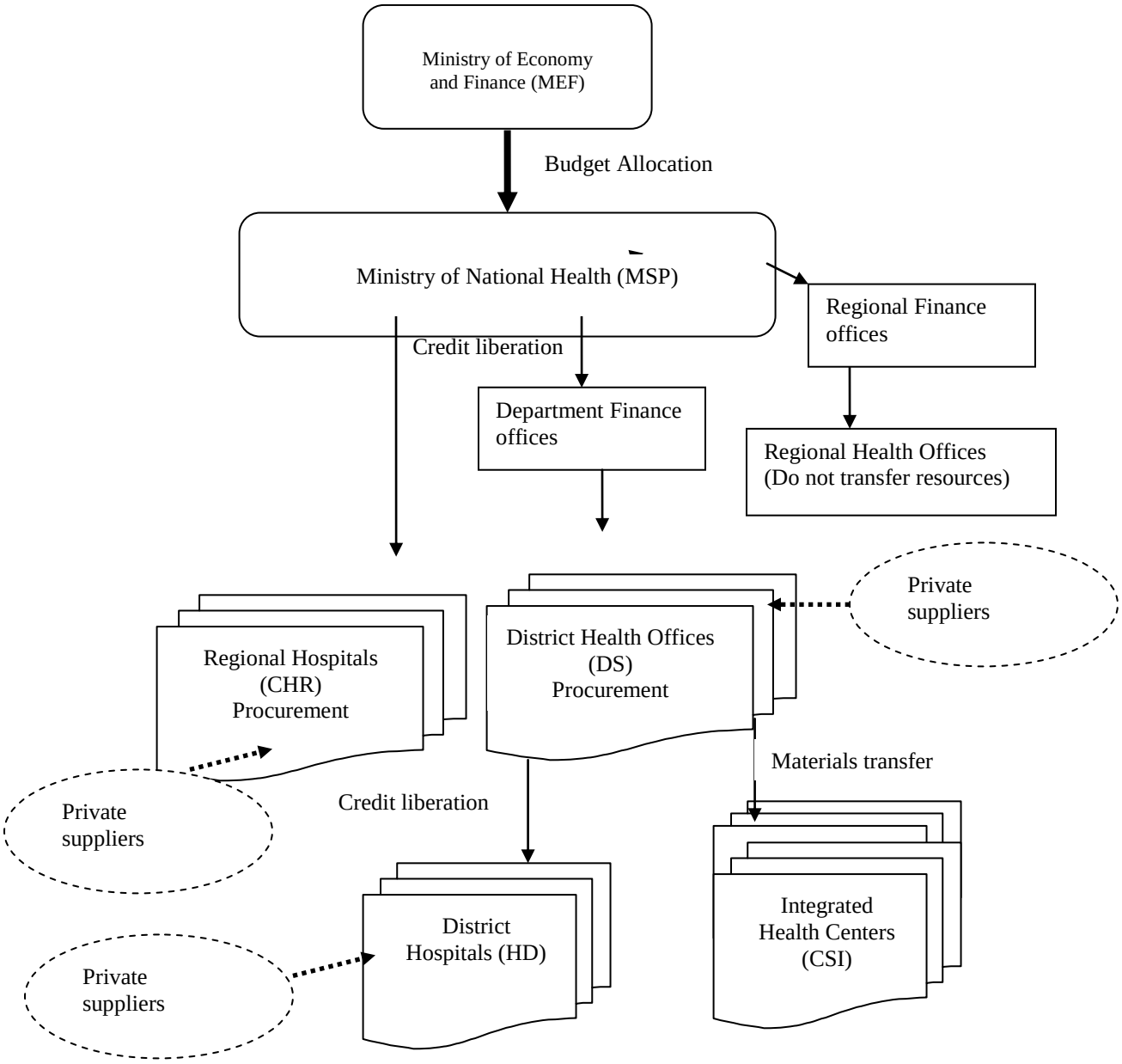
Level of administration	Administrative Structures		Health Care Provider Pyramid
Central	**Ministry of Health** (Ministère de la Santé, (MSP)	Directions générales (2)	National hospitals (3)
		Directions nationales (10)	Specialized hospitals (6)
			Schools and institutes (3)
Region	**Regional Health Offices** (Directions régionales de la Santé Publique, DRSP) (8)		**Regional Hospitals** (Centres hospitaliers régionaux, CHR) (6)
Department	**District Health Offices** (Districts Sanitaires, DS) (42)		**District Hospitals** (Hôpitaux de districts, HD) (42)
			Clinics (Centres de Santé Intégrés) (578)
Village			**Health centers** (Case de santé) (1951)

Source: Revue des dépenses publiques du secteur santé, exercice 2004, ministère de la santé publique

3.2. PROCUREMENT AND DISTRIBUTION CHANNELS OF PATIENT FOOD EXPENDITURE AND HOSPITAL SUPPLIES

3.3 The budget line under "Food expenditures for hospitalized patients and hospital supplies" (Food expenditure thereafter) includes expenditures on food, working clothes, sheets, hospital gowns, mattresses, shoes and firewood. The distribution of these public resources goes through several administrative offices before reaching service providers as illustrated in Figure 3.1.

Figure 3.1: Tracking Food Expenditures for Hospitalized Patients



Source: discussions with MSP and the Statistical Office

3.4 First, the Ministry of Finance allocates a budget to the "Food expenditures" line. Then, it liberates quarterly equal amounts of credit to the Ministry of Health. Based on the budget approved by the MEF, the MSP prepares its total budget, as well as detailed budget allocations to each regional and district health offices. It then releases the credit, in theory, in four equal tranches. The regional and district health offices receive their authorization to spend, and make procurement accordingly.

3.5 It should be noted that MSP only deals with the budget allocation and credit liberation. The Ministry of Finance has offices at the regional and the departmental level, which make the financial transactions based on the instructions from the MSP.

3.6 **Relative to all other expenditures tracked by the PETS, public spending for food expenditures is the most decentralized**. Books/textbooks and medicines are procured at the central ministerial level and distributed as materials to the lower level offices, whereas food expenditures are transferred as money until the lower level offices so that procurement only occurs at the local administrative level. This is an important point since material flows are harder to track than financial flows. As customary, we investigate delays and efficiency issues at each administrative level for the food expenditures.

3.3. MINISTRY OF FINANCE: BUDGET AND CREDIT RELEASED

3.7 The objective of food expenditures is to provide nutritious food to hospitalized patients and other non-medical hospital supplies to health service providers. Given the food security situation in Niger, this budget item is important for improving health outcomes. While the total budget for the entire health sector increased by 49 percent between 2006 and 2007, the increase for the food expenditures was only 7 percent. This is shown in Table 3.2.

3.8 Based on the records provided by the MEF, 100 percent of the budget for the food expenditures was released in four equal tranches to the MSP for both 2006 and 2007. However, the exact dates when each tranche was released in each quarter were not available. Therefore, it is not possible to tell whether there were delays or not.

Table 3.2: Budget and Credit Liberated to Health Sector and to the Food Expenditure Budget Line, Million CFAF

	2007	2006	% increase between 2006 and 2007
Total budget for health sector	47,550	31,809	49%
Total budget for food expenditure	970	907	7%
Credit liberated in first quarter	243	227	7%
Credit liberated in second quarter	243	227	7%
Credit liberated in third quarter	243	227	7%
Credit liberated in fourth quarter	243	227	7%
Total credit liberated for the year	970	907	7%
Total credit liberated as % of budget	100%	100%	

Source: Niger 2007 PETS survey

3.4. MINISTRY OF HEALTH: BUDGET, CREDITS RECEIVED AND RELEASED, AND RESOURCE ALLOCATION

3.9 Within the budget allocated by MEF, MSP prepares its detailed budget, including the amount allocated to each regional and district health offices, as well as to the regional hospitals. We found that **there were large discrepancies between the MEF's budget and the MSP budget for the food expenditures, with the MSP's budget amounting to only 33 percent of the MEF's budget**.[18] Consequently, there were also large discrepancies between the credits released by both ministries.

3.10 The financial resource flows between the MEF and the MSP reveals three issues relevant to the PETS: accuracy of record keeping; delays; and discrepancies. Table 3.3 presents comparisons between the credit released by the MEF and that released by the MSP. While the MEF released the credit in four equal amount tranches, the MSP released it only in the first three quarters. In addition to different numbers of tranches, there was an implausibly large difference of 75 percent between the amount of credit released and received by the two agencies.[19] Furthermore, no information was available on the exact dates of the financial transactions, making it impossible to identify delays.

[18] These discrepancies and the reasons for them can be investigated during dissemination.

[19] We believe that there is a logical explanation for this because the difference was exactly 75 percent for both years. This can be investigate during dissemination and incorporated into the final report if government can comment on this.

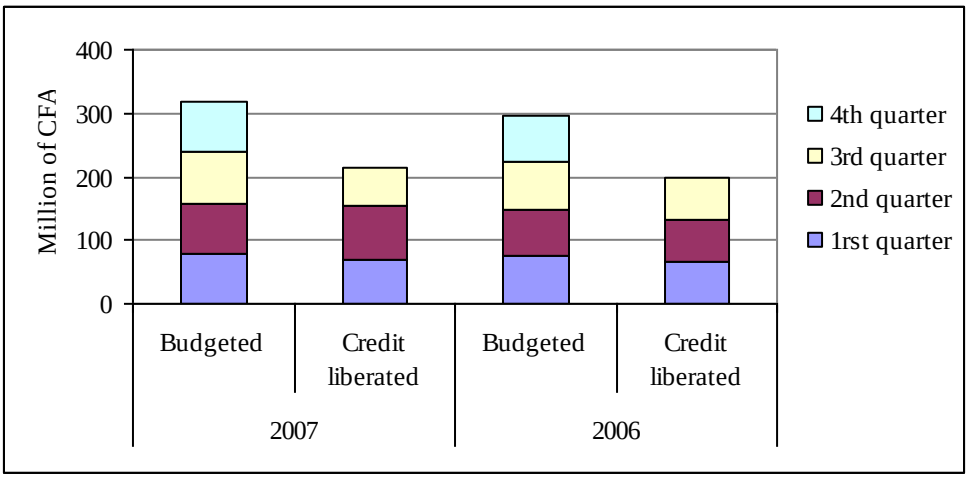
Table 3.3: Comparisons of Credit Liberated for Food Expenditures by MEF and MSP

	2007			2006		
	Total credit released by MEF	Total credit released by MSP	% of difference between MSP and MEF	Total credit released by MEF	Total credit released by MSP	% of difference between MSP and MEF
1st quarter	243	77	-68%	227	74	-67%
2nd quarter	243	94	-61%	227	74	-67%
3rd quarter	243	70	-71%	227	74	-67%
4th quarter	243	0	-100%	227	0	-100%
Total	970	240	-75%	907	223	-75%
Average per person	68	17	-75%	66	16	-75%

Source: Niger 2007 PETS survey

3.11 Figure 3.2 compares the budget and the credit released within MSP. It reveals the credit crunch towards the end of year. The MSP had prepared an equal amount of budget for each quarter, but in reality, only 3 tranches of the credit were released. There was no credit released in the fourth quarter even though the MEF reported to have released credit to MSP in this quarter. It is noticeable that **in both years, the credit released only amounted to 75 percent of the budgeted due to the absence of credit released towards the end of the year. Such credit crunch toward the end of a fiscal year has also been found in other countries** such as Ghana.[20] In short, MSP released mostly what it received from MEF.

Figure 3.2: Ministry of Health: a Comparison Between Budget and the Credit Liberated



Source: Niger 2007 PETS survey

3.12 In conclusion, between the MEF and the MSP, there was a significant inconsistency in what constitutes the Food expenditures. The 75 percent difference between the MEF and the MSP needs to be further investigated. Several possibilities exist, but leakage is an unlikely candidate. It is possible that there were reshuffling of allocated funds at the end of fiscal year when the planned financial resources were not forthcoming and the government had to pay for protected budget lines, such as salaries.

[20] Explanations for these inconsistencies need to be further investigated at the dissemination stage.

It is also possible that the financial resources budgeted were used to procure materials at the ministerial level for the lower level offices/service providers. This means that a proportion of the financial resources would have been turned into materials at the MSP, at which point the amount would no longer be recorded as financial resources under the same budget line.

3.13 The difficulty in tracking delays at the central level was that the exact dates of the financial transactions were not available either at the MEF or at the MSP. Another inconsistency was that the credit crunching towards the end of fiscal year was apparent at the MSP level but could not be validated by the MEF records.

3.5. REGIONAL HEALTH OFFICES: FINANCIAL RESOURCES RECEIVED AND SPENDING

3.14 After MSP prepares its budget and releases the corresponding credit, financial transactions are undertaken by the regional financial offices, which transfer the allocated amount to the regional health offices. Table 3.4 presents **the amount of received resources as a percentage of the amount released between the three agencies, MSP, the regional offices of the MEF, and the regional offices of MSP (DRSP). It shows that the financial transactions between any two points are fairly close and that for the 2006 transactions, resource transfers between any agencies were 100 percent accounted for**. This is indeed remarkable considering that each agency answered their questionnaire separately and that the figures were only reconciled afterwards.

Table 3.4: Comparison of Financial Resource Transfers Between the MSP, Regional MEF and the Regional Health Offices (DRSP)

The amount received as % of the amount distributed	MEF Dosso as % of MSP	Dosso DRSP as % of MEF Dosso	MEF Tillabéri as % of MSP	Tillabéri DRSP as % of MEF Tillabéri	MEF Niamey as % of MSP	Niamey DRSP as % of MEF Niamey	Average DRSP as % of MSP
2007	93%	100%	98%	102%	N/A	107%	96%
2006	100%	100%	100%	100%	N/A	100%	100%

Source: Niger 2007 PETS survey

3.15 Further analysis reveals, however, some weaknesses in record keeping, credit distribution bunching and resource allocation inequality among the three regions. This is shown in Table 3.5. First, the Tillabéri DRSP had only a total amount of credit received for each year, but not the records on the quarterly receipts of funding. Second, while Niamey received two thirds of its funding in the second quarter with nothing received for the first and the fourth quarter, Dosso received nothing in the fourth quarter. Third, the food expenditure allocation on a per capita basis is much higher in Niamey than in Dosso. Although we do not have the exact figure for the population served by the Tillabéri DRSP, we know that Tillabéri has a larger population than Dosso does. With the same amount of total food expenditures for both regions, this means that, Tillabéri, the poorest region of the three, received the least amount of the credit on a per capita basis.

Table 3.5: Quarterly Reception of the Funds and the Per Capita Food Expenditures

	Dosso	Tillabéri	Niamey
First quarter	31%	N/A	0%
Second quarter	38%	N/A	67%
Third quarter	31%	N/A	33%
Fourth quarter	0%	N/A	0%
Total amount, million CFAF	7.3	7.3	9.0
Per person	4.0	N/A	9.3
Population, million	1.8	N/A	1.0

Source: Niger 2007 PETS survey

3.16 Furthermore, DRSPs spent all the resources that they received as shown in Table 3.6. Based on the data, Dosso spent a major part of its budget on food. Tillabéri and Niamey, however, did not provide breakdowns on spending categories. It should be mentioned that the regional health office retained all credit at the regional level.[21]

Table 3.6: Regional Health Offices: Food and Hospital Supplies Expenditures (million CFAF)

	2007				
	Food	Clothing	Beddings	Total spend	The amount spent as % of received
Dosso	5.9	0.6	0.7	7.2	99%
Tillabéri	N/A	N/A	N/A	9.0	100%
Niamey	N/A	N/A	N/A	7.3	100%
	2006				
Dosso	4.7	0.6	1.0	6.4	100%
Tillabéri	N/A	N/A	N/A	7.9	100%
Niamey	N/A	N/A	N/A	5.6	100%

Source: Source: Niger 2007 PETS survey

3.17 In conclusion, the quantity of financial resource transfers between MSP and the Regional Health offices are well accounted for. The regional offices are also effective in procuring materials once credit becomes available. This demonstrates the strengths of the financial management between the central and the regional level offices. Other aspects of the financial management at DRSPs, however, could be improved. Record keeping could be more detailed in terms of exact dates of financial transactions, amounts and breakdown of spending.

3.6. REGIONAL HOSPITALS: RECEIPTS OF FINANCIAL CREDITS AND SPENDING

3.18 Regional hospitals are the end users of the credit for food expenditures and receive the financial resources directly from the MSP. As shown in Table 3.7**,** resource flows between the points are largely consistent with one exception. In 2007, the amount

[21] If the regional offices distributed food to individuals directly, the PETS would not have been able to track the exact amount that reached beneficiaries. However, if the materials were distributed to programs or other public institutions, it would have been possible to track the expenditure to the next level.

of the credit received by the Regional Hospital (CHR) Dosso is only 50 percent of what was released by the MSP. There is no data for Tillabéri. Since the survey was conducted in April/May in 2008, it is possible that the records were not yet reconciled for 2007.[22]

Table 3.7: MSP Credit Liberated and Credit Received, million CFAF

Million CFAF	2007	2006
The amount of credit liberated by MSP to CHR Dosso	39	19
The amount of credit received by CHR Dosso from MSP	18	19
The credit received by CHR Dosso as % of what distributed by the MSP	47%	100%
The amount of credit liberated by MSP to CHR Niamey	29	15
The amount of credit received by CHR Niamey from MSP	28	17
The credit received by CHR Niamey as % of that distributed by the MEF	97%	113%

Source: Niger 2007 PETS survey

3.19 The director of CHR Dosso indicated that the financial resources received could not be all spent due to delayed authorization from the MSP. Table 3.8 shows that CHR Dosso spent only 53 percent of what it received. CHR Niamey, on the other hand, spent 100 percent of what it received. Consequently, the delayed spending exacerbated the already wide inequality in per capita spending between the CHR Dosso and CHR Niamey, with CHR Dosso spending hardly 15 percent of what was spent by CHR Niamey.

Table 3.8: Spending Patterns and Average Per Capita Spending

	Total Spending, million CFAF		Spending per person, CFAF		
	CHR Dosso	CHR Niamey	CHR Dosso	CHR Niamey	Average
Food	9	28	4.8	32.6	13.8
Clothing	.	1	.	1.2	0.4
Bedding	1	3	0.5	3.2	1.4
Total money spent	10	32	5.3	37.0	15.6
Total spent as % of the amount received	53%	100%			90%

Source: Niger 2007 PETS survey

3.20 In short, based on the limited data available to the PETS, the evidence does not point to resource discrepancies between MSP and the CHRs, with the exception of 2007 for Dosso. Record quality at the regional hospitals appears to be good. This finding is consistent with the findings from the PETSs undertaken in other countries that also show that resource discrepancies tend to be less of a problem when record quality is good and when the distribution channel is short and simple.[23] However, it should be noted that high inequality exists in terms of resource allocation.

[22] Further investigation with government is needed during dissemination to explore this discrepancy.
[23] For example the distribution channel for food expenditure takes longer between MSP and clinics, as the funds go through district health offices before reaching clinics.

3.7. DISTRICT HEALTH OFFICES: RECEIPTS OF THE FINANCIAL CREDIT AND SPENDING

3.21 MSP budgets the credits to be released to each district health offices (DS) on a quarterly basis. In reality, it only released three trenches for each year of the survey period. Table 3.9 reconciles the resources distributed by MSP and the resources received by DS. It shows that, at the aggregated level, credit received as a percentage of credit released was 97 percent in 2006 and 85 percent in 2007.

Table 3.9: Amount of Resources Received by the District Health Offices (DS) as Percent of the Amount Released by MSP

		The amount received by DS as % of the amount released by MSP		
Code	District Health Offices	2007	2006	Average per person for 2007
31	DS BOBOYE	86%	100%	31
32	DS DOUTCHI	111%	100%	18
33	DOSSO	87%	100%	24
34	GAYA	112%	98%	29
35	LOGA	218%	100%	65
61	FILINGUE	100%	67%	32
62	KOLLO	88%	100%	21
63	OUALLAM	272%	1705%	31
64	SAY	100%	100%	37
65	TERA	122%	114%	35
66	TILLABERI	32%	100%	164
81	NIAMEY COMMUNE I	84%	72%	22
82	NIAMEY COMMUNE II	99%	108%	21
83	NIAMEY COMMUNE III	36%	94%	154
	AVERAGE*	85%	97%	33

Average does not include Ouallam due to its highly implausible figures.
Source: Niger PETS 2007 survey.

3.22 The consistency demonstrated at the average level, however, masks significant variations between District Health Offices, ranging from a little over 30 percent to almost 300 percent between the credit released and the credit received. It is noticeable that for 2006, 7 out of the 14 DS surveyed reported to have received the exact amount of the credit released by the MSP, while three others were within a 10 percent range. All in all, 70 percent of DS received all that had been transferred to them. Resource matches for 2007 are worse than those of 2006.

3.23 District health offices are crucial links that procure and distribute materials as well as transfer financial credit to district hospitals and clinics. On average, the district offices reported to have spent 28 percent more than what they received. The average, however, again masks the variations between DSs. Some DSs spent as little as half what they received while for some others the reported figure is in excess of 300 percent.

3.24 The under-spending from the quantitative analysis, however, is not supported by the evidence from a qualitative question inquiring whether all the resources received were

spent. All but one of 14 DSs said that they had spent all the credit received. The over-spending is even less plausible since there were no other donations received by the DSs. In short, both under- and over-spending seem to be more a reflection of inaccurate record keeping.

3.25 In conclusion, there are significant discrepancies in financial flow records between the MSP and the district health offices. The shortfalls were much less in 2006 than in 2007. The quality of records at the district level is rather questionable, with frequent occurrences of implausible figures.

3.8. DISTRICT HOSPITALS: RESOURCES RECEIVED

3.26 Based on the experience from other PETS, matching resource transfers from district offices to facilities are the most difficult. The district offices are front line offices which manage many subordinate institutions. This makes record keeping a tedious task where human resources are scarce and the hardware capacity is low (lack of computers). It is also possible that there are not sufficient incentives or measures to encourage and/or enforce good record keeping.

3.27 Anticipating the difficulties in collecting precise quantities of the resource flows between the district offices and the facilities, we broke down the questions in two distinct ones. First, a simple question requiring a simple yes or no answer, asking whether the facilities had received the specific resources that we were tracking, followed by a second question inquiring in more details about the timing and amounts of resources received. The response rate on the first question was close to 100 percent, which gave us a good sense on whether the facilities had received resources at all.

3.28 Table 3.10 presents the percent of the district hospitals (HD) that received resources from District Offices (DS) and from other sources.[24] We also compared this percentage with the clinic averages to get a sense on resource allocation between the two levels of services. First, except for scrub suits, a higher percentage of HDs received the tracked items compared with clinics. This perhaps should be expected since HDs provide hospitalization services while clinics do not. Second, 10 out of 11 hospitals that we surveyed hardly purchased any items on their own. Doutchi District Hospital was the only one that made purchases. Third, it is apparent that the donations received by HDs were complementary to the public resources, mostly on items that government did not distribute, including mattresses and beds.

[24] This is a small sample of 11 district hospitals.

Table 3.10: Percent of Facilities that Received Resources

	% of HD Received the item from DS	% of Clinics received the item from DS	% of HD purchased the item	% of HD received the donations	% of HD received the item from all sources
Food	90.9	12.9	9.1	27.3	100.0
Working uniforms	90.9	42.0	9.1	9.1	90.9
Scrub suits	81.8	81.4	9.1		81.8
Mattresses	63.6	17.1	9.1	45.5	90.9
Sheets	72.7	2.9	9.1	18.2	72.7
Beds	0.5	8.6	20.0	40.0	45.5
Fire wood	81.8		9.1		81.8
Money	27.3	7.1	9.1	9.1	27.3
Gloves	45.5	37.1	9.1	9.1	45.5
Shoes	54.5	14.3	9.1		63.6

Source: Niger 2007 PETS survey

3.29 As expected, for the quantitative data, the distribution records from DSs to HDs were sparse. As shown in Table 3.11**,** of 11 district hospitals surveyed, DSs only provided distribution data for five of them, all from the Tillabéri region. Of these five matched records, three of them were quite close, suggesting that the resources had indeed reached the district hospitals. However, the other two records have improbable figures, with the hospitals claiming to have received 10 times of the quantity distributed by the district offices.[25]

Table 3.11: Comparison of Resource Flows between District Health Offices (DS) and District Hospitals

Code HD	Name of the District hospitals	Total Food expenditure received by HD, million CFAF	Total distributed by DS, million CFAF	The amount received as % of distributed	Per capita receipts	Number of population, million
311	BOBOYE	0.3			1	0.31
331	DOUTCHI	9.8			16	0.61
341	GAYA	10.4			33	0.32
351	LOGA	2.5			15	0.17
611	TILLABERY	6.94	6.67	104%	27	0.26
621	FILLINGUE	11.37	1.13	1005%	24	0.48
631	KOLLO	6.51	6.71	97%	16	0.41
641	OUALLAM	8.15	0.09	9278%	237	0.03
651	HOPITAL DE DISTRICT DE SAY	6.73	7.52	90%	23	0.29
661	TERAA	3.0			6	0.52
832	HD GAWEYE	0.1			1	0.12
	Average				17	

Note: Ouallam was treated as an outlier and thus excluded from the average calculation.
Source: Niger 2007 PETS survey

[25] For Ouallam, the problem is apparently due to the record from HD since it had average 237 CFAF per patient, which is much higher than the national average. For Fillingue, the problem could be the DS' record since the per capita food expenditure in Fillingue is close to the national average level.

3.30 Notwithstanding data limitations, distribution of food expenditures among HDs clearly shows significant variation on a per capita basis. While the average 17 CFAF per person is the same as the national average, some hospitals received close to nothing while others received much more than the national average. It could be that some pockets of areas experienced food emergencies and therefore received higher food related items or that the distribution mechanisms were not effective. Alternatively, it might be that the records were not accurate. These points need to be verified during the dissemination stage.

3.31 In summary, the quality of records at the district level is significantly lower than at the regional level. Nevertheless, the gathered evidence was sufficient to show that financial resources had reached a large share of the district hospitals. The inequality of resource distribution was evident among different districts but the reasons behind these inequalities cannot be determined by the PETS itself.

3.9. CLINICS: RESOURCES RECEIVED

3.32 The clinics receive resources for food expenditures from District Health offices, mostly in the form of materials. Table 3.12 presents the results of the qualitative questions indicating resource availability at the clinic level. First of all, most of the clinics rely on the government to provide basic items. Second, while a large proportion of clinics received scrub suits, a significant percentage of clinics did not receive gloves. Gloves should be an essential item for health care services that need frequent replenishments. However, a large proportion of clinics in Tillabéri and Dosso did not receive or purchase gloves for a whole year, while over 70 percent of clinics in Niamey received or purchased gloves. Third, we observe significant regional variations in resource availability. Lastly, a significant percentage of clinics in Tillabéri and Niamey received food donations whereas Dosso did not receive any.

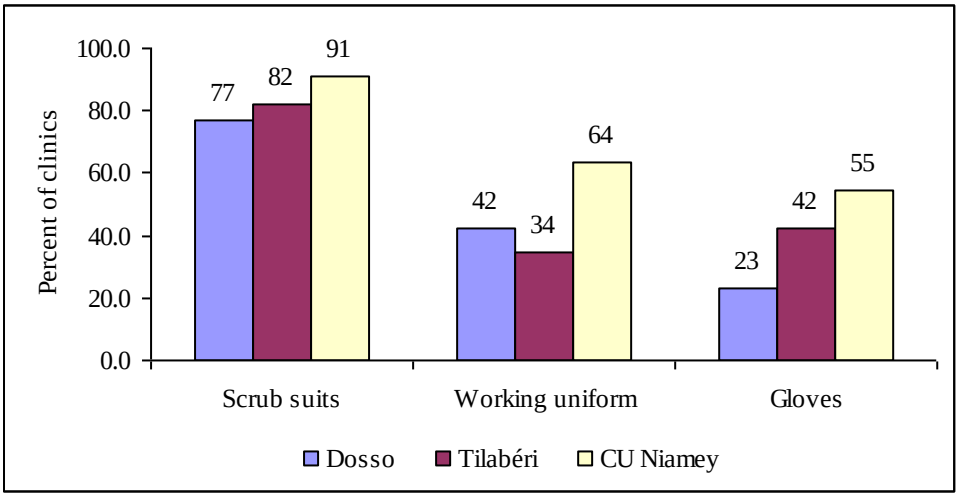
Table 3.12: Percent of Clinics Which Received Resources in 2007

	From DS	Purchased using own funds	From other donations	From all sources
Dosso				
Food	7.7	3.8	7.7	15.4
Working uniform	42.3			42.3
Scrub suit	76.9			76.9
Mattress	7.7	3.8		11.5
Sheets				
Bed	3.8			3.8
Money	7.7		3.8	7.7
Gloves	23.1			23.1
Shoes	3.8			3.8
Tillabéri				
Food	18.2	3.0	39.4	48.5
Working uniform	34.4	3.1	3.1	37.5
Scrub suit	81.8	12.5	12.5	97.0
Mattress	21.2	3.0	9.1	27.3
Sheets	3.0			3.0
Bed	9.1		3.0	12.1
Money	6.1			6.1
Gloves	42.4			42.4
Shoes	24.2			24.2
CU Niamey				
Food	9.1	18.2	36.4	45.5
Working uniform	63.6			63.6
Scrub suit	90.9			90.9
Mattress	27.3			27.3
Sheets	9.1			9.1
Bed	18.2			18.2
Money	9.1			9.1
Gloves	54.5	36.4	9.1	72.7
Shoes	9.1			9.1

Source: Niger 2007 PETS survey

3.33 Figure 3.3 presents a closer look at regional variations of public supplies for the most frequently used items at clinics, including working uniforms, scrub suits, and gloves. Niamey has the highest percentage of clinics that received public resources for all these three essential items. It is surprising that distributions of gloves seem to be quite limited given that gloves are an essential item used in clinics. Even in Niamey, only slightly more than half of clinics received gloves for the entire year.

Figure 3.3: Percent of Clinics Which Received Public Resources



Source: Niger 2007 PETS

3.34 While all district hospitals received some resources from the DS, 7 out of 59 clinics did not receive anything from DS for 2007.[26] Clinics received on average about 3 CFAF per capita, significantly lower than the level received by regional or district hospitals. Dosso is the region which received the least resources among the three regions.

3.35 The low level of per capita food expenditures received at clinics points to the possible inefficiencies of resource distributions between the DS and the clinics. The DS reported to have received an average of 33 CFAF per person for food expenditures. It distributed on average 17 CFAF per capita to District Hospitals and 3 CFAF per capita to clinics. Assuming that the population has access to both District Hospitals and clinics, DS transferred 20 CFAF per capita to facilities. Unless DSs also ran food programs themselves, the inefficiencies between the DSs and the facilities amounted to about 40 percent.

3.10. AVERAGE RESOURCE FLOWS PER CAPITA FOR FOOD EXPENDITURES

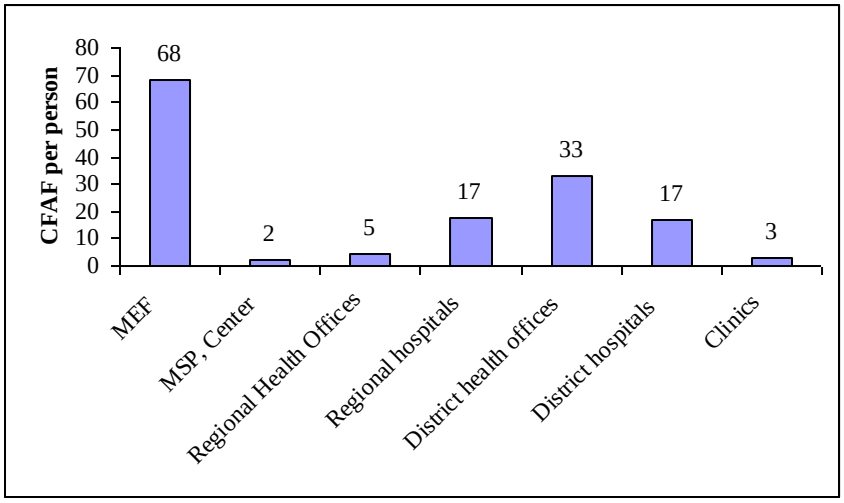
3.36 Figure 3.4 presents the estimated resource flows per capita at each administrative point and at the health service providers. The MEF releases food expenditures to the MSP headquarter, the Regional Health Office (DRSP), Regional Hospitals (CHR) and District Health Offices (DS) directly. Assuming that every citizen has access to services provided by DRSP, CHR and DS, the total resources received by these four agencies should amount to what was distributed by the MEF. The DSs in turn distribute the received resources to District Hospitals (HD) and clinics. Therefore, the total amount received by HDs and clinics should be very similar to what was received by DS. Again, this is based on the assumption that every one has access to both HDs and clinics.

3.37 On a per capita basis, the sum of food expenditures received by MSP headquarter, regional health offices, regional hospitals and district health offices add up to 57 CFAF, a moderate 15 percent less than the amount distributed by the MEF. In comparison,

[26] A Total of 60 clinics were surveyed, but 59 returned their questionnaires.

between DS and district hospitals and clinics, there was a significant 40 percent discrepancy.

Figure 3.4: Per capita Food Expenditures Distributed and Received at Each Level



Source: Niger 2007 PETS.

3.11. CONCLUDING REMARKS

3.38 Several policy relevant findings have emerged from the above analysis. First, **there was a large shortfall of financial flows between MEF and MSP, amounting to 75 percent of this budget line.** This apparent large discrepancy between the central level ministries needs to be reconciled during dissemination stage. The lower level resource flows seem to be more consistent with the MEF figure rather than the MSP figure. Second, in addition to the discrepancy on financial transfers between the two ministries, they also differed on the number of trenches released. While the MEF reported to have released 4 trenches of equal amount, the MSP reported to have received three tranches.

3.39 Third, the credit crunch towards the end of fiscal year is a common occurrence, resulting in a 25 percent resource reduction between budget and credit released to the lower level agencies and health providers. Neither of the ministries had information on the exact dates when financial transactions took place, which prevented further analysis on the reasons behind these inconsistencies.

3.40 Fourth, based on the very limited data, the resource flows between the MSP and the regional health offices and the regional hospitals are relatively well documented, which demonstrate that financial resource transfers between the ministry and the regional level agencies are largely consistent when there were records. However, record keeping is not institutionalized. For example, the absence of a person responsible for record keeping in an agency meant that no information was available for the whole agency. Fifth, quality of records at the district level and below is poor. There were significant discrepancies and implausible numbers between what was received and what was spent. Nevertheless, notwithstanding the data limitations, the evidence suggests substantial inefficiencies between district health offices, and district hospitals and clinics.

3.41 Based on the above findings, the following measures can be implemented to strengthen financial management in order to improve the delivery of public resources to end users. First, **a record keeping system should be established to allow for the reconciliation of the information from all levels with relative ease**. This would also automatically promote institutional memory. In the survey, we were shown very detailed approved paperwork on the requests, procurement and delivery of goods at the ministerial level. However, these records are not filed electronically and it is impossible to track every record and aggregate them at the next level. **A computerized record system should be developed for all levels of the administration to allow for the monitoring of resource flows**. Second, **the dates of financial transactions, which provide valuable information to evaluate delays and assist in identifying leakages, should be included in all records and at all levels**. Third, **building financial management capacity is needed at all levels. This is particularly important for district offices** as they are front line offices linking public spending with end users and have the lowest capacity.

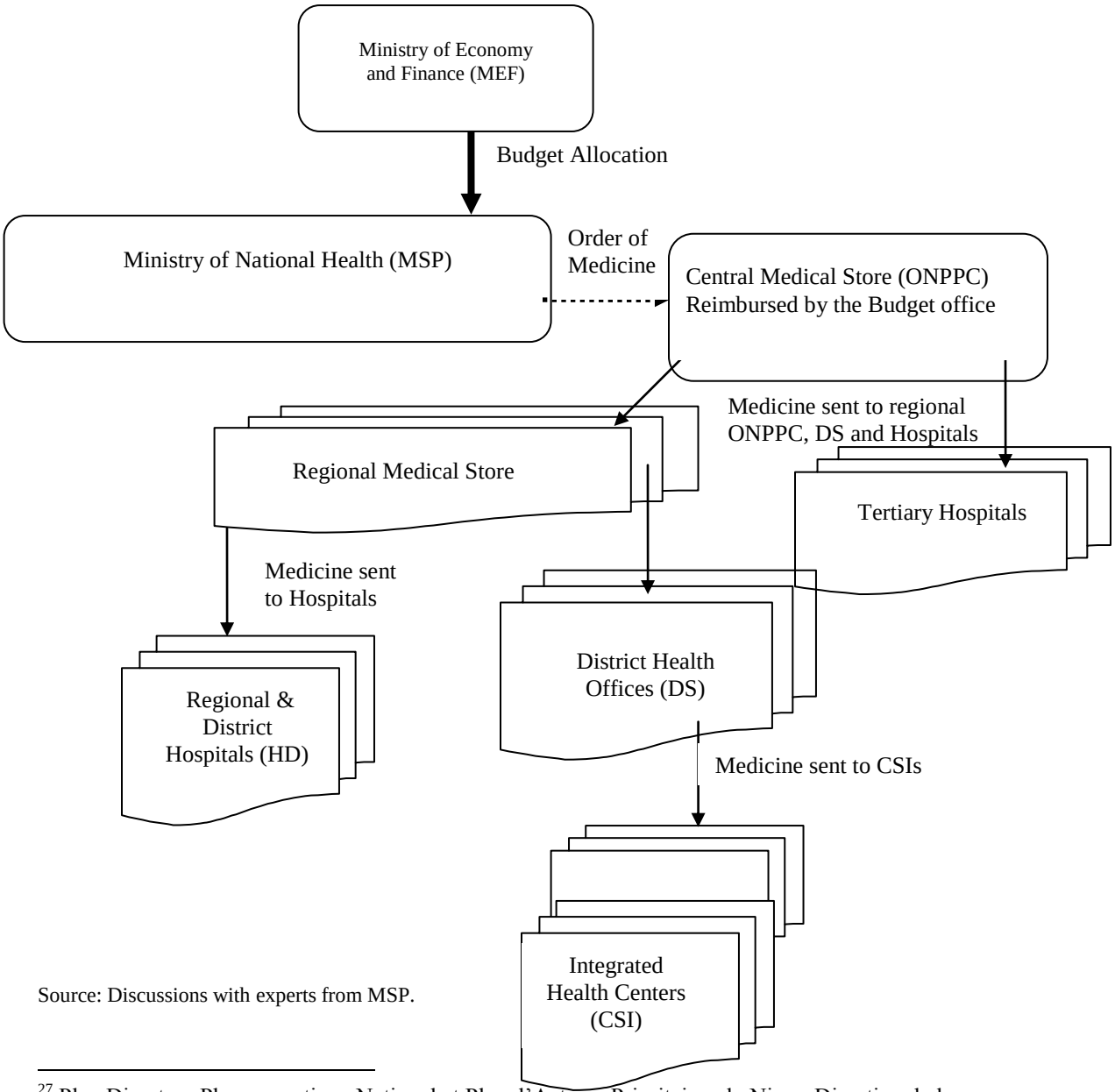
3.42 Finally, the equity of resource allocation should be investigated further as there seems to be substantial (and a priori unexplained) differences in access to health sector public resources across regions and localities. For example, does the resource distribution formula take into sufficient consideration of income levels of different localities? Is infrastructure a problem preventing resources from reaching poor and remote localities? Do richer and near-by regions/districts have stronger lobby power to obtain resources? Do public offices in poorer localities have weaker capacity managing resource flows than those in better off localities? The answers to these questions will shed lights on possible policies that could improve equity in resource allocation and distribution.

CHAPTER 4. TRACKING ESSENTIAL MEDICINES

4.1. PROCUREMENT AND DISTRIBUTION CHANNELS OF ESSENTIAL MEDICINES

4.1 Niger's public pharmaceutical policy is to ensure that the majority of the population has access to essential medicines at the lowest cost.[27] An efficient distribution system is therefore critical to ensure such affordability. Figure 4.1 shows flows of the medicine distribution through the public channels.

Figure 4.1: Tracking Selected Medicines



Source: Discussions with experts from MSP.

[27] Plan Directeur Pharmaceutique National et Plan d'Actions Prioritaires du Niger, Direction de la Pharmacie et Des Laboratoires, Ministere de la Santé Publique, October 1995.

4.2 Under the direction of the Ministry of Health (MSP), the Central Medical Store (*Office National Des Produits Pharmaceutiques et Chimiques du Niger, ONPPC*) procures all essential medicines. It then distributes to Regional Medical Stores and Tertiary Hospitals. After receiving the supplies from the ONPPC, the Regional Medical Stores then send then to Regional and District Hospitals, as well as to District Health Offices (DS). The DS in turn sends the essential medicines to clinics (CSI) and health centers. The PETS tracks the flow of essential medicines up to the level of CSI.

4.3 Upon request from the Ministry of Health, the PETS selected 18 essential medicines to track from the centre to the health providers. Clinics and District Hospitals are entitled to 6 essential medicines, while regional hospitals are entitled to 18. Twelve of the 18 essential medicines also pass through District Health Offices. Table 4.1 shows essential medicines which should be made available based on the type of health facility.

Table 4.1: Essential Medicines by the Level of Health Facilities

		Clinics (CSI)	**District Hospital (HD)**	**District Health Offices (DS)**	**Regional Hospitals**
1	Coartem	√		√	√
2	Sels de quinine,	√		√	√
3	Cotrimoxazole	√		√	√
4	Paracetamol	√		√	√
5	Diazépam	√		√	√
6	SRO sachet	√		√	√
7	Ampicilline		√	√	√
8	Soluté de ringer		√	√	√
9	Oxytocine		√	√	√
10	Pethidine chloridrate		√	√	√
11	Salbutamol		√	√	√
12	Réactif pour le test VIH		√	√	√
13	Gentamycine				√
14	Clonidine				√
15	Gluconate de calcium				√
16	Halothane inhalation				√
17	Compresse gazé				√
18	Réatif par glycémie				√

4.4 Of these 18 essential medicines, Coartem (anti malaria pill) is provided by the national anti malaria program and financed by the Global Fund (*Fond Mondial*) and UNICEF, and the HIV test (*Le test VIH*) is administrated through the inter-sectoral anti HIV/AIDS program (*la Coordination Intersectorielle de Lutte Contre le VIH/SIDA*). Therefore we track the rest 16 essential medicines that are distributed through the government regular distribution channels.

4.2. METHODOLOGY AND DATA ISSUES

4.5 In the survey, questionnaires were designed to ask for each administrative distribution node the total quantity of medicine received from and sent to the next level.

For example, a question was asked in the DS questionnaire, the district health office, as to how many medicines that they had sent to clinics (CSI). Then a question was also asked in the CSI questionnaire as to on how many medicines they have received from the DS. If both DS and clinics answer this same question, then the quantities reported by them can be compared to see whether the quantity sent by the DS had arrived at the CSI in totality. As mentioned in Chapter 1, this is called vertical tracking.

4.6 The difficulty in vertically tracking medicine flows is the lack of consistent data. The worst records collected by the PETS were for medicine distribution from one level to the next, mainly due to two reasons. First, each office of a higher level oversees numerous health administrators and service providers at the level below it, thus, record keeping is time consuming and requires great consistency in details. Second, there is not yet a record keeping system in place to require consistent filing of financial records. During the PETS, we were only able to collect a much smaller sample of observations than the survey sample. Thus, the results on vertical tracking of medicines are only meant to be illustrative.

4.3. MINISTRY OF FINANCE: BUDGETING AND SPENDING

4.7 Similarly to what was observed in the case of textbooks, none of the 18 essential medicines were procured in 2007 due to problems in engaged credit. In 2007, the MEF released 625 million CFAF for procurement of medicines. However, based on the records by ONPPC, only 460 million CFAF was spent and these funds were used to procure 500,000 *vaccins atiméningococciquse* (vaccines) and 10,000 *flacons of chloramphénicol*.[28] Nevertheless, some clinics reported to have received essential medicines from DS and these probably came from the previous year's stock. Thus, the tracking exercise focused essentially on the 2006 flows.

4.8 Table 4.2 compares the budget data and engaged credits by both the MEF and the MSP. Even at this very central level, budgeted amounts reported by the two agencies differed with MSP reporting a higher amount. This discrepancy was also observed for engaged and released credits. **The MSP systematically reported higher amounts than the MEF. These seemingly implausible results are most likely due to the Global Fund and other sources that might have gone directly to the MSP** by bypassing the budget process of the MEF.[29]

4.9 It is also noticeable that while MEF claimed to have released all the credits in the budget, MSP released only a proportion of its budget, 55 percent in 2006 and 78 percent in 2007. It is apparent that MSP had difficulties using all its credit in 2007 with the engaged ones accounting for only 42 percent of the credit released. The above analysis indicates that 20 to 40 percent of financial resources were lost at the central administrative level.

[28] Compte Rendu Séance de travail du 24 juin 2008, ONPPC. A note submitted to PETS committee.
[29] This discrepancy needs to be verified with the sector experts.

Table 4.2: Medicines: Budget, Credit Liberated, and Credit Engaged by MEF and MSP, 000' CFAF

	2007		2006	
	Ministry of Finance	Ministry of Health	Ministry of Finance	Ministry of Health
Total budget for medicines	**625**	**1,299**	**625**	**1,290**
Credit liberated, total	**625**	**1,011**	**625**	**712**
Credit liberated as % of budget	**100%**	**78%**	**100%**	**55%**
Credit liberated by quarter				
1rst quarter	*156*	*165*	*156*	*199*
2nd quarter	*156*	*396*	*156*	*322*
3rd quarter	*156*	*451*	*156*	*190*
4th quarter	*156*	*0*	*156*	*0*
Credit Engaged, total	**260**	**1,011**	**625**	**712**
Credit engaged as % of budget	**42%**	***78%***	**100%**	***55%***

Source: Niger 2007 PETS survey

4.10 MSP data highlights the resource predictability issue. For example, MSP released credits only in the first three quarters. Furthermore, the credits were liberated only between March and September. Thus, there may well be shortages of medicines towards the end of the current fiscal year and beginning of the next fiscal year. In conclusion, at the central level, budgeting processes need to be improved to ensure reliable resource flows.

4.4. ONPPC: PROCUREMENT AND DISTRIBUTION OF THE ESSENTIAL MEDICINES

4.11 The National Office of Pharmaceutical Products and Chemicals (ONPPC)[30] is responsible for procuring all medicines financed by public funding. The ONPPC has branches (regional stores) located in the regions, responsible for the distribution of medicines to Regional and District Hospitals and to District Health Offices. In 2007, as stated earlier, the central office of the ONPPC only procured vaccines and, therefore, did not distribute any essential medicines to regional medical stores. In 2006, the central office of the ONPPC procured essential medicines but its distribution data was not immediately available. Therefore, the central office of the ONPPC had to be excluded from the tracking exercise which only starts at the regional level.

4.12 A major shortcoming is that an extremely important data at the central level, the essential medicines purchased and distributed by ONPPC, is not easily accessible. As stated at the end of the chapter, a detailed reporting system for medicine purchases and distributions needs to be developed and computerized. Dates of transaction, quantities, unit, and cost should all be adequately reported.

4.5. REGIONAL ONPPC (IN NIAMEY): DISTRIBUTION OF ESSENTIAL MEDICINES

4.13 ONPPC Niamey is responsible for distributing drugs to health administrators and service providers at district and regional levels, including the Regional and District Hospitals and District Health Offices. For the two years surveyed, the medicine

[30] ONPPC stands for Office national des produits pharmaceutiques et chimiques du Niger.

distribution data are not complete. In 2007, the medicine distribution data were only available for District and Regional Hospitals, but not for District Health Offices.[31] In 2006, the distribution data were only available for District Health Offices and Regional Hospitals, but not for the District hospitals. Thus, in this section, we only track medicine distributions when we can match data between ONPPC Niamey and the lower level administrators or service providers.

4.14 In 2007, ONPPC Niamey reported to have distributed *Soluté de Ringer* to the District Hospitals of Loga and of Tillabéri. However, these two district hospitals reported that they had not received it. This is shown in Table 4.3.

Table 4.3: Medicines Distributed by ONPPC Niamey and Received by Facilities

Soluté de ringer	Distributed by ONPPC Niamey	Date of delivery	Received by HD Loga	Month of reception
HD Loga	100	8/23/2007	0	-
HD Tillabéri	100	8/13/2007	0	-

Source: Niger 2007 PETS survey

4.15 ONPPC Niamey also reported having distributed 9 medicines to the Dosso Regional Hospital as shown in Table 4.4. A comparison shows that the quantity received by the Dosso regional hospital is much larger than the quantity distributed by ONPPC Niamey, by factors of up to 100.[32] It appears that there must have been some confusion in terms of units between ONPPC Niamey and the Dosso Regional Hospital, even though the questionnaire defined the unit explicitly. If the above assumption is correct and a correction is made, then one can conclude that most medicines distributed from ONPPC Niamey actually reached the Dosso Regional Hospital in exact quantities, except for *Dazépam* and *Gentamycine*.

Table 4.4: Distribution by ONPPC Niamey and Receipts by Dosso Regional Hospital

	ONPPC Niamey		Dosso Regional Hospital (CHR)	
Medicine	Distributed by ONPPC Niamey	Date of delivery	Received by Dosso regional hospital	Date of reception
Sels de quinine,	40	8/29/2007	4000	August
Cotrimoxazole	30	8/29/2007	30000	August
Paracetamol	10	8/29/2007	10000	August
Diazépam	20	8/29/2007	1000	August
Soluté de ringer	240	8/29/2007	240	August
Gentamycine	150	8/29/2007	1000	August
Gluconate de calcium	5	8/29/2007	50	August
Compresse gaze	60	8/29/2007	60	August
Réactif par glycémie	3	8/29/2007	4	October

Source: Niger 2007 PETS survey

[31] This is highly possible since the central medical store did not distribute the essential medicines in 2007, ONPPC Niamey only had limited distributions in that year from its previous stock.
[32] The national statistical office is working with the ONPPC to explain this discrepancy.

4.6. ONPPC NIAMEY AND DISTRICT HEALTH OFFICES: DISTRIBUTION AND RECEIPTS OF MEDICINES

4.16 In 2006, ONPPC Niamey distributed the essential medicines to District Health Offices (DS). As shown in Table 4.5, out of 19 entries where ONPPC Niamey recorded to have sent medicines, 12 corresponding entries by DS reported to have received no medicines. In 5 cases, the DS reported to have received the medicines sent by ONPPC Niamey, but the quantity is much higher than the quantity sent. Out of 19 entries, only 2 entries matched perfectly. Based on the very limited data obtained by the PETS, inefficiencies **between the ONPPC and the DS are apparent. It is also noticeable that most of dates for transactions are missing from DS records**.

Table 4.5: Essential Medicines Distribution from ONPPC Niamey to DS in 2006

	Distributed by ONPPC Niamey	Date of delivery	Received by DS	Month of reception
	Cotrimoxazole			
DS Kollo	6	3/16/2006	0	..
DS Tera	10	3/3/2006	0	..
DS Gaya	3	10/20/2006	16000	..
DS Tillabéri	17	5/8/2006	0	..
DS Doutchi	3	10/20/2006	0	..
DS Ouallam	1	10/24/2006	0	..
	Paracetamol			
DS Gaya	5	1/17/2006	32000	January
DS Kollo	5	3/16/2006	0	..
DS Loga	20	3/23/2006	20000	March
DS Loga	3	10/20/2006	0	..
DS Doulam	28	11/22/2006	0	..
	Diazépam			
DS Say	20	3/15/2006	1000	March
DS Loga	10	3/23/2006	500	March
DS Loga	6	10/20/2006	0	..
DS Ouallam	2	10/24/2006	0	..
	SRO sachet			
DS Doutchi	1200	2/7/2006	0	..
DS Boboye	1001	3/30/2006	1001	March
DS Gaya	1000	3/31/2006	1000	June
	Soluté de ringer			
DS Say	100	3/15/2006	0	..

Source: Niger 2007 PETS survey

4.7. DISTRICT HEALTH OFFICES: RECEPTION AND DISTRIBUTION OF ESSENTIAL MEDICINES

4.17 District Health Offices (DS) are critical links in the distribution system since they receive essential medicines from the regional medical stores and distribute them to health clinics. Table 4.6 shows that the percentage of District Health Offices that received *Coartem*, *Sel de quinine*, and *Paracetamol* (the essential medicines for clinics) doubled from 2006 to 2007.[33] This is not the case for the other essential medicines. Furthermore, in 2007 all medicines arrived at DSs mostly in the first four months of the year, except for *Coartem* and *Réactif pour le test VIH*, which are financed by special programs. This indicates that the regional medical stores probably distributed the essential medicines out of their 2006 stocks.

Table 4.6: Percent of District Health Offices that Received the Essential Medicines

	2007	2006
Coartem	71.4	30.8
Sel de quinine	71.4	30.8
Cotrimoxazole	42.9	30.8
Paracetamol	71.4	38.5
Diazépam	64.3	46.2
SRO sachet	14.3	30.8
Ampicilline	21.4	33.3
Soluté de ringer	35.7	38.5
Oxytocine	14.3	15.4
Pethidine chloridrate	0.0	0.0
Salbutamol	7.1	7.7
Réactif pour le test VIH	78.6	75.0

Source: Niger 2007 PETS survey

4.18 Table 4.7 shows the total quantity of the essential medicine available to DS per 100 inhabitants, regardless of how it was procured. The largest quantities are for *Coartem*, *Cotrimoxazole*, and *Paracetamol*.[34]

[33] It should be noted that the 2007 essential medicine distributions were from previous stock since the central ONPPC did not procure any essential medicines in 2007.

[34] Further discussions with medical experts are needed to explore further the interpretation of these results.

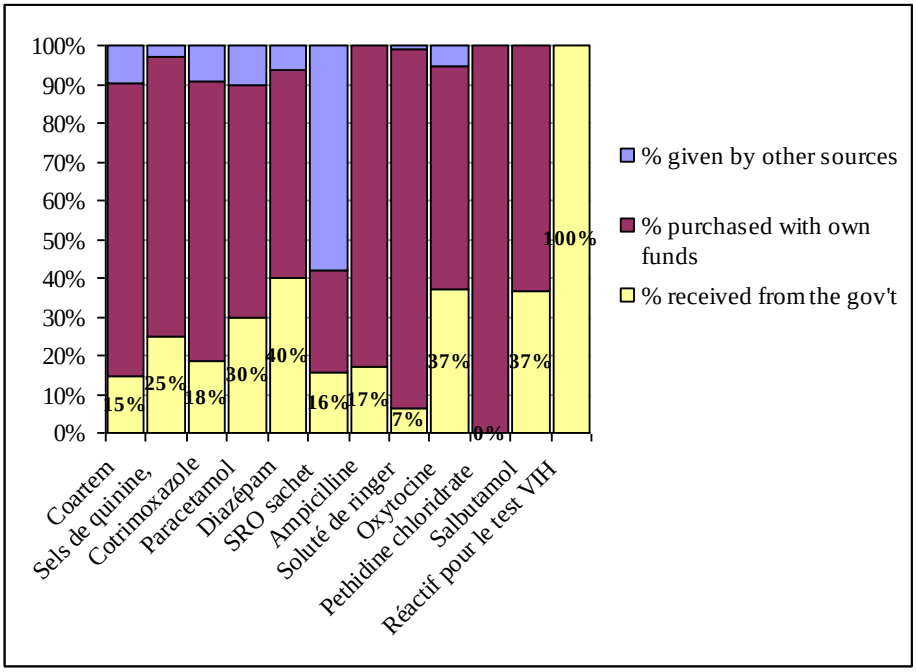
Table 4.7: Quantity of Medicines Received by DS in 2007

		Number received	Number per 100 population given	Number purchased	Number given	Number per 100 from all sources
1	Coartem	756,534	16.3	3,897,400	509,441	69.4
2	Sels de quinine,	60,454	1.3	173,900	6,818	2.0
3	Cotrimoxazole	1,108,000	23.9	4,341,400	558,323	69.7
4	Paracetamol	1,688,320	36.4	3,434,250	596,000	49.2
5	Diazépam	14,450	0.3	19,250	2,290	0.3
6	SRO sachet	34,500	0.7	56,656	126,540	2.6
7	Ampicilline	16,400	0.4	80,250	0	0.9
8	Soluté de ringer	4,416	0.1	61,899	745	0.1
9	Oxytocine	4,290	0.1	6,700	600	0.1
10	Pethidine chloridrate	0	0.00	50	0	0.0
11	Salbutamol	2,000	0.04	3,460	0	0.0
12	Réactif pour le test VIH	7,954	0.2	0	0	0.1

Source: Niger 2007 PETS survey

4.19 The PETS reveals that the government supplies constituted only a small share of the essential medicines needed by the DSs. Figure 4.2 shows District Health Offices procured a significant amount of drugs using their own funding, although HIV tests are entirely financed by donor resources.

Figure 4.2: Sources of Medicines



Source: Niger 2007 PETS survey

4.20 The quality of the distribution records is poor. DSs had medicine distribution records for only 33 CSIs out of 60 that we surveyed. In addition, the quality of records is questionable. Notwithstanding the data limitations, Table 4.8 shows that the discrepancies between what the DSs sent to the CSIs and what the CSIs received from them is in the magnitude of 30 to 90 percent. **Although this result is only indicative, it does indicate a high probability of inefficiencies between District Health Offices and CSIs**.[35] Frequently, DSs reported to have distributed medicines to CSIs, but CSIs reported to have received nothing.[36]

Table 4.8: Discrepancies between Quantities Shipped and Received

	Quantity Distributed by District Health Offices	Quantity Received by CSIs	Difference between the quantities received and distributed	Difference as percent of quantity distributed
Coartem	14204	8860	-5344	-38%
Sel de quinine	262	174	-88	-34%
Cotrimoxazole	9410	2155	-7255	-77%
Paracetamol	9023	5500	-3523	-39%
Diazépam	32	4	-28	-89%
SRO sachet	433	242	-191	-44%

Source: Niger 2007 PETS survey

4.8. DISTRICT HOSPITALS: SOURCES AND AVAILABILITY OF ESSENTIAL MEDICINES

4.21 As shown in the analysis above, the public distribution of essential medicines was not reliable in the two years surveyed. It is not clear whether the interruption of essential medicine distribution in 2007 was an exception. Lack of reliable public distribution of essential medicines does not necessarily translate into medicine shortages at health facilities since they also procure medicine using their own funds and occasionally receive medicines as gifts. Therefore, we now investigate the availability of essential medicines in District Hospitals and Clinics.

4.22 In the survey, in order to capture the maximum information we first asked a simple question requiring a Yes or No answer on the receipts of the essential medicines, and then followed with a set of questions inquiring about timing and amounts received. As such, even if a facility did not keep records on the amounts of medicines received, we would at least know whether it received medicines at all.

4.23 The number of HDs that received essential medicines from DS is very low with the exception of the HIV test. This is shown in Table 4.9. Of 11 district hospitals surveyed, two of them received just two out of the five essential medicines (HIV test

[35] It should be borne in mind that this statistics is based only on a very small sample of observations, therefore not nationally representative.
[36] DSs had 141 records on medicines distributed to 33 CSIs, but 98 of these entries did not have corresponding records from CSIs.

excluded) that they are entitled to (see Table 4.3) and none received the three remaining medicines.

Table 4.9: Percent of HDs that Received Essential Medicines

	% of district hospitals (HD) received the medicines		
	2007	2006	# of HD surveyed
Ampicilline	9.1	18.2	11
Soluté de ringer	18.2	18.2	11
Oxytocine	0.0	0.0	11
Pethidine chloridrate	0.0	0.0	11
Salbutamol	0.0	0.0	11
Réactif pour le test VIH	81.8	80.0	11

Source: Niger 2007 PETS survey

4.24 Although HDs received hardly any essential medicines from the government, many of them purchased their own medicines. Table 4.10 shows that this increased availability to above 90% for *Ampicilline* and *Soluté*, to above 50 percent for *Oxytocine* and *Salbutamol*, but that no HD had access to *Pethidine chloridrate*.

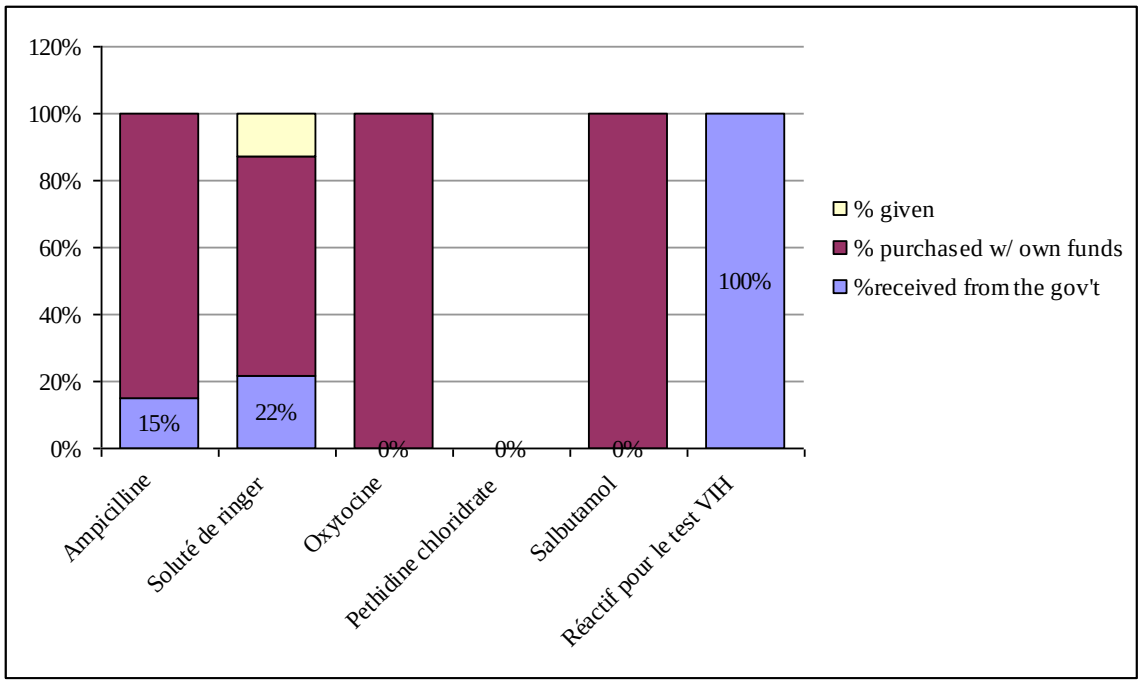
Table 4.10: Percent of HDs with Access to Medicines

	% HDs obtained essential medicines (through receipt of public distribution, purchases with own funds or donations)		% of HDs relied on self-purchased medicines only	
	2007	2006	2007	2006
Ampicilline	81.8	90.9	72.7	72.7
Soluté de ringer	90.9	90.9	72.7	63.6
Oxytocine	54.5	36.4	54.5	36.4
Pethidine chloridrate	0.0	0.0	0.0	0.0
Salbutamol	63.6	45.5	63.6	45.5
Réactif pour le test VIH	81.8	80.0	0.0	0.0

Source: Niger 2007 PETS survey

4.25 Figure 4.3 shows that District Hospitals relied mainly on their own purchases to meet their needs for essential medicines. Of 10 district hospitals that responded to the question of whether lack of medicines was an impediment to the improvement of service quality, nine responded that it was of little or no importance. It appears that the district hospitals managed well with their own purchased medicines.

Figure 4.3: Sources of Medicines at HD



Source: Niger 2007 PETS survey

4.9. CLINICS: SOURCES AND AVAILABILITY OF ESSENTIAL MEDICINES

4.26 In 2007, not all clinics (*Centre de Santé Intégre, CSI)* received essential medicines from the government. As shown in Table 4.11, **the majority of clinics (86%) received *Coartem*, but only about 50 percent of clinics received the other five essential medicines that they are entitled to (see Table 4.3). It is noticeable, however, that the percentage of clinics that received the essential medicines increased almost twofold between 2006 and 2007. This is consistent with the findings that the percentage of DSs that received the essential medicines for clinics also doubled**.

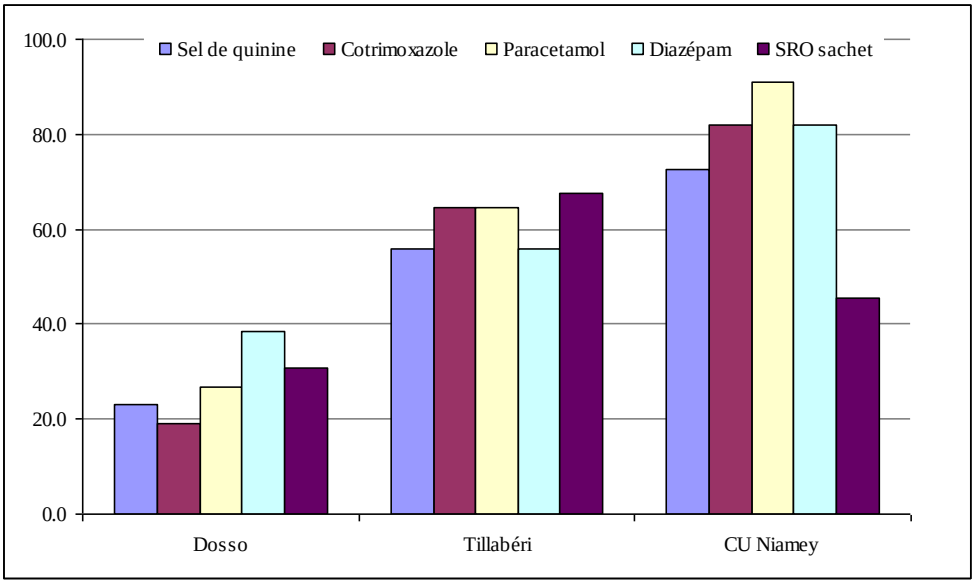
Table 4.11: Receipt of Medicines from District Health Office (*District Sanitaire*)

Percent clinics received essential medicines								
		2007				2006		
	Dosso	Tillabéri	CU Niamey	Niger	Dosso	Tillabéri	CU Niamey	Niger
Coartem	73.1	94.1	90.9	85.9	26.1	66.7	18.2	44.8
Sel de quinine	23.1	55.9	72.7	46.5	13.0	51.5	18.2	32.8
Cotrimoxazole	19.2	64.7	81.8	50.7	13.0	57.6	18.2	35.8
Paracetamol	26.9	64.7	90.9	54.9	13.0	54.5	9.1	32.8
Diazépam	38.5	55.9	81.8	53.5	17.4	51.5	27.3	35.8
SRO sachet	30.8	67.6	45.5	50.7	13.0	48.5	9.1	29.9
Number of clinics surveyed	26	34	11	71	22	31	11	65

Source: Niger 2007 PETS survey

4.27 As shown in Figure 4.4, regional disparity is important in the receipts of the essential medicines, especially for *Sel de quinine*, *Cotrimoxazole*, *Paracetamol*, *Diazépam*, and *SRO*. In 2007, only between 20 to 40 percent of clinics in Dosso received the above medicines, compared to 70 to 90 percent of clinics in Niamey. This disparity suggests that the DSs in Niamey and Tillabéri were more efficient in distributing medicines to clinics than DSs in Dosso.

Figure 4.4: Regional Disparity: Percent of Clinics Receiving Selected Medicines



Source: Niger 2007 PETS survey

4.28 For clinics that receive medicines, the frequency of the receipts also matters for service quality. For example, quarterly deliveries of medicines would be more likely to ensure continuous availability of medicines than would annual or bi-annual deliveries. An interesting comparison of the frequency of medicine receptions by clinics is between *Coartem*, financed by the Global Fund and UNICEF and delivered by a national anti-malaria program and the other essential medicines, financed and delivered by MSP. As shown in Table 4.12, while less than one third of clinics received the other essential medicines 4 times or more per year, about 60 percent of clinics received Coartem 4 times or more per year.

Table 4.12: Frequency of Medicine Deliveries to CSI

	Number of months received medicine in 2007	Coartem	Sel de quinine	Cotrimoxazole	Paracetamol	Diazépam	SRO sachet
Dosso	**0**	31%	77%	85%	73%	62%	69%
Dosso	**1**	0%	12%	4%	15%	31%	15%
Dosso	**2~3**	23%	4%	0%	0%	0%	8%
Dosso	**>=4**	46%	8%	12%	12%	8%	8%
Tillabéri	**0**	15%	44%	35%	35%	44%	35%
Tillabéri	**1**	0%	18%	9%	3%	12%	12%
Tillabéri	**2~3**	15%	9%	0%	6%	12%	15%
Tillabéri	**>=4**	71%	29%	56%	56%	32%	38%
Niamey	**0**	18%	27%	27%	18%	27%	64%
Niamey	**1**	0%	36%	55%	9%	36%	27%
Niamey	**2~3**	36%	27%	9%	36%	18%	0%
Niamey	**>=4**	45%	9%	9%	36%	18%	9%
All 3 regions	**0**	21%	54%	52%	46%	48%	52%
All 3 regions	**1**	0%	18%	14%	8%	23%	15%
All 3 regions	**2~3**	21%	10%	1%	8%	8%	10%
All 3 regions	**>=4**	58%	18%	32%	37%	21%	23%

Source: Niger 2007 PETS survey

4.29 Most clinics bought medicines with their own funds to meet their needs and a significant proportion of the clinics relied solely on own-purchased medicines. As expected, in Dosso where a low percentage of clinics received essential medicines from government, between 60 and 70 percent of clinics relied exclusively on own-purchased medicines, while in Niamey where the majority of clinics received essential medicines from government, only 10 to 20 percent of clinics had to rely on own-purchased medicines.

4.30 Table 4.13 shows that when including purchased medicines, the majority of the clinics had significant access to all six essential medicines during 2007. It is unclear, however, if these essential medicines were continuously available or only at certain times. The Ministry of Health requires health providers to provide an indicator called "Rate of Medicine Interruptions (*Rupture de médicaments*)", which unfortunately, only 14 out of 71 HDs and clinics provided.[37] Although no statistical significance can be drawn from these 14 observations, it is clear that any shortage of medicines poses significant challenges to the provision of services.[38]

[37] In the document "Guide du Suivi & Evaluation du Plan de Developpement Sanitaire 2005-2010 (M&E Guide for Health Sector Development Plan)", issued by Ministry of Health in April 2006, the formula for calculating the rate of six essential medicines is following: sum of the number of the days when an essential medicine is not available divided by the days in the period multiplied by six".

[38] This is evidenced by the high correlation between listing that medicine interruptions were important constraints and any interruptions of the medicine.

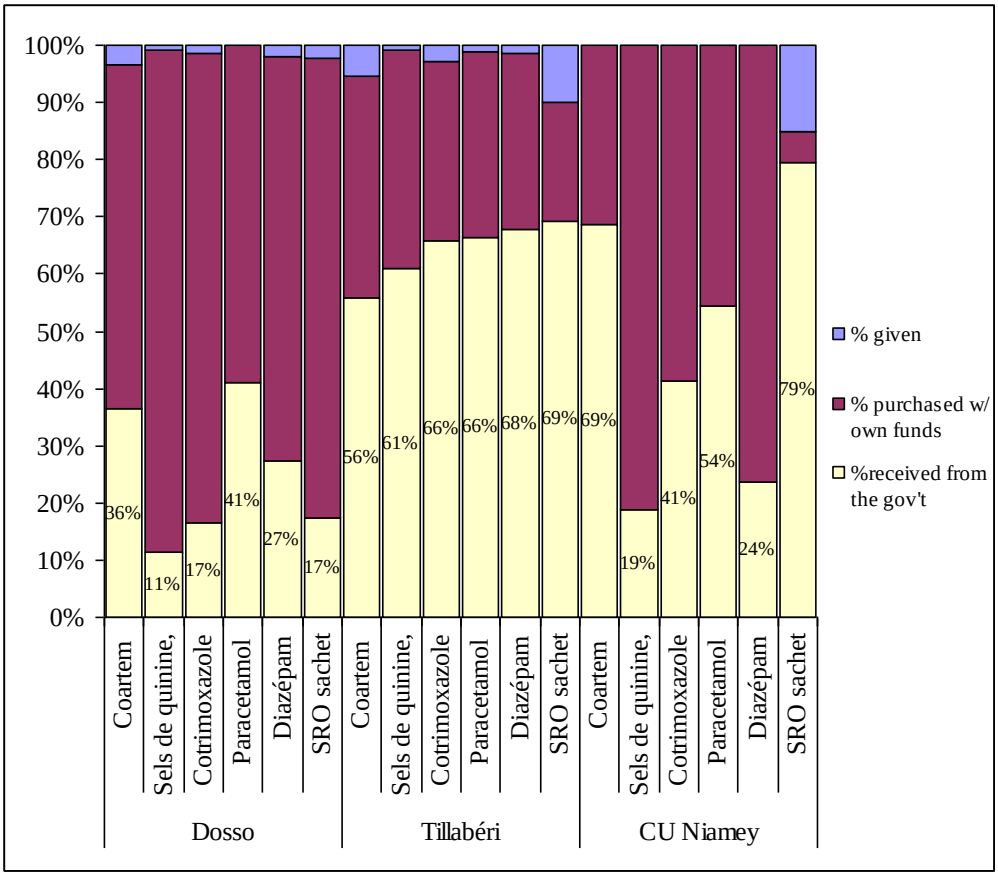
Table 4.13: Access to Medicines

	Percent clinics that obtained essential medicines (through receipt of public distribution, purchased with own funds or donations)							
		2007				2006		
	Dosso	Tillabéri	CU Niamey	Niger	Dosso	Tillabéri	CU Niamey	Niger
Coartem	100.0	100.0	90.9	98.6	95.7	100.0	81.8	95.5
Sel de quinine	96.2	91.2	100.0	94.4	95.7	90.9	90.9	92.5
Cotrimoxazole	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Paracetamol	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Diazépam	88.5	94.1	90.9	91.5	91.3	81.8	63.6	82.1
SRO sachet	100.0	97.1	81.8	95.8	100.0	93.9	81.8	94.0
Number of clinics surveyed	26	34	11	71	22	31	11	65

Source: Niger 2007 PETS survey

4.31 Figure 4.5 illustrates the extent to which clinics relied on government supplied medicines. Again, regional disparity is visible. Tillabéri relied more than the other two regions on government supplied medicines, which accounts for 60 to 70 percent of its total essential medicine supplies. Niamey, which relied less on government supplies for *Cotrimoxazole* and *Sel de quinine*, received 50 to 80 percent of its *Diazépam*, *Coartem* and *SRO* supplies from the government. Clinics in Dosso meet their medicine needs mainly through their own purchases.

Figure 4.5: Sources of Medicines Supplies for Clinics



Source: Niger 2007 PETS survey

4.10. CONCLUDING REMARKS

4.32 The budget and the engaged credits for essential medicines are very complicated. Even at the top level, between the MEF and the MSP, it was not possible to reconcile amounts. Paradoxically, the MSP reported to have received more credit than what was released by the MEF. This could be partly due to the global funds and the externally financed programs that provide financial resources to the MSP directly. Furthermore, in 2007 no essential medicines were procured by the central ONPPC due to issues with engaged credit. These findings point to an urgent need to strengthen the financial management capacity in the health sector as a prerequisite to insuring an adequate supply of essential medicines.

4.33 **Records for medicine distributions and receipts were rarely available.** When they were available, their accuracy was often questionable and the results between the quantitative and the qualitative analyses often inconsistent. **Notwithstanding these shortcomings, the evidence still suggests a pattern of distribution inefficiencies similar to what has been observed in other developing countries. First, the shorter the distribution channels are, the less likely the leakages. Second, the better the quality of records between two nodes, the less likely the leakages. For example, based on very limited data, the PETS revealed little discrepancies between ONPPC Niamey and the Regional Hospitals. The discrepancies, however, seemed to be**

significant between ONPPC Niamey and the district hospitals. This finding was also confirmed by the qualitative analysis. Finally, **the discrepancies between district health offices and clinics also seemed to be significant.**

4.34 Regional disparity is apparent with clinics in Niamey receiving more resources in general. Although district hospitals hardly received any medicines from government, shortage of medicine was not indicated as an important issue by them. Only 25 percent of clinics indicated that shortage of medicines was an important issue. Ironically, Niamey is the region (the richest) where the highest percent of CSIs indicated that medicine shortage was a problem while Tillabéri is the region (the poorest) with the lowest percentage of clinics indicating the same.

4.35 Based on the above findings, the most urgent task for improving public spending efficiency in essential medicines distribution is to improve the consistency, transparency and accountability of the financial management, starting from the central ministerial level down to the level of health providers.

4.36 More specifically, a very detailed reporting system for medicine distributions needs to be developed, which should include receipt and distribution of resources at each administrative level, including dates of transaction, quantity, unit, and cost. If it is distribution data, destination of resource flows is of paramount importance. The reporting system must be computerized due to the tedious nature of medicine flows. Offices that handle M&E should be given sufficient resources, including computers and trained personnel, to undertake these tasks. In addition, central and regional ONPPCs should be included in the reporting system.

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