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**PUBLIC EXPENDITURE TRACKING AND SERVICE
DELIVERY SURVEY – EDUCATION AND HEALTH IN
HONDURAS**

VOLUME II: Background Chapters

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Public Expenditure Tracking and Service Delivery Survey– Education and Health in Honduras

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ABBREVIATIONS AND ACRONYMS

ADEL	Local Development Association
AIN-C	Atención Integral a la Niñez en la Comunidad (Comprehensive Community Child Health Services)
AMHON	Association of Municipalities of Honduras
Sida	Agencia Sueca para el Desarrollo Internacional (Swedish Agency for International Development)
CBOs	Community-based organizations
CCERP	Consejo Consultivo de la Estrategia para la Reducción de la Pobreza
CEB	Centro de Educación Básica (Centre of Basic Education)
CEPREB	Centro de Educación Prebasica (Centre for Prebasic Education)
CESAMO	Centro de Salud Urbana (Urban Health Centre)
CESAR	Centro de Salud Rural (Rural Health Centre)
CLIPPER	Periferal clinics
CMH	Honduras Medical Association
CMI	Maternal and Child Centre
CONEANFO	National Commission for the Development of Non-Formal Education
CPME	Comision Presidencial de Modernizacion del Estado (Presidential Commission for State Modernization)
EFA	Programa Educación para Todos (Education for All)
ERP	Estrategia para la Reducción de la Pobreza (Poverty Reduction Strategy)
ETSDS	Expenditure Tracking and Service Delivery Survey
FHIS	Fondo Hondureño de Inversión Social (Social Investment Fund)
FONAC	Foro Nacional de Convergencia (National Convergence Forum)
GDP	Gross Domestic Product
GOH	Government of Honduras
HDI	Human Development Index
HR	Human Resources
IDB	Inter-American Development Bank
IHSS	Instituto Hondureño de la Seguridad Social (Social Security Institute)
INE	Instituto Nacional de Estadística (National Institute for Statistics)
INFOP	Instituto Nacional de Formación Profesional (National Institute of Vocational Training)
INPREMA	Instituto Nacional de Previsión del Magisterio
Lps	Lempiras
MDG	Millenium Development Goals
MG	Matrícula Gratis
MLps	Million Lempiras
MOE	Ministry of Education
MOF	Ministry of Finance
MOH	Ministry of Health
NAS	Nueva Agenda de Salud (New Health Agenda)
NGOs	Non-governmental organizations
PIU	Project Implementation Unit
PMA	Programa Mundial de Alimentos (World Food Organization)
PNS	Plan Nacional de Salud (National Health Plan)
PN	Plan Nacional (National Plan)
POA	Plan Operativo Anual (Annual Operational Plan)
PROHECO	Programa Hondureño de Educación Comunitaria (Honduras Community Education Program)
PTA	Parent/Teacher Association
RHD	Regional Health Department
SE	Secretaría de Educación (Ministry of Education)
SEFIN	Secretaría de Finanzas (Ministry of Finance)
SIAFI	Sistema Integrado de Administración Financiera (Integrated Financial

	Management System)
SIARH	Sistema Integrado de Administración de los Recursos Humanos (Integrated System for the Administration of Human Resources)
SIARHD	Sistema Integrado de Administración de los Recursos Humanos Docentes (Integrated System for the Administration of Human Resources in Education)
SIERP	Sistema de Información para la Estrategia para la Reducción a la Pobreza (Poverty Reduction Strategy Information System)
SS	Secretaría de Salud (Ministry of Health)
STS	Staff Tracking Survey
TSC	Tribunal Superior de Cuentas (Supreme Audit Institution)
UMCE	External Unit for Measuring Education Quality
UNAH	Universidad Nacional Autónoma de Honduras (National Autonomous University of Honduras)
UNAT	Unidad de Apoyo Técnico
UPEG	Unidad de Planificación y Evaluación de la Gestión (Planning and Evaluation Unit)
WB	World Bank

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CHAPTER I – METHODOLOGICAL APPROACH

1.1. Honduras continues to demonstrate progress in most national level health and education indicators. The country has succeeded in significantly reducing neonatal mortality, infant and child mortality and, to some extent, chronic malnutrition. Similarly, mean schooling attainment has been rising steadily and educational inequality reducing. However, at its current pace and given its fiscal constraints the country is not likely to meet most of the Millennium Development Goals by 2015. Recent studies by the World Bank¹ and the Inter-American Development Bank indicate that there is room for improvement in the efficiency of public social spending in Honduras, especially in education and, to some extent, in health. The 2007 PER points out that the MDG-related expenditures will have to grow faster or the overall efficiency of public spending will have to increase substantially, in order for Honduras to be on track for achieving the MDGs. Given its fiscal constraints and the importance of long-term macroeconomic stability, there is little room for widening the fiscal deficit for a prolonged period. Thus, it is crucial to ensure that fiscal resources are well spent to optimize welfare gains.

OBJECTIVE

1.2. The proposed study aims to provide the Government of Honduras (GOH) with a tool to improve efficiency in the management of existing public resources in the education and health sectors, and use funds already allocated to these two sectors to increase access and/or provide better services to the poor, through *Red Solidaria* or other social programs. These two sectors are critical for the Poverty Reduction Strategy and have been highlighted as major drivers of growth by a recent Bank publication². Together they account for 46.2 percent of Central Government expenditures.

1.3. In particular, the objective of the study is to conduct a multi-purpose survey in the health and education sector in order to:

- (i) *Identify resources used and how they are accounted for* – including transfers from SEFIN, human resources, textbooks, pharmaceuticals, other inputs including “out-of-pocket expenses” and other sources of income (municipal transfers, external funds, FHIS) up to the service delivery point;
- (ii) *Identify leakages and inefficiencies*– including from staff absenteeism and ghost employees, and procurement inefficiencies;
- (iii) *Review how different management tools* are used to inform how existing arrangements could be made to work more efficiently; and
- (iv) *Issue practical recommendations* to improve resource management in these sectors.

1.4. In the education sector, the primary focus is the management of human resources and the tracking of funds allocated to three transfer programs: Merienda Escolar, Matrícula Gratis and textbooks. The elevated share of salary expenses in the budget, the August 2006 salary

¹ Honduras PER 2007, Honduras Poverty Assessment 2007, Central America Education Sector (2006) and Health Sector Reform (2007) ESW

² Honduras Poverty Assessment, World Bank 2007

agreements reached with teachers³, the existing problems with teacher behavior and management (ghost teachers, absenteeism, migration of posts, multiple employment), and the need to increase system-wide efficiency in the use of the resources to achieve the education goals set in the *Poverty Reduction Strategy and Education For All* initiative provide the justification for focusing on the tracking of human resources and analyzing management, incentives and performance of teachers⁴. The Honduras Staff Tracking Survey 2000 addressed these issues, but important elements in the management of human resources and the relationship with teachers have changed since 2000. For example, the *Estatuto del Docente* law replaced the *Escalafón* towards the end of the nineties, an integrated management system of human resources has been developed (SIARHD), changes have occurred in the payment mechanism (through the bank system) and an agreement was reached with the teachers unions in 2006 to implement the salary increases considered in the *Estatuto del Docente*. More importantly, however, a consensus has been reached that teachers and their performance are key elements to achieving quality progress in the education sector.

1.5. In the health sector, the 2007 PER recommended an expenditure tracking study from central level to health care units as one of the three main areas of future study for the health sector in Honduras. It also suggested an assessment of progress and lessons learnt regarding the implementation of the 2005 established resource allocation criteria to regional health departments (RHDs), as well as a detailed study of hospital costs, efficiency and quality of services. While this study does not cover in detail the last two suggested study areas, it looks into the implementation status of the new resource allocation criteria in the health sector. It will also assess the management of pharmaceuticals and human resources in a selected sample of hospitals.

1.6. In both sectors, the need to expand services in a resource-constrained environment calls for focusing the attention on the alternative models of service provision, and whether some lessons could be distilled for the traditional sector. Although the evaluation of such models is being conducted elsewhere, this study contributes to the discussion by providing information regarding management practices of the different models that are currently operating in the country.

1.7. The principal target audience of this study is the Government of Honduras (GOH), followed by the external field-based partners involved in these sectors, and civil society who are both users of social services and actual or potential agents of change in holding service providers and the Government accountable. A Steering Committee was established to oversee the preparation of this study with representatives from the Presidency, Secretary of Finance, Secretary of Education and Secretary of Health. In addition, technical staff from the Secretary of Education and Health, non-governmental and social organizations active in these sectors, and

³ The PER 2007 identified that the salary agreements seriously weakened Honduras' fiscal position, leaving little room for non-salary expenses and further weakening the capacity of the Ministry of Education to maintain quality standards in education. It also identified incongruence between budgetary and real assignments of teachers and the multiplicity of jobs in the case of some teachers (especially secondary teachers).

⁴ A Multistakeholder Governance Assessment conducted in Honduras during 2007 confirmed some of these findings and identified further other human resources problems such as: (i) lack of commitment by public servants; (ii) lack of monitoring, evaluation, and performance based reward/punishment for teachers; and (iii) teacher absenteeism and, in general, lack of commitment to a quality education on the part of teachers.

user associations were consulted during the design of the survey and the preparation of this report. In addition to the World Bank, other development partners that have contributed to this study are: the Interamerican Development Bank, DFID and SIDA.

OVERALL APPROACH

1.8. The study builds on the findings of previous reports that stressed the importance of the education and health sectors for the Poverty Reduction Strategy in Honduras, which account for 46.2 percent of central government expenditures and have been highlighted as major drivers of growth⁵. The Public Expenditure Review (World Bank, 2007b) notes that in order to achieve its MDGs, Honduras needs to increase its social spending by 10.4 percent of GDP, which means nearly doubling it, or by improving efficiency of available resources by 89 percent. Given the limitations in raising public expenditure within the current macroeconomic context, the most feasible option is to try to increase the efficiency in social spending, especially in health and education. However, as pointed out in the Institutional Governance Review (2009) there are critical challenges in this regard. The overall results management framework in these two sectors is too weak to effectively monitor how resources are used and hold line ministries, regional departments, and service providers accountable.

1.9. This study identifies where leakages and inefficiencies in the use of resources occur along the service delivery chain, and assists in assessing weaknesses in planning, management, and control processes that could explain those leakages. Community oversight and community involvement in management are also key aspects that the study considers, as there are critical differences between existing models of service provision. Given that the study goes beyond a traditional Public Expenditure Tracking Survey (PETS), the survey has been referred to as a “multipurpose survey” or Expenditure Tracking and Service Delivery Survey (ETSD). It is important to clarify that this study does not evaluate the efficiency of alternative models of service delivery, nor does it assess the overall mix of resources, instead, this study addresses the question of whether the existing arrangements could be made to work more efficiently in light of the differences in resource management. The study does not look at sector outcomes and restricts itself to considering efficiency in the production of key outputs.

1.10. The survey uses a stratified sample in three stages intended to obtain a picture of different regional realities and types of providers at the lowest possible cost. The main features of this sample design are:

- i) Selection of Departments: four departments were chosen according to the level of the Human Development Index (HDI), the level of health and education spending by the Central Government, and the presence of different types and models of providers; a survey instrument was designed to be applied to central departmental education and health offices.
- ii) Service providers survey: the facilities included in the survey were stratified according to the type of facility and services offered (rural/urban, hospitals/general or specialized

⁵ Honduras Poverty Assessment, World Bank 2007

ambulatory facilities), the subsystem to which they belong (MOE/private, MOH/IHSS/private), and the management or governance model in place. The resulting facility groups broadly correspond to the different types and levels of facilities existing in each sector.

- iii) Teachers/Staff survey: performed within each facility included in the survey, with a randomly chosen sample of personnel from different categories and professions.
- iv) Student/Users survey: users were chosen randomly from a list of users seen on the survey day in each facility; the number of users was approximately proportional to the volume of services provided at each facility.

1.11. The selected departments are reasonably representative of the whole country and its different regions. Three departments were chosen randomly within each strata of the Human Development Index (HDI): Copán, Olancho and Yoro. Given its importance in the country's education and health systems, the capital district (*Distrito Central*) was included in the sample with the department of Francisco Morazán. Overall, the four departments account for 36 percent of the country's population in 29 percent of its municipalities, with over one third of its facility network. Although the sample of facilities was designed to be representative of the departments where these facilities were located (Francisco Morazán, Yoro, Copán, Olancho) and not at the national level, these four departments provide a reasonable representative sample of the different regions.

Table 1. Education and health service providers included in the sample

Stratum	Facilities/Units in the Country	Facilities /Units in the 4 Depts.	Sampled Units
Public Schools	10,120	2,493	
⌚ Traditional Urban	1,065	429	87
⌚ Traditional Rural	9,055	2,604	39
PROHECO	2,147	682	35
Total education facilities	12,267	3,175	161
Public Hospitals	29	11	9
⌚ National Hospitals	7	6	5
⌚ Regional Hospitals	6	2	1
⌚ Local (area) Hospitals	16	3	3
CLIPPERS	4	0+3	6
CMIs	56	17+0	14
CESAMOs	380	122	33
CESARs	1002	338	42
Total public health facilities	1471	502	110
Facilities under alternative management arrangement	17		6
IHMOH facilities	20 ³	5	5
Private Hospitals	107	-	17
Private Clinics	795	-	
Total health facilities	2,393	507	132

1.12. In total, 293 schools and health centers were visited from the departments of Copán, Francisco Morazán, Olancho and Yoro, 820 staff interviewed and 1491 users of education and

health services surveyed. In the education sector 161 schools were visited; 462 teachers interviewed; and 933 student family surveys completed. In the health sector, 132 facilities were visited, and 358 health care staff and 558 patients interviewed. In addition, a survey of municipalities within the four sampled departments was conducted with the objective of assessing the role of local governments in the provision of education and health services. Twenty three municipalities were actually surveyed.

CHAPTER II - EXPENDITURE TRACKING AND SERVICE DELIVERY SURVEY IN EDUCATION

BASIC EDUCATION SECTOR ISSUES

2.1. Honduran commitment to education is evidenced by the volume of resources that the Government has devoted to the sector over the past two decades. There has been very rapid growth: between 1990 and 2007 public sector education expenditures rose from five percent to 8.6 percent of GDP. They went from 17.3 percent of total government expenditures in 1999 to 32.5 percent in 2007; nearly doubling as a proportion of the total budget in just over eight years. There are more school places and more students are graduating are being produced. Coverage grew at the preschool, middle school, and tertiary education levels. Also, the proportion of children enrolled in primary school who finish the sixth grade increased and the percentage of adults who cannot read and write has fallen. Similarly, textbook production has risen and there is now a free school lunch program reaching nearly all of the schools in the country. The “*Matrícula Gratis*” cash transfer program transfers money from the Central Government directly into the hands primary and middle school principals, easing the need to require cash payments from parents and providing a degree of long-needed local autonomy. However, there is no evidence of impact on final outcomes.

2.2. The key problem in the Honduran basic education sector is that while expenditures have grown rapidly, and much of the increased has been absorbed by teacher wages,⁶ there is little evidence that this increased spending has translated into better learning outcomes as much of this increased has been mainly absorbed by higher teacher salaries.⁷ Standardized test scores in mathematics and Spanish language have not changed significantly since 1997. In 1997, the average 6th grade standardized test scores were 35 percent in math and 42 percent in language. The data for 2007 show scant improvement: 39 percent in math and 45 percent in Spanish (World Bank, 2008). It is in this context of rising costs per student⁸ and lackluster academic performance that this Public Expenditure Tracking and Service Delivery Survey examines the flow of public resources from the Central Government to the final beneficiaries.

2.3. This study follows up on the findings of the 2001 and 2007 PERs where public expenditure management and, especially, human resource management were identified as the main issues affecting the education sector. Its main objectives are:

⁶ By 2009, education salaries and benefits comprised just under 17 billion Lempiras (USD \$0.9 billion), or about 84 percent of the education budget for that year. This amounts to 58 percent of the Central Government’s total wage bill. In the year 2000 salaries and benefits comprised about 3,7 billion Lempiras (USD \$0.25 billion) or a 47 percent of the Central Government’s total wage bill.

⁷ As coverage (access) has increased considerably, in part this lack of improvement in learning outcomes may be due to the fact that those students who were added to the system are likely to be less well-performing.

⁸ From 1999 – 2006 the cost per student had been increasing at an annual rate of 12 percent. However, in between 2006 and 2009 the cost per student rose from USD \$160 to USD \$ 275.

- (i) identify the most important resources used in public education and how they are distributed and accounted for;
- (ii) identify macro and micro-leakages, delays, and other inefficiencies in the distribution of resources;
- (iii) review the use of management tools;
- (iv) present evidence of how teacher absenteeism and the limited role of parents have on efficiency and management issues; and
- (v) make practical recommendations to improve management, reduce leakages and increase efficiency.

2.4. The fact that the largest proportion of sector spending goes to salaries, issues with teacher assignment and especially teacher absenteeism receives prominent billing. Per request of the government this report concentrates its analysis in Primary Education given its importance for development indicators. Beyond human resources issues, the government has also expressed particular interest in the effectiveness of three transfer programs. The recently implemented ministry-to-school direct cash transfer program known as the “*Matrícula Gratis*”, is the first program of its kind of this magnitude in Honduras. The other two consist of in-kind transfers: a school lunch program paid for by the Ministry of Education but administered by the World Food Program, and the distribution of textbooks that are centrally designed, competitively printed, and distributed to schools. In this chapter we broaden the objective statement of the study. In addition to considering the efficiency in the production of key outputs, this chapter would also examine how the resource management has resulted in variation in the quality and adequacy of inputs that are necessary for improving learning outcomes.

2.5. The education study therefore is an interesting exercise in public sector analysis because it covers all three ways in which Central Government can inject resources at the local level to support its policy objectives: cash transfers, personnel assignment, and the production and placement of physical inputs. In addition, it includes an assessment of the variation of education infrastructure and working conditions at the school level.

2.6. The first part of the chapter starts by offering a description of the organization of the education system in Honduras, the analytical framework of the study, and the infrastructure and working conditions where the education function takes place in the country. The second part of the chapter is devoted to the tracking of public resources designated for producing primary education. In particular, the following resources are analyzed: (i) human resources; (ii) school cash transfers: the *Matrícula Gratis* capitation grants; (iii) textbooks; and (iv) *Merienda Escolar* school lunch program. The chapter then assesses the role of municipalities in the sector, and ends by providing some recommendations to improve resource management.

ORGANIZATION OF THE HONDURAN EDUCATIONAL SYSTEM

2.7. This section provides a brief description of the Honduran educational system in order to provide a background for the institutional analysis of the sector and the tracking of resources laid out in the next sections.

- 2.8. All public schools in Honduras are considered Central Government dependencies. The administration of public education in Honduras is divided into four levels; central, department, district and school.
- 2.9. The central level of the Ministry of Education is responsible for the execution of public education programs and projects, and therefore manages loans and grants obtained for in-service teacher training and increasing coverage at all educational levels. The Ministry is charged with preparing the public education budget, based on the operational plans prepared by the departments. Most of this budget is earmarked for teacher salaries.
- 2.10. The Ministry is charged officially with appointing teachers to school posts. It also administers all of the teacher-by-teacher data that is used to determine teacher pay scales. A body of law known as the “*Ley de Escalafón*” sets out precise formulae for determining teacher pay. It consists of a base pay per hour of class taught, and pay supplements based on job placement and teacher characteristics, including hardship posting, seniority, academic degrees, and administrative duties. This requires keeping and updating a teacher-level database that is also shared with INPREMA, the national teachers’ pension fund.
- 2.11. Responsibility for the design, contracting and distribution of textbooks to district offices has been a responsibility of the central level since the mid 1980s when the USAID-sponsored “*Mi Honduras*” series was launched to become the first nationally-produced textbooks designed for 100 percent primary school coverage. The actual printing of textbooks is done in the private sector after a competitive bidding process and often results in offshore publishing. Printing contracts also typically include delivery of the books to department warehouses.
- 2.12. The Central Government, in conjunction with the World Food Organization (known by its Spanish acronym “PMA”), is organized in a similar manner to deliver food to Honduran public schools. The Ministry provides school-by-school enrollment data to the PMA and pays for about 90 percent of the cost of the food, while the PMA is in charge of purchases, packaging and delivery.
- 2.13. The *Matrícula Gratis* cash transfer program (henceforth “MG”) is the only resource transfer program where the central level is directly responsible for emitting a resource and overseeing its final delivery to the schools.
- 2.14. The department level (“*departamento*”) offices of the Ministry of Education have functions that include the management and delivery of food, books and texts. They collect educational statistics from the school districts, consolidate them at the department level, and then pass them on to the Ministry of Education at the central level. Department offices do not raise much money of their own. They charge for certificates, transcripts, and some other services. Whatever income they receive for these services (below 15,000 Lempiras/year or USD \$ 794/year), together with rental income from cafeterias that operate within the department offices (up to 20,000 Lempiras/year or USD \$1,060/year) are the only funds that they manage directly. Department headquarters are required to submit periodic reports on this income and its uses to the office of the Comptroller General. In addition, a budget is assigned by the central level in response to budgetary proposals from all of the department offices.

2.15. Nevertheless, the departments also process permissions, transfers and personnel hires. Departments hire (but do not pay for) teachers and non-teaching school support staff. These roles make the Department Office of Education the target of intense political pressures.

2.16. Non-teaching personnel hires are done through the civil service office of the Ministry of Education. Political influence plays a very strong role in these hires too, because local politicians have a strong motivation to utilize the appointments as political patronage. The department's liaison with the Civil Service coordinates the arrival of new permanent employees. The Director of Education of the department can hire some employees, but only on a short-term basis (they are paid with purchase orders) because the department does not manage funds directly. Third party payments (service contracts, e.g. trucks to deliver books) for services contracted directly through the department offices are processed through the integrated financial administration system known as "SIAFF".

2.17. Department offices have very little involvement in school construction. When they do get involved, their role is generally limited to negotiating with the central offices of the Ministry of Education on behalf of individual schools. Schools request construction and repair projects to the municipal government which may pass the request on to the Honduran Social Investment Fund (FHIS), or finance it with their own funds, with funds transferred by the Central Government, or with Poverty Reduction Strategy ("ERP") funds.

2.18. Department headquarter offices seldom coordinate their activities with municipal governments. Most of these discussions take place through district headquarters of the Ministry of Education. Nevertheless department offices are aware of the work being done by the districts and counties within their jurisdiction and often help repair schools and transport school food or books within the districts.

2.19. The school districts are designed to function as liaisons between the departmental offices and schools. Like the state offices they report to, district headquarters manage very little money of their own. They depend on occasional support from the state office and they are also informally supported by municipal governments, as often occurs with the storage and distribution of books and food. This link between district offices of the MOE and municipal governments is a natural one, since their jurisdictions often overlap and they are typically located in the municipal capitals. School district offices collect educational statistics from all of the schools within their district, consolidate them, and then pass them on to the department.

2.20. The schools are responsible for executing the policies issued by the Ministry of Education, for teaching classes, and for distributing textbooks and other materials to the students.

2.21. Information flows from the bottom levels up; from the schools to the district offices, where it is checked, consolidated with similar information from similar lower-level units, and then passed to the department. Department offices gather and consolidate district information and send it on to the Ministry of Education. The Ministry finally consolidates information from all 18 departments into a national database. School directors pass data on to the districts, the districts to the departments, and the departments to the Central Government. The data that are submitted are presumably also verified for gross errors and omissions at each successive level. However these are essentially collection points. For the most part, they pass on what they

receive. There does not appear to be any systematic method such as spot-checking or periodic surveys – to verify the quality of the data.

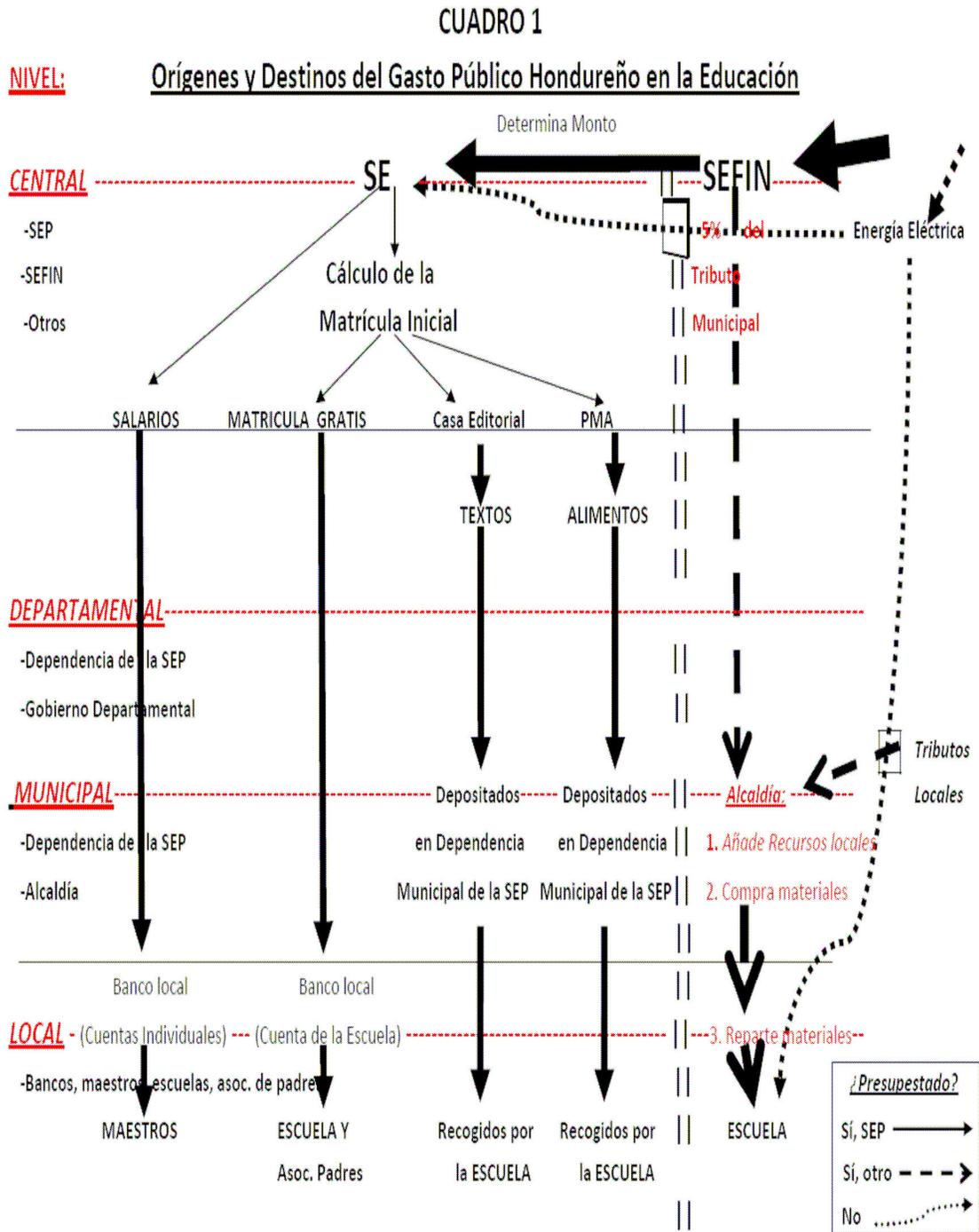
2.22. For this study, the most important information is data on enrollments. It is sent at various times during the school year and results in three sets of numbers: (i) the *matrícula inicial*, or initial enrollment data; (ii) the *matrícula consolidada*, or consolidated enrollment; and (iii) the *matrícula final*, or final enrollment numbers.

2.23. Initial enrollment data are meant to reflect official enrollments in February, on the first day of school. However, actual enrollments for the year are likely to change somewhat because of late walk-in registrations and no-shows. The consolidated enrollment data are meant to reflect these last minute changes. Interviews with department education heads indicate that they are “generally” ready in March or April. Consolidated enrollment data are thus more accurate, but they are not associated with any particular date or deadline. One of the problems with the current resource allocation system is that it often depends on the consolidated data. This means that by design, resources cannot be available at the beginning of the school year.

2.24. One thing to notice in the information flow diagram is that information flows in only one direction: from the ground up. This fact was verified in the interviews with school directors. The enrollment information is consolidated at the central level by the ministry but it is never sent back to the schools for verification or planning purposes, nor the information on school performance or national statistics. The information on enrollment is key to a number of essential Ministry actions; it is used to make budgetary decisions, reassign human resources, distribute *matrícula gratis* capitation grants, distribute school lunches, and to determine and distribute in-service teacher training.

2.25. Resources flow from the top down. The Honduran system is highly centralized. Resources are gathered, partitioned, and distributed by the Central Government authorities. Administrative units receive the aggregated resource packages, disaggregate them and pass them on to the next level of administration. Given the weaknesses in the information management systems, the intermediate levels of the administration play only a logistics role but are underutilized for management purposes. This system is especially true for in-kind resource flows including textbooks and food. Teacher salaries, and more recently, *Matrícula Gratis* cash transfers skip the intermediate levels of administration and deliver the resources directly at the school and teacher level. Utilities – especially electrical energy – also follow this latter model. In fact, energy delivery even skips the Ministry of Education where there is no record of knowledge of electrical energy use by its schools. This is illustrated in Figure 1.

Figure 1. Origin and destination of public expenditure flows



2.26. One finding of this study is that municipal governments can play a significant – if unplanned – role in financing some local school expenses. This often involves school construction and repair, but can also include the payment of salaries for cleaning and security personnel or even for temporary teachers. Another result is that there is a considerable difference between the institutional design of the Honduran educational system and the way in which resources are actually allocated and distributed.

ANALYTICAL FRAMEWORK AND SURVEY DESIGN

2.27. This section provides the conceptual framework for the study discussing macro and micro leakages and presents the samples and survey design.

2.28. Bradford, Malt, and Oates (1973) developed a helpful framework for understanding the problem Honduras faces. They distinguished between goods that citizens care about, education outcomes or “C-goods”, and goods that the Government produces, intermediate outputs or “D-goods”, which government can in principle control.⁹ The education problem at hand fits neatly into this framework. The Honduran Government spends money on a variety of intermediate inputs – teacher salaries, textbooks, libraries – but what the citizens ultimately want is better education outcomes. The effectiveness of money spent on increased learning will depend firstly on the quantity and quality of teachers, books and libraries produced per dollar spent. Secondly it will depend on the *mix* of teachers, books and libraries. Finally though, it will also depend on elements of the socio-economic environment in which the schools operate. It will depend on family income, child nutrition, parental education, drug and alcohol abuse, and on elements of the socio-economic and physical environments in which each school operates. Direct government control of these elements is weak, if not entirely absent.

2.29. This study will stop short of examining the transformation of purchased inputs into learning outcomes. Our goal is much more modest; it is to identify leakages in the flow and distribution of inputs and intermediate outputs to the service delivery point. We simply want to know if those resources emitted by the Central Government are the same as the resources schools have to work with.

Macro and Micro-Leakage

2.30. One of the main purposes of a public expenditure tracking exercise is to discover leakage of resources. The identification of leakages presents an opportunity to improve efficiency in the sector by increasing the outcome impact per dollar of spending. In this context, we can define two types of leakage from the system used to transfer resources from the central

⁹ The relationship between them can be represented with a production function of the form $C=f(D,X)$. Here “X” represents a vector of community characteristics that are not directly controlled by the Government, like natural phenomena, demographics, population density, poverty and attitudes towards education. D-goods include things like school buildings, libraries, teachers and textbooks. The Government can control the production of D-goods, but these affect the production of what we ultimately want, C-goods, only indirectly.

government to the units that produce and distribute public goods at the local level: micro-leakage and macro-leakage

2.31. We define “macro-leakage” as the difference between the resources that leave the central authority and the sum of the amounts received by all schools. Let “ G_j ” represent total Government expenditures on a particular resource and “ j ”, food for school lunches. Let “ g_{ij} ” represent the amount of resource “ j ” received by school “ i ” (for example, Claudio Barrera school in La Ceiba city, department of Atlántida), then if there are “ N ” schools in the country, “ L_j ” the macro-leakage for resource “ j ” is defined as:

$$L_j = G_j - \sum_{i=1}^N g_{ij}$$

2.32. Next, we define “micro-leakage” as the amount an *individual school* should receive –as defined by policy –and the amount that it actually receives. Let “ G_{ij} ” represent the amount of resource “ j ” that current policy assigns to a school. Then “ L_{ij} ” micro-leakage of resource “ j ” for school “ i ” is defined as:

$$L_{ij} = G_{ij} - g_{ij}$$

2.33. Notice that it is possible for L_j – the macro-leakage – to be small, or even zero, even though for the vast majority of schools $L_{ij} > 0$. The problem here is that by definition $L_j > 0$, while L_{ij} can be positive, this means that macro-leakage implies micro-leakage, but the converse is not true.

2.34. Differences between the sum of all micro-leakages and total macro-leakage indicate distributional problems. For even if all of the resources that leave the center, arrive at schools on time, distributional problems can mean that they arrive at the wrong schools, or too many at one school and not enough at another one.

2.35. In addition to micro- and macro-leakages, other problems can interfere with the flow of resources such as blockages, bottlenecks, and delays. Blockages and bottlenecks can mean that some resources never leave the center, or get “short-stopped” or diverted along the way. They may still be “in the system” but never arrive at a school. Delays mean resources arrive but may be too late to accomplish their intended purpose; for example, when math workbooks arrive four months after the start of the school year. Problems of leakage, delay, and distribution can lessen the impact of Central Government expenditure and therefore imply a higher total expenditure per unit of measured impact.

Survey Design

2.36. There are many important issues surrounding Government support of middle school, high school, and tertiary education in Honduras. Nevertheless, as per the government’s request, this study concentrates on just one sub-sector. Primary education (grades 1-6) was chosen as the focus of the study, because it is here that the Government has intervened most strongly with innovative transfer programs, including cash transfers, textbooks and school lunches.

2.37. In the early planning stages it was decided that the education and health¹⁰ sector public expenditure tracking exercises should overlap in order to take advantage of economies of scale which arise from being able to survey the same locations at the same time. Limitations of budget and time ruled out conducting a full national survey. Instead, the survey was limited to four departments chosen to represent the urban/rural dichotomy that characterizes Honduras, and also to cover the country's full socio-economic spectrum. Francisco Morazán was therefore included by default, as it represents the most urbanized, developed and wealthiest segment of Honduran society. Fifteen of the remaining eighteen departments were then ranked according to their Human Development Index (HDI) number.¹¹ They were then grouped into three five-department categories of high, medium and low development. Within each category a department was chosen at random. The four departments finally sampled (in HDI order) were Francisco Morazán, Yoro, Olancho and Copán.

2.38. Public schools are the natural units of analysis in the education sector, but Honduras has two competing primary school models. Traditional primary schools have been managed in both rural and urban areas since the inception of the Ministry of Education. Rural areas also have a newer type of alternative, community-based school known by the acronym "PROHECO". The school sample was therefore divided into three strata: traditional urban ("*Básica Urbana*"), traditional rural ("*Básica Rural*"), and PROHECO. The 161 primary schools¹² in the sample were randomly selected from public schools in the four surveyed departments. There are 87, 39, and 35 schools, respectively, in each of the strata (Table 2).

Table 2. School Sample

School Type Stratum	Frequency	Percent
Traditional Urban	87	54.04
Traditional Rural	39	24.22
PROHECO	35	21.74
<i>Total</i>	<i>161</i>	<i>100</i>

2.39. The surveys of school directors, teachers and parents were designed to deepen the analysis in areas highlighted by earlier work as having the weakest budget allocation and execution. These surveys and the sampling methodology are described in more detail below and in Table 3. The bulk of the beneficiary level information comes from three surveys based on each of the 161 schools in the sample. The first interview process began with a survey of school directors. The procedure involved randomly selecting a set of schools to be visited within each segment. Once at the school, survey-takers gathered information on the physical infrastructure of the school, including number and state of classrooms, libraries, administrative offices, and sanitation facilities. The surveyors then interviewed the director on subjects ranging from physical infrastructure and staffing, to resource flows from the Central Government, finance and

¹⁰ The Health study was conducted in conjunction with the Education study.

¹¹ Difficulty of access and the cost that it implies led to the ex-ante exclusion of two of Honduras' 18 states: Gracias a Dios and Islas de la Bahía.

¹² Only five urban and one rural schools (3.7% of the sample) in the sample go up to grade 9.

management. This was done within the context of a formally structured survey that contains 361 questions (Table 3). This “School Survey” also collected information on total enrollment, parent and teacher organizations, and basic demographic and employment data for all of the teaching and non-teaching staff members.

2.40. The survey information was collected in October/November, close to the end of the school year in Honduras. Surveyors entered the 161 schools unannounced and interviewed the school directors. The director surveys contain a number of questions on school administration. For instance, they ask if the director keeps records of teacher absences, school expenditures, textbooks and food for school lunches. The original intent was to verify record keeping in the field by asking the director to produce the corroborating documents. However, once in the field this practice was quickly dropped. Surveyors felt strong tension between the main survey goal of collecting candid and accurate information based on the promise of anonymity, and the directors’ perception that they were not being at their word – or worse, that they were being audited – when they asked to see written proof of their work.¹³

2.41. Secondly, the interviewers at the school randomly selected one or more teachers from the director’s roster of teachers employed at each school¹⁴. A total of 425 teachers were chosen this way. When selected teachers were present, they were interviewed at the school. When absent, their homes were found and they were interviewed at their homes rather than in the schools where they work. The 286 teacher survey questions largely overlap with the director interview in most of the issues relating to resource transfers, school finance, and governance. In addition, a large volume of demographic and economic data was gathered for all 1,984 teacher family members.

2.42. Thirdly, students were randomly selected from the classes taught by each of the 425 teachers that were interviewed. The students were followed home and a set of questions were asked of the parents. A total of 417 questions¹⁵ gathered general physical data on the house, demographic and economic information on the student’s family members, and specific data on the student and his or her school. The student family questionnaires gathered information on 5,582 student family members.

2.43. In all, the surveys produced eight director-, teacher- and student-survey databases (see Table 3). These are stand-alone databases, but they can be linked. Identification numbers in each of the surveys make it possible to interlock the school, teacher, teacher-home, student-school, and student-home information. Also, school and teacher ID numbers were included to make it possible to combine survey sample data with Ministry of Education databases on teachers,

¹³ In one district, where it was suspected that consultants were there to collect damaging information, directors were instructed to not cooperate with surveyors or answer any of their questions.

¹⁴ The number of selected teachers varied with school size.

¹⁵ A 75-question “education module” was included to a basic questionnaire that mimics the Honduran permanent household survey “*Encuesta Nacional de Condiciones de Vida*”, designed by the *Instituto Nacional de Estadística*.

schools and resource transfers to them, including cash, textbooks, school lunches and teacher salaries.¹⁶

¹⁶ In practice however, the Government's expenditure databases do a poor job of recording data regarding resource transfers at the school. The databases are incomplete (i.e. do not include all schools) and there is more than one school identification number. Efforts to obtain teaching personnel data from the Ministry were largely unsuccessful.

Table 3. Beneficiary-level databases

Number	Database	Description	Unit of Observation	# of Observations
1	School – I	(A) School physical infrastructure, total enrollment, total teaching and non-teaching personnel. (B) School Director opinions on resource flows and school governance.	School	161
2	School – II	Demographic, employment, and salary characteristics of (a) teaching and (b) non-teaching school personnel.	School Personnel	1,616
3	School – III	School expenditures.	Expenditure item.	2,091
4	School – IV	Characteristics of teachers assigned to school that do not work there.	Non-working teachers	61
5	Teachers – I	Characteristics of teacher dwellings and families. Demographic, employment and salary information for teachers.	Teacher	435 selected, 425 with valid data
6	Teachers – II	Demographic, employment, salary, and educational characteristics of members of teachers families.	Member of teacher household	1,984
7	Student Family – I	Student demographic characteristics. Parent opinions on school quality, management, resource flows, and teacher.	Student	938 selected, 937 with valid data
8	Student Family – II	Demographic, employment, salary, and educational characteristics of members of student families.	Member of student household	5,293

2.44. Finally, the Central Government perspective on ideal public expenditure flow design was obtained from legal documents, from interviews with Central Government actors both within the Ministry of Education and in the central offices of textbook and food distribution entities. Original data were collected from field visit interviews with central, department and district office directors and personnel. They were combined with existing legal and institutional documents, such as Honduran legislation, Ministry of Education organizational charts, and reports like Chapter 4 of the recent Institutional and Governance Review (World Bank, 2008). Key actors were also interviewed at the four department education offices. To guarantee uniformity, a small, but more structured questionnaire was administered at each of 25 municipal offices.

EDUCATION INFRASTRUCTURE AND WORKING ENVIRONMENT

2.45. This section provides a description of the school infrastructure and the working environment where the education function takes place in order to provide a background for the institutional analysis of the sector and the tracking of resources laid out in the next sections.

Physical Plant

2.46. Reports on the status of school coverage in developing countries typically treat schools as homogenous entities. Yet it is impossible to understand school-to-school and child-to-child education inequality in Honduras, or to find a pattern to the haphazard and ad hoc distribution of education resources, without understanding the magnitude of the differences in resource flows from physical plant services

2.47. There is typically very little information on the cost of these resource service flows that comes from public investments in physical plant. The present case is no exception. However, we do know that these flows must be important¹⁷. While we do not know the total cost, we can infer something about its variability and distribution across schools. We know that:

- It is probably a high percentage of the total cost of public education;
- It is probably significantly lower as a share of total cost in public schools than in the private schools¹⁸;
- It is a *very* important determinant of the inequality of public sector expenditure distribution; and
- It probably influences the quality of education by affecting teacher quality and teacher attachment to their school.

¹⁷ These costs mostly consist of the opportunity costs of land, buildings, and equipment. The cost of an acre of land can vary greatly from sugarcane field to the heart of the capital city. In addition, developing country schools with electricity, water, sewerage, and garbage collection services usually receive these “off the books” from Government-owned or regulated utility companies.

¹⁸ See Edwards and Guerrero (1998) “The Cost of Secondary Education El Salvador”.

2.48. Our data indicates that school size varies greatly in Honduras, as does the space per student and students per teacher. Results from the full survey school samples show that nearly one third (28 percent) of schools are multi-grade (single-teacher) schools. However the urban school proportion is only one in 10, while nearly three fifths of PROHECO schools are multi-grade. Overall, school size varies greatly across school types. PROHECO schools are smallest, with an average of 38 students and 1.6 teachers. These are followed by traditional rural schools where the average is 87 students and 2.7 teachers. In contrast, urban schools in the sample enrolled an average of 401 students and employed 15 teachers. This is ten times the number of students found in the typical PROHECO school, and five times as many as in traditional rural schools.

Table 4. School sample, Physical Plant and Teachers

Variable in School Sample	Full Sample	Básica Urbana	Básica Rural	PROHECO
	(161 Schools)	(87 Schools)	(39 Schools)	(35 Schools)
Multi-grade Schools (%)	28.0%	11.5%	38.5%	57.1%
Highest grade offered	6	6.1	6	5.7
Total number non-teaching staff	3.5	3.9	0.4	0.09
Total number of teachers	8.8	15.1	2.7	1.6
Total number of students enrolled	249	411.6	85.6	38.4
Student/Teacher ratio	28.2	29.9	31.3	24.1
Total # of classrooms in school	5.7	8.8	2.6	1.3
Student/classroom ratio	39.3	46.4	32.2	30.3

2.49. Urban schools have an average of 46 students per classroom – compared to 32 in traditional rural schools and only 30 in PROHECO. So, larger urban school size comes at the cost of greater crowding, but also produces significant economies of scale. As a result, this order of magnitude difference in total enrollment really places urban schools in an entirely different class. Because the per-student cost of adding optional shared public spaces like a soccer field, library, or auditorium is much lower, large urban schools may have more crowded classrooms, but they also have a richer physical environment and specialized personnel (principal, librarian, teachers, etc.). Over two thirds of urban schools have separate administrative offices, nearly half (44 percent) have a working library, and a quarter have auditoriums. The proportion of students with access to such facilities drops drastically in the rural sector and vanishes altogether among the PROHECO schools.

2.50. School sanitation is even more telling of the unequal distribution of physical infrastructure quality. Table 5 shows that 93 percent of the larger, traditional urban schools have some sort of sanitary facilities. Furthermore, they are of good quality: 77 percent have flush toilets and 16 percent have latrines. About 78 percent have separate bathrooms for boys and girls, and 69 percent have facilities that are only for teachers to use. On the surface, things in the rural sector look about the same: only eight percent of them lack toilets of any kind and the toilets are generally gender-segregated. However, upon closer examination we see that the flush/latrine proportions basically flip, and in most rural schools the teachers have to use the same facilities as the students.

2.51. About 40 percent of PROHECO schools completely lack sanitary facilities. Among the PROHECO schools that *do* have a toilet, two thirds are not gender-segregated, and flush toilets are a rarity – as is the idea of a separate bathroom for teachers. *None* of the PROHECO schools sampled had a sewer system.

2.52. Inequalities are also evident in other aspects of the physical plant, including the existence (and quality) of kitchens, running water, electricity, and telephones. Notice the variation in access to services, but also notice that while 78 percent of schools have access to running water, only 12 percent have water meters.

Table 5. Quality of the physical plant (%), by school type

	Full Sample (161 Schools)	Básica Urbana (87 Schools)	Básica Rural (39 Schools)	PROHECO (35 Schools)
Separate Administrative Office	39.8%	67.8%	12.8%	0.0%
Working Library	24.8%	43.7%	2.6%	2.9%
Auditorium	15.5%	24.1%	10.3%	0.0%
Has Flush Toilets	50.9%	77.0%	33.3%	5.7%
Has Latrine	26.1%	16.1%	59.0%	54.3%
Has No Toilets	14.3%	6.9%	7.7%	40.0%
Separate Boys and Girls Bathrooms	69.4%	77.9%	76.9%	40.0%
Separate Teacher Bathrooms	47.2%	69.0%	33.3%	8.6%
Running Water	78.3%	90.8%	79.5%	45.7%
Sewerage	30.4%	55.2%	2.6%	0.0%
Electricity	59.0%	85.1%	46.2%	8.6%
Phone (Land Line)	32.3%	58.6%	2.6%	0.0%
Water Meter	11.8%	20.7%	2.6%	0.0%
Electric Meter	46.6%	70.1%	30.8%	5.7%
Separate Kitchen	35.4%	37.9%	51.3%	11.4%
Teachers Usually Eat at School	66.5%	70.1%	76.9%	45.7%

2.53. In summary, the physical plant varies greatly from one public school to another. At one extreme there are large – normally urban – schools with hundreds of students, a library, auditorium, computers, and bathrooms with running water and flush toilets – one for boys, one for girls, another for the teachers – an office, electricity, maybe a soccer field and a kitchen. At the other extreme are the one-room rural schools without any electricity, water, kitchen, library, or sports facilities, and not even a latrine. These are normally PROHECO schools. All 425 teachers interviewed in their homes were asked to rate their school’s sanitation facilities on a 1 to 10 scale. Urban and rural traditional schools gave about the same marks (an average of 6.4 and 6.3, respectively), whereas the PROHECO teachers assigned an average score of 3.8. Just over 70 percent of urban teachers stay at school to eat, as do about 77 percent of rural teachers in traditional schools. PROHECO teachers generally prefer to eat elsewhere.

2.54. The unequal distribution of physical capital – a form of educational wealth – is largely invisible because it is “off the books”. Yet it must also imply an unequal distribution of current expenditures: larger, better-equipped schools not only have this larger stock of assets, they must also be absorbing a proportionately greater share of the flow of operating and maintenance resources that *is* on the books – public utilities are a prime example of this. Altogether these hidden assets – the flow of services from land,

buildings and equipment – result in a largely accidental, highly unequal distribution of public wealth. These assets then create fixed public sector obligations in the form of utilities and maintenance expenditures to maintain them – obligations that result in a similarly unintended distribution of current educational spending.

Working Environment

2.55. As a background, this section presents information on teachers and working conditions based on the statistical information generated by the present study. As the table below shows, PROHECO teachers certainly operate in a more difficult, isolated environment, with poorer physical infrastructure. Nevertheless, it is interesting to note that – contrary to widely held opinion – PROHECO teachers in the sample have a *lower* teaching load. They teach fewer students and they report teaching fewer hours per week.

Table 6. Teacher sample

Variable in Teacher Sample	Full Sample	Básica Urbana	Básica Rural	PROHECO
	(161 Schools)	(87 Schools)	(39 Schools)	(35 Schools)
Teachers	100.0%	87.1%	8.3%	4.6%
Average # students taught	30.5	34.8	23.1	16.1
Hours per week in the principal grade taught	24.8	26.1	19.2	11.5
Hours per week in all grades taught	28.3	28.5	29.6	23

Note: 417 Teachers in the survey sample with valid data.

2.56. Table 7 shows that the vast majority of teachers in the sample are in grades 1-6. Within this primary school level, a disproportionate number are teaching first grade and to some extent second grade also. This distribution is probably symptomatic of the high repetition and dropout rates in grades 1 and 2 that have plagued Honduran schools for decades (Edwards *et al.*, 1997). Table 7 makes it clear that the problem is most severe in rural (both traditional and PROHECO) schools.

Table 7. Teachers in the sample, by grade and school type

Grade	Number				Percent			
	Full Sample (161 Schools)	Básica Urbana (87 Schools)	Básica Rural (39 Schools)	PROHECO (35 Schools)	Full Sample (161 Schools)	Básica Urbana (87 Schools)	Básica Rural (39 Schools)	PROHECO (35 Schools)
1	278	211	35	32	23.5%	20.5%	35.7%	59.3%
2	190	163	17	10	16.1%	15.8%	17.3%	18.5%
3	183	164	13	6	15.5%	15.9%	13.3%	11.1%
4	180	166	12	2	15.2%	16.1%	12.2%	3.7%
5	143	136	6	1	12.1%	13.2%	6.1%	1.9%
6	163	151	9	3	13.8%	14.7%	9.2%	5.6%
7	36	31	5	0	3.0%	3.0%	5.1%	0.0%
8	2	1	1	0	0.2%	0.1%	1.0%	0.0%

9	7	7	0	0	0.6%	0.7%	0.0%	0.0%
Total	1,182	1,030	98	54	100%	100%	100%	100%

2.57. Though it includes roughly the same number of urban as rural (traditional plus PROHECO) schools, the sample of *teachers* is heavily weighted towards the traditional urban sector. This is because those schools tend to enroll more students and therefore have more teachers. Just over half of the schools sampled (54 percent) were urban, but they account for 87 percent of the teachers. Teachers in traditional rural (eight percent) and PROHECO (five percent) are fewer by an order of magnitude.

2.58. Most of the teachers surveyed did not ask to be employed at their current school; they were assigned to it (57 percent). This is disproportionately true in PROHECO, where only 28.6 percent of teachers say they had asked to work where they are currently assigned. Notice too, the differences in demographic data. The proportion of teachers that is married is 57.1 percent in urban, 48.5 percent in rural, but only 24.5 percent in PROHECO schools. The urban teacher lives in her own home in 97 percent of the cases observed. In contrast, 21 percent of rural teachers and 36 percent of PROHECO teachers have a temporary abode that they use only on teaching days. That is to say rural – and especially PROHECO teachers – are much less likely to have roots in the community where they work. PROHECO teachers are also younger, less experienced and unlikely to have children. With an average monthly salary of 4,286 Lempiras, they earn less than half the salary of their colleagues in other rural schools (10,180 Lempiras/month) or in the urban ones (11,322 Lempiras/month). The data in Table 8 are consistent with a pattern in which PROHECO serves as an entry point for new teachers who then spend considerable effort trying to get out of the rural areas into an urban one where they can start a family.

Table 8. Characteristics of Teachers Selected for the Sample by School Type

Variable	Full Sample (161 Schools)	Básica Urbana (87 Schools)	Básica Rural (39 Schools)	PROHECO (35 Schools)
Woman	84.4%	85.5%	75.5%	79.2%
Married	54.9%	57.1%	48.5%	24.5%
Age	37.9	38.7	35.0	27.2
Highest level of schooling attained: high school	49,2%	40,7%	59,1%	88,1%
Years of experience	8.8	9.3	6.5	2.5
Number of minor children at home	1.3	1.3	1.3	0.9
The home where teacher resides is only for use on days when teaching	10,1%	3,4%	20,5%	35,7%
Average salary at this school.	10,896	11,322	10,180	4,286

2.59. Nearly four fifths of the schools surveyed (78.3 percent) reported that they had no non-teaching staff. Among the 21.7 percent that do, two fifths employed only one person. However, the range went up to as many as 17 non-teaching people employed by some of the larger schools. Of the schools that reported having non-teaching staff members, 69 percent were traditional urban schools. A fairly accurate generalization

would be to say that Honduran public schools generally do not have non-teaching staff members, but when they do exist, this is largely an urban school phenomenon.

2.60. The following sections present the tracking of public resource flows designated for producing primary education in Honduras. As mentioned before this section presents the tracking of: (i) human resources; (ii) school cash transfers: the *Matrícula Grátis* capitation grants; (iii) textbooks; and (iv) *Merienda Escolar* school lunch program.

THE FLOW OF HUMAN RESOURCES IN PUBLIC PRIMARY EDUCATION

2.61. This section will examine two important ways in which funds spent on human resources can leak out of the system. Firstly we look at the phenomenon of “ghost teachers” – salaries paid for teaching positions that are not actually filled by anyone. We also examine what turns out to be a closely-related issue, namely the “*informales*” – teachers who *are* working at public schools but do not have an official position there. The second potential source of human resource leakage is teacher absenteeism. Here teachers “work” at the school where they are officially assigned, but they don’t attend regularly.

2.62. The Ministry of Education is officially charged with appointing teachers to all school posts. It also administers all of the teacher-by-teacher data that is used to determine teacher pay scales. “*Ley de Escalafón*” sets out precise formulae for determining teacher pay. It consists of a base pay per hour of class taught, and pay supplements based on job placement and teacher characteristics, including hardship posting, seniority, academic degrees, and administrative duties. This requires keeping and updating a jealously guarded teacher-level database that is also shared with INPREMA, the national teachers’ pension fund.

2.63. However, the survey confirm that that there are many informal avenues for appointing new teachers and transferring exiting teachers from one post to another. For instance, local governments (“*municipios*”) reportedly sometimes bend to local political pressure from parents and hire temporary teachers for an overcrowded school and then put pressure on the central government to “regularize” the temporary position by making a formal appointment and absorbing the salary. In a similar fashion, state or district offices of the Ministry may informally transfer an unpopular teacher to a different school than the one where she is formally assigned. In the chaos that results from the cumulative effect of these informal distortions some teachers can also collect pay without actually working.

Ghost Teachers and the “Informales”

2.64. The Ministry of Education school and teacher databases are incomplete, inconsistent and outdated; and therefore not in a status where they can be used for management purposes. Some of the problems with the Ministry’s school database are illustrated in Table 9. There were 161 schools included in the sample. Of these, 35 were PROHECO schools which have their own separate database. Of the 126 traditional schools in the sample 20 (15.9 percent) could not be found in the official database. The problem is especially severe for rural schools, where nearly one third (30.8 percent) of the schools are “invisible” to the Central Government, but the 9.2 percent missing school rate in the urban sector is also inexcusably high.

Table 9 Survey schools not found in official ministry database, excluding PROHECO schools

School Type Stratum	Percent of Sample	Frequency (# of Schools)	Schools not in Ministry Files	% Not in Ministry Files
Traditional Urban	54.04	87	8	9.2%
Traditional Rural	24.22	39	12	30.8%
Traditional Subtotal	78.26	126	20	15.9%
PROHECO¹	21.74	35	35	100.0%
Total	100	161	55	34.2%

¹ PROHECO has a complete database of the teachers in these 35 schools.

2.65. The original study design called for collecting school and teacher identification information and then merging the survey and MOE datasets by school. This would make it possible to identify two classes of discrepancy: the so-called “ghost” and “informal” teachers¹⁹. It was expected that we might find some “ghost teachers” – paid but not working – and some non-official “informal” teachers – paid by someone other than the Central Government. In addition, the survey found out that entire schools were missing from the database.

2.66. Therefore, the exercise was performed with the 106 (urban and rural) traditional schools²⁰ included in the survey sample that do show up in the MOE database. MOE files were examined teacher by teacher. That is, an attempt was made to locate all survey sample teachers for these schools in MOE files by using identification numbers and names collected in the survey sample of schools.

2.67. Figure 2 illustrates the five subsets formed by the data merger. We are interested in the last four, namely B, C, D and E. Subsets “B” and “E” can be readily identified. “B” consists of teachers that appear in both datasets; they are the only “good” data of interest. “E” is composed of teachers that were assigned to a survey school but do not actually work there (ghost teachers). It is also possible to identify the disjointed subset of survey teachers who do not appear in MOE files. This is formed by the grouping of CUD of subsets shown in Figure 2. Subset “C” consists of official teachers working at “the wrong school”. That is, we found them working at a survey school, but the MOE has them listed at a different public school. Finally, teachers in subset “D” were found working at a school in the sample, but they are paid by someone else. With the information available, we can only identify these anomalies but cannot differentiate between subset C and subset D so we had to make an assumption and use regression analysis to be able to do so. The results are provided in the second part of this section.

¹⁹ “Ghost teacher” (*maestro fantasma*) is the term used colloquially in Honduras to describe teachers who are on the payroll but do not teach. “*Informales*” refers to teachers that do teach at a school, but are not on the Central Government payroll and do not have a formal post at any public school.

²⁰ As previously stated, none of the PROHECO schools are in this base.

Figure 2. Personnel databases

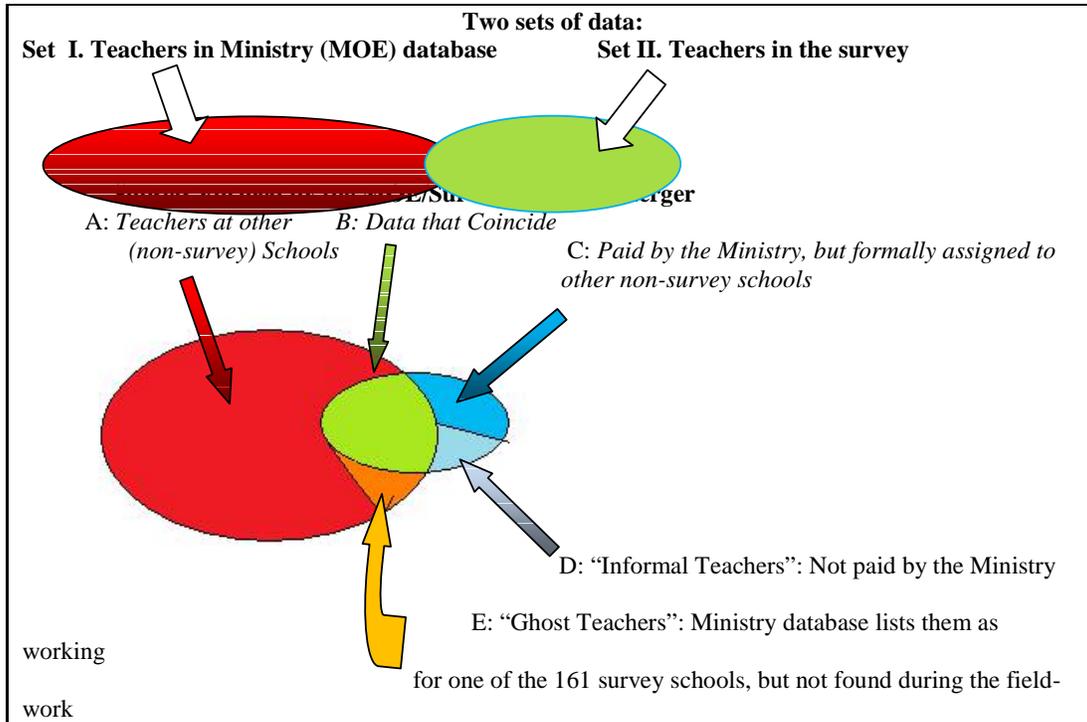


Table 10. Survey Teachers not found in ministry database (Subset “C U D”)

School Type Stratum	Percent of Teacher Sample	Frequency (# of Teachers)	Teachers not in Ministry Files	Row %
Traditional Urban	89.05%	1,342	359	26.8%
Traditional Rural	7.17%	108	52	48.1%
Traditional Subtotal	96.2%	1,450	411	28.3%
PROHECO	3.78%	57	*	100.0%
Total	100%	1,507	411	27.3%

¹ PROHECO has a complete database of the teachers in these 35 schools.

2.68. Of the 1,507 teachers in the survey sample, 411 (27 percent) were not in the MOE teaching personnel database. In the traditional schools we find that over one in four urban teachers and nearly half of rural teachers in traditional schools are missing from this data.

Ghost Teachers

2.69. We define a “ghost teacher” according to three properties that constitute subset “E” of Figure 2: (i) the name appears on the 2008 MOE teaching personnel list; (ii) the MOE personnel list assigns the name to one of the schools visited by the 2008 survey; and (iii) the name does not appear on the 2008 survey list of teachers.

2.70. In all, 309 “ghost teachers” assigned to survey schools were identified. Of these, 298 were assigned to traditional urban schools and 11 to rural ones. This amounts to 23.2 percent of survey urban and 16.4 percent of survey rural teachers, or to a total of 22.9 percent of traditional school teachers assigned to survey sampled schools. If these

proportions hold for the entire MOE personnel database, then 7,305 of the 31,901 primary teachers in MOE files in the year 2008 are not actually working at schools where Ministry records show them assigned.

2.71. It must be emphasized here that it is not possible to know to what extent this discrepancy is real, or to what extent it reflects poor database management. The worst-case scenario would be where the observed discrepancies are entirely explained by teachers who are being paid for work that they are not performing. If this is true, then salaries are being paid for approximately the same proportion (22.9 percent) of primary teaching jobs that nobody is actually doing. This would mean that 7,836 salaries are being paid unnecessarily²¹. These can be quantified in pecuniary terms by using the matched MOE/survey subsample (“B”). The average monthly salary for “matched” teachers with valid data was 12,282.17 Lempiras/month²². Since Honduran teachers receive 14 monthly salaries per year²³, their average yearly pay was about 171,950 Lempiras. The total value of the “ghost” positions would be 1,347,403,178 Lempiras, or approximately USD \$70,915,957.

2.72. In the context of a public expenditure tracking exercise that is searching for leakages, ghost teachers are a problem. When, as we found in Honduras, ghost teachers make up 23 percent of the payroll, it is a *major* problem; an enormous inefficiency. It means that about a quarter of teacher salaries are leaking out of the system and never reaching their beneficiaries. Yet inaccuracies of the MOE database mean that we cannot be sure that these are actually ghost teachers. Thus, it is possible that some of these teachers are actually working in other schools not included in the sample and that the decision to transfer the resources was not recorded nor the name of the teacher who is replacing them. It is also possible that this “replacement” is an informal arrangement that takes place without the Ministry’s knowledge. In such case, on aggregate these resources are not “missing”, just not properly reflected in the database. Because of all these caveats, the above estimates provide a ceiling for the total value of the “ghost” losses.

“Informal” Teachers

2.73. Using the local vernacular, we define a teacher to be “informal” when: (i) the name appears in the survey sample; (ii) the name does not appear in the MOE teaching personnel list; and (iii) the teacher’s salary is paid by someone other than the MOE. Conditions (i) and (ii) would be sufficient if the MOE payroll list included all of the teachers paid by the MOE, but since there is reason to believe that some MOE-paid (“formal”) teachers have been omitted from the payroll list, we must double-check this with survey data.

2.74. Teacher salaries are governed by a legal regime known under the name “*Estatuto del Docente*” and compliance with this “Teacher’s Statute” is strictly monitored by Honduras’ powerful teachers unions. The *Estatuto* links teacher pay to the

²¹ In the year 2008, there were 34,216 teaching jobs in primary education. As teachers can hold more than one position, the number of teaching jobs is greater than the number of teachers.

²² 1,039 teachers “matched”. Of these, 905 were present on the day of the interview and 883 were both present and reported valid salary data.

²³ The “*Aguinaldo*” and “*Decimocuarto*” salaries are typically paid near Christmas holidays.

minimum wage. It determines remuneration for a “class hour”²⁴ shall be no less than 0.71132 of the average minimum wage²⁵. Monthly salaries are determined by multiplying this “hourly” rate by 156. Furthermore, the “class hour” is not the standard, 60-minute clock hour. The statute defines it to be 45 minutes.

2.75. As noted above, the average monthly salary for “matched” teachers with valid data was 12,282.17 Lempiras per month. Also, they reported an average of 11.9 years of service in the school where they were presently working. If the MOE database were accurate, it would be a simple matter to determine which survey sample teachers were not on the central government payroll. However the MOE teaching personnel database is woefully out of date and incomplete, so this was done statistically. The “handle” for determining which of the survey teachers that are missing from the MOE files are paid by other sources, is the level of salary. Official teaching posts are reputedly coveted because official public school teaching salaries are high. They are not only higher than private sector salaries; they are also higher than public sector salaries paid by non-official sources. This is the reason why teachers and their unions are so adamant about “formalizing” the posts of the “*informal*” teachers hired by parents and local governments²⁶.

2.76. Subsets C and D were split from each other in a two-stage process. Firstly, log-salary was regressed on a number of non-PROHECO survey teacher salaries for the subsample of 995 survey teachers who were present during the survey and had valid data²⁷. Column “A” of Table 11 shows the results. Indeed, showing up on the MOE database results in a 15 percent salary boost, even after controlling for other characteristics that might explain teacher salary differences, such as age, gender and years of experience.

Ghost Teachers Revisited

2.77. As previously mentioned, the MOE personnel files showed many teachers assigned to survey schools which the survey shows do not actually work there. These approximately 23 percent of the payroll made up subset “E”; they are the statistical basis for believing in “ghost teachers”.

2.78. The survey data also identified 411 teachers (approximately 27 percent of the payroll) who were teaching at the sampled schools but do now show up in MOE files. Assuming that teachers who belong to the formal regime are earning a salary in line with the Estatuto, it is possible to split the “*CUD*” subset of Figure 2 into its two constituent parts. Of those, is estimated that 81.8 percent of those are actually MOE teachers; they belong to the subset “C”. These formal teachers that are not registered in

²⁴ *Hora clase*

²⁵ The “average minimum wage” is calculated by adding the lowest and highest minimum wages and then dividing by 2. This stood at 3,400 Lempiras in 2008.

²⁶ For instance, the average monthly salary of PETS teachers found in the MOE database was 12,249 Lempiras, whereas the average PETS PROHECO teacher salary was 4,278 Lempiras.

²⁷ There were 1,039 non-PROHECO teachers in the sample who were present on the day their school was visited by the PETS survey. Absent teachers were omitted because of teacher characteristics measurement error. Also omitted were a small number of observations with missing or invalid data, resulting in the final sample of 995 observations. Of the non-PROHECO teachers with valid data present on the PETS interview day, 23.4% were not found in MOE personnel files.

the database for the selected departments (22 percent of the payroll) could be in the database of other departments. It is also possible that these teachers are not in the database at all and that they are hired by the district or the department without the Ministry's knowledge. These are known as "interinos" and are a source of spending pressure as they will be eventually included in the official payroll once the two databases are reconciled. The remaining 18.2 percent are "Informales" (subset "D"), being paid by someone other than the MOE.

2.79. Of the non-PROHECO, survey teachers who were present on the survey day, 27.4 percent were missing from MOE files. Column "B" of Table 11 shows the same regression as in column "A", but run only on the subsample of 772 non-PROHECO teachers with valid data that were found in both the MOE and PETS lists. Estimated coefficients from this second regression were used to generate a predicted salary for survey teachers who were present on the day of the survey, but did *not* appear on the MOE personnel file. Teachers were classified as MOE teachers omitted from the payroll, when their actual monthly salary was within the 15 percent range estimated as the MOE bonus by the first regression. If their predicted MOE salary was 115 percent or more than their true actual salary, then they were classified as "informal".

Table 11. Teacher salary regressions

	A	B
	All Teacher Salaries	Common MOE/ survey Teacher Salaries
Woman	-0.012	-0.032
	(-0.47)	(-1.19)
Age	0.012	0.014
	(10.14)	(10.92)
Years at this school	0.0048	0.0026
	(3.41)	(1.84)
Married	0.041	0.016
	(2.3)	(0.87)
Urban school	0.025	0.0048
	(0.72)	(0.12)
Has administrative job	0.054	0.070
	(1.63)	(2.06)
Principal grade taught	0.0097	0.0064
	(1.98)	(1.32)
Shows up in MOE database	0.15	--
	(6.92)	--
Constant	8.59	8.72
	(154.13)	(137.56)
R-Square	0.306	0.279
Observations	995	722

(Dep. Variable: Log of Monthly Teaching Salary, t-stats)

2.80. In total, taking into account traditional schools and PROHECO schools, it is estimated that up to 24.1 percent of MOE teachers are missing from MOE payroll database files for the survey schools. In other words, if all of the teachers who are

missing from MOE files but are receiving a full public school salary are “formal” teachers, then the MOE database for survey schools is missing nearly one quarter of the formal teachers. If the survey sample is representative of data quality for the country as a whole, then about 11,000 teachers are missing from the MOE primary education teacher database. This would be the sum of all subsets “C”, across all Honduran primary schools. However, as we saw, only a few proportion of these teachers can be considered as “informal”. The rest seem to be formal teachers that are not properly registered in the database.

2.81. Informal teachers are not a major issue for public expenditure tracking surveys. They pose an accounting problem when “sources of funds” are being added up, but they do not represent a leakage; quite the contrary. Nevertheless, when the practice is widespread, it can pose a problem. For instance, if the formal appointment process acts as a quality control filter, then informally appointed teachers may reduce education quality. Same as informal arrangements where the titular is not the one teaching at the school but some other replacement that escapes the Ministry’s quality control. When present in large numbers as in the Honduran case, they may represent a hidden need for more teachers and a source of strong political pressure to increase the education payroll.

Teacher Absenteeism

2.82. In addition to ghost workers, teacher absenteeism is another source of potential salary leakage. Public expenditure tracking surveys sometimes assume that – unlike transfers of goods and money – salaries are not vulnerable to erosion in transit from the Central Government to the schools, as long as the Government pays the salaries directly and people are in their assigned positions. The reasoning is that unless there are “ghost employees” – cases where someone is purposefully inflating the payroll to swindle the Government – the salaries will reach real, active teachers and there is therefore no leakage. The implicit assumption is that this resource is therefore reaching the intended student beneficiaries. Yet salaries are in fact eroded when a public employee fails to fully deliver the services he is paid for. This section will look at the information provided by the survey to directors, teachers and parents on absenteeism. Given that the surveys are not representative at the national level, the information has been complemented with the evidence provided by MECOVI.

Evidence from the 2008 Survey

2.83. Survey-takers recorded the names and demographic data for all school personnel during school visits and interviews with the director. Sampled schools had between one and 58 teachers on staff, and between 14 and 1,175 students enrolled and attending. In all, the schools surveyed employed 1,198 teachers teaching 39,368 students.

2.84. Interviews with directors of department headquarters of the Ministry of Education indicate that their office is charged with receiving teacher complaints, and are also in charge of punishing or rewarding teachers who work within their department. When a complaint is lodged against a teacher by a parent or by the school principal, the department director generally relocates the teacher to another school or another community within the same department. They noted that it is very rare for a teacher to be fired. The firing of teachers is avoided in order to prevent problems with the teachers’ unions.

2.85. Table 12 reports school principals' answers to a number of questions related to teacher absenteeism. An overwhelming majority of the directors think that absenteeism is a major problem at the national level (90 percent). Yet, only 12 percent say that it is a problem in *their* school. Nine out of ten keep records of absenteeism and 84 percent record tardiness. Also, 79 percent of directors say that they feel they have sufficient administrative tools at their disposal to discourage absenteeism. When they are asked what would happen to teachers who are customarily late or absent, they mostly respond that a formal case would be brought against them and that they would have their pay docked or the teacher would be dismissed. Yet disciplinary action for absenteeism and tardiness appears to be extremely rare in Honduras. Though nearly all of them think it is a major problem nationally, only 6.5 percent of the directors say that they know of a teacher that was fired for these reasons in the last five years.

2.86. Districts are mandated by law to conduct periodic supervision visits to schools to verify teacher attendance and whether the proper registries are maintained. However, the reality is that districts do not have enough budget to conduct those supervisions. Only half of the schools reported having received a visit from the district during the previous year from the district or the department.

Table 12. School director opinions on teacher absenteeism

	Full Sample (161 Schools)	Básica Urbana (87 Schools)	Básica Rural (39 Schools)	PROHECO (35 Schools)
<i>Is teacher absenteeism a problem at the national level?</i>				
Yes	90.1%	92.0%	92.3%	82.9%
No	8.7%	8.0%	5.1%	14.3%
Don't know	1.2%	0.0%	2.6%	2.9%
<i>As director of this school, do you feel you have enough tools at your disposal to prevent teacher absenteeism and tardiness and to prepare their classes?</i>				
Yes	79.1%	82.7%	8.1%	-
No	13.9%	13.6%	11.1%	-
Don't know	7.0%	3.7%	14.8%	-
<i>In your opinion, is teacher absenteeism a problem in <u>this</u> school?</i>				
Yes	12.4%	16.1%	10.3%	5.7%
No	54.0%	73.6%	48.7%	11.4%
Doesn't apply (school has only one teacher)	28.6%	10.3%	41.0%	82.9%
<i>Do you know of any teacher who in the last five years was fired because of absenteeism, tardiness, not being prepared, or poor job performance?</i>				
Yes	6.5%	6.4%	4.3%	16.7%
No	93.5%	93.6%	95.7%	83.3%
<i>Do you keep a record book showing what days each teacher was absent and for what reasons?</i>				
Yes	91.3%	96.6%	97.4%	71.4%
No	8.1%	3.5%	2.6%	25.7%
Don't know	0.6%	0.0%	0.0%	2.9%
<i>Do you keep a record of what days each teacher was late?</i>				

Yes	83.9%	92.0%	87.2%	60.0%
No	15.5%	8.1%	12.8%	37.1%
Don't know	0.6%	0.0%	0.0%	2.9%
<i>Do you keep a record of what days each teacher leaves work early?</i>				
Yes	0.6%	0.0%	0.0%	2.9%
No	82.6%	88.5%	87.2%	62.9%
Don't know	16.8%	11.5%	12.8%	34.3%
<i>Do you keep a record of other teacher performance problems?</i>				
Yes	0.6%	0.0%	0.0%	2.9%
No	54.7%	60.9%	64.1%	28.6%
Don't know	44.7%	39.1%	35.9%	68.6%

2.87. The first column of Table 13 reports the annualized sample rate as well as its breakdown by school strata. The proportion of teachers observed absent on the day of the survey was multiplied by the total number of schooldays (180) to arrive at the annualized number of absence days. The PROHECO data show an absence rate of just 3.4 days per annum; one quarter of the global rate. However, this appears to be an anomaly of the sampling design that is not borne out by any of the three surveys (Table 13). Columns 2 through 4 report estimated absences for the year given by school directors, teachers, and parents.

2.88. According to school directors, surveyed teachers were absent for on average only 8.3 days in 2008 (Table 13, Column 2). PROHECO school directors²⁸ report a slightly higher absence rate, but there is not a large variation across school types.

Table 13. Teacher absenteeism: 2008 school days missed, by survey

	1	2	3	4
	Annualized Rate Based on Observed Survey Day Teacher Absences	Director Reports	Teacher Self-Reports	Parent Survey
All Survey Schools	14.0	8.3	13.7	12.2
Urban Traditional	14.8	8.2	14.9	11.6
Rural Traditional	11.3	9.0	12.8	14.5
PROHECO	3.4	9.5	7.7	10.2

2.89. In addition to asking the director about teacher absenteeism, the survey also independently verified the presence of every survey teacher on the day of the school visit. Of the total 1,172 teachers who were actively teaching classes, 91 were absent on the day of the survey (7.76 percent). There was a much higher rate among urban teachers (8.2 percent) than among rural ones (6.3 percent). PROHECO schools performed best in this regard with a 1.9 percent absence rate²⁹.

²⁸ Note that PROHECO schools are typically much smaller. In fact in many cases the "director" is the one and only teacher.

²⁹ There is a paradox here. MECOVI data show that children from better educated households are less likely to miss class days because of teacher absenteeism, yet the PETS data show *higher* teacher

2.90. Absent teachers were responsible for teaching 3,244 students, or about 8.2 percent of all students that were attending survey schools. Also, if survey days were randomly selected, then the observed absence rate of 7.76 percent is also the survey statistic for the average percentage of days missed out of the school year. If the school year lasts for 180 days, then the typical teacher is absent for 14 days out of the year. This calculation is shown as the first numerical entry in column 1 of Table 13. Estimates derived in a similar fashion imply 7.76 percent of the primary school teacher wage bill is lost to teacher absenteeism. On the basis of survey salary data, this would amount to more than USD \$19 million per annum³⁰.

Results from the Teacher Survey

2.91. The teacher survey covered 425 teachers from the 161 schools. Teachers were asked about their own absenteeism. In all, 16.2 percent of the teachers reported that they had been absent at least one day during the week prior to the survey. The rate was lowest among urban teachers (13.6 percent). A significantly higher proportion of teachers in rural traditional schools (18.1 percent) reported being absent and over one in four (30.1 percent) of PROHECO teachers had missed one or more days during the previous week³¹.

2.92. Table 13, column 3, reports the total number of school days that teachers say they missed in the 2008 school year. It is interesting to note that the total number of school days missed – as reported by the teachers themselves – adds up to 13.7 days per year. This is almost precisely the estimate derived in the previous section (13.4 days) by multiplying the percentage of teachers absent on the survey day, multiplied by the number of days in the school year³². The breakdown by school types in column 3 shows the *highest* yearly absences at traditional urban schools – nearly 15 days. PROHECO teachers report about half as many.

2.93. Table 14 shows the self-reported teacher absences, by motive, for the 2008 school year. The main reason teachers reported for being absent was teacher strikes. These cost an average of nearly six school days per year, or just under half of all self-reported teacher absences. Other main motives are teacher illness and family member illness. Rural teachers report that it is costly for them to conduct official school business. This accounted for just over three absent days per teacher, per year in both traditional and PROHECO schools. In urban areas, where schools are larger and have specialized administrative staff, and Ministry of Education offices are closer, official school business took up less than half the number of class days.

absenteeism in urban areas where most of the better educated parents live. The paradox is resolved by understanding that the PETS ratios shown are bi-variate comparison and that the two results jointly imply a much higher inequality of absence incidence in the urban areas.

³⁰ Based on an exchange rate of Lps. 19 per USD. Following Honduran custom this figure also assumes the payment of 14 monthly salaries per year.

³¹ When self-reported absence rates for the week prior to the survey are annualized, they result in annual rates that are two to three times higher than the annual estimates provided by the teachers. This could indicate that teachers are under-reporting their annual days absent. However, when this is done for the parent survey, annualized rates based on the week prior to the survey are also much higher. This suggests that the week prior to the survey – which came near the end of the school year – was not a typical week; it was not representative of the whole school year.

³² The PETS survey was taken in September, near the end of the school year.

Table 14. Teacher absences (days), during 2008 School year

MOTIVE		Self-Reported
1.	Strikes	5.84
2.	Teacher illness	3.31
3.	Family member illness	1.04
4.	Official school business	2.11
5.	To get paid	0.37
6.	Lacked transportation	0.12
7.	Bad weather	0.38
8.	The route to school was impassible	0.16
9.	Other reasons	0.49
TOTAL		13.74

Results from Parent Survey

2.94. It is generally believed that parents will act as whistleblowers and that if they are empowered they will enforce teacher attendance by reporting absences or even penalizing teachers that miss class (King and Ozler, 2001, or Banerjee and Duflo, 2006). It is expected that parent-reported teacher absence rates will be higher than the “official” rate. An interesting result in the surveys is that they report fewer overall absences than the teachers themselves³³. Parents report that teachers missed an average of 12.2 days of class as compared to the 13.7 days reported by teachers. Only in the rural schools – whether traditional or PROHECO – are parent-reported rates somewhat higher.

Evidence from MECOVI.

2.95. The MECOVI data confirms that overall, absenteeism in primary education is significant. Nearly one out of every four (24.8 percent) students in grades 1-9 missed at least one day of school in the previous week. The major reason was personal illness (22.9 percent), but teacher absence was the second most common reason and it was nearly as prevalent a cause (21.5 percent) as student illness. In all, about seven percent of the students missed class during the previous week because of teacher absences.

³³ See for instance Chaudhury, *et al.* (2006)

Table 15. Determinants of the probability that the teacher was absent for at least one day during the week prior to the survey. (MECOVI 2004)

Dependent Variable: Teacher Absent	Marginal Effect: dF/dx	Z- Score
Age	-0.0031	-1.69
Grade	0.0031	1.27
Log of family income	-0.0084	-2.7
Female	-0.0091	-1.26
Age of head of household	-0.00018	-0.68
Mother's years of schooling	-0.0023	-2.05
PROHECO school	0.0260	1.8
Multi-grade school	0.0890	7.03
San Pedro Sula	0.0640	2.87
Medium size urban	0.1300	4.54
Small urban	0.1100	4.23
Rural	0.1100	5.69

2.96. Table 15 shows the results of a Probit model of teacher absenteeism. The dependent variable takes on a value of one, if the student reports that his/her teacher was absent for at least one day during the week prior to the survey, and zero otherwise. Higher income students are less likely to suffer from absenteeism. The probability of an absence falls by just under one percent for a one percent increase in total household income.

2.97. Children from better-educated households are less likely to have missed class because of teacher absence. The likelihood of a teacher absence increases significantly with the remoteness of the area³⁴ and when the school is a multi-grade school. Of course, these are average numbers that hide very important distributional issues. The vast majority (93%) of Honduran primary students in the MECOVI survey reported no teacher absences in the week before the survey. This means that for a small number of students, absenteeism is a very large problem. In any given week, 7% of the primary school students miss nearly half of their class days (2.4 days) because of absenteeism. Also, absenteeism is concentrated in remote areas among the schools attended by the children of poor and uneducated parents.

2.98. This inequality in the distribution of absenteeism in Honduras was corroborated by the survey data. School principals in our data show that 8.7 school days are missed on average.³⁵ However 30% of the teachers are absent for 10 or more days, and 11% of the teachers are absent for at least 20 days. Teachers in the PETS teacher sample report an average of about 14 days missed per year, but nearly 80% of the teachers report more than 3 days, 62% say they missed 10 or more, and 20% missed 20 or more days. The parent survey indicates about school days that were missed in 2008 because of teacher

³⁴ The omitted category is Tegucigalpa and surrounding areas.

³⁵ Teacher contracts allow for a maximum of 3 unexcused absences per year.

absences, with 70% of students missing more than 3 days, 47.5% missing 10 or more days, and 23% missing 20 days or more.³⁶

THE “*MATRÍCULA GRATIS*” TRANSFER PROGRAM

2.99. The *Matrícula Gratis* (MG) cash transfer program arose to obviate the need for schools to collect fees from the parents. MG capitation grants are meant to be sufficient for schools to take care of their routine operating expenditures. The transfer mechanism is straightforward and simple on paper. Every school should report their initial enrollment data to the district and open a bank account in a “*Banco Atlantida*” bank branch. They are then entitled to 100 Lempiras per student enrolled in grades 1 through 6 and to 150 Lps per student in grades 7 to 9. The Ministry of Education transfers the MG in three trimester installments by depositing the money directly into the school bank account. Expenditures from the account must be signed by both the school director and a representative of the Parent/Teacher Associations (PTA). The district director serves as an advisor on how to spend and account for MG funds. Department headquarters receive consolidated expenditure reports from the districts. According to these reports, most of the funds are spent on minor school repairs, on teaching materials and on cleaning.

2.100. In 2007, cash transfers were only paid for first grade enrollments. By 2008 they were paid for all grades. Ministry of Education databases record total transfers of 257.4 million Lempiras in 2008 (USD \$13.3 million)³⁷.

2.101. Department directors of education gave a fairly positive review of this cash transfer program. In their view, most schools are receiving the transfers, but directors report that some schools allege that they are recorded as receiving these funds when in reality they do not. They did mention that because funds are only distributed through the “*Banco Atlántida*” bank, delays can arise when there is no bank branch near the school. Yet the directors claim that by the end of the year all of the schools on the list receive their allotted transfers. The four department headquarters interviewed reported a total of only 20 schools that did not receive the transfers on time.

2.102. All three surveys contain information on the *Matrícula Gratis* capitation grants. This is a standard “triangulation” approach that makes it possible to compare data on grants received, as reported by school directors with the impressions of teachers and parents.

2.103. The surveys also provide information about how the funds were spent and about who is involved in deciding how to spend them. The impressions of school directors can be compared with answers from teacher and student family surveys as they include questions that will reveal awareness of these funds and involvement in how they are spent.

³⁶ Note that each of the samples employs a different universe. The school sample statistics are based on all teachers in the 161 schools surveyed, the teacher sample is based on the 435 teachers in those schools that were selected for interviews, and the parent sample is based on 740 students enrolled in classes taught by the teachers included in the teacher survey.

³⁷ The average exchange rate for 2008 was HNL 19.39=USD \$1.00.

2.104. An important innovation in our survey design was to also collect school identification numbers and Central Government school-level records on capitation grant expenditures. These can be used to compare central government expenditure records with school-level reports of what has been received.

2.105. One third of school directors reported that their schools did not receive an MG capitation grant in 2008. This was supported by separate interviews of teachers from those schools and in parent interviews. One important reason for low MG coverage is that PROHECO schools exist in a separate regime that does not automatically give them access to the MG subsidy program; however does it not automatically exclude them either. The mechanism for inclusion or exclusion of PROHECO schools is not clear. About one in eight PROHECO schools in our sample reports receiving MG transfers. Traditional urban schools were the most likely to receive cash transfers from the Central Government (86 percent), followed by traditional rural schools (74 percent) and PROHECO schools (11 percent). These numbers were in very close accordance with reports from teachers from those schools (90 percent, 76 percent and nine percent, respectively)³⁸.

2.106. The MG design calls for grants to be distributed on the basis of total student enrollment. Schools are to receive 100 Lps per student enrolled in grades 1 through 6³⁹. Yet the survey suggests that the actual amount received by a school varies greatly. Among the 97 schools that reported grants and also recorded valid amounts, the mean MG was 109.5 Lps per enrolled student, but the range extended from 20 to 1,269 Lps per student. The urban basic education schools that received MG had slightly higher average receipts at (111 Lps) compared to the other two types of school (105).

2.107. Two thirds of the schools sampled in 2008 received MG. For them this cash transfer amounted to about 67 percent of all cash revenues they raised. Their average total cash income was 54,536 Lps with MG revenues of 30,636 Lps. Schools that did not receive any MG transfers raised an average of 4,445 Lps, only eight percent of the total available to MG schools.

2.108. Total school cash income per student averaged 182.5 Lempiras/student. This number also varied greatly. Just over one tenth of the schools in the sample (17) reported no income from any source. Among those schools that did report positive cash income, the mean amount was 204 Lempiras per student. Oddly by this measure, it is the urban schools that are faring worse. With 187 Lempiras per enrolled student, they lagged behind PROHECO schools (204) and traditional rural schools (246 Lempiras/student). Thus, though 89 percent of PROHECO schools received no MG transfers from the Central Government, they nevertheless appear to have more cash resources at their disposal. At the time of the survey, the average PROHECO school had a cash reserve (banked or held privately) of over 81 Lempiras/student, compared to 27 Lempiras/student for the traditional urban schools, and 32 Lempiras/student for the rural ones. PROHECO schools are clearly much more financially “independent”. However, it seems odd for a school modality that targets the poorest areas in the country, to be

³⁸ These unweighted averages reflect the fact that more teachers were surveyed from the larger schools, and that larger schools were more likely to be receiving the MG.

³⁹ Schools with *básica* students in grades 7-9 receive 150 Lempiras per student in those grades. The PETS sample is overwhelmingly of primary schools (93%). None of the PROHECO and only four of the traditional schools go up to grade 9.

raising more of its funds from school activities such as lotteries, auctions, and sales, that ultimately tax the parents and their community.

2.109. The large share of fees charged to the parents in total school cash income is a troublesome aspect of Honduran public school cash finance generally. The purpose of the MG is precisely to obviate the need for parental fees. Of 143 schools reporting some cash income, parent fees accounted for 12.1 percent of total school revenues⁴⁰. When funds raised through activities such as lotteries, auctions and sales are added, the proportion rises to nearly one third of all school funds (31.6 percent). The breakdown by school type is even more revealing. The proportion coming from parent tuition and fees for special activities was 10.1 percent (20.7 percent) for traditional urban schools, 12.6 percent (32.0 percent) for rural schools, and 17.6 percent (63.9 percent) for PROHECO. Once again, there is wide systemic variability. The fees charged to parents were, on average, not onerous. The schools that raised money this way took in an average of 68 Lempiras (81 Lempiras) per student. However about one in ten schools charged well over 300 Lempiras per student.

Verification of Sample MG Results with Ministry Data

2.110. An important innovation in this survey design was to also collect school identification numbers and Central Government school-level records on capitation grant expenditures. They can be used to compare central government records of what was spent, with school-level reports of what was received. The Ministry of Education MG database records some 12,000 Honduran schools. Among these, approximately five percent (589) recorded a zero amount for the MG transfer in 2008. In addition, it would appear that their records are not complete. Other Ministry databases – such as those for initial enrollment, year-end enrollment, and national testing results – record many schools that do not appear in the MG database⁴¹. If we accept the subsample of traditional (non-PROHECO) schools as a random, representative sample of the system as a whole, then about 12 percent of Honduran public schools have been left out of the MG monitoring system. When we add the five percent of schools that *are* recorded in the system, but received zero transfers in 2008, then this would imply that about 17 percent of the traditional, non-PROHECO schools that are entitled to receive MG transfers did not actually receive one in 2008. Interestingly, this is almost precisely the proportion of traditional schools in the sample (17.7 percent) that report no MG transfers for 2008.

2.111. There were 126 traditional schools in the sample. All but two of them (124) answered whether or not they had received MG funds (102 said that they *had*) and 117 directors were able to report the amount of MG transfers that they had received in 2008 (including 22 zero values). We were able to “find” 111 of these schools in the MG database. Overall, the MG and survey sample databases overlap with valid data in 102 out of the 126 cases⁴². This made it possible to identify the amount of money that

⁴⁰ There were three types of fees, namely yearly registration, regular monthly fees and “extraordinary” fees charged for such things as repairs and equipment purchases.

⁴¹ It is not an easy task to match the MG and enrollment databases, as different codes are used to identify schools in each of the bases. Straightening out the Ministry’s databases is beyond the scope of the present study.

⁴² Of the 24 excluded cases, there were:

official records show was transferred to each of those schools, and compare it to the amount of money that the school directors report having received.

2.112. Ministry of Education MG records report transfers to schools that exceed the amount that schools reported receiving by 7.4 percent. If this proportion is representative of the educational system as a whole, it amounts to over 19 million Lempiras (about USD \$1 million) in 2008.

2.113. Of the 102 traditional school cases with valid data, only 18 schools (17.5 percent) reported receiving the same amount that the Ministry says was paid to them. There are 22 schools (21.6 percent) that report having received *more* MG funds than shown in the Ministry data. The excess amounts average 70 percent of what is reported in the Ministry data for these schools and ranges from 100 to 112,000 Lempiras⁴³.

Table 16. Uses of MG funds (% of MG recipients reporting use)

ITEM	%
Transporting PMA food for school lunches	64.6%
Items for common use (e.g. light bulbs)	52.2%
Repairs	46.0%
Classroom materials (e.g. paper, pencils, chalk)	39.4%
New construction	36.0%
Teaching materials (e.g. posters, books, dictionaries)	32.3%
Watchman	22.4%
Cleaning personnel	21.7%
Classroom equipment (e.g. blackboards, projectors)	16.9%
Furniture	14.3%
Office equipment (excluding computers)	11.2%
Computers	3.8%
Rent paid on school building	0.0%

2.114. In an additional 62 cases (61 percent) the transfer reported by the Ministry reports is *more* than what that school reports having received. The average discrepancy was 10,805 Lempiras, or about 37 percent of the amount that the Ministry says was transferred. The *amount* of these shortfalls between what the Ministry reports transferring and what the schools say they received ranged from 100 to 109,725 Lempiras.

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- i) Four schools where directors reported (sometimes large) positive amounts and MG showed either zero (2) or no data (2);
 - ii) Eleven schools that reported no MG and were missing from the MG database;
 - iii) Two schools that reported receiving MG, but could not say how much and were missing from MG database; and
 - iv) Seven schools that reported receiving MG and *are* recorded in the MG database with positive amounts.

⁴³ In the 112,000 Lempira case, the MG database shows zero transfers for 2008.

Use and Management of Funds

2.115. None of the schools pay rent on the buildings that house them. The schools' cash funds were used for operating expenses that are to be expected, including items for common use, minor purchases and repairs, classroom and teaching materials, and cleaning. However the most common use of funds is transporting PMA school lunch supplies from district warehouses to the school. Two thirds of the schools spent an average of 1,274 Lempiras apiece in 2008, to transport PMA food, with the amount ranging from 60 to 7,680 Lempiras. This appears to be a case of “what one hand gives, the other takes away”. The PMA program and the MG were instituted at roughly the same time. We must wonder if this link between the two programs was intended in the design of the PMA program, and also whether food delivery was contemplated as the main use of the MG transfers.

Table 17. School management of funds

Who is in charge of accounting for school expenditures and income? <i>(All Schools)</i>				
	Full Sample: 161 Schools	Básica Urbana: 87 Schools	Básica Rural: 39 Schools	PROHECO: 35 Schools
Director by him/herself	25.8%	21.8%	50.0%	8.3%
Treasurer or other designated person	32.7%	49.4%	15.8%	5.6%
Someone else hired by the school	0.6%	1.1%	0.0%	0.0%
PTA	25.8%	14.9%	26.3%	50.0%
Other	15.1%	12.6%	7.9%	36.1%
In those schools that received <i>Matrícula Gratis</i> money, who decides how to spend it? <i>(MG schools only)</i>				
Director, teachers and PTA	46.9%	50.6%	40.0%	25.0%
Director with the PTA	27.4%	21.5%	40.0%	50.0%
Director by him/herself	14.2%	15.2%	13.3%	0.0%
Teachers	8.0%	11.4%	0.0%	0.0%
PTA	3.5%	1.3%	6.7%	25.0%

2.116. Another important issue is who decides how to spend the school funds. The school surveys show that the director, or a person appointed by the director, plays an overwhelming role (58 percent). There is much more centralized decision-making in the traditional schools than in PROHECO schools. In nearly half of the larger urban schools there is a specially designated person to do the bookkeeping and PTAs have relatively little involvement. In the traditional – but usually smaller – rural schools, specialization is less common and so the director takes on the responsibility.

2.117. The different structure of PROHECO schools is evident. Directors report that the PTA is involved in deciding how to spend general funds in half of the schools. Also, 25 percent of the 36.1 percent “Other” in PROHECO schools is represented by the AECO president or “*Promotor*”.

2.118. When asked particularly how MG funds are spent, school directors responded that either they alone are responsible for allocation of funds (14.2 percent), or together with the PTA (27.4 percent) or with the PTA and teachers (46.9 percent). The informal impression of interviewers who came back from the field, was that the director generally has full control over how the MG funds are spent. The PROHECO sample with MG funding (four schools) is too small to draw any meaningful inferences about how the fund transfer program might affect the role of parents within the school. The existence of other sources of cash revenue makes MG funds fungible. In this regard, detailed accounting of MG expenditures is basically meaningless.

2.119. Student family surveys reinforce the conclusion that parental involvement with MG spending is minimal. One in ten parents said that their child's school did not receive MG funds. Another 20 percent said that they did not know if the school received the funds or not. Finally, two thirds of the parents said that they believed that their child's school *did* receive MG funds, but that they had no idea how much was received. This leaves less than 10 percent who say they know how much the school receives.

2.120. Nearly half (48 percent) of the parents who said their school did receive MG funds in 2008 said that the director was the only person involved in deciding how to use the money. Only 25 percent believed that the PTA played a significant role.

MG Transfer Summary

2.121. The MG transfer mechanism looks simple – almost automatic in fact, on paper – but it is apparently not. It is suggested that the paperwork required to qualify for these funds is still sufficiently onerous to make smaller schools opt out. The paperwork is the same, regardless of school size, and yet the MG payment depends on total enrollment. Therefore smaller schools will be more likely to find that it is not worth the trouble. When the schools do receive MG funds, the school director generally decides how to spend the money with very little input from the parents.

2.122. Survey data show that the average enrollment of traditional schools reporting no MG funds in 2008 was 147 students. This compares to 341 students in the schools that *did* receive the transfer. However school size is not the only issue. There were seven schools with more than 100 students that did not receive MG funds. On average, they lost over 36,000 Lempiras apiece.

2.123. PROHECO schools are almost entirely excluded from the MG transfer system and therefore continue to rely on funds raised from parents by various means. However, here too, the system is neither clear nor transparent; some PROHECO schools are tapping into MG funds.

2.124. The most troublesome aspect of the MG transfer data that has been analyzed here is the pervasive absence of accurate record keeping by the Ministry. The system design is simple and good records should be easy to maintain. Transfers depend on enrollment figures, yet the Ministry enrollment files show data for a large number of schools that are not in MG files. Also, some schools in the sample report receiving MG money even though they are entirely absent from these MG files.

2.125. The survey found few surprises on the expenditure side⁴⁴. The cost of retrieving food from district warehouses is potentially a cause for concern. This is an important line item in the school's cash expenditure budgets. Since the school lunch program was established at about the same time as the MG, it is not clear whether this cost was anticipated. School expenditure decisions are generally very centralized in the director's office, with relatively little participation from parents or teachers, unless the director has officially appointed one of them as "treasurer". Directors of PROHECO schools report more PTA participation, but even here there appears to be parental participation in only about half of them. In any case only four of the PROHECO schools in the sample received MG transfers.

THE FLOW OF TEXTBOOKS

2.126. Honduran public primary schools currently distribute textbooks and workbooks in four key subject areas for all six grades: mathematics, language, natural sciences and social studies. Book distribution is based on school enrollment data. In principle the textbook distribution system follows the same simple design used for the distribution of MG transfers and PMA food allotments. The first time a particular text is distributed, it should in fact be identical. Secondary distributions are made somewhat more complex by the fact that books can take more than one year to depreciate. If a school received shipments in previous years, it can accumulate stocks of books over time and may need fewer books than its enrollment data would indicate. This imposes the additional need to record textbook stocks and then to report yearly requirements for older textbooks independently of enrollment data.

2.127. Textbook publishers are contracted through a competitive bidding process and many different publishers have been used, including many overseas companies. Once printed, books are sent from central distribution points and unloaded in department headquarters offices. They are transported on trucks hired (through competitive bidding) by the department office and paid for with funds from EFA ("Education for All") to the districts.

2.128. Table 18 below, reproduces the book distribution system as outlined in a recent Ministry report that describes the process used for mathematics texts in 2008⁴⁵. What is most notable in the data is the fact that there is no provision for feedback from the schools. In fact, the 26-page accompanying report makes no mention of initial enrollment data or of any mechanism through which the Central Government becomes aware of individual school needs. What is needed is a fairly simple, spreadsheet, database that lists all of the public schools and has no more than about 20 columns. These should include their location and contact information, enrollment by grade, and the number of books that were delivered to the school. For *re*-distribution of texts, the file might also have a column containing the number of usable books in stock at the end of the previous school year⁴⁶. Despite repeated requests, we were not able to obtain a

⁴⁴ It was also noted off the record that the MG funds are often used to buy lunch for the teachers and director.

⁴⁵ Author's translation. See Baca-Oliva (2008) for Spanish language original.

⁴⁶ This presumes a mechanism for schools to provide that information to the Ministry. An alternative would be to survey a sample of schools, estimate the survival rate of each textbook, and then automatically send that proportion of replacements unless a school explicitly requests a different number.

central database that links textbook distribution to individual school enrollment or stocks of books. We must conclude that this file does not exist, and that is necessary that this instrument is designed. In addition, it is necessary that the Secretary of Education requests information from schools regarding initial and final enrollment data, in order to be able to have accurate information on the number of public schools.

Table 18. Ministry of Education 2008 mathematics textbook distribution strategy

	Activity	Responsible Parties
1.	Identify 18 department-level warehouses	1.1. Department education directors
2.	Train textbook distribution personnel	2.1. INICE personnel (technical liaisons) – national coordinators. 2.2. Members of the department education offices' UTP (technical and pedagogical Unit) – Department coordinators
3.	Develop distribution budget	3.1. Department coordinators 3.2. INICE personnel (administrative unit)
4.	Distribute texts to the 18 department warehouses	4.1. National coordinators 4.2. Department coordinators
5.	Contract services for the distribution of textbooks to counties	5.1. National coordinators 5.2. Department coordinators
6.	Distribute textbooks to all of the county head offices	6.1. Contracted transportation services
7.	Hand over texts to persons designated by each school (school principals, teachers, or parents) at the counties' warehouses	7.1. County coordinators 7.2. School representatives
8.	Deliver administrative documentation from each county to department coordinator. Department coordinators deliver these to the national coordinator.	8.1. County coordinators and department coordinators 8.2. National coordinators

2.129. According to Baca-Oliva (2008), 1,557,300 mathematics texts for grades 1-6 were printed in 2008 and delivered to department warehouses between June 11 and June 18 of that year. The 18 department agencies hired a total of 81 transportation services to deliver 1,514,660 math texts to 330 local warehouses⁴⁷. These official records go on to show that 11,048 *básica* schools⁴⁸ received texts, out of which 6,219 (56.3 percent) received reimbursement for transportation costs. A total of 1,158 (10.5 percent) of these schools were “supervised” to verify textbook delivery.

2.130. An obvious problem with this exercise is the fact that the Honduran school year began on February 10, 2008. The delivery process was completed on July 4, 2008, nearly five months later.

2.131. The Baca-Oliva report does *not* mention anything about the number of books delivered in relation to the number that were needed by each school.

⁴⁷ 42,640 math texts “remained in various state warehouses”.

⁴⁸ Unfortunately, there is no solid information on the exact number of public schools in Honduras. Official records vary from file to file. The most commonly used “*matricula inicial*” file only records the schools that voluntarily reported initial enrollment data; this is surely an underestimate of the total. That file shows 11,217 primary schools enrolling a total of 1,334,851 students.

Survey Data on Textbook distribution

2.132. All three surveys gathered information on textbook availability. The surveys were conducted in September of 2008, well after all textbooks were distributed for the year. School questionnaires gathered detailed information on enrollments and on 2008 flows, as well as total stocks of textbooks by subject (math, science, natural science, and Spanish) and by grade (1st through 9th). Teacher questionnaires asked about book availability, by subject and grade, and the student family questionnaire asked parents if their child had use of a textbook (also by subject and grade). This section will compare these reports of textbook availability and use generally, and also by subject matter, across the surveys.

2.133. Table 19 shows the percentage of schools that reported receiving textbooks throughout the 2008 academic year and also the stock of textbooks schools have at the end of the year, by grade and by subject. The flow of textbooks was fairly even across grades, but there appeared to be a greater effort to increase coverage in the lower three grades and especially in 1st grade. About one third of the schools received Spanish language textbooks. Between two and three times as many schools received math and science books. By the end of the year, about two thirds of the schools sampled had language books in stock and approximately 80 percent had math, science, and social science texts.

Table 19. Textbook flow and stock

	Received textbooks this year (%)			
GRADE	Spanish	Math	Natural Sciences	Social Studies
1	35.4%	81.4%	82.0%	77.0%
2	33.5%	80.1%	80.7%	76.4%
3	33.5%	80.7%	80.1%	76.4%
4	32.3%	78.3%	77.6%	73.3%
5	33.5%	80.1%	77.6%	71.4%
6	29.2%	77.6%	76.4%	70.2%
	Had texts in stock by year's end (% , September 2008)			
GRADE	Spanish	Math	Natural Sciences	Social Studies
1	70.2%	83.9%	85.7%	83.9%
2	65.2%	83.9%	85.7%	82.0%
3	68.9%	82.0%	84.5%	80.7%
4	68.3%	83.2%	83.9%	78.9%
5	66.5%	80.1%	82.6%	77.6%
6	61.5%	79.5%	81.4%	76.4%

2.134. Note that, though mathematics book coverage is one of the highest, about one in five school principals say they did not get any that year. Teacher surveys also indicate that there is a problem with textbook coverage. Table 20 shows the results disaggregated by school type. Teachers report more book shortages in Spanish than in the other subjects. For the full sample, the typical teacher reports needing 14 more language texts, five more math books, seven more science, and nine more social science books. The 3-to-1 language to math book shortage approximately holds across all three school types.

2.135. It is one thing to have or not have books and another to have the right number of books. This distinction draws attention to the accuracy of the textbook distribution system. If the country simply cannot afford to print one book per student, then we should either find that all schools have books – but not enough for one book per student, or that some schools have books and others do not. Textbook coverage then becomes an economic issue and perhaps a financial issue too. If a significant number of schools are found to have *more* than one book per student while others have less or none at all, then the “shortage” is really a textbook distribution issue.

Table 20. Number of additional textbooks teachers needed, by school type (Teacher survey)

	Spanish	Math	Natural Science	Social Science
Full Sample	14	5	7	9
Urban Traditional	16	6	8	11
Rural Traditional	11	5	6	7
PROHECO	6	2	5	5

2.136. The stock of books in each school was divided by the total enrollment reported by the school. Schools were classified as “OK” if the book to student ratio was within 10 percent of one book per student. The results were then used to classify schools into one of four categories. Schools either: (i) have no books at all and received none during the year; (ii) had some books, but were missing 10 percent or more; (iii) were “OK”; or (iv) had too many by 10 percent or more.

2.137. The distribution of books was “OK” in only six to 12 percent of the sample, depending on subject matter. Nearly a third (31 percent) of the schools had no language textbooks and about one in ten had none of the other books either.

Table 21. Percentage of textbooks per student according to school director survey, by school type

	Spanish	Math	Natural Science	Social Science
Had no books and received none	31%	9%	11%	13%
Missing 10% or more	3%	2%	2%	0%
OK	12%	6%	8%	8%
Too many by 10% or more	54%	83%	78%	79%

2.138. The third set of surveys – the parent surveys – also asked about textbook coverage. Approximately 10 percent of the parents reported that their son or daughter did not have books in any of the four major subject areas.

2.139. It is very troublesome in this environment of scarcity to find that over half of the schools had too many Spanish language books and 80 percent had too many of the other books. Textbook coverage in grades 1 through 6 in Honduras *is* a distributional issue; a major reason why not all Honduran children have textbooks is that their book went to the wrong school.

SCHOOL LUNCH PROGRAM (“*MERIENDA ESCOLAR*”)

2.140. The World Food Program (PMA) administers a school lunch program that is meant to cover all public primary schools in Honduras. The *Merienda Escolar* program is largely paid for by the Ministry of Education, while the PMA is in charge of distribution. The design on paper is, once again, straightforward and relies heavily on school enrollment data. The school reports that “N” students are enrolled to the district office and then awaits quarterly food rations. The district office collects district-wide data in a single file and forwards it to the department representative of the Ministry of Education, where they are consolidated to the department level and sent on to the Ministry’s central offices. The enrollment database is provided to the PMA. School-level rations are calculated and bundled. The PMA ships bundles back to the district office. The district contacts the school and lets the director know that the food has arrived. The director arranges to have the food picked up, usually with parental involvement and often pays to transport the food from the district to the school.

2.141. The food is distributed four times a year in equal installments. PMA rations consist of (white) corn, rice, beans, and a high-protein soy/cereal flour known as “CSB”. For a school with “N” students recorded in the enrollment database, rations are calculated according to the following formulae:

- i) Corn: $0.132\text{kg} \times N$
- ii) Rice: $0.066\text{kg} \times N$
- iii) Beans: $0.066\text{kg} \times N$
- iv) CSB: $0.022\text{kg} \times N$

2.142. The relationship between the PMA and department education headquarters is formally limited to reports on the quantity of food distributed to the department offices. Yet the department headquarters also consolidate enrollment data that serves as the basis for distributing food and textbooks. Also, since department headquarter offices are charged with receiving complaints pertaining to the dispensing of food and books, it is they who train district directors in how to distribute food and books. When interviewed, district directors claimed that there are few distributional problems. They said that parent oversight is effective and that the problems that do arise more frequently include the theft of food and political pressure to alter distributions. They also reported that food distribution is actually easier in rural areas because rural parents can organize to cook it more easily. In urban areas PTA organization for this purpose is more difficult and food is only distributed to those schools where the parents are organized to receive it.

2.143. The school survey contains questions on flows to the school, and stocks at the school of beans, rice, high-protein meal (“CSB”) and cooking oil. All three surveys also contain questions on the timeliness and efficiency of WFO food distribution. These will be used to establish coverage and perceptions of sufficiency and waste.

2.144. All three surveys (school director, teacher, and parent) asked about the existence, timeliness, and sufficiency of PMA food at each school. Roughly 93 percent of the directors reported that their schools had received PMA food in 2008 (Table 22).

Table 22. Schools that receive PMA food by school type (2008)

School Type	Yes	No	Total
<i>Básica Urbana</i>	89.7	10.3	100
<i>Básica Rural</i>	94.9	5.1	100
PROHECO	97.1	2.9	100
Total	92.6	7.5	100

2.145. It would be reasonable to expect that PMA food coverage would be highest among the traditional urban schools where delivery is probably much easier, and that in the remote PROHECO schools it would be lowest. In fact, the opposite turns out to be true. Table 22 shows that coverage is nearly complete in the PROHECO schools, while more than 10 percent of urban schools do not receive food. Interviews with 385 teachers and parents corroborated these results with almost identical results. Nearly 91 percent of the teachers and 89.4 percent of parents reported that their child's school provided a "*merienda escolar*".

2.146. Among the schools that did receive food, 82.6 percent reported that the food allotments arrived on time. Also, 83.2 percent had received food in the fourth and final shipment of the year. There was no variation by type of food. That is to say, if a school received beans, they also got corn, oil, rice, and CSB.

2.147. The survey was conducted in September, during the last month of the school year with a few more weeks to go. At that time, the participating schools that reported having food in stock, reported beans (28.6 percent), rice (28.6 percent), CSB (29.8 percent), oil (29.8 percent) and corn (31.7 percent). That is, over two thirds of the schools had run out of food. Also, about half of the schools (53 percent) reported instances where food stocks were exhausted before the arrival of the next shipment. During the month prior to the survey, the average school spent 4.7 days without food and over a third of the schools (36 percent) were without food for five days or more.

2.148. In parental surveys, 60 percent reported that the food sometimes runs out before new shipments arrive. On average, parents reported that their children went without a school lunch for 6.1 days in the month prior to the survey, because the school had run out. Unequal distribution is again key to understanding the Honduran educational system. Nearly half (48.6 percent) of the parents said that there had been no missing food days, but among the parents whose children *did* go without food, the average duration was for more than half the month. Interestingly, only 11.5 percent said that a parents group was in charge. Also, just 22 percent knew that the PMA administers their lunch program; 58.9 percent were under the impression that it was run by some other non-religious NGO.

2.149. Schools do not appear to be running out of food because of post-shipment losses. Directors estimated that the average total loss due to pests, water damage, waste, and theft amounted to a mere 2.5 percent of their shipment. In fact 73 percent reported no losses at all. The problem then, is either that the food is badly managed at the school level (e.g., too much is cooked in the first days after shipments arrive), or that they are not receiving enough food in the first place. Interviews in schools that received PMA food asked 340 teachers to rate their director's management of the food stocks on a 0 to 10 scale. The average score was 9.03. Preliminary examinations of the PMA data suggest the second cause is the most likely.

PARENTAL INVOLVEMENT

2.150. Parents were generally very satisfied with the public school attended by their child. The overall satisfaction level was 84.4 out of a possible 100. They were generally very satisfied with the human element of their school and less pleased by the quality of the physical infrastructure. Over 97 percent of parents said they were generally happy with their child's teacher. If given the choice between keeping their current teacher and bringing in a new one, over 90 percent said that they would rather keep the one they have. They most often report that the teacher meets with all of the parents about once a month, although 12 percent meet more frequently and five percent meet less frequently. Over 97 percent of the parents felt that if they ran into her outside of school, the teacher would recognize them. In fact, the average parent said that she/he talked to the teacher about twice a week and 98 percent of them feel that they are treated with respect. They also overwhelmingly believe that the teacher makes good use of class time (95 percent) and that she seldom arrives late or dismisses the class early.

Table 23. Parent rating of their child's public school (%)

Variable	Full Sample	Urban	Rural	PROHECO
Physical infrastructure	73.3	76.0	71.3	63.4
Security	70.0	73.2	65.8	60.9
Discipline	75.2	78.0	70.4	69.5
Classroom furniture	65.5	67.0	64.0	60.5
Sports facilities	70.4	73.5	57.5	33.1
Socioeconomic level of the other students	50.4	53.5	46.8	40.4
How much the children learn at school	78.9	81.5	75.8	71.0
The bathrooms	62.1	63.3	60.7	55.5
Your overall satisfaction with the school	84.4	85.6	83.8	79.3

Note: Only 10 percent of PROHECO parents evaluated sports facilities. The rest had none.

2.151. They generally also hold the school directors in high esteem. Four fifths of the parents rated their director as good (63 percent) or excellent (18 percent). One in eight (12.5 percent) felt the director was simply average while only two percent thought that he was bad or very bad (one percent).

2.152. Table 23 shows that they did not rank the school infrastructure quite as highly. Classroom furniture, bathrooms, and sports facilities received the lowest overall scores. PROHECO school parents tended to be especially dissatisfied with the physical attributes of their schools. This is probably why they give lower overall rankings to their school even though they rank the teacher quite highly.

2.153. Finally, there is also some evidence of parental concern with security at the schools. This is supported by reports from the teachers. About one quarter of them report that they have been assaulted while going to and/or from the school.

Parental Involvement in School Governance

2.154. The parent sample is actually composed of two samples. Of the 933 parents interviewed, 269 were intentionally targeted PTA "officers". This "Parents-I"

subsample is composed of parents who occupy prominent positions in the PTA – whether or not their child was in one of the teacher sample classrooms. At least one PTA “officer” was chosen for 160 of the 161 schools in the sample. The remaining 667 parents make up the “Parents-II” subsample. They were selected from teacher classroom student lists, via the mechanism that has already been described. Table 24, below, shows the characteristics of Parent-I PTA officers and Parent-II “regular” parents.

2.155. There are no obvious differences between the two subsamples; in fact there is no statistically significant difference between the groups in the characteristics shown⁴⁹. However, when the traditional urban schools are examined in isolation, Parents-I average almost one more year of schooling, somewhat higher incomes and are 70 percent more likely to own a computer. On the other hand, in rural traditional schools there is again no significant difference between Parent-I and Parent-II subgroups. Finally, among PROHECO schools Parent-II education is much lower (by about 2.8 years) than the overall average, but the average PROHECO Parent-I has 3.7 years of schooling versus 2.3 years for the PROHECO Parent-II.

Table 24. Parent characteristics, by relation to the PTA

	Non-PTA Members	PTA Members
Parent education (years)	5.7	6.1
Parent age	38	38
Income of surveyed parent (Lps./mo.)	2,809	2,707
Total family income (Lps/mo.)	5,722	5,381
Family size	5.8	6.1
House has dirt floor	17.2%	22.7%
Has toilet	90.4%	89.2%
Has computer	10.8%	14.1%
Number of observations	667	269

2.156. Parents-I, who occupy a prominent position on the PTA are much more involved and better informed about the school. Of the 269 targeted PTA member parents, 84.8 percent said that they and/or their spouses go to every meeting. Parents-II are essentially uninvolved and badly informed. Of the Parents-II, 567 (85.4 percent) knew that their child’s school had an organized PTA, 17 (2.6 percent) said it did not, and 80 (12.0 percent) said that they didn’t know. Only two percent report going to meetings regularly. Most of them 97.7 percent (649) chose not even to answer survey questions on PTA meeting attendance.

2.157. The vast majority of parents do not take part in decisions involving use of funds. Over 92 percent of the Parent-II, “regular” parent subgroup said that they had never been part of any school group that made decisions on how to allocate money. Even among the Parent-I PTA officers who go to almost every meeting, only 41 percent had been part of such a group.

⁴⁹ 95 percent confidence level.

ROLE OF MUNICIPALITIES IN THE EDUCATION SECTOR

2.158. Although municipalities do not have a specific legal mandate in the education sector, the law requires them to spend up to 30 percent of the poverty reduction funds that they received on social projects. The evidence gathered in this survey shows that within the social sectors, education is the sector where municipalities invest the most. The survey found that 78 percent of municipal governments have a Municipal Development Plan which includes an operational plan for the education sector. This plan is prepared essentially based on the funding requests they receive from the schools, but also, based on assessments requested by FHIS and the Poverty Reduction Strategy (PRS) Fund.

2.159. From the municipal survey, it can be concluded that municipal spending on education at national level is greater than 620 million Lempiras per year. The average total expenditure of the selected municipalities is 23 million Lempiras, and 9 percent of this expenditure is allocated to the education sector. As shown in the table below, this percentage equals more than 4 times the total allocation given by the FHIS to municipalities, and is almost equivalent to the average transfer of poverty reduction funds to municipalities.

Table 25. Municipal spending on the education sector, per expenditure category, as percentage of source of funding

	Lps	Source of municipal funds			
		% SGJ transfer	% PRS transfer	% FHIS allocation	% overall municipal budget
Construction	930,000	19%	39%	190%	4%
Repairs	625,000	13%	26%	130%	3%
Teachers salaries	392,000	8%	16%	80%	2%
Support staff salaries	183,000	4%	8%	37%	1%
Total	2,130,000	45%	89%	438%	9%

SGJ- Secretaría de Gobernación y Justicia; PRS – Poverty Reduction Strategy Fund.

2.160. Most education projects funded by the municipalities have been prioritized according to the demand of the community. Thus, the construction and repair of schools represents 52% of the funding requests made by the community to municipalities and 26% are requests for payment of teachers, usually when the Ministry of Education has not approved the creation of new places for some of the schools in the municipality. In this case, the wages provided by the municipality are temporary, for an amount lower than what is stipulated in the Estatuto, in the hope that the temporary position would eventually be absorbed by the Ministry's payroll. Municipalities also assist schools with adult literacy projects, scholarships, materials and logistics. At the end of each year the municipalities make a self assessment of the implementation of their education plans. The municipal education budget for the following year is prepared by taking into account aspects such as: the needs of the community, coverage expansion and the specific requirements of the various sources of funding.

2.161. According to survey data, an average municipality spends more than 2 million annual lempiras in education, mainly in infrastructure (one and half million Lps on average) - and salaries for teachers and support staff (half a million Lps on average). Each municipality repairs and builds two small schools each year, makes repairs in four schools, and hire an average of 16 teachers (some of these teachers are in practices and

therefore are paid very little). Two out of three municipalities invested in 2008, an average of 930 thousand lempiras in building new schools and 625 thousand lempiras in repairing these. Teachers salaries is the second most common spending among municipalities, almost all of them hire teachers and support staff (usually security guards and cleaners) for a total of 2.1 million Lempiras per municipality.

Table 26. Municipal spending on education per category of expenditure.

Category of expenditure	Lps	%
Construction of schools	929,963.93	40.0%
Repairs	624,526.16	26.9%
Teachers salaries	392,010.95	16.9%
Support staff salaries	182,634.56	7.9%
Other	195,584.03	8.4%
Total	2,324,719.63	100%

2.162. However, municipalities report spending on education more that what is actually documented given that there are a number of activities they fund, such as school celebrations, transport, which are not recorded as expenditure on education. The fact is that it is difficult to verify whether these expenses are actually related to the education sector. Overall, municipalities report spending on average more than three million annual Lempiras in education, as shown in the table below

Table 27. Municipal spending on education per source of income, as reported by the municipalities

Source of income	Lps	%
SGJ 5% transfer	898,873.06	28.20%
PRS transfer	544,776.18	17.09%
FHIS allocation	392,319.19	12.31%
Own resources	694,376.29	21.78%
Regional Development Fund (Nacional Congress)	657,698.86	20.63%
Total	3,188,043.57	100.00%

MAIN FINDINGS AND POLICY RECOMMENDATIONS

Human resource management

2.163. The Ministry of Education school and personnel databases play an essential role in existing resource distribution mechanisms, yet they are so incomplete and full of errors that they are unusable as administrative tools. For instance, 27 percent of the teachers in the survey sample were not in the MOE database and 16 percent of sample traditional schools were entirely missing. Databases used for the distribution of textbooks, cash, food and teachers contain inaccurate information and sometimes even the entire school is missing.

2.164. Nearly one quarter of the teachers officially listed as working at sample schools were not actually working there (23 percent). These teachers should formally be classified as “ghosts”, i.e. salaries paid for jobs not actually performed. This sort of fraud is commonly believed to be very widespread in Honduras. It is estimated that the salaries for these teachers amounts to USD \$71 million per annum. However, given the inaccuracies in the database it is possible that some of these teachers are actually working in other schools not included in the sample and that the transfer was not recorded. It is also possible that this “replacement” is an informal arrangement that takes place without the Ministry’s knowledge. Because of all these caveats, the above estimates provide a ceiling for the total value of the “ghost” losses.

2.165. More than early one quarter of sample teachers (27 percent) were not listed in the MOE personnel database. With an accurate personnel database, these would have to be formally classified as “irregular” or “informal”, i.e., teachers without an official appointment who are being paid from sources other than the Ministry’s budget. However, it is possible that some of these teachers are formal teachers that have not been recorded in the database. We differentiate these two cases according to the salary level- those earning a salary in line with the Estatuto are considered to be “formal but not registered”, those earning a lower salary are considered to be “informal”. It is estimated that five percent of the total number of teachers are “informal” and are funded by sources other than the Ministry’s. Municipalities seem to be paying in full for these 1,550 informal teachers as the survey found that municipal governments spend each year on teachers’ salaries an average of 116 million Lempiras⁵⁰. The rest, almost 22 percent of the teachers (7,063), are considered to be formal teachers but not included in the database. It is possible that these teachers are elsewhere in the database⁵¹ or not be in the database at all. If the latter, these are considered to be “interinos”, that is teachers that are hired by the district or the department without the Ministry’s knowledge and that are eventually included in the official payroll once the two databases are reconciled.

2.166. There is evidence of significant macro-leakage of teacher absenteeism. Teacher absenteeism represents a system-wide loss of about 7.4 percent (13.5 days/year) of teacher, plant and equipment services. It is estimated that annual losses to the primary school system from teacher absenteeism are at least USD \$19 million. The main reason,

⁵⁰ This makes the average salary of those informal teachers 5,383 Lempiras for 14 monthly salaries, which seems a reasonable estimate given that the PROHECO teacher’s salary was 4,278.

⁵¹ It was not possible to check the full MOE database, and therefore, the database that was used for the analysis was the list of teachers for the selected departments.

as reported by the teachers, is teacher's strikes. Of particular interest is the number of days that teachers in small or single-teacher schools (unidocentes) must spend travelling to conduct school business.

2.167. Teacher absenteeism is seen as a significant national problem by department and district directors, as well as by school principals. Yet school principals do not see it as a problem in their own schools. Nine out of ten schools keep records of absenteeism and 84 percent of tardiness. The laws regulating teacher contracts provide for disciplinary action against teachers who are repeatedly absent from the classroom. Yet the survey basically found no evidence that school principals had ever taken such disciplinary action, despite a 7.4 percent mean absence rate. Department directors of education report that, because of union pressure, repeated complaints against teachers generally result in transferring the teacher to another school.

2.168. There is no clear guidance on the intended *quantity* distribution of teachers. If there is any policy regarding the allocation of human resources at all, it seems not to be followed. Informal practices appear to be the norm with more than half of the teachers either not in the database or not in the school that was assigned to them. If the local community cares enough to exert political pressure and their local leaders have sufficient initiative and *savoir-faire* to respond, then they will simply hire an informal teacher with local funds and then pressure and shame the Central Government into taking on this added, extra-budgetary responsibility. As mentioned before, it is estimated that informal teachers constitute about 5.1 percent of public school teaching staff. If all informal teachers were to be absorbed, the Central Government's primary teacher wage bill would rise by about 358.3 million Lempiras/annum, or by about USD \$18.9 million.

2.169. The survey corroborated these two methods of hiring teachers— a formal and an informal one. The formal route involves the Ministry of Finance and the Ministry of Education setting national budgetary targets. The informal route sees these budgetary targets as starting points for negotiation. It involves parents' local political pressure voiced through municipal governments and districts, abetted by teachers unions.

2.170. The distribution of teacher quality is also unequal and represents micro-leakage, if this is not the intended system design. Younger, less experienced, teachers are involuntarily assigned to rural schools. They are less likely to have a family of their own, less likely to have roots in the local community, more likely to live in what they consider a temporary dwelling for teaching days only, and more likely to want to leave their current job.

Matrícula Gratis (MG) Program

2.171. Comparison of survey data with Ministry of Education files indicates that there is macro-leakage of cash transfers. Our best estimate is that approximately 7.4 percent of the transfers issued by the Ministry did not reach the schools. The leakage amounted to about 19 million Lempiras (USD \$1 million) in 2008. It is not clear if this difference represents a real diversion of funds, or simply bad bookkeeping by the Ministry of Education and by individual schools in the sample.

2.172. In addition, cash transfers show significant evidence of micro-leakage. Of all the variable input transfers, the *Matrícula Gratis* cash transfer comes closest to relying

on a simple, enrollment-based formula. Also, there are no intermediaries in the process. The Central Government transfers money directly to a school bank account. Here the problems that exist stem mainly from inaccurate record-keeping. Not only do the amounts that the Government says it sent to schools not tally with the amounts that the schools say they received, but there are many schools that do not participate in this program at all.

Distribution of textbooks

2.173. We have not discovered significant amounts of macro-leakage in the in-kind variable expenditure transfers. Judging from records of the 2008 math text distribution, there are accurate accounts of textbook production and distribution down to the municipal level. Similarly, food that left Central Government warehouses eventually reached school storerooms. School directors, teachers, and parents report no significant post-delivery food losses.

2.174. Micro-leakage appears to be rampant in the distribution of textbooks. For instance, Ministry records indicate that 1,557,300 math texts for grades 1 through 6 were printed and distributed to department warehouses. Of these 1,514,660 were delivered to 330 local warehouses in June of 2008. Ministry enrollment data show 1,334,851 primary school students in 2007⁵², therefore, there were enough books for every student. Yet survey data for September of 2008 show that about 20 percent of the schools did not receive math books. Coverage was worse in other subjects; in Spanish language, 31 percent of the schools had no texts, while another 54 percent of the schools had surpluses of 10 percent or more.

School Lunch Program (Merienda Escolar)

2.175. The national goal of providing a nutritious lunch to all Honduran public primary school students is not being met. Schools routinely run out of food for school lunches. This is not caused by post-delivery losses; rather it appears to be the case that not enough food is being distributed.

2.176. It is not entirely clear whether micro-leakage is also an issue in the school lunch program. The survey gathered data on participation in the PMA program, on resource management, post-delivery losses, and the existence (or not) of shortages. It did not gather data on total food deliveries over the course of the year. Yet, in as far as it can be determined, survey evidence suggests that the problem is simply one of not enough being delivered. It is clear that most schools run out of food before new shipments arrive. It is also clear that the shortage is unevenly distributed across schools, with some having no shortages and others doing without for weeks at a time. It does not appear that the sum of surpluses, in those schools that have them, are enough to offset the shortages in all other schools.

Management at the school level

2.177. Information management is very poor at the school level. Information flows in one direction: from the ground up. Schools send information on enrollment that is

⁵² “*Matrícula inicial*” (initial enrollment) data for reporting schools. The actual total for 2008 could be larger because some schools did not report and because of natural population growth.

consolidated at the central level, but it is never sent back to the schools for verification or planning purposes, nor the information on school performance or national statistics. Over four fifths (82 percent) of the school directors had never heard of the national integrated financial information system “SIAFI”. Among the 18 percent that had heard of it, most (59 percent) said that they *never* submitted information for SIAFI and 83 percent said that they had never received national statistical data and much less, data comparing their school’s performance to the national average. Financial reports are not made available to parent-teacher associations.

2.178. There is tremendous variation in the quality of public school physical infrastructure. It is probably economically efficient for large urban schools to have more public spaces like libraries, auditoriums and sports resources, because economies of scale mean lower per-student cost for any shared facility. However there is no minimum standard for sanitation. There are many – mostly rural – schools with latrines and no running water to wash hands. Some schools have no sanitary facilities at all. Far from being places where good sanitation habits are taught, these lower-end schools are focal points for disease.

2.179. Non-teaching staff members are a rarity in Honduran public primary schools. They are more common in the large urban schools. Municipal governments often cover the cost of cleaning and security personnel.

2.180. Teacher salaries are determined entirely by the “escalafón”; they are not linked to performance and are not seen as administrative tools. School principals are generally completely unaware of how much their teachers earn.

2.181. Despite the MG cash transfer program, schools continue to raise a significant portion of the cash used for operating expenses from other sources. There is a great deal of school-to-school variation in both the source of these other revenues and in their per-student amount. The existence of other sources of cash revenue makes MG funds fungible. In this regard, detailed accounting of MG expenditures is basically meaningless, and therefore, the full financial statements should be requested

2.182. Municipalities play an important role to cover day-to-day needs of the schools. They pay for school repairs and construction, hire cleaning and security personnel, and they are often active participants in the distribution of textbooks and food. According to survey data, an average municipality spends more than 2 million annual lempiras in education, mainly in infrastructure (one and half million Lps on average) and salaries for teachers and support staff, usually security guards and cleaners (half a million Lps on average). Most education projects funded by the municipalities have been prioritized according to the demand of the community.

2.183. The large share of fees charged to the parents in total school cash income is troublesome. The purpose of the MG is precisely to obviate the need for parental fees. Of 143 schools reporting some cash income, parent fees accounted for 12.1 percent of total school revenues⁵³. When funds raised through activities such as lotteries, auctions and sales are added, the proportion rises to nearly one third of all school funds (31.6 percent). The breakdown by school type is even more revealing. The proportion coming

⁵³ There were three types of fees, namely yearly registration, regular monthly fees and “extraordinary” fees charged for such things as repairs and equipment purchases.

from parent tuition and fees for special activities was 10.1 percent (20.7 percent) for traditional urban schools, 12.6 percent (32.0 percent) for rural schools, and 17.6 percent (63.9 percent) for PROHECO.

2.184. School directors make most of the expenditure decisions. Parents are generally uninformed. The vast majority of parents do not take part in decisions involving use of funds. Over 92 percent of the Parent-II, “regular” parent subgroup said that they had never been part of any school group that made decisions on how to allocate money. Even among the Parent-I PTA officers who go to almost every meeting, only 41 percent had been part of such a group. Most parents know very little about the MG transfer program.

2.185. The cost of retrieving food from district warehouses is an important line item in the schools’ cash budgets.

2.186. It is generally believed that parents can serve as school watchdogs, enforcing teacher presence and reporting absenteeism. The surveys found the opposite to be true. Honduran parents report lower teacher absentee rates than the teachers themselves.

2.187. Parents were generally satisfied with the human side of schools and with the education that their child is receiving. They tend to hold the teacher and principal in high esteem. They were less satisfied with the school’s physical infrastructure.

2.188. Teachers and parents are concerned about crime. They are concerned about the safety of students and about their own personal safety.

Policy Recommendations

2.189. *Improve databases, develop better record-keeping practices and publish key information.* In particular:

- (i) There needs to be a single school-level file that shows school names, location, and ID numbers along with total enrollment and the amounts and dates of all transfers.
- (ii) Improve the teachers’ database with the objective of removing informal and ghost teachers, and improve the allocation and management of human resources.
- (iii) In the interest of transparency, the distributional formulae for variable input transfers should be clear and widely publicized, and financial statements from schools published. Every effort should be made to let parents know how much their child’s school has received of each resource.
- (iv) Publish information on education outcomes at the school level to move gradually the policy discussion from input mix to performance.

2.190. *Transfers should be based on enrollment data for the previous year, or for that number adjusted for population growth.* Reliance on enrollment data for the current year creates problems. Schools that fail to report enrollment information can have their enrollment number frozen, or could even have it reduced – by, say, five percent, as a penalty. Once there is a trustworthy list of schools and their enrollment, transfers should

be automated on the basis of enrollment data even for non-reporting schools. Transfers of cash, food and books can be planned ahead and processed on a timely basis to coincide with the beginning of the school year.

2.191. *Enforce compliance with the Estatuto provisions on absenteeism.* The Estatuto is the special labor regime that regulates working and salary conditions of teachers in Honduras. According to the Estatuto absenteeism is a serious misconduct (“falta grave”) and teachers can received a fine between 5-10 percent of the salary or a suspension without pay of 10 working days if they do not go to work.

2.192. *The Matrícula Gratis cash transfer program should be audited.* There is a wide disparity between the amounts of money that the schools say they are receiving, and what the Ministry says was allotted to them. A 10 percent random sample of schools listed in the Ministry’s records should be visited, requesting copies of bank statements for 2008. These should be compared against records of transfers to the schools in the Ministry’s files. In addition, it is necessary to implement a system that allows for an accurate record-keeping of transfers from Matrícula Gratis to PROHECO schools.

2.193. *It should be analyzed why so many schools are running out of school lunch food.* The amount of food being distributed to schools is not enough to feed lunch to the students every school day in a large proportion of Honduran schools.

2.194. *Central Government information and control of textbook distribution should be at the school level, not at the department or municipal level.* Honduras is a small country; there are many states in Brazil, the US, and China that have a far larger population. Department governments in those countries administer textbook distribution, yet it is inconceivable in any of them that one third of the schools should be without any books, while half of the schools have too many. The Honduran Central Government should be capable of determining how many students it has in each of roughly 10,000 schools, and then sending enough books to each school. In the short run given the severe distribution problems detected at the district level, the capacity for resource management/distribution at district offices should be strengthened.

2.195. *Bring municipal governments into the fold.* County governments play a substantial role in school finance that is largely off the books. They pay for school repairs and construction, hire cleaning and security personnel, and they are often active participants in the distribution of textbooks and food. Counties also play a pivotal role in the appointment of new, extra-budgetary teachers that eventually put pressure on Ministry of Finance education expenditure caps. Counties are well-informed about local needs and constitute a natural agent for aggregating and expressing local demands for this public service. The municipal governments’ role in school finance should be formally recognized. Their interest in hiring and firing teachers should be legitimized, but the cost of these actions should also be brought to the local level. Ideally, since education is what economists call a “local public good”, these expenses should be paid for out of revenues from local taxes and transfers from higher levels of government.

2.196. *Train and empower school directors so they become key actors in mitigating leakages, and hold them accountable.* Given the concentration of power in the school director hand in respect of determining the demand for and use of the various inputs, it would be essential that s/he would have the right skills (training may be necessary) and right behavior (selection of the right people for the job, incentives for improving

performance). In this regard, training of school principal on resource management should be assessed.

2.197. *Train parents for the monitoring of teachers' absenteeism and the use of resources.* Parents can have an active role in the enforcement of teachers' presentism, monitoring and reporting cases of absenteeism. They can also be involved in the supervision of the use of funds from Matrícula Gratis and other sources.

2.198. *A mechanism for bringing to light and addressing the physical infrastructure differences between Honduran schools should be found.* Policy debate to determine a minimum physical infrastructure quality standard should be initiated, and a process for attaining this minimum in all schools should be planned, possibly starting with school sanitation and student nutrition. Honduran schools should be models for future Honduran families, they should be places where teachers are happy to eat lunch and they should be “*escuelas limpias y saludables*”; models of sanitation and nutrition.

2.199. *Rural schools, PROHECO or traditional, could become leaders in encouraging a healthy diet.* Obesity is a growing problem in this country, and yet there are no fruits or vegetables in the current school diet. They could help develop “green” schools that grow their own produce, and maybe even learn to market it beyond the school. There is a problem inherent in devising an educational system that relies entirely on transfers from the Central Government: dependence. The farther a school is from the Central Government, the more removed it will feel from the process that determines its environment. Growing their own healthy food, would give rural schools a sense of pride and a comparative advantage in this regard.

2.200. *Continue analyzing the survey data to better understand other issues in Honduran primary education.* The three surveys were primarily designed to analyze the flows of resources from the Central Government to schools. They also provide a wealth of data on a variety of issues central to the efficiency and impact of the Honduran educational system. This study has concentrated on identifying and describing problems with resource flows. However there should be an effort to continue such analysis. Of particular importance is the ability to cross-refer the survey databases that carefully describe the school environment, the teachers, and the student's home with Ministry of Education information on repetition, dropouts, and teacher salaries and training.

CHAPTER III - EXPENDITURE TRACKING AND SERVICE DELIVERY SURVEY IN HEALTH

HEALTH SECTOR ISSUES

3.1. **In the last few years, health outcomes and access to services in Honduras have improved.** Between 1995 and 2006 the five year child mortality rate decreased from 48 to 30 per 1,000 live births⁵⁴. Similarly, the percentage of chronically malnourished children decreased 18 percentage points between 1991 and 2006.⁵⁵ Coverage of several health services has also increased.

3.2. **In spite of significant progress in health indicators, important weaknesses remain.** Firstly, health indicators are still poorer than in other countries in Latin America (see Table 28). Secondly, several specific indicators show significant problems. For instance, the low proportion of deliveries performed with a trained professional (67 percent of all deliveries, and only 50 percent in rural area), which in turn contributes to a high mortality rate 61 percent over the average for Central America; and the high rate of chronic malnutrition (25 percent) and stunting. Access to drinking water and sanitation is also lower than in most Latin American countries.

3.3. **Important inequalities in access to health care and in health outcomes exist across regions, urban and rural areas, and income levels.** For instance, the under five mortality rate is nearly 50 percent higher among those living in rural areas compared to those living in urban areas (43.1 and 29.4 respectively). The proportion of births attended by a skilled health professional is 79 percent higher in urban (89.6 percent) than in rural areas (50.0 percent), and immunization coverage is three times higher among those in the highest income quintile, compared to the lowest quintile (WHO, 2008). Coverage by health insurance systems – public and private – is very low (around 15 percent overall), and this – combined with insufficient coverage by the public network – contributes to important inequalities in access and financing.

Table 28. Comparative international health indicators, 2006

	Honduras	Central America*	Latin America*	Low MIC
Life expectancy at birth	70	71.3	71.8	68.5
Infant mortality (/1,000 live births)	23	25.1	24.0	27.0
Maternal mortality (/100.000 live births)	280	174	164	180
Antenatal care coverage (percent)	81	74.4	73.7	na
Births attended by skilled personnel (percent)	67.0	79.3	83.9	86.0
Immunization rate (average percent)	88.0	89.5	88.8	68.0
Access to water and sanitation (avg. percent)	75	81.9	83.4	78.0
Children stunted for age	29.9	22.3	21.6	na

* Excluding the small Caribbean countries. MIC = Middle Income Countries (as classified by the World Bank).

Source: WHO, 2008, and World Bank, 2008.

3.4. The health system is fragmented, with multiple financing agents and providers, and weak coordination. This leads to service duplication and inefficiency;

⁵⁴ Monteith et al (2005).

⁵⁵ Idem.

decentralization of certain services and management responsibilities has added to this fragmentation and inefficiency. For example, procurement is fragmented and inefficient due to its decentralization to the hospital level (each hospital is responsible for its own procurement), with no consideration for economies of scale. In addition, the health sector in Honduras includes several types of providers operating under a variety of governance and management models. Although the GOH is experimenting or considering adopting alternative models to promote greater efficiency and better quality of care, the evidence on the relative merits of the different models is still limited.

ORGANIZATION OF THE HEALTH SECTOR

3.5. This section presents a general view of the context of the health sector in Honduras, and then maps out the different institutions that make up the health sector, and the main financing mechanisms.

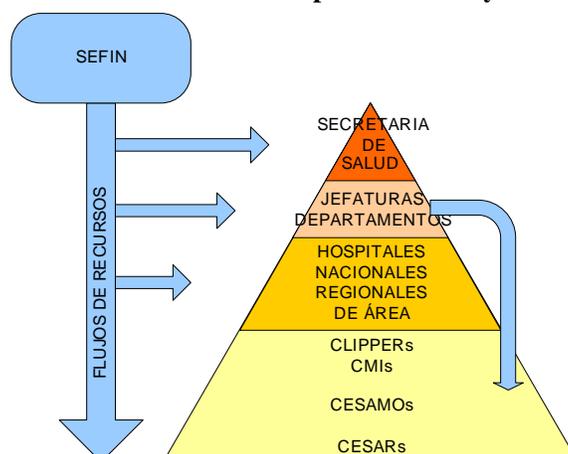
Sector Institutions and Reform Efforts

3.6. The Honduran health sector is made up of three main subsectors and funded by four financing sources. The three main sectors are: (i) the Ministry of Health (*Secretaria de Salud*), with its national network of health facilities; (ii) the Honduras Social Security Institute (*Instituto Hondureño de Seguridad Social, IHSS*), which has its own – limited – network and contracts with private and public providers; and (iii) the private sector, with multiple providers and payers. Around 50 percent of the population is estimated to be covered by the MOH network, 12 percent by IHSS, and the remaining 38 percent by the private sector. IHSS services, focusing on the formally employed population, are concentrated in the large cities, especially Tegucigalpa and San Pedro Sula.

3.7. Even though the stated role of sector oversight rests on the MOH, and significant interactions take place between them, the three subsectors are not coordinated. For instance, with generally no coordination, both the MOH and IHSS contract with private providers to complement their own network and expand their coverage, resulting in a fragmented health system. Foreign funds are an important source of financing for the MOH itself, but also finance private non-profit organizations.

3.8. The larger network of health facilities is that of the MOH, with 29 hospitals and 1,433 ambulatory care units (Table 28). However, its geographic coverage is generally limited in rural and remote areas. The IHSS owns only two hospitals and 10 ambulatory clinics. The private sector is the other large network of health facilities, but lacks any common organization or coordination; it includes 107 hospitals (mostly small facilities) and about 800 ambulatory units. The great majority of these private providers is for-profit (95 percent of all private providers). There are 43 facilities managed by NGOs and religious organizations.

3.9. The hierarchy of the MOH system is illustrated in Figure 3, although the exact role and responsibilities of each type of facility appear not to be precisely defined (see below).

Figure 3. Structure and levels of the public health system in Honduras

3.10. According to MOH data, public hospitals account for all inpatient care (276,478 hospitalizations in 2007), and for 31.7 percent of ambulatory care (1,497,840 outpatient consultations and 856,789 emergency procedures). They employ 61 percent of human resources working in health facilities (Table 29). These figures suggest a great reliance of the public health sector on hospitals as the main focus for providing health care.

Table 29. Health facilities in Honduras, 2007

Facility type	Number of facilities	Beds	Total Services	Avg Services	Employees
National Hospitals	7	2,510	922,587	131,798	3,294
Regional Hospitals	6	817	713,338	118,890	1,314
Local (area) Hospitals	16	1,076	1,134,510	70,907	1,917
IHMOH Hospitals	2	250	NA	NA	NA
Total public hospitals	31	4,653	2,770,435	-	6,585
CESAMO facilities	380	-	3,386,851	8,913	NA
CESAR facilities	1,002	-	2,352,572	2,367	NA
CMI facilities	56	-	168,774	3,125	NA
CLIPER facilities	4	-	55,516	13,879	NA
IHSS Clinics and others	58	-	NA	NA	NA
Total ambulatory facilities	1,491	-	5,963,713	-	4,213
Total public sector	1,520	4,653	8,734,148	-	10,798
Private Hospitals *	107	1,753	NA	NA	NA
Private Clinics *	1,088	NA	NA	NA	NA

Source: Secretaria de Salud/Depto Estadística, Boletín Estadístico 2007. Figures for 2008 indicate 1,002 CESARs, 56 CMIs and four CLIPPERs. Of the existing private hospitals, some 60 percent submit regular information to the MOH.

* The larger part is made up of for-profit organizations (around 95 percent of the total)

3.11. The MOH is organized into 18 departmental health regions and two metropolitan health regions (Tegucigalpa and San Pedro Sula). These departmental/regional offices are responsible for planning and coordinating health programs and activities and MOH facilities within their department boundaries; their actual role, however, appears to be more administrative than technical.

3.12. The institutional changes of recent years in the Honduras public health system are characterized as successive and incomplete movements of territorial reorganization

alternating between decentralization and recentralization (World Bank, 2008). Four different phases can be identified: (i) centralization efforts until the 1990s, decentralization in the 1990s, recentralization in 2002-2007, and re-decentralization in 2008.

3.13. These efforts at decentralization were never completed, as decision-making power was always maintained at the central level. On the other hand, the responsibilities of the regional level of the MOH were never clearly defined, and it never received sufficient investment in its capacity to coordinate and supervise municipalities.

3.14. Simultaneously, the GOH has been experimenting with alternative models for managing and delivering health care, especially to remote and rural areas. The “alternative models” involve some kind of partnership between the Central Government and either community-based organizations (*Organizaciones de Base Comunitaria*, OBC), non-governmental organizations (NGOs), or groupings of municipalities (known as *mancomunidades*); these three models imply, respectively, “public-social”, “public-private” and “public-public” partnerships. The “traditional model”, in contrast, is based on the direct provision of health services by the department through government-owned and managed facilities (MOH, MEASURE and PRODIM, 2009). For more details on these decentralized models see Box 1.

Box 1: Decentralized models of health service delivery in Honduras

The alternative or decentralized service delivery models are characterized by the use of contracts with different health care providers. The Secretary of Health has contracts with NGOs, community based organizations, and mancomunidades, which are groups of municipalities. At the moment, the Secretary of Health is managing 28 contracts, 7 of them with mancomunidades. These alternative providers manage a network of primary health care facilities. Through these contracts/agreements, these alternative models establish a clear division of responsibilities between the Ministry of Health, which is now in charge of financing and supervising the contracts, and the third party, which is now responsible for providing services.

These contracts/agreements have the following features: (i) they benefit poor and remote rural communities with limited or no access to services; (ii) the services contracted are primary health care services, including health promotion, preventive services, and a few curative services; (iii) these contracts/agreements establish clear rewards and sanctions in case of non-compliance; and (iv) the provider payment mechanism established by the contracts is a capitation payment, giving the provider an incentive to increase efficiency. In addition, the transfer of the capitation payments to providers depends on the achievement of specific and pre-determined coverage targets; ensuring that the provider has an incentive to increase the supply of services.

The results of a patient exit survey (Garcia Prado, A. and C. Peña (2008)) implemented in 2006 showed that the perceived quality of health services measured in terms of waiting time, bathroom cleanliness, and access to medicines was higher in the alternatively managed health facilities than in the traditionally managed ones. Some of these results were corroborated by a facility survey implemented as part of the same study. The study found significant differences in the availability of medicines and other supplies between alternative and traditional health facilities. This latter survey also found that productivity, measured in terms of services per hour, is also higher in the alternative model but, as in Guatemala, unit costs are also higher.

Another study (Secretaría de Salud, MEASURE Evaluation/PRODIM consultores (2009) found that compliance with protocols in the treatment of acute diarrhea and pneumonias for children under five was higher in decentralized facilities than in traditional ones. While in alternative facilities these protocols were followed 81.5% of the time in the case of pneumonia and 69.5% in the case of diarrhea treatment, in the traditional ones the protocols were followed only 32.5% and 37.8% respectively.

Source: World Bank (forthcoming). Strengthening Accountability in Social Service Delivery in Central America: Alternative models of health service delivery in Central America.

3.15. The Social Security Institute (IHSS) covers 580,000 direct members and a total of 844,000 beneficiaries. It provides services in 18 municipalities, through two regional hospitals (in Tegucigalpa and San Pedro Sula) and a few clinics. However, the larger part of the services it supplies comes from contracted private providers, including 136 corporate services (*Servicios Médicos de Empresas*).

3.16. Three other social security systems are present in Honduras, which together cover some 130,000 civil servants: INPREMA (covering 63,000 teaching personnel), INPREUNAH (covering 6,000 staff from the National University (*Universidad Nacional Autónoma de Honduras*), IPM (covering 27,000 military personnel), and INJUPEMP (covering 29,000 other categories of civil servants). However, these schemes do not usually provide health care coverage in a significant manner (World Bank, 2007a).

3.17. Aside from IHSS, three other autonomous government institutes provide health-related services:

- The *Instituto Hondureño de Prevención del Alcolismo, Drogadicción y Farmacodependencia* (IHADFA), which provides mostly health education services related to alcohol, drugs, and tobacco;

- *Universidad Nacional Autónoma de Honduras* is the main institution responsible for health personnel education and training; and
- *Servicio Autónomo Nacional de Acueductos y Alcantarillados (SANAA)*, which is responsible for providing drinking water.

3.18. Some of the country's 298 municipalities undertake some health-related activities, but in an unsystematic and inconsistent fashion. Few actually provide health services through its own facilities (San Pedro Sula is one), but an undetermined number provide financial or operational support (such as ambulances or security services) to MOH facilities and services. Although in some cases these activities are relevant, there is no systematic or reliable information on their coverage or funding requests. The departmental offices have no role in the current system.

3.19. An important player in the Honduran health sector is that of international donors, including bilateral or multilateral development agencies (such as the Pan-American Health Organization, the World Bank and the Inter-American Development Bank), or foreign NGOs.

ANALYTICAL FRAMEWORK AND SURVEY DESIGN

Objectives of the study

3.20. This Public Expenditure Tracking and Service Provision Survey in Health and Education aims to identify opportunities for improving efficiency in public spending and service provision. Specific objectives of the study include:

- Identifying how resources are transferred and utilized;
- Identifying waste and inefficiencies in the system;
- Analyzing how the different management models and instruments are applied in the health system;
- Developing practical recommendations for improving the efficiency and management of resources in the sector.

3.21. The Public Expenditure Tracking and Service Provision Survey undertaken for this study gathered information on management systems and practices encountered in different types of health care facilities. The study then compares these systems and practices across governance models. The analytical framework for this study is explained in more detail below.

3.22. The study includes an analysis of total expenditure on health, and a mapping and tracking exercise of financial flows. The second part of the study is concerned with the expenditure tracking itself.

3.23. A survey of facility users constitutes a separate module of the study, taken at their exit from the facility where they received treatment. This survey focuses on (i) users' ability to make providers accountable (based on available information, knowledge of staff hierarchy, and mechanisms for assessing satisfaction or quality); (ii) out-of-pocket expenditures; (iii) perception of the quality of care received; (iv) the role of community in planning, management, oversight and control of the facility; and (v) access to (other) social services.

3.24. The study relates to and complements other recent or ongoing studies on related issues. These are listed in the bibliography. Due to the different purposes of the study, a mix of methods has been used: public expenditure tracking survey, service provision survey, staff survey, and users' survey among others, as well as a review of existing information and reports.

Sample Design

3.25. The sample of health facilities was designed to be representative of the departments where these facilities were located (Francisco Morazán, Yoro, Copán, Olancho) but not at the national level. The survey uses a stratified sample in three stages, intended to obtain a picture of different regional realities and types of providers at the lowest cost possible:

- Selection of departments: the four departments were chosen according to the level of the Human Development Index (HDI), the level of health and education spending by the Central Government, and the presence of different types and models of providers; a survey instrument was designed to be applied to central departmental health offices.
- Provider types: the number of providers in each category was defined to obtain a representative sample within the department chosen; for that reason, in categories with few facilities, all were chosen and in those with many, relatively similar facilities, a random sampling was used.
- Staff survey: this was performed within each included facility, with a randomly chosen sample of personnel from different categories and professions.
- Users' survey: users were chosen randomly from a list of users seen on the survey day in each facility; the number of users was approximately proportional to the volume of services provided at each facility.
- A survey of municipalities within the four sampled departments was added to the study, with the objective of measuring local governments involvement in health services.

3.26. Overall, the four departments included account for 36 percent of the country's population in 29 percent of its municipalities, with over one third of its facility network (see Table 30). In terms of public spending on health (MOH expenditure only), the four departments include one among the highest spending (Francisco Morazán), and two among the lowest spending (Olancho and Yoro).

3.27. The facilities included in the survey were stratified by the following characteristics: i) the type of facility and services offered (hospitals, general or specialized ambulatory facilities, etc.); ii) the subsystem to which they belong (e.g. MOH, IHSS, private); and iii) the management or governance model in place (traditional centralized public management and alternative management models). The resulting facility groups broadly correspond to the different types and levels of facilities existing in the country, as described below: hospitals under centralized public management (traditional) from THE MOH – this group itself includes national hospitals, regional hospitals and local (area) hospitals; public facilities under alternative management models; IHSS owned hospitals; health centers staffed with a physician and a dentist (CESAMOs), located mostly in urban areas; rural health centers (CESARs);

maternal and child centers (CMIs); and peripheral clinics (CLIPPERS). These different categories of providers are supposed to represent the different levels of the health system, but the distinctions between them are not always clear-cut, as will be seen in the data analysis.

Table 30. Main characteristics of the departments included in the survey

Department	Population	Municipalities	Number Hospitals	No. Public Outpatient Facilities	Human Development Index	Per Capita Health Spending
Copán	346.729	23	1	73	0.578	31.63
Franco Morazán*	1.379.218	28	6	96+22	0.732	60.52
Olancho	488.801	23	1	162	0.608	19.94
Yoro	532.725	11	3	85	0.651	23.77
Subtotal	2.747.367	85	11	438	-	42.53
Country Total	7.706.441	297	29	1,442	0.664	49.60

Sources: INE (2002), Secretaria de Salud (2008), Secretaria de Finanzas (2009)

3.28. The stratified sample of facilities provided a sample size within each stratum to ensure appropriate precision, or – when the existing number of facilities was too small to be sampled – up to the total number of existing facilities in the included departments. That is the case, for instance, for the CMIs and CLIPPERS. For the CESAMOs and CESARs, the sampling resulted in a proportion of 36 percent and 12 percent of the existing facilities in the departments covered. Finally, since the facilities under alternative management models are few in the whole country, they were also oversampled. A number of private facilities were also included (25), since several of them are contracted to provide services to IHSS or THE MOH.

3.29. The survey also included interviews performed at regional and central levels: MOH central level, departments (four) and municipalities (25 sampled from the included departments).

3.30. Based on this design, the total sample for the survey included 197 survey units, as shown in Table 31. The facility survey was complemented by interviews with facility directors and central offices. In addition to the facilities and central offices surveyed, 400 staff and 400 users were surveyed in the facilities covered.

Table 31. Final survey sample

Stratum	Facilities or units in the country	Facilities and units in the 4 depts ¹	Sampled Units	
			Planned	Actual
Public (MOH)Hospitals (total)	29	11	17	9
⊕ National Hospitals	7	6		5
⊕ Regional Hospitals	6	2		1
⊕ Local (area) Hospitals	16	3		3
CLIPPERS	4	0+3	6	6
CMIs	56	17+0	15	14
CESAMOs	380	122	34	33

CESARs	1002	338	40	42
Total MOH facilities	1471	502	120	110
Facilities under alternative management arrangement ²	17		8	6
IHMOH facilities	20 ³	5		5
Private Hospitals	107	-	25	17
Private Clinics	795	-		
Total facilities (UPS)	2,393	-	145	132
Central offices (MOH + SEFIN)	2	0	2	0
Department Health Offices	18+2 ⁴	4	4	0
Municipalities	297	85	25	23
Total facilities and central units	-	-	176	155
Staff survey	10,798	5,163	406	358
Patients survey	8,734,148 ⁵	3,597,295 ⁵	643	558

¹The Central District of Tegucigalpa is included in the department of Francisco Morazán. ²Included in other categories. ³Including two hospitals, 11 clinics and seven contracted services. ⁴Two departmental offices are for the Metro Areas of Tegucigalpa and San Pedro Sula. ⁵Quantity of services (“atenciones”) provided.

3.31. Of the 132 facilities surveyed, data were obtained for 123 facilities (93.2 percent). Four facilities refused to respond, two were closed at every visit, and two did not exist at the address recorded (one appeared twice in the sample). The facilities “lost” in the survey include 3 CMIs, 1 CESAR, 1 CLIPPER, 2 IHSS clinics, and 2 private clinics. On average, it took nearly two visits (1.95) to complete the survey, when it was expected that only the larger facilities would require more than one visit. Only 41 percent of the facilities took 1 visit to complete, while 28.8 percent required more than 2 visits. Expectedly, hospitals required more visits (between 2 and 3), but nearly ½ of the health centers took more than 1 visit to complete. Facility closures and the unavailability of the facility manager were the most frequent reason for the repeated visits.

Survey Instruments

3.32. In order to cover the different levels and aspects of the combined surveys, four separate instruments were designed and applied:

- Questionnaire for the central administrative offices (MOH, SEFIN, MOH departmental offices, and municipalities);
- Questionnaire for the facility survey, applied to facility managers (hospitals and health centers of different types);
- Questionnaire for the staff survey, applied to a sample of health and administrative workers in each of the facilities surveyed; and
- Questionnaire for the users survey, applied to the sample of users in each of the surveyed facilities.

3.33. The survey instruments are provided in Annex II.

3.34. The study has a number of limitations, mostly related to sampling and data reliability that prevent the generalization of some conclusions to the health sector as a whole. Firstly, given resource limitations, the sampling strategy did not include random selection of the facilities at the national level. The facility survey is only representative at the level of the provinces selected. Additionally, the intended sample size could not

be completed, falling short of 12 facilities; a survey of central and regional offices was not implemented, reducing the possibility of verifying data reported. Given the variety of facilities and models, and the small number of facilities in each subgroup (both in the sector and in the sample), some analyses – especially with respect to health services – could only be performed on individual hospitals. For instance, the subsample of national hospitals was limited to five (out of a total of seven), of which two were psychiatric hospitals; averaging results regarding care management in this case would not be meaningful.

3.35. Secondly, the recognized issue of data reliability may affect some analyses and findings. Significant discrepancies were found in the data reported by facility managers in the survey. It was not possible to access MOH databases to obtain detailed information that would allow validation of these figures or explain some discrepancies. In particular, actual tracking of funds based on “triangulation” of different sources of information was limited by the lack of access to MOH data.

3.36. These limitations are to a large degree structural to the Honduran health sector, and thus part of the problem investigated in this survey. Nevertheless, the regularity of some findings suggests that most conclusions are warranted and solid; at least at a more general level.

Analytical Framework

3.37. The analysis of efficiency in the allocation and use of resources requires considering several elements which determine how a health system operates, and how individual providers behave. The combination of these factors produces a given impact on the health of a population, which can be greater or smaller depending on the efficiency and effectiveness of allocation and use of available resources. These factors, are:

- The organization and coordination of the health sector as a whole and the relationships taking place among the different players;
- The overall availability of resources, its financing pattern and allocation;
- The governance and accountability mechanisms present at the different levels of the system, and in particular at the level of health care providers;
- The planning and budgeting system, which channels available resources to providers and orients its application;
- The managerial and spending execution capacity and practices at the provider level;
- The regulation and management of human resources – the major input used in health care services – and the incentives structure in place for staff;
- The management and use of supplies and drugs within these health care providers; and
- The organization and management of health services themselves, within and across providers, and their quality.

3.38. Health care provision itself takes place within a context that can be more or less conducive to achieving good results. This context includes the legal and regulatory

framework, macroeconomic conditions, the training system for health professionals, and the payment systems used to pay providers.

3.39. These are the key dimensions of this study and will be addressed through a combination of analytical methods, surveys and data sources, as shown in Table 32.

Table 32. Analytical matrix and data sources

Factors	Issue areas	Main method of analysis	Source of information
Factor 1	Mapping of institutional players in the sector	Institutional analysis	Existing information and documents from MOH and international organizations
Factor 2	Financing and expenditure in the sector	Analysis of public health expenditure and mapping of financial flows	Data and reports available from SEFIN, MOH and others (CNS/OMS)
Factor 3-7	Organization, management and operation of facilities	Public Expenditure Tracking Survey	Survey of health care providers and central/administrative government offices
Factor 6	Labor conditions and incentives for health workers	Survey of labor conditions	Survey of health and administrative workers at facilities
Factor 8	Organization and provision of health services	Quantitative Service Provision Survey (QSPS)	Survey of service providers
Factor 8	Quality and users satisfaction	Exit survey of facility users	Survey of patients/users of facility services

3.40. Existing data regarding budget allocation and execution, facility network and service provision, and human resources, constitute the main information sources for the institutional assessment and mapping of financial flows (Factors 1 and 2 in Table 32), and also are used as alternative sources to complement information obtained in the surveys (Factors 3-8). Financial flows were mapped out involving three levels: national (essentially the Ministry of Health/*Secretaria de Salud* and IHSS), regional (departments and municipalities), down to the provider level. The surveys were thus designed to cover these three levels.

SECTOR FINANCING FLOWS AND EXPENDITURE ALLOCATION

3.41. This section reviews existing information of financial flows in the health sector, with an emphasis on public flows. The data on the overall funding for the sector, including private funding, comes from the National Health Accounts published by PAHO. The data on public health expenditure reported in the second part of this section was obtained from SIAFI. Total health spending in Honduras in 2006 amounted to 13 million Lempiras (USD \$691 million). The main financing sources for the health sector are: (i) the Central Government through its yearly budget, which finances the activities and programs managed by the MOH and most of the public facility network; (ii) social security contributions, which finance IHSS' own and contracted network; (iii) households, which either purchase health services and goods directly or pay user charges or copayments when using public facilities; and (iv) international funds coming through donations or lending and which usually are spent through the MOH and its

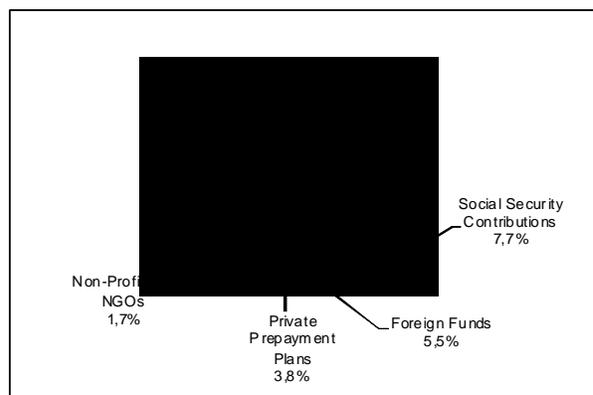
programs and facilities. In addition, ten private insurance companies and HMOs finance private services on a reimbursement basis (80 percent of the total), but have very limited coverage and relevance. The non-profit subsector is mostly financed through international funds, government subsidies, and – to a lesser extent – donations from corporations and individuals.

3.42. Overall, private financing represents 52 percent of total health expenditure (see Figure 4), while public sources account for the remaining 48 percent (including most external funds). The largest single source is household direct spending, accounting for 46 percent of the total (down from 56 percent in 1995 – see World Bank, 1998). This includes both out-of-pocket spending (the larger part) including copayments paid at government facilities, and purchase of private insurance (though the latter has a marginal importance overall). Private prepaid plans and non-profit institutions amount together to only 5.5 percent of the total.

3.43. The second largest single source is the Government budget (35 percent, up from 26 percent in 1995), which finances MOH services and programs (not including external funds). As stated earlier, there is no information on spending by decentralized governments (departments and, especially, municipalities); such spending is therefore not included. Social Security contributions to IHSS represent eight percent of the total, covering mostly workers employed in the formal market.

3.44. Foreign funds account for 5.5 percent and are mostly channeled through Government programs, through SEFIN and then the MOH. However, a 1995 World Bank report pointed out that in 1995 only 13 percent of external funds at that time were channeled through the MOH budget (World Bank, 1998)⁵⁶. While efforts have been undertaken to increase the proportion of funds going through the MOH budget and programs, this survey indicates that a significant proportion of facilities (16%) report receiving external funds directly (see paragraph 3.102 below).

Figure 4. Composition of national health expenditure, 2006

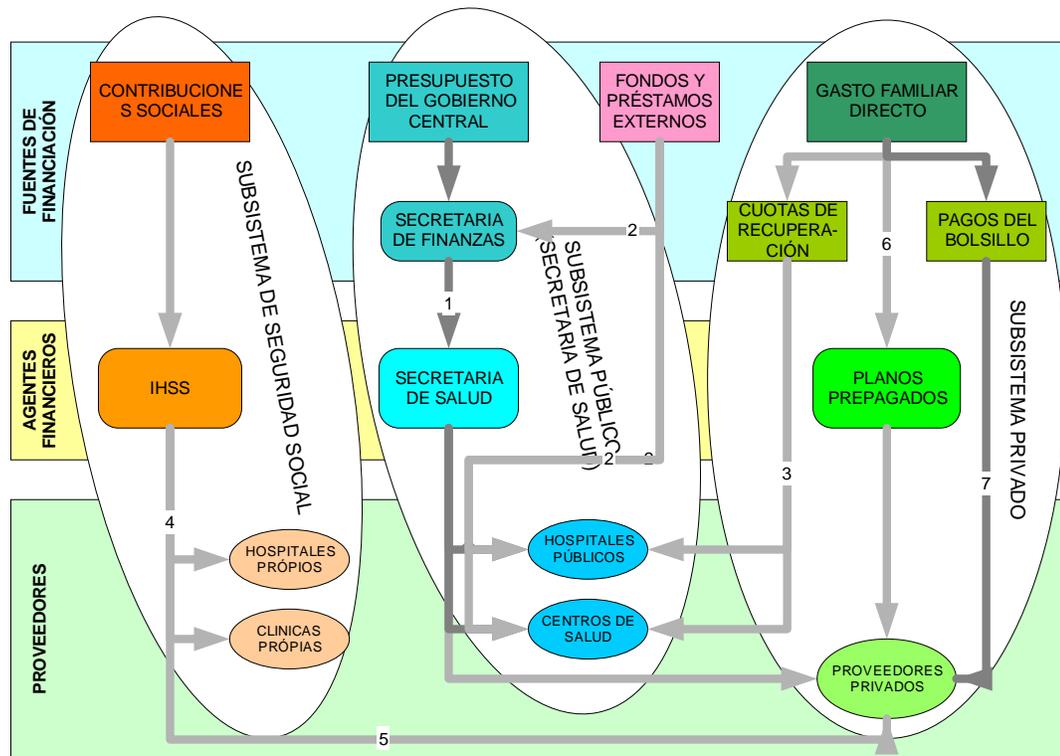


Source: PAHO (National Health Accounts for 2006).

⁵⁶ This figure was based on a National Health Accounts exercise for 2005.

3.45. The distribution of health spending by source of finance in 2006 shows little change from 10 years earlier (World Bank, 1998). Government spending has increased slightly (from 30 to 35 percent of the total), while household spending decreased (from 54 to 46 percent). Participation of Social Security was maintained, that of NGOs decreased significantly (from 4.3 to 1.7 percent), and prepaid private plans increased their share (from 1.3 to 3.8 percent).

Figure 5. Institutions and Financial Flows in the Health System, Honduras



3.46. The main subsystems in the Honduran health system and the main financial flows are illustrated in Figure 5. The funds managed by the MOH include budget transfers from SEFIN (Secretaria de Finanzas/Finance Ministry – shown as flow no. 1 in Figure 5), technical assistance foreign funds (flow no. 2), and income from user charges or copayments (flow no. 3). The annual budget for MOH facilities is determined on a historical basis, even though the public planning system should take into account needs and priorities. The section on financial flows provide a detailed description of the transfer mechanisms corresponding to these flows.

3.47. Social Security (IHSS) is financed by three-way contributions, based on wages (5 percent employers, 2.5 percent employees, and 0.5 percent by the state). Payments to providers are made mostly on a fee-for-service basis (flow no. 4 in Figure 5). Finally, household financing goes into purchasing private health insurance (flow no. 6) and, to a much greater extent, out-of-pocket payments to providers and pharmacies (flow no. 7).

3.48. WHO’s NHA data do not show the distribution of public expenditure by level of government, but SIAFI data indicate that, out of a total MOH spending for 2008 of USD 381.2 million, 34.4% was executed at the central level – including several

centralized programs such as disease control and health promotion – 43.6% was executed by hospitals (mostly through their own budget), and 21.9% was executed at the departmental level by the MOH regional offices, mostly on behalf of primary care facilities⁵⁷.

Table 33. Health spending and sources by subsystem, Honduras, 2006

Sources Systems	General Government (budget)	Social Security Contributions	Private Spending	TOTAL	Foreign Funds
MOH	278.2		N/A	278.2	37.4
IHSS		52.3		52.3	
Private					
- Prepaid Plans			26.2	26.2	
- Non-profit organizations			11.4	11.4	N/A
- Households Out-of-Pocket			313.8	313.8	
TOTAL	278.2	52.3	360.4	690.9	37.4

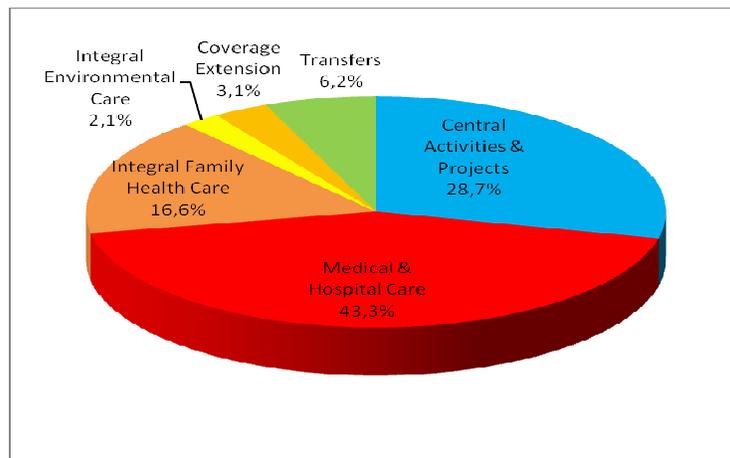
Source: WHO (National Health Accounts 2006). Data in Million USD. Note: The figures for MOH include transfers to Departments, as well as foreign funds channeled through MOH budget, shown in the last column.

Spending by category of expenditure and type of input

3.49. Consolidated sector allocation of financial resources is unknown; the only source for which allocation data are available is the MOH, including the foreign funds it manages. The distribution of spending for the MOH by category of expenditure is shown in Figure 6. Two large categories account for most of the spending; however, they are too broad – and with insufficient breakdown – to allow precise allocation analysis. The largest is “Medical and Hospital Care”, with 43 percent of the total (up from 38 percent in 2006); it includes all hospital care and most outpatient and emergency care provided by hospitals. The second is “Activities and Projects at Central Level”, with 29 percent (down from 31 percent) of the total; it includes centrally managed administrative and support activities as well as centrally managed health programs such as disease surveillance and central purchases of drugs and some other supplies; this category is too broad to allow for regional or allocation analysis. It does not include MOH transfers to departmental offices, which are mostly included under public health and primary care activities, grouped indistinctly into categories such as “Integral Family Health Care”, “Environmental Integral Care”, and “Coverage Extension Activities”, these account for 16.6 percent, 2.1 percent and 3.1 percent respectively (against 17.5 percent, three percent and two percent in 2006). “Transfers to public and private institutions” account for the remaining 6.2 percent (down from eight percent).

⁵⁷ Author’s calculations based on SIAFI data.

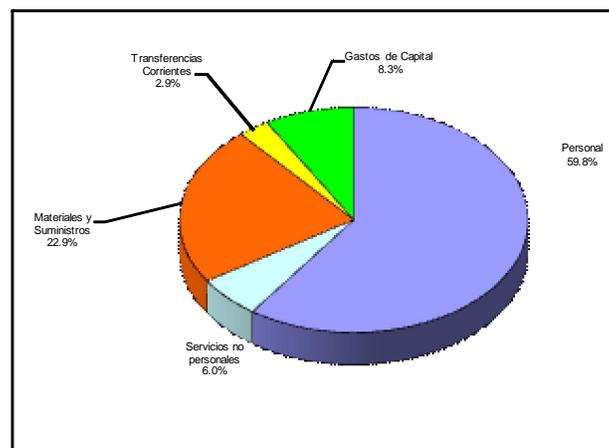
Figure 6. Distribution of health spending by category of expenditure, MOH, Honduras, 2008.



Source: SEFIN (Executed budget for 2008).

3.50. Distribution of MOH spending by type of input shows the importance of personnel spending, which account for 60 percent of the total (Figure 7). Drugs and supplies represent 23 percent, and non-personnel services six percent. Capital expenditures account for 8.3 percent of the total. This distribution pattern is similar to that found in other countries (for instance, in Brazil personnel accounts for 64 percent, drugs and supplies for 24 percent, and other recurrent expenditures for 12 percent)⁵⁸. The figures for hospitals in the US are 67 percent, 20 percent and 13 percent respectively⁵⁹.

Figure 7. Spending composition by type of input, MOH, Honduras 2006.



Source: SEFIN y OMS (Datos de Cuentas Nacionales de Salud para 2006).

3.51. The rest of the report presents the main results from the surveys undertaken for this study: the facility survey, the staff survey, the users' survey, and the survey of municipalities.

⁵⁸ Source: World Bank, 2008.

⁵⁹ Centers for Medicare and Medicaid Services, 2002.

FACILITIES' FINANCING PATTERNS AND RESOURCE FLOWS

Financing Patterns

3.52. The financing patterns of the facilities surveyed, which supplied their financing sources, are quite different depending on the particular input, the type of facility and its management model (Figure 9). The financing pattern and flows of funds to hospitals tend to be much simpler than for outpatient facilities, given the greater variety of types and organizational models among the latter.

3.53. Public hospitals – all under the MOH authority – are nearly fully funded by the government recurrent budget (with 96.7 percent) and capital investment (1.9 percent). Only the IHSS hospital included in the survey was funded by other sources, namely transfers by central IHSS offices (which in turn are funded by social contributions from corporations and their employees). No information could be obtained regarding IHSS transfers to its facility network, which are not included in SIAFI.

3.54. Health centers under direct public management did not report any funding from government budget, because budget resources allocated to these facilities are managed centrally or by MOH regional offices, and are thus unknown to facility managers. Public ambulatory facilities thus showed very low resources under their management, with user charges reported as the largest source of financial resources, accounting for 50 percent of the total (Figures 9 and 11).

3.55. Municipal funds (categorized as “donations”) and funds from international donors are the third largest source of funds, making up most of the rest, with 20 and 18.4 percent respectively of funding to health centers; their contribution to hospital financing is very small. These direct transfers are not recorded in SIAFI, and cannot be traced to individual facilities due to the weak recording of these transfers. Municipalities are supposed to spend five percent of their budget on health. However, it is worth noting that the capacity to execute funds from international cooperation is low: 38 percent during 2006 and 1.5 percent in the first quarter of 2007 (InDevelop, 2007). Community sources, other donations, and other sources altogether account for nearly 10 percent. Facilities managed by municipal consortia (*mancomunidades*) depend mostly on municipal financing (74 percent), with user charges (12.1 percent) and international sources (13.9 percent) making up for the rest (Figure 8). Facilities under other alternative management models rely less heavily on municipal funding, and more on international donors and user charges, but overall alternative models are largely dependent on municipal financing.

3.56. As for private clinics, those few reporting financial information indicate that user charges are their largest source of funding (67.6 percent of the total), but they also receive significant governmental funding (38 percent of the total). This may be due to the fact that nearly half of those private facilities supplying financing information to the survey (four out of a total of 15) sell services to the Government under a contract. Private financing includes spending by corporations and families on private insurance plans, but these are marginal in the Honduran health sector, accounting for less than four percent of national health spending (see Figure 9), and could not be specified by type of facility surveyed.

Figure 8. Financing sources by type and model of facilities, 2008

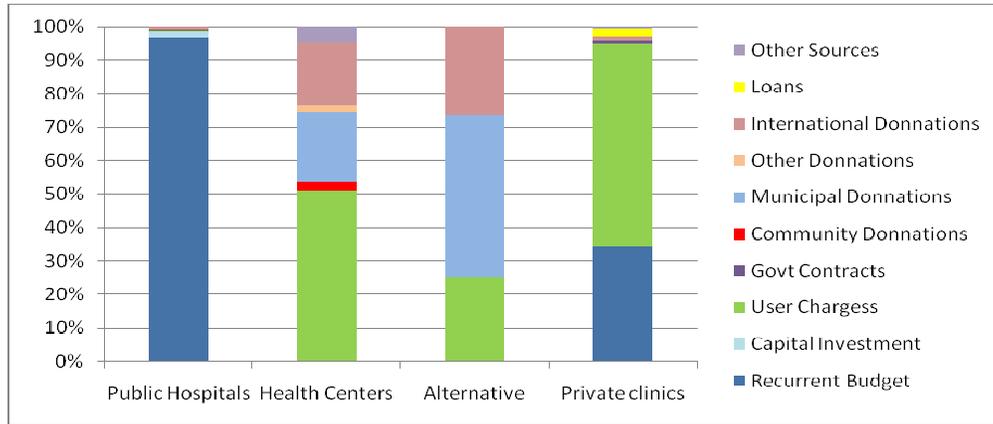


Figure 9. Financing sources for public hospitals, 2008

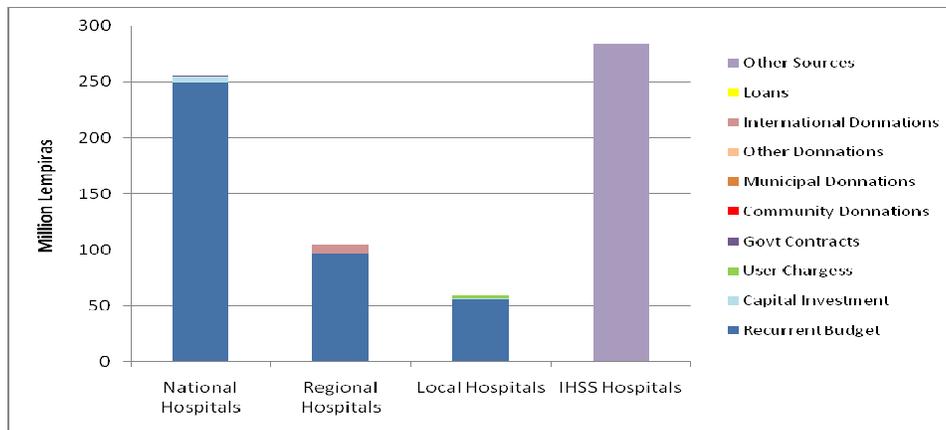
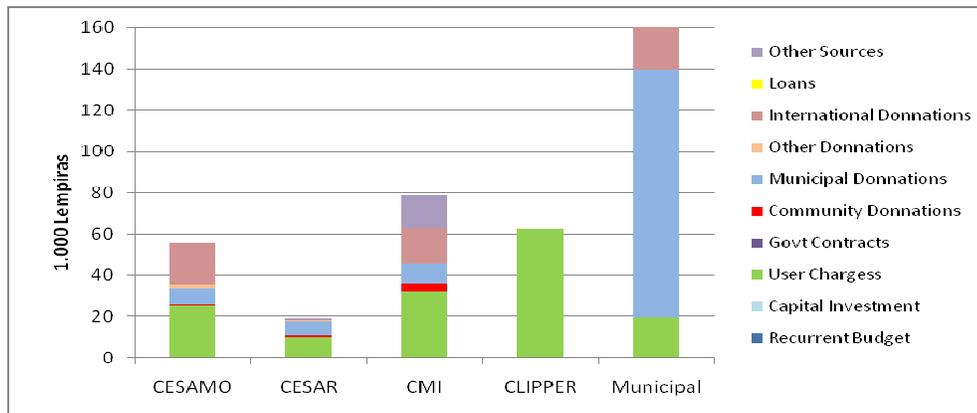


Figure 10. Financing sources of public health centers (reported), 2008



3.57. As mentioned above, MOH departmental offices receive financial transfers from MOH and are responsible for purchasing goods and services on behalf of the ambulatory facilities in their area. However, the records kept at the departmental offices on these purchases is weak, and could not be obtained during the survey.

3.58. As mentioned briefly in Paragraph 3.46, 16% of the surveyed facilities reported receiving foreign grants directly. Table 34 shows that 2 of the 9 hospitals from which

financial data were obtained, and 14 out of 85 ambulatory facilities, reported receiving international funds in 2008, in proportions varying from less than 5% to 100% of the financial resources managed at the facility level⁶⁰.

Table 34. Foreign financing in surveyed facilities

Type of Facility	No. reporting financial information	No. reporting receiving foreign donations	Mean % of foreign donations over total	Range % of foreign donations over facility resources
National hospitals	5	1	0.5	6.0
Regional hospitals	1	1	7.7	7.7
Local hospitals	3	0	0	0
IHSS facilities	2	0	0	0
CESAMOs	32	6	36.3	5-100
CESARs	37	1	2.5	32
CMIIs	7	2	20.3	30-90
CLIPPERs	3	0	0	0
Municipal/ Mancomunidades	6	5	13.9	4-80
Private	8	1	1.1	12

Resource Flows

3.59. Resource flows in the public system depend mostly on two factors: the expenditure category (determined by the budgetary line item) and the type and model of facility. Among expense categories, three main resource flows can be distinguished. Firstly, spending on personnel hired under the normal public sector contracting regime (the Estatuto) is executed centrally, by the Ministry of Finance (SEFIN), even though the corresponding budget funds are allocated to hospitals and regional offices. Payments are made directly from SEFIN to staff personal bank accounts and personnel are registered in the human resources module of SIAFI (SIARH). Secondly, drugs are generally purchased centrally by the MOH through competitive bidding, (except for small emergency purchases) and transferred in kind to hospitals and regional offices, usually quarterly. Regional offices in turn distribute them to health centers under their jurisdiction. Thirdly, procurement of other supplies and services is decentralized to hospitals and regional offices.

3.60. The vast majority of primary care facilities does not have a budget allocation of their own and do not execute (i.e. spend) budget funds. Therefore they usually do not have systematic and reliable information on their expenditures funded by the public budget. They do use a small fund fed by user fees, which they use for emergency purchases and services (such as equipment maintenance) and some utilities. The information recorded on these expenditures is, however, of poor quality in most facilities.

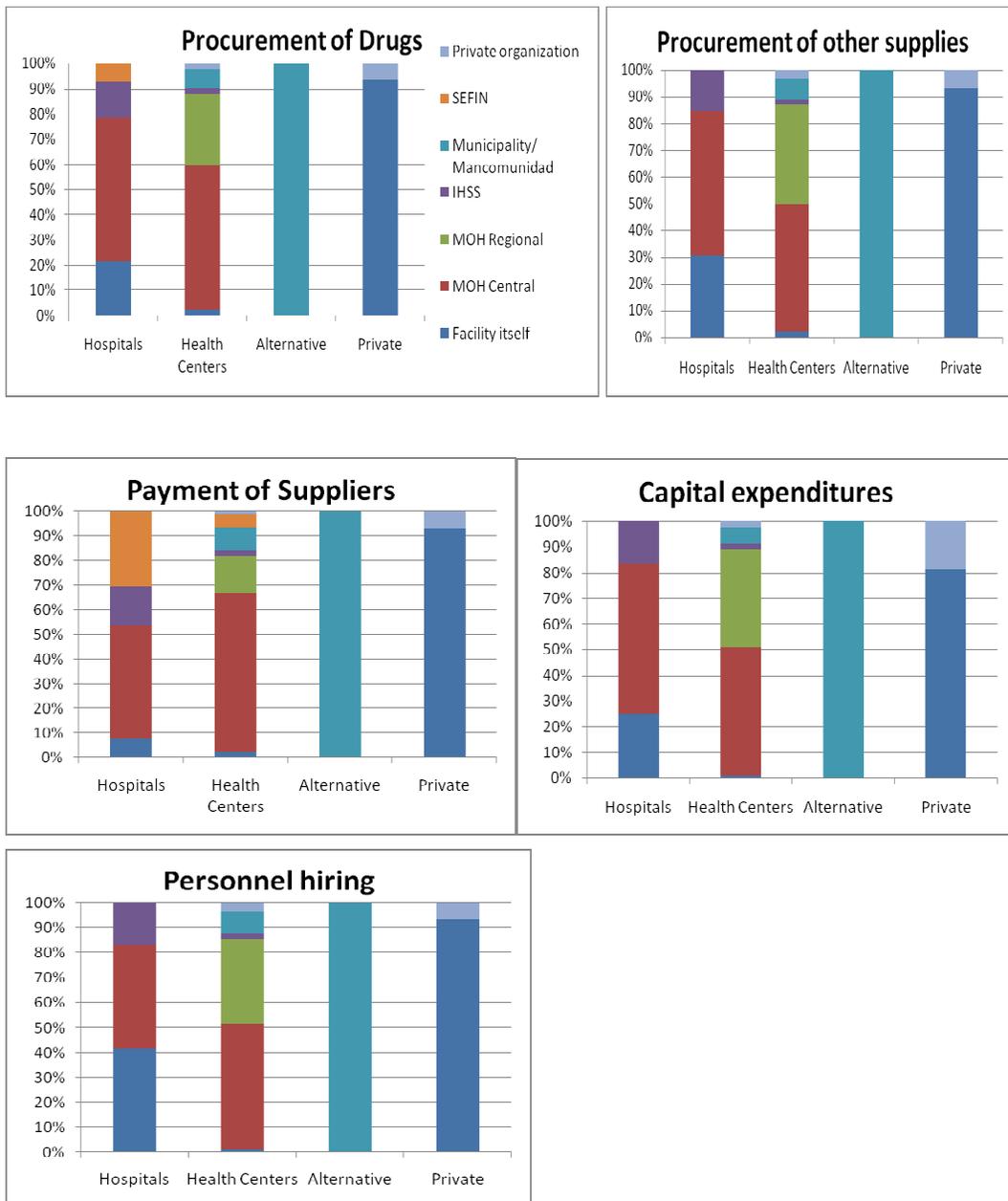
⁶⁰ It is important to note that health centers' budget financing is managed by MoH regional offices, and are thus not included in these facilities' resources in the table. Also, these reported figures do not discriminate between multilateral, bilateral and private funds.

3.61. As for the type of facility, the general rule is that hospitals have their own budget allocation and execute it for operating costs and other supplies and services (except for personnel and drugs as pointed above), while primary care facilities under the traditional model do not have a budget of their own and have no authority to execute budget funds. These funds are executed by MOH regional offices which then transfer supplies and services directly to facilities. Surprisingly, facilities under alternative management models have no more autonomy and authority to spend than those under the traditional model, since funds are transferred by the MOH to the organization managing the facility (*mancomunidad*, municipality, NGO or community organization), which executes all procurement on behalf of their facilities.

3.62. This general and official pattern in resource flows hides significant variations (see Figure 10). For instance, some hospitals (especially local units) do not execute budget funds and do not procure their own supplies even though they receive a budgetary allocation. The Ministry of Finance (SEFIN) is reported to procure drugs directly and make all payments for a number of facilities (most local hospitals, one national hospital, and five health centers). Also, nearly all facilities surveyed, including national hospitals, report that most payments to suppliers are made by the central level, implying that they are, at most, responsible for initiating the procurement process but not making the final payments (see Figure 10). 54.5 percent of all facilities surveyed have their payments done by the central MOH, including national and regional hospitals and about two thirds of public outpatient facilities. This is due to the fact that about 20 percent of outpatient facilities, payments – mostly for non-drug supplies and services – are made by MOH regional offices. Only three percent of public facilities report making payments to suppliers of goods and services (all but one private facility do so).

3.63. For facilities under contract with the MOH (i.e. alternative management models), MOH funds are transferred to the organization responsible for managing the facility (a municipality, an NGO or a community association for instance), which is responsible for hiring staff and procuring and providing to the facility all supplies and services needed. Municipal funds are usually transferred through three different flows. When the facility is under municipal management: (i) funds are spent by the municipal government itself (sometimes by a municipal health unit); (ii) funds are transferred to the municipality consortium responsible for managing the facility; or (iii) municipalities contribute with goods or services (such as security personnel or facility/equipment maintenance) to MOH traditional facilities, and in that case hire staff and purchase goods and services with their own budget and transfer these resources in kind to the MOH facilities. Information on the latter modality is not systematic and is not available by facility.

Figure 11.a-e: Responsibility for procurement and payments by type of facility



3.64. This pattern of resource flows from central level to health facilities, emerging from the survey, indicates a great variety of institutional and financial arrangements, and thus financial flows. These flows do not appear to be clearly linked to facility type or ownership, but, rather, to the particular governance arrangement and management model of each organization. Many of these flows are difficult to track because of the diversity of arrangements itself and the absence of systematic and reliable recording. As mentioned with respect to the lines of authority, it is not clear whether this diversity arises from the lack of clear policies and regulations, to the lack of enforcement of such regulations, or to the diversity of organizational and financing arrangements in the health sector.

3.65. In addition, there is no mechanism in place to systematically record and consolidate all sources of funding by facility. A significant proportion of funds from international cooperation bypasses the MOH and is channeled directly to facilities (16% of the surveyed facilities reported receiving such funds); and is thus not recorded in the budget. Even MOH regional offices, which supposedly coordinate and consolidate outpatient facilities in their jurisdiction, do not include in their budget funds from international cooperation or municipalities.

3.66. Therefore, no consolidated information on budget financing or spending was available for most ambulatory facilities surveyed. As mentioned before, outpatient facilities control, and have information on, funds from user fees and some “donations” from municipal governments or international donors under certain programs. The total amount of expenditure reported by each facility in the survey is presented in Table 35.

**Table 35. Mean total expenditure reported by type of facility, 2006-2008
(in thousand Lempiras)**

	N	2008	2007	2006
National Hospitals	5	256,147	183,940	161,388
Regional Hospitals	1	105,030	81,072	70,526
Local Hospitals	3	58,951	44,385	38,374
IHSS Hospitals	1	159,682	152,558	224,433
CESAMOs *	32	55	31	23
CESARs *	36	20	18	16
CMIs *	8	75	80	52
CLIPPERs *	3	62	59	47
“Municipal” facilities	6	162	261	60
Private clinics	8	6,123	4,554	3,815

*Public ambulatory facilities report only expenditure from non-budget sources

Source: Facility survey.

3.67. In order to correct the expenditure of outpatient facilities, two indirect approaches were used to estimate the total amount of resources allocated to these facilities. Firstly, the allocation of MOH budget to primary care⁶¹ for each department was obtained from central budget documents, and used to estimate the mean budget allocated to primary care facilities. The resulting estimate was an average of one million Lempiras per outpatient facility (CESAMOs, CESARs, CMIs and CLIPPERs), as shown in Table 35 (third column). Secondly, the quantity of personnel existing in each type of facility was obtained from a central personnel data base to estimate the cost of payroll and then total facility expenditure. The resulting estimates for each type of outpatient facility appear in column 4 of Table 36.

3.68. The apparent difference between the columns in Table 36 demonstrate the weakness of existing systems for recording and monitoring revenues and expenditures. While the budget system is a solid system for recording and rendering accounts for budget funds, the system does not record other sources of funding, and does not allow

⁶¹ This includes allocation to the programs (Family Health (*Atención Integral a la Salud Familiar*), Environmental Health (*Atención Integral al Ambiente*), Coverage Extension (*Extensión de Cobertura*), all of which are funded by government sources; also included are funding of primary care from international donors and allocated through the government budget (Foreign Credit, Source 21; and Debt Alleviation programs through the Paris Club – Source 27 – and HIPC – Source 29). Other financial sources and programs could not be considered, because they have no defined allocation by departments and are spent mostly at the central level.

monitoring of finance and expenditure in outpatient facilities. MOH regional offices do record information on the quantity of supplies and services transferred to these facilities, but apparently do not consolidate these figures at the facility level or for each type of facility. Additionally, since the survey could not review these records, it was not possible to assess their quality and reliability, and thus to assess the possibility of using them to compute total funding and expenditure at the facility level.

3.69. It is worth noting that IHSS does not publish budget or financial data on health expenditure, and related information could not be obtained directly from IHSS offices.

Table 36. Budget and expenditure by type of facility, 2008

	Survey N	Central Government Budget ¹	Estimated ²	Total Funding Reported ³	Total Expenditure Reported ⁴
National Hospitals	5	277,684	-	256,147	254,680
Regional Hospitals	1	121,048	-	105,030	105,030
Local Hospitals	3	56,062	-	58,951	57,899
IHSS Hospitals	1	na	-	284,172	519,276
CESAMOs	32	1,006	1,932	55	55
CESARs	36	1,006	364	19	20
CMIIs	8	1,006	1,104	86	75
CLIPPERs	3	1,006	13,976	62	62
“Municipal” facilities	6	1,006	802	162	162
IHSS Clinics	1	na	na	35,192	34,713
Private clinics	8	na	6,691	6,722	4,516

Source: SEFIN (2008 Budget); survey data. Data in thousand Lempiras.

Notes: ¹Executed budget obtained from SEFIN national budget reports; data for hospitals include all hospitals in the country for this category; the figures for health centers are averages computed from total departmental allocation to primary care programs. ²Estimates are based on the mean number of staff in each type of facility, from survey information. ³Mean total funding reported in the survey, including all sources; for health centers, this includes only funds managed by the facility (and thus excludes the budget). ⁴Mean total expenditure reported in the survey.

User Fees Revenues

3.70. Official MOH records indicate that revenues from user fees represent between 1.5 and 3.5 percent of total MOH budget (World Bank, 1998). User fee revenues are recorded in each facility as they are collected, and - in most facilities - reported to central offices on a regular basis. Hospitals are allowed to retain 90 percent of the revenue raised from user fees for small or emergency purchases, while 10 percent is retained by the regional office of the department where they are located. Similarly, primary care facilities are allowed to retain 75 percent of their revenues, and remit 25 percent to the regional offices.

3.71. In fact, different systems and rules are in place to regulate the collection, reporting and use of user fees. According to the World Bank’s PER of 2001, a quarter of facilities report to the MOH and are allowed to use a portion of the revenues (this is known as the official system); 42 percent use a community-based system of reporting

and have free use of funds; 10 percent use a mix of the two systems, and 23 percent of facilities have no user fees in place.

3.72. Where revenues are reported, there is no effective checking mechanism to verify that all revenues are reported and accounted for. The system for account rendering is not strong enough to ensure correctness of the data reported. Facilities are supposed to transfer a significant part of their income to regional offices, but a 1998 report from the World Bank indicated that few did so (World Bank, 1998).

3.73. Further, basic information such as service production, is reported irregularly and deemed unreliable, which prevents significant verification of the amount of revenues reported. In other words, the information and reporting systems are in place, but are weak and unreliable, according to several MOH officials and assessment reports. No data was obtained from the MOH on the revenues reported by facilities.

3.74. The facility survey shows that the larger part of non-budget funding comes, as mentioned above, from user fees. Table 37 shows the main services contributing to user fees revenue by type of facility. The table reveals that in public hospitals the largest sources of user fees revenues are inpatient and diagnostic services, while in outpatient facilities outpatient services (consultations) are the largest source. Even though the mean revenue shown in Table 37 by facility type is approximately related to the size and service production of the facility, the facility managers surveyed indicated user fees are determined locally, usually by the facility managers themselves, rather than from a national fee schedule.

Table 37. Mean income from user charges by type of facility and service

	N	Outpatient Services	Inpatient Services	Diagnostic Tests	Total
National Hospitals	5	814.09	1,096.52	1,917.16	6,021.90
Regional Hospitals	1	261.13	723.45	565.51	1,737.67
Local Hospitals	0	-	-	-	4,651.29
IHSS Hospitals	0	-	-	-	-
CESAMOs	32	36.46	0	5.65	46.42
CESARs	39	14.24	0	0.87	15.17
CMI	7	12.20	24.16	-	78.72
CLIPPERs	3	168.28	9.30	11.67	249.99
Municipal facilities	6	21.33	0	0	21.32
Private clinics	9	1,072.87	364.36	216.46	4,478.82

Spending Allocation and Execution

3.75. This section reviews the allocation patterns of health expenditure at the facility level. Implications for efficiency, costs and quality are identified. Data on expenditure are limited to facilities having their own budget and accounting system (as previously mentioned with regards to financing), i.e. public hospitals and (some) private clinics, including IHSS facilities. The mean expenditure by type of facility and major line item is presented in Table 38, with the mean composition shown in Figure 12. As expected, national hospitals show the largest mean total expenditure, followed by regional hospitals and local hospitals.

3.76. However, the composition of expenditure by line item varies significantly depending on the type of facility. Personnel accounts for nearly two thirds of total

expenditure among public hospitals – which is in line with the proportion found in most other countries. If medical services are added, the proportion increases to 67 percent. The proportion of supplies (26.6 percent, including drugs), is slightly higher than international averages (generally in the 15-25 percent range). The remaining categories, including Capital Expenditures and “Transfers and Donations” amount to 4.5 percent of the total.

Table 38. Mean hospital expenditure by line item

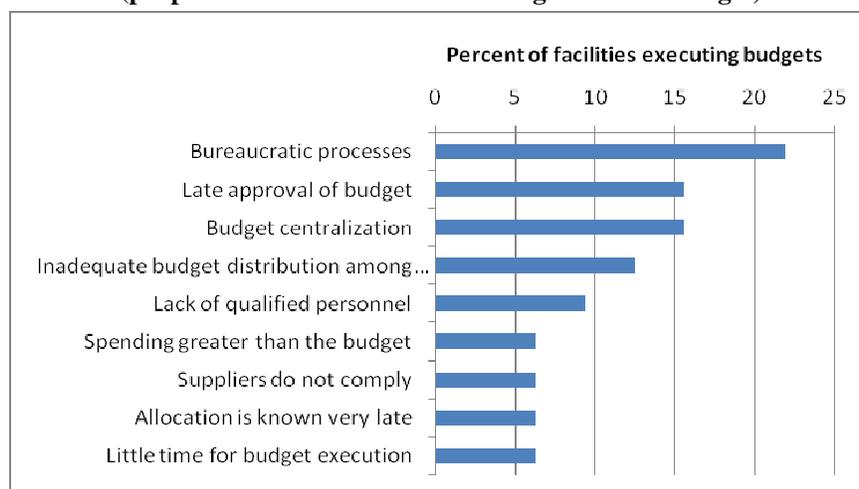
1,000 Lempiras	N	Personnel	Services *	Drugs	Other supplies	Total **
National Hospitals	5	134,078	52,726	19,453	37,462	254,680
Regional Hospitals	1	65,932	1,774	1,461	17,688	105,030
Local Hospitals	3	40,687	335	3,609	12,017	57,899
IHSS Hospitals	1	135,545	275,036	154,938	209,408	519,276
IHSS Clinics	1	10,403	12,244	5,031	568	34,712
Private clinics	4	899	2,362	502	387	4,516

* Includes Medical Services, important in IHSS facilities; **Includes Capital Expenditures and Transfers and Donations, not shown here (the latter is significant only for IHSS facilities). They represent, respectively, 6.7% and 22.9% of the total.

3.77. The distribution of expenditures for private clinics (based on four clinics which provided data) is quite different, especially because employees payroll represents a much smaller proportion of the total (20.7 percent), and is substituted for by contracting out medical and non-medical services (25.4 percent and 28.9 percent respectively). Overall, if outsourcing is added to payroll costs, labor costs amount to 75 percent, which is expected for ambulatory care facilities.

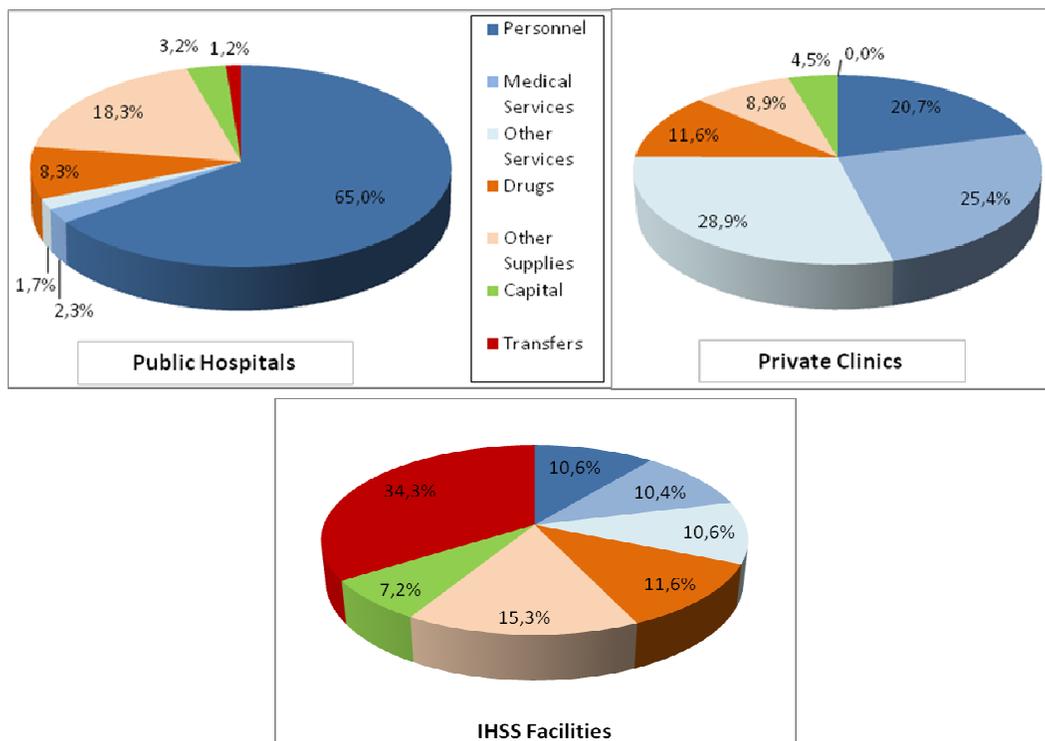
3.78. The two IHSS facilities included in the survey show a completely different expenditure composition (Figure 12). The largest share goes to the ill-defined item of “transfers and donations” (34.3 percent of the total). Payroll accounts for an unusually small proportion of the total (10.6 percent), and even with all outsourced services added, labor costs amount to less than 40 percent. Drugs and supplies also appear to be a higher than expected percentage of the total. A comparative analysis indicates that the cost per bed in IHSS two hospitals (in Tegucigalpa and San Pedro Sula) are five to six times higher than in their MOH equivalents.

**Figure 12. Difficulties in budget execution at facility level
(proportion of those facilities having their own budget)**



3.79. Half of the facilities executing their budget reported some significant problems that hamper budget execution. The main difficulties were the lengthy and convoluted budgeting and procurement processes, the late approval of the budget, and budget centralization (Figure 14).

Figure 13. Mean expenditure composition by line item, 2008 (Hospitals and Clinics only)



THE FLOW OF HUMAN RESOURCES

3.80. Management of human resources -a central issue in health care delivery- is reviewed in this section, and its limitations or distortions identified. Issues such as the sufficiency and distribution of personnel, its qualifications for the jobs performed, and the incentives structure offered by personnel management, are reviewed.

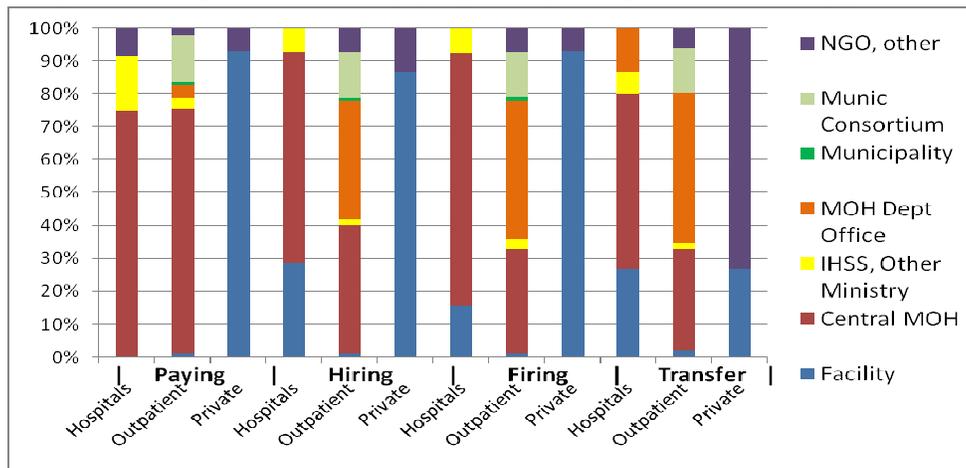
3.81. Payment and management of personnel are heavily centralized, except in private facilities. Salaries for nearly all public facilities are paid directly by the Finance Ministry (SEFIN) into employees’ bank accounts, even though payroll is included in the facilities’ budget (in the case of hospitals) or MOH departmental offices’ budgets (in the case of outpatient facilities). The exception is for IHSS units, where salaries are paid by IHSS, and public facilities are managed by municipal consortia or NGOs and associations, where they are paid by the organization responsible for managing the facility.

3.82. Hiring and firing staff is rather less centralized, with some hospitals taking on some of these responsibilities, and MOH departmental offices responsible for nearly 40 percent of outpatient facilities. A similar pattern is evident regarding transferring staff.

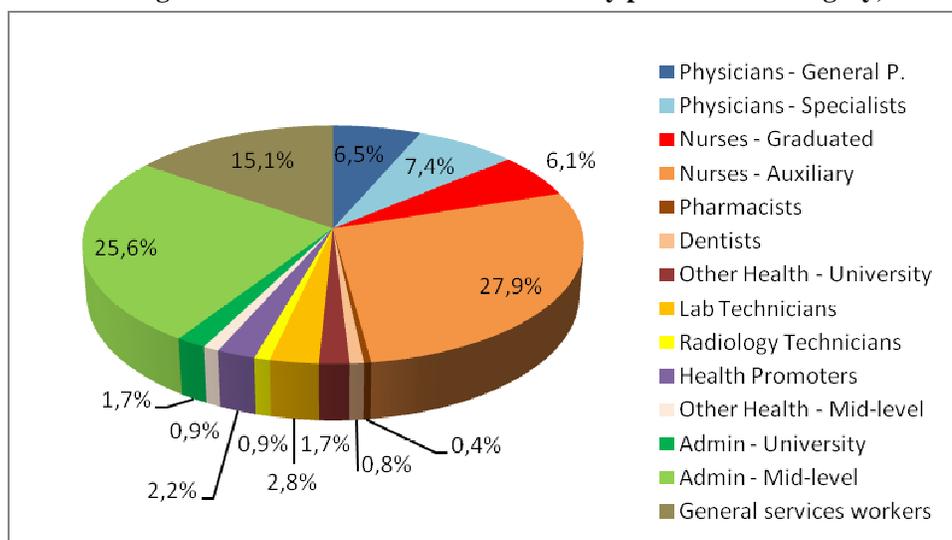
However, in this case, the Medical Staff Statute greatly limits the ability of facility managers to transfer physicians, even when they have authority to do so. The statute allows a physician to choose where to work, taking their post with them (World Bank, 2008).

3.83. However, as was the case for other managerial responsibilities and autonomy (see the section on governance above), the variety of organizational arrangements in public outpatient facilities implies diverse distributions of responsibilities for personnel management. For instance, municipal consortia are responsible for all staff management for the facilities under their management, but several MOH facilities managed by individual municipalities, NGOs or community associations have their staff management under the authority of these organizations (Figure 14).

Figure 14. Responsibilities for paying, hiring, firing and transferring personnel



3.84. The facilities surveyed had a total of 5,006 staff, distributed by professional categories as shown in Figure 15. The larger groups were: physicians with 13.9 percent of the total, nursing personnel for 34 percent; other university-level health professionals 2.9 percent; technical-level health professionals 6.8 percent, administrative personnel 27.3 percent; and support personnel (cleaning, security, etc.) 15.1 percent.

Figure 15. Facilities staff broken down by professional category, 2008

3.85. The average number of staff by type of facility is presented in Table 39. The majority is hired through a public competitive selection process and hired as civil servants under the *Estatuto* regime; but a number of employees are not hired under the main civil service rule (*estatuto*) are politically appointed and, according to a recent World Bank report, do not easily recognize the facility's manager authority (World Bank, 2008).

Table 39. Average number of staff by type of facility.

	N	Total	Physicians	Other Health Professionals	Non-health personnel
National Hospitals	5	556.7	104.0	341.8	286.6
Regional Hospitals	1	401.0	61.0	359.0	136.0
Local Hospitals	3	213.3	59.3	182.0	64.0
IHSS Hospitals	2*	20.5	14.0	22.0	14.5
CESAMOs	33	16.7	2.9	7.0	5.1
CESARs	41	2.8	1.8*	2.4	1.2
CMIIs	11	7.8	1.4	7.4	2.2
CLIPPERs	5	77.2	18.8	35.6	24.2
Facilities under municipal management	6	6.5	1.2	2.5	2.3
Private clinics	15	43.6	16.2	27.6	20.5

3.86. Precise information on facility staffing is unavailable for a number of reasons. Firstly, existing databases do not include all personnel. Secondly, detailed information for individual outpatient facilities is not available. Thirdly, existing data from different sources are not consistent and show significant and unexplained differences. The MOH regularly publishes staffing information by hospital and type of ambulatory facility, but it is limited to health professionals only (the reports are available from the MOH website). The Central Government budget system (SIAFI) publishes staffing lists by hospital and by department (excluding hospitals), but only for civil servants ("planilla permanente"). Data on personnel contracted on a temporary basis ("personal por contrato") are available from a separate database, as nominal lists that do not allow

identification of the facility where the worker performs his/her duty. It is possible that more precise or detailed information is available, but it was not made available for this study.

3.87. On the other hand, staff records held at the different administrative levels (Central Government, regional offices and facilities) show significant – and mostly unexplained – discrepancies, often in the order of 10 percent. Table 40 shows the observed differences between central level personnel databases (SIAFI and contracted staff) and the information obtained from local sources and the facility survey⁶². Several reasons may contribute to these discrepancies.

3.88. One is that different databases cover different categories of personnel (such as permanent civil servants in SIAFI/SIARH, and temporary staff contracted, recorded in a separate database maintained by MOH). Column 2 in Table records the former, and Column 3 the latter. The total number of staff managed at the central level (Column 4) is the sum of these two data sets. In addition, planning documents (eg. The POA) often show a different numbers (see Column 5); finally, hospital managers in the facility survey reported a different number.

3.89. Another factor to explain such discrepancies is that a significant number of staff are registered as working in a given facility or region, but are actually working in another. For instance, the department of Francisco Morazán reports 35 staff working in the department (at the regional offices or outpatient facilities), but being paid through a different department's payroll. Similarly, 34 staff members are paid through the department's budget, but are actually working in another department. Altogether, these two flows (in and out) represent 21 percent of the official staff roll of the department⁶³.

Table 40. Discrepancies in personnel information across sources

Surveyed Unit	SIAFI DBase	Contracted DBase (MOH)	Total Central Data	Local Data (POA)	Facility Survey
Hospitals					
Hospital Escuela	NA	309	309	2380	2,088
Hospital del Tórax	419	45	464	NA	422
Hospital Sta Rosita	281	26	307	NA	333
Hospital M. Mendonza	207	15	222	NA	218
Hospital San Felipe	919	197	1116	NA	1,254
Hospital de Occidente	376	60	436	NA	401
Hospital A. Murillo	214	43	257	NA	239
Hospital El Progreso	233	96	329	NA	212
Hospital de Yoro (Manuel Subirana)	195	38	233	NA	189
Departments					
Copán	402	27	429	NA	NA

⁶² We could not obtain information from regional offices on the number of staff working in the department or in each facility, in three of the four departments included in the survey. The only exception was for the department of Francisco Morazán. Interestingly, the annual planning and budget document (POA – *Programación Operativa Anual*) does not include comprehensive and clear information on the total number of staff, but only a list of those entitled to certain benefits (shoes, extra-time, and other bonuses) and a list of additional personnel needed.

⁶³ It was not possible to obtain similar data for the other departments or each hospital.

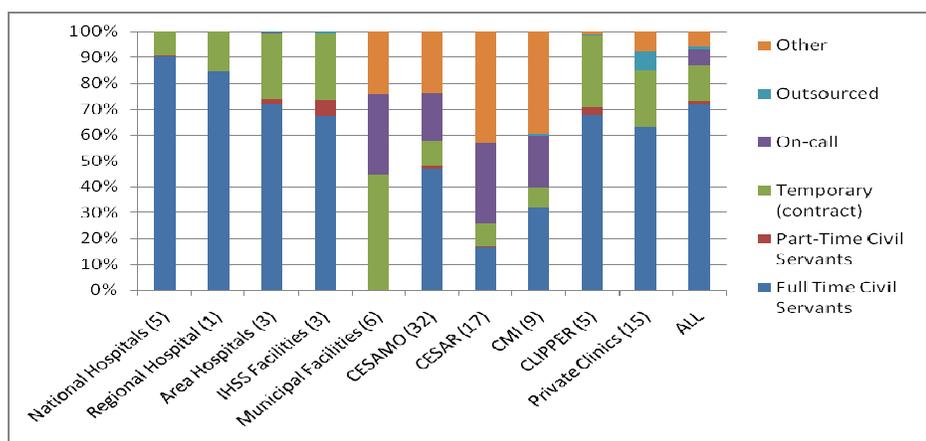
Fco Morazán	308	23	331	320	NA
Olancho	490	85	575	NA	NA
Yoro	227	80	307	236	NA

Sources: SIAFI (Planilla de Personal), MOH (Base de Datos de Personal por Contrato), annual planning documents (POA), survey data.

3.90. The absence of a single database that consolidates all contracting regimes, the unavailability of staffing information at the level of individual outpatient facilities, and other inconsistencies observed between the different data sources, indicate an overall weak information system and control over personnel.

3.91. Coexistence of multiple contracting regimes within the same facility or facility type makes personnel management complex and fragmented. As illustrated in Figure 16, up to six different contracting regimes coexist. The most common regime in public facilities is that of full-time civil servants (87.8 percent of the total in public hospitals and 43.9 percent in health centers) and temporary personnel under contract (11.6 percent and 15.7 percent). Health centers also rely heavily on “on-call” staff (16.3 percent) and other regimes (22.8 percent). Temporary personnel is the leading regime in alternative management models (facilities managed by municipalities or mancomunidades), and other regimes are prevalent among CESARs and CMIs.

Figure 16. Coexistence of multiple staff contracting regimes



Personnel Survey

3.92. The staff survey included a sample of 358 health workers from the facilities included in the survey, of which 339 answered the questionnaire: 105 in hospitals, including IHSS facilities (29 percent); 175 in health centers (52 percent); and 59 in private clinics (18 percent). The largest group was of nursing personnel (41 percent) and other, non-health workers (28 percent), as shown in Table 41.

Table 41. Composition of staff sample

	Physicians	Nursing	Other Technical	Managers	Support (other)	Total
National Hospitals	6	11	6	12	7	42
Regional Hospitals	0	2	1	1	3	7

Local Hospitals	3	6	5	4	3	21
IHSS facilities	5	7	5	14	4	35
CESAMOs	8	39	7	6	10	70
CESARs	2	32	2	0	6	42
CMIIs	1	33	0	1	1	36
CLIPPERSs	1	5	2	7	0	15
“Municipal” units	0	4	7	1	0	12
Private clinics	5	24	5	13	11	59
TOTAL	29	138	31	46	95	339

3.93. The majority of staff surveyed had secondary education (53 percent) or more (23 percent), a relatively high proportion (Table 42). The average age was relatively high for a young country like Honduras (76 percent were aged 30-59), and the vast majority were female (72 percent).

Table 42. Personnel by level of education

Less than primary	5	1%
Primary complete	26	8%
Common cycle	51	15%
Secondary complete	179	53%
University	61	18%
Graduate	17	5%
Total	339	100%

Working Environment

3.94. The organizational and work conditions perceived by facility personnel will be reviewed, as a complement to the information gathered from the facilities' management.

3.95. When asked their degree of satisfaction with their working environment and their own work, a large majority reported being fully satisfied (59 percent) or mostly satisfied (29 percent) with their working environment. Satisfaction with their own work is even higher (88 percent are fully satisfied and 10 percent mostly). However, many report facing significant problems or limitations in their work. Specifically, they reported poor physical environment, and lack of equipment, working tools and supplies as the main obstacles to their work (Table 43). It is hard to believe that workers facing so many important limitations can actually feel so satisfied with their work. This may be distorted by a responding bias by which people asked tend to respond they are satisfied, or because having a stable job at all is satisfying enough.

Table 43. Main obstacles to work achievement

	NH	RH	LH	IHSS	Muni	CESo	CESr	CMI	CLIP	Priv	Total
None	4.8	0	9.5	17.1	16.7	1.4	2.4	8.3	6.7	62.7	16.2
Adequate space	85.7	85.7	71.4	57.1	50	47.1	50	47.2	73.3	11.9	50.7
Office furniture	64.3	28.6	52.4	28.6	16.7	54.3	57.1	33.3	33.3	3.4	39.2
Office supplies	35.7	14.3	23.8	20	0	35.7	45.2	13.9	13.3	1.7	23.6
Office equipment (computers, etc)	59.5	57.1	57.1	25.7	66.7	47.1	42.9	27.8	40	1.7	37.2
Working tools	52.4	57.1	61.9	42.9	41.7	47.1	47.6	44.4	40	13.6	41.9
Others	23.8	42.9	9.5	20	0	32.9	52.4	41.7	13.3	15.3	27.4

Personnel Qualifications

3.96. Nearly all personnel believe they are qualified or trained to carry on their work (85 percent reported being fully qualified and 14 percent mostly qualified). However, when asked about specific knowledge or tools needed for their work, 39 percent reported missing specific knowledge or tools, especially in budgeting, accounting and finance (58.4 percent), health systems (45.2 percent), planning (41.8 percent), technical or medical (36.7 percent), and management (31.4 percent). Only 27 percent of respondents said their institution had recently offered training in that area of concern.

Payment and Incentive Structure

3.97. The resulting incentive structure perceived by personnel will be analyzed here, and its implications for efficiency, costs and quality of care assessed. These findings from the personnel survey will complement the findings obtained from the facility survey.

3.98. Most personnel reported earning between Lp 5,500 and 12,500, with wide variation between the lowest (Lp 2,600) and the highest (Lp 46,000). Mean wages appear non-standardized, with significant differences across types of facilities and professions (Table 44). Since 91 percent of all employees surveyed are hired for 40 hours or more a week, it is unlikely that these differences are due to differences in working hours. Physicians earn on average 2.5 times more than other professional categories. Differences among other categories are much smaller, in the order of 25 percent. Public hospitals pay a higher mean salary, followed by public health centers. Private facilities and those managed by municipal consortia – which often hire under private law and market wages – pay about 45 percent of wages in public hospitals and 60 percent of health centers. These differences are found in nearly every professional category, and indicate that the public sector pays salaries well above market levels.

3.99. However, workers themselves have a different perception of these differences. Overall, 38.1 percent indicated that they received less than market wages (but the proportion increases to 27.1 percent in private facilities and 33.3 percent in “municipal” units); 37.2 percent reported earning comparable wages (but 54.2 percent and 58.3 percent in private and “municipal” facilities respectively); and 23 percent believe they earn above market wages (16.9 percent and 8.3 percent). These findings indicate that health professionals in public facilities earn much more than their counterparts in private facilities, but many believe they are earning less. Earning higher wages may be an important reason why workers in public facilities are so satisfied with their jobs, in spite of severe limitations.

**Table 44. Mean gross monthly wage by type of facility and profession
(in Lempiras)**

	Medicine	Nursing	Other Technical	Management	Other	Total
National hospitals	30,875	13,456	19,459	8,448	9,742	14,242
Regional hospitals		14,500	11,330	10,683	6,977	9,874
Local hospitals	37,000	9,333	10,552	7,810	6,467	12,876
IHSS facilities	35,000	13,500	12,643	10,222	8,850	13,469
CESAMOs	20,227	9,932	12,411	10,187	10,035	11,436
CESARs	32,050	8,456	4,740	NA	9,280	9,546
CMI	29,700	8,001	NA	2,900	4,500	8,365
CLIPPERs	30,000	10,141	9,682	8,100	NA	10,451
"Municipal" units	NA	5,875	6,159	5,500	NA	6,010
Private Clinics	12,861	6,438	5,321	4,747	5,145	6,258
Total	25,534	9,027	10,514	7,994	8,008	10,275

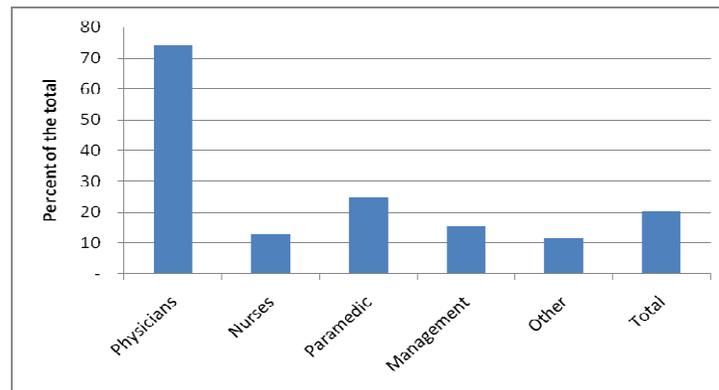
3.100. In addition to distorted salary levels, the incentive structure appears to be unclear or inadequate. Few workers reported receiving any benefit on top of their salary: 10 percent for transportation and 28 percent for food; other reported benefits included

uniforms and shoes. Those receiving a benefit reported widely varied amounts. Job stability was reported as a benefit by 74 percent of staff surveyed (mostly in public facilities), 40 percent reported career growth possibilities, and 12 percent bonuses for antiquity.

3.101. A very high proportion of staff (92 percent) reported the existence of bonuses or rewards linked to performance, but only four percent reported any monetary bonus. Other types of rewards included certificates, promotion points and food baskets, among others. However, the majority of employees could not identify a specific mechanism for rewarding performance. Fifty-four percent of employees indicated that there was a system for evaluating employees' performance in place, but only 54 percent of these could identify the person or department responsible for this evaluation. These inconsistencies are explained by the fact that the Government recently introduced a "Management by Results System", but it has no impact on the fixed salary received by civil servants, and mechanisms for rewarding performance or sanctioning are weak or not enforced. Production or productivity, contribution to one's unit work or performance, and relationship with colleagues, were cited as the most used criteria for measuring performance.

3.102. Surprisingly when compared to other developing countries, the majority of workers reported having only one job and only 20 percent reported having another job (8.8 percent in the private sector, 6.8 percent in the public sector, and 4.7 percent as self-employed). However, there is evidence that moonlighting is a common feature: 91 percent reported having a contract for over 40 hours a week, which should legally prevent them from holding another job. However, as indicated in Figure 17, most physicians do hold another (or other) job(s), while between 10 and 20 percent do so among other professions.

Figure 17. Proportion of workers moonlighting, by profession

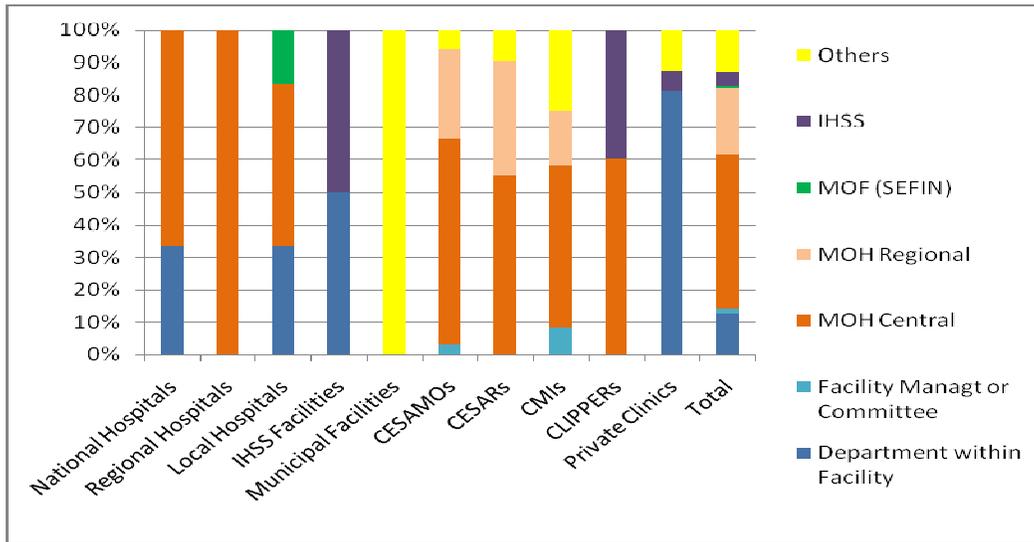


THE FLOW OF PHARMACEUTICALS AND SUPPLIES

3.103. Survey results show most public facilities are not responsible for purchasing the drugs and supplies they use, except for small emergency purchases paid for by their user fees' revenues. This finding is similar to the general centralized pattern of budget execution observed in the survey. However, the pattern apparent from the survey is not as clear cut as the official policy. Most hospitals, and about 60 percent of outpatient facilities, rely on MOH headquarters for their purchases of drugs and supplies. However, some 30 percent of hospitals, and five percent of outpatient facilities, execute

their own purchasing (Figure 18). An additional 20 percent of outpatient units depend on MOH regional offices. The exception, again, is for IHSS units (who rely on IHSS itself) and facilities managed by municipalities or NGOs. Even though non-drug supplies have a supposedly less centralized procurement system, in practice the pattern is very similar for the procurement of other supplies and equipment (Table 45).

Figure 18. Responsibility for drugs procurement by facility type and model



3.104. Only seven of the facilities surveyed reported the main procurement methods used: four hospitals and three private clinics. Among these, area hospitals indicated decentralized bidding as their only procurement method, with 86 purchases per year on average. The IHSS indicated having made 50 purchases through centralized direct purchasing and one through centralized bidding. The three private clinics reported making 20 purchases during the year, mostly through need-based purchasing (12) and direct facility purchasing (six).

3.105. Management of drugs at the facility level seems to be problematic, from the evidence gathered in the survey. Firstly, as mentioned before, the proportion of total expenditure allocated to drugs and other supplies is higher than expected. Secondly, a comparison of quantities and amounts recorded and observed in stock, for the 10 most important drugs and supplies, suggests weak controls and supply management.

Table 45. Procurement authority by type of supply, 2008

	Drugs	Other supplies	Equipment and Capital
Department in the facility	17	16	12
Facility managers	3	2	5
MOH Central	51	61	52
MOH Departmental Offices	34	26	34
MOF (SEFIN)		1	0
IHSS	4	5	4
Municipalities/Consortia	13	12	12
Other	4	5	7

3.106. As shown in Figure 19, significant differences were found between the amounts recorded in management/accounting ledgers (or accounting reports) for the 10 most important drugs (in spending), and the amounts recorded in stock cards. The former indicate the amounts of drugs and supplies resulting from the flows of entries to (purchases) and exits from (utilization) stocks. The latter indicates the quantities that storage clerks record for controlling stocks. On average across 117 facilities (for which data were obtained), the amount recorded in stock cards was much lower than the one reported by accounting reports, with 56 percent of facilities showing a difference of 50 percent or more. Further, for 26 percent of facilities, one or both values were not available or were unknown. Additionally, the few facilities that reported having performed a physical verification of their stocks within the last year encountered sizeable figures attributable to waste, losses or misuse (Table 46). These differences may be due to (i) wrong record-keeping of purchases and/or stock exits, and overall poor stock control; (ii) leakage while in stock (losses, waste or stealing); or both.

3.107. Strangely enough, the same type of comparison made between the quantity recorded in stock cards and the quantity observed by physical counting at the time of survey, showed much fewer and smaller discrepancies (Figure 20): in 60 percent of the facilities, there was full agreement (a 100 percent ratio), and in 25 percent of them, differences were within 25 percent of full agreement. This is suggestive of relatively good record keeping by stock keepers themselves.

3.108. Taken together these two findings appear to be inconsistent; such inconsistency may be due to a number of factors, including miscalculation of stock values, automatic reporting of outdated or wrong quantities or amounts by accounting, or unreliability of survey data collection itself. Nonetheless, these findings are suggestive of important problems in the management and control of drugs and supplies at the facility level.

3.109. Unfortunately, the survey could not obtain data on purchases made by the central level or departmental offices, and distributed to individual facilities, so the leakage from the central offices to the facilities could not be assessed. Nor it was possible to measure actual use of drugs or supplies in facilities, since this would imply following a sample of patients throughout their treatment. Therefore the abovementioned leakages refer to the facility level, resulting from the quality of stock recording at the facility level (both by accounting and by stock keepers).

Figure 19. Frequency of ratios between amount reported by management and recorded in stock cards for 10 most important drugs, 2008

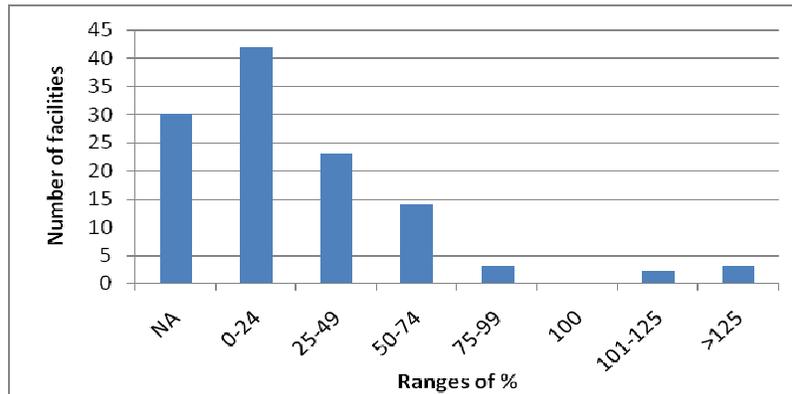


Figure 20. Ratios between quantities physically observed and recorded in stock cards, 117 facilities, 2008

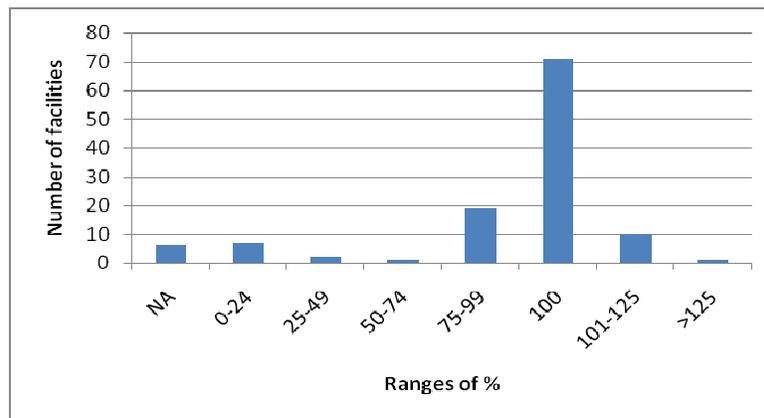


Table 46. Mean losses and waste in stock management

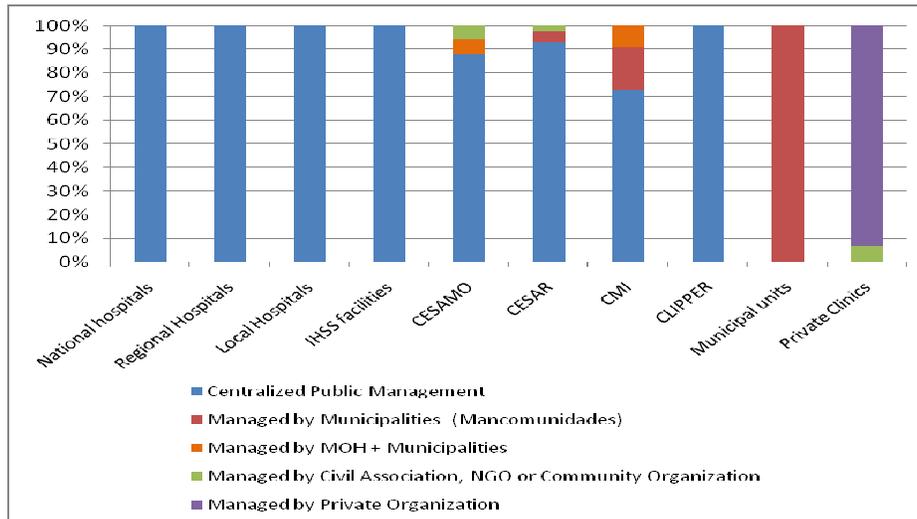
	N	% in last inventory	Amount in Lempiras
National Hospitals	1	20.0	43,500
IHSS Hospitals	2	4.5	500
CESARs	3	15.0	1,650
Private clinics	3	5.8	220

MANAGEMENT AT THE FACILITY LEVEL

Facility governance

3.110. As mentioned in Section 3.2, four main models have been recognized for organizing and managing health services in Honduras, the centralized model and three decentralized or alternative models adopted for the management of public primary care facilities. These include Public-Social (in which the department partners with Community-Based Organizations), Public-Private (with NGOs), and Public-Public (with groupings or associations of municipalities usually known as *mancomunidades*).

Figure 21. Management model by type of facility



3.111. The survey revealed a variety of alternative organizational and financial arrangements, which reflects the absence of a clear and stable model. Existing alternative arrangements appear still to be in the experimental stage, and focus exclusively on primary care facilities (CESAMO, CESAR and CMI) and there is a new type of facility managed exclusively by municipalities (municipal units). Figure 21 shows that most facilities are managed under the traditional centralized public administration, including all public hospitals, while 16 percent of the 98 public ambulatory units are governed by some kind of alternative model: 13 by associations of municipalities (or *mancomunidades*), and three by private, non-profit organizations (including one NGO and three community organizations or civil associations). This pattern indicates, firstly, an already significant and increasing role of municipal governments in the Honduran health system, and secondly, that alternative models already account for a significant proportion of the management of public ambulatory facilities. In fact, municipal management accounts for the majority of the alternative models.

3.112. A closer analysis reveals a great diversity of organizational models combining facility ownership, management, and hierarchical lines of authority. The traditional, centralized public management model covers the majority of the facility surveyed (92 or 75 percent of the sample), including all public hospitals. and the main types of organizational arrangements are:

- Nine public hospitals owned and managed by the MOH central offices under the centralized public management model; these include five national hospitals, one regional hospital, and three local (area) hospitals;

- One public hospital owned and managed by the IHSS; given that the Social Security institute is a Government institution, its own facilities are considered as managed under the centralized public management model;
- Out of the 101 publicly-owned ambulatory facilities, 82 are run under the centralized public management regime, including most CESAMOs, CESARs, CMIs, and CLIPPERS; 24 of these are managed directly by the MOH, while 42 report to its regional offices in the departments (according to facility managers); 16 are said to report to other public institutions, including municipal health offices (three), IHSS (four), and a national referral hospital (three).
- Overall, 19 facilities surveyed can be considered as managed under some type of decentralized management (16 percent of the total); the majority of these (13 facilities) are under the management of municipal governments or consortia, while six facilities are managed by private non-profit organizations (civil or community associations, NGOs and religious organizations). However, only six facilities are under the decentralized management model described in Box 1. These six facilities are managed by the same “mancomunidad”.
- 15 facilities (12 percent of the total) are fully private (owned and operated by a private organization, mostly for-profit); two of them are under contract with IHSS for providing health services.

3.113. Mapping out the hierarchical, technical and financial relationships between the facilities and their respective overseeing organization or office produced a general pattern described in Table 47. However, more facilities depended on MOH central offices financially than they did for administrative or technical issues, and facilities managed by municipal consortia were less dependent on these consortia for technical matters than for hierarchy and finance.

3.114. It is worth noting that the authority lines between facilities and central or overseeing units are not always clear to facility managers, or applied as defined in official documents. For instance, there is no reason for some facility managers to report to MOH central offices while others report to MOH departmental offices, since hierarchical lines and financial flows are the same for all facilities in a given category.

Table 47. Classification of facilities according to type, management model, and hierarchy

		National hospitals	Regional Hospitals	Local Hospitals	IHSS facilities	CESAMO	CESAR	CMI	CLIPPER	Municipal units	Private Clinics	TOTAL
Centralized Public Management	MOH Central	5	1	3		7	12	5				33
	MOH Deptal					22	17	3				42
	Municipal Office						3					3
	Other MOH facility*						1		3			4
	Region/Area						3					3
	IHSS				3**				2			5
	Other Public						2					2
Decentralized Municipal Management	Municipal Consort.						2	2		6		10
	MOH					2		0				2
	MOH + Municipal C.							1				1
Decentralized Management by NGO or Association	MOH Central						1					1
	MOH Departmental					1						1
	Private organization					1					1	2
Private Management	IHSS***										2	2
	Private organization										12	12
TOTAL		5	1	3	3	33	41	11	5	6	15	123

* The CESAR reports to the main CESAMO in the municipality, and the 3 CLIPPERS to the National Teaching Hospital (*Hospital Escuela*). **One hospital and 2 clinics.

***Private clinics under contract with IHSS (*subrogadas*).

3.115. A third finding is that the public system's hierarchy of facility levels and subordination does not seem clear to facility managers. Within the same type and level of facilities, some managers declare to be under the hierarchy and supervision of the central offices of the MOH, others to the departmental offices, and others to municipal offices. While the diversity of organizational arrangements does contribute to this, there appears to be no clarity regarding hierarchical lines of authority. One explanation proposed by a regional officer is that a number of facility managers has been recently appointed and does not yet know the system.

Table 48. Lines of authority between central levels and facilities

	HIERARCHICAL		TECHNICAL		FINANCIAL	
	Hospitals	Health centers	Hospitals	Health centers	Hospitals	Health centers
MOH Central	9	28	8	30	9	39
MOH Department	0	43	1	44	0	38
Other Public	0	12	0	12	0	6
Area	0	3	0	2	0	2
Regional office	0	3	0	1	0	0
Municipal office			0	3	0	2
Other facility	0	1	0	1	0	0
Teaching Hospital	0	3	0	3	0	2
Municipal Consort.	0	11	0	8	0	12
IHSS	1	4	1	5	1	4
Private organization	0	14	0	15	0	15
Facility managers	0	8	0	10	0	10
Facility owners	0	2	0	2	0	2
Facility board	0	1	0	1	0	1
NGO	0	1	0	0	0	1
Church	0	1	0	2	0	0
Foundation	0	1	0	0	0	1

3.116. In the vast majority of public facilities, the facility director or manager is the highest authority: that is the case for all public hospitals and 96 percent of ambulatory facilities. In three facilities (one CESAMO and two private clinics), the facility council was the highest authority, and in 10 facilities, other professionals or entities were deemed as the highest authority. Three public health centers identified the auxiliary nurse in charge, a municipal facility chief, or the national IHSS medical director as the highest authority. The remaining facilities, all private, had the facility council president (three), the facility owners (two), or the national supervisor of the church as the highest authority.

3.117. 23.6 percent of the facilities surveyed had a management, consultative or technical committee as part of its governance structure (Table 49). All public hospitals had at least one committee, while 18 percent of public outpatient facilities had one. One third of private clinics had a committee⁶⁴. Interestingly, no clear pattern was found across management models: the proportion of facilities with at least one committee was

⁶⁴ A similar committee structure is present at the level of MOH regional offices and at its central level.

24.4 percent among facilities under centralized public management (but only 13 percent among ambulatory units), 50 percent among those managed by associations or NGOs, but none among those under decentralized, municipal management⁶⁵. Thirty-one percent of typical private facilities had one. The most common type of committee in public hospitals was the consultative type, while the administrative type was more common among ambulatory facilities, including private clinics⁶⁶.

Table 49. Existence and type of councils or committees in facility governance

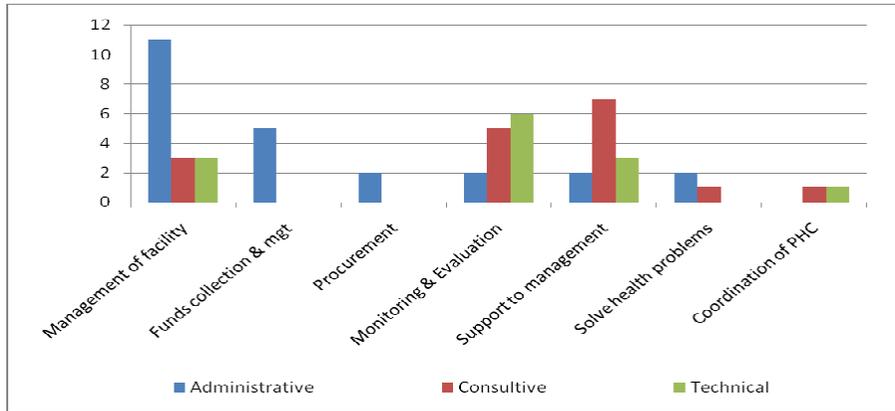
	Any committee	Management committee	Consultative committee	Technical committee	No committee
National Hospitals	5	2	5	4	0
Regional Hospitals	1	0	1	1	0
Local Hospitals	3	2	3	1	0
IHSS Hospitals	1	0	1	1	0
CESAMOs	6	6	2	5	22*
CESARs	7	7	0	0	34
CMI	0	0	0	0	11
CLIPPERs	3	3	1	2	0*
IHSS clinics	0	0	0	0	1
“Municipal” facilities	2	0	2	0	4*
Private clinics	5	5	3	1	9*
Total	33	25	18	15	81

3.118. The main functions of the facility committees vary somewhat depending on the type of committee, as shown in Figure 22. Administrative committees are mostly involved in the direct management and financing of the facility; consultative committees focus mainly on supporting management, and monitoring and evaluating facility activities; and technical committees emphasize monitoring and evaluating quality and other aspects of facility activities. No clear differences in this pattern are apparent across management models, in part due to the small sample size in each category. However, evidence shows that although established formally, these committees are not always effective as a decision-making focus.

⁶⁵ The small number of facilities in some of these categories prevents solid conclusions.

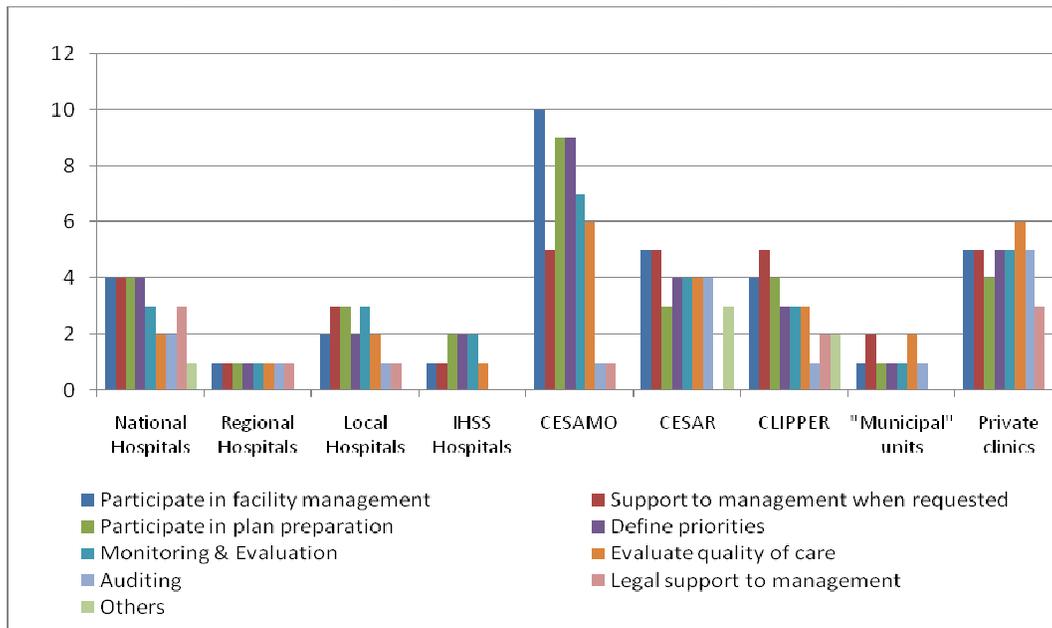
⁶⁶ Generally, an administrative committee is closely involved in the planning and decision making and/or operation of a facility, while a consultative committee usually functions as occasional support to facility managers. A technical committee tends to focus on particular technical issues of the facility.

Figure 22. Main functions of facility committees by type of committee



3.119. The main responsibilities of the committees by type of facility are shown in the following figure.

Figure 23. Main responsibilities of committees by type of facility



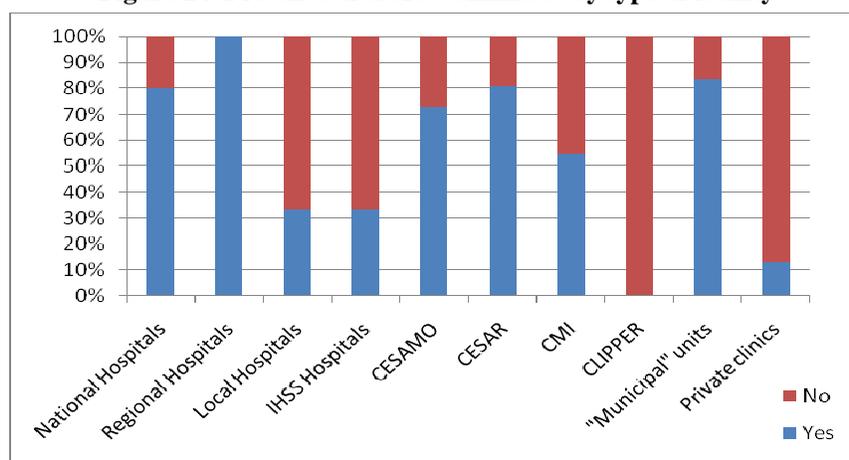
Users' Participation Mechanisms

3.120. Users' committees are a common feature of Honduran health facilities, and have been established to ensure a channel by which users can voice their concerns and participate in some decisions. The majority (62.6 percent) of all facilities surveyed has established a users' committee, but this proportion varies widely across facility types and governance models, though no clear pattern is apparent (Figure 24). These committees are more frequent in larger public hospitals and some public health centers (CESAMOs, CESARs, but not in CLIPPERS), and are rare in private clinics (13 percent). These committees are usually composed of individual users (in 47 percent of the committees), representatives from civil or community associations (36 percent); representatives of users' associations (eight percent) and health workers from the

community or the facility itself (seven percent). These representatives are usually chosen by community or users' meetings (in 70 percent of the cases).

3.121. The most common functions of the users' committees include supporting facility managers when requested (87 percent), participating in management and decision making (51 percent), managing external support (and funding) to the facility (44 percent), defining priorities (36 percent), and monitoring and evaluation (34 percent). Surprisingly, providing voice to users' complaints and feedback (through evaluation or quality assessment) are not among the main functions. Users' committees appear to function more as management or administrative support than a channel for users' concerns.

Figure 24. Presence of users' committee by type of facility



3.122. Users' committees are slightly more common in facilities under alternative management models, and much less so in private facilities, as shown in Table 50 below. However, the difference between alternative models and the traditional public management model are smaller than expected.

Table 50. Presence of users' committees by facility type and management model

	Public Management	Managed by Mancomunidad or Municipality	Managed by NGO, Civil or Community Association	Managed by Private entity
National Hospitals	80.0	-	-	-
Regional Hospitals	100.0	-	-	-
Local Hospitals	33.3	-	-	-
IHSS Hospitals	100.0	-	-	-
CESAMOs	69.0	100.0	100.0	-
CESARs	78.9	100.0	100.0	-
CMIs	62.5	50.0	0.0	-
CLIPPERs	0.0	-	-	-
IHSS clinics	-	-	0.0	0.0
"Municipal" facilities	-	83.3	-	-
Private clinics	-	-	0.0	14.3
Total	68.5	76.9	75.0	14.3

Managerial Autonomy

3.123. A second important finding is that most public facilities, including nearly all ambulatory units, have little or no autonomy to manage their financial, human and material resources. While 90 percent of public hospitals (but only 80 percent of national hospitals) have their own separate budgets, 96 percent of ambulatory facilities do not. Among private clinics, 93 percent have their own budget (Figure 25). On the other hand, budget execution and personnel management are very centralized. Even among public facilities with their own budget, only one third is responsible for decisions regarding budget allocation, staff definition, personnel hiring, and capital investments. Between 50 and 75 percent are responsible for procurement, staff assignment, and setting service prices (Table 51). In contrast, nearly all private clinics have autonomy for making such decisions.

Figure 25. Proportion of facilities with their own separate budget

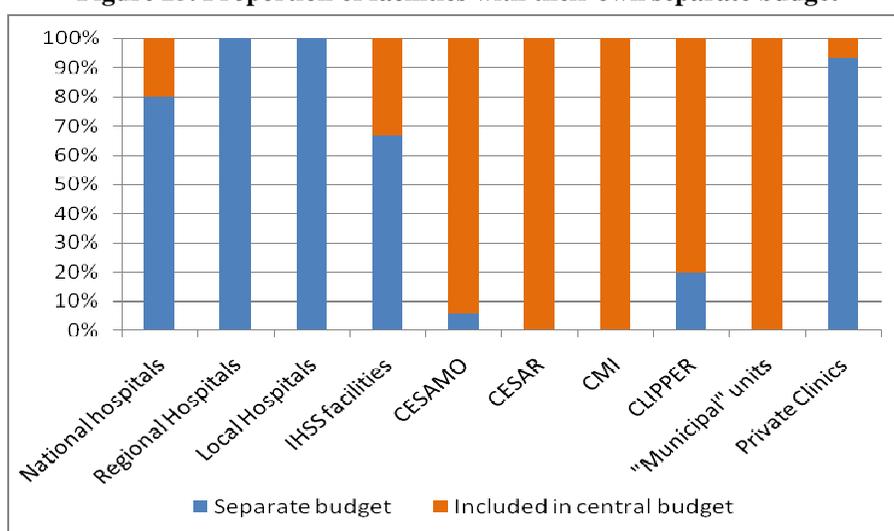


Table 51. Level of managerial autonomy by type of facility

	National hospitals	Regional hospitals	Local hospitals	IHSS hospitals	CESAMO	CLIPPER	Private clinics
No. with own budget	4	1	3	1	2	1	14
Budget allocation	1	0	2	1	0	0	14
Staff definition	0	0	1	1	1	1	13
Staff assignment	2	1	2	1	0	1	14
Personnel hiring	1	0	1	1	1	0	14
Procurement (supplies)	2	1	2	1	1	1	14
Procurement (services)	2	0	2	1	1	0	14
Equipment purchasing	3	1	1	1	0	0	14
Capital investments	2	0	1	1	0	0	13
Pay suppliers	0	0	0	1	2	0	14
Setting service prices	3	1	1	1	1	0	13

3.124. The survey findings indicate that the degree of managerial and decision-making autonomy, as reported by facility managers, is not related to the size of the facility (except for public hospitals) or the management model: even facilities under alternative management models have very limited autonomy, most decision making power being in the hands of the managing organization rather than the facility managers.

3.125. The relatively greater autonomy enjoyed by hospitals is due to a recent program, supported by the Inter American Development Bank, aimed at modernizing the management in 12 hospitals through a new model for hospital management. This new model included i) improved governance and management structures; ii) new planning and management tools; iii) an improved planning process (including capital investments); iv) introduction of management performance contracts, and v) increased managerial autonomy. However, according to a 2006 report (Herrera, 2006), the program was only partially implemented, leaving other initiatives midway.

3.126. Similarly, the new regionalization and decentralization process, implemented in 2005, came on top of several waves of decentralization reforms which never took root, and was not accompanied by a clear redefinition of roles and responsibilities of each level of the health system, or a systematic effort to increase the capacity of local and regional offices (Herrera, 2006). This helps explain the unclear lines of authority and distribution of responsibilities apparent from the survey, and the patchwork of organizational arrangements and hierarchical lines in the public sector.

3.127. With respect to their residual claimant status (that is, the ability of facilities to retain any savings from their budget or income), the situation depends very much on the type of income. Most public facilities (81.5 percent), including the larger hospitals, cannot retain savings from their annual budget (Figure 26). They can, however, retain and spend income from user charges (37 percent of all public facilities – Figure 15).

Figure 26. Residual claimant status regarding budget savings

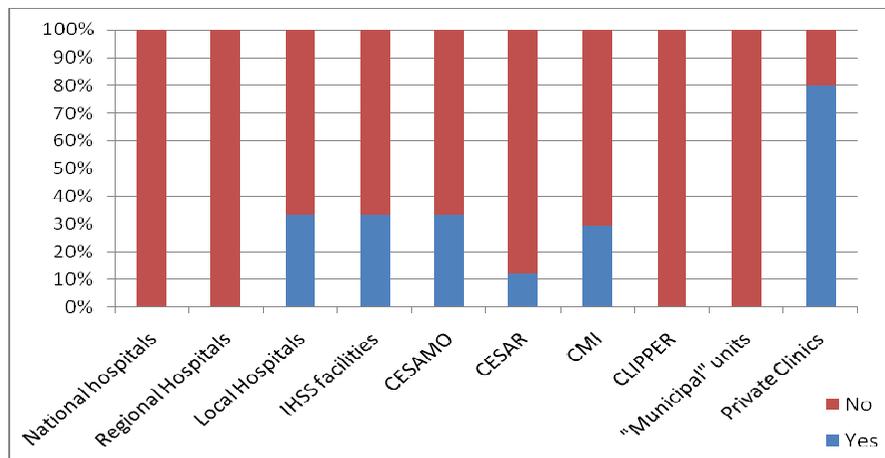
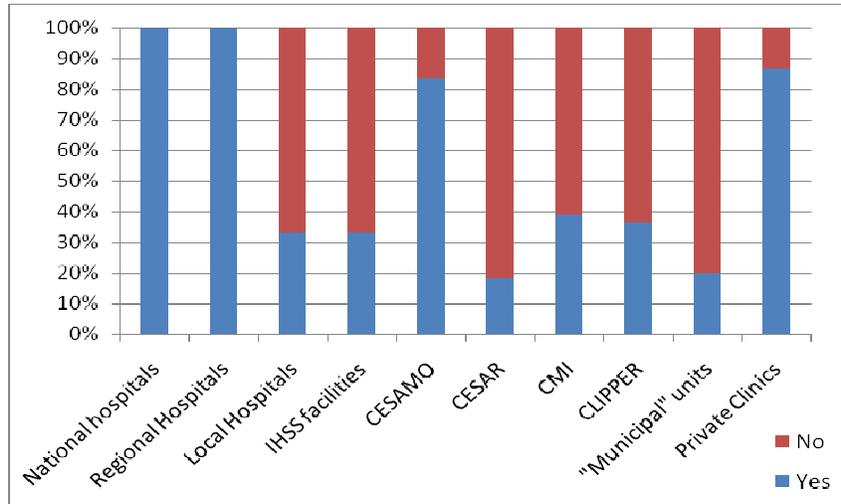
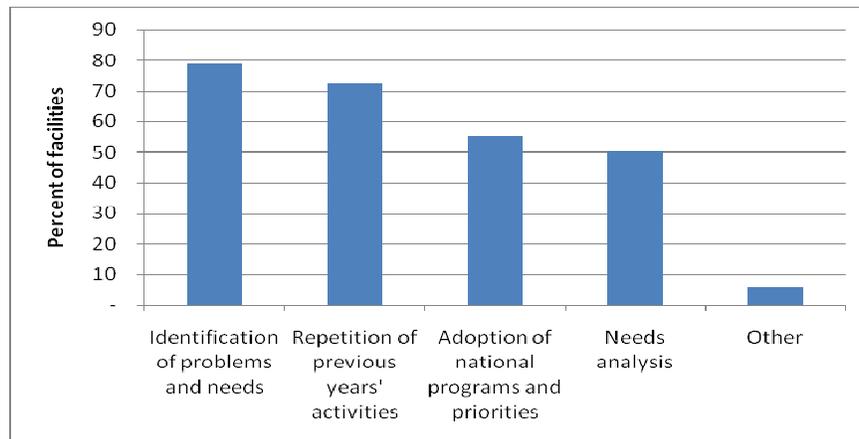


Figure 27. Residual claimant status regarding user charges

Planning and Budgeting Processes

3.128. The assessment of the planning and budgeting process is based on the analysis of the data collected through the survey and the analysis of a limited number of planning and budgeting documents. The results indicate that a structured process of planning and budgeting is in place, but suffers from significant weaknesses that hamper the usefulness of these instruments for management, monitoring and evaluation.

3.129. The planning system in the public sector is a combination of ascending and descending processes. All public facilities under the centralized public regime are required to prepare an annual plan (*Plan Operativo Anual* or POA) to guide their activities during the year. According to the survey, all public hospitals and 88 percent of MOH ambulatory units do so; among facilities under alternative management (managed by municipalities, NGOs and community associations), 100 percent prepare an annual plan, but only 73 percent of private facilities do. These plans are submitted to the regional offices of the MOH (the departmental offices or *Jefaturas Departamentales*), which are supposed to consolidate them and produce an annual plan for the department as a whole. The departmental POAs are then sent to the central offices of MOH, where they are harmonized and consolidated with national policies and priorities. On the descending side, the Central Government, through the Finance Ministry, defines the annual budget allocation by ministry, and the MOH in turn defines ceilings for budget allocation by department. However, as we will see this formal approach to planning and budgeting is underutilized as a management tool.

Figure 28. Main bases for planning in the sampled facilities, 2008

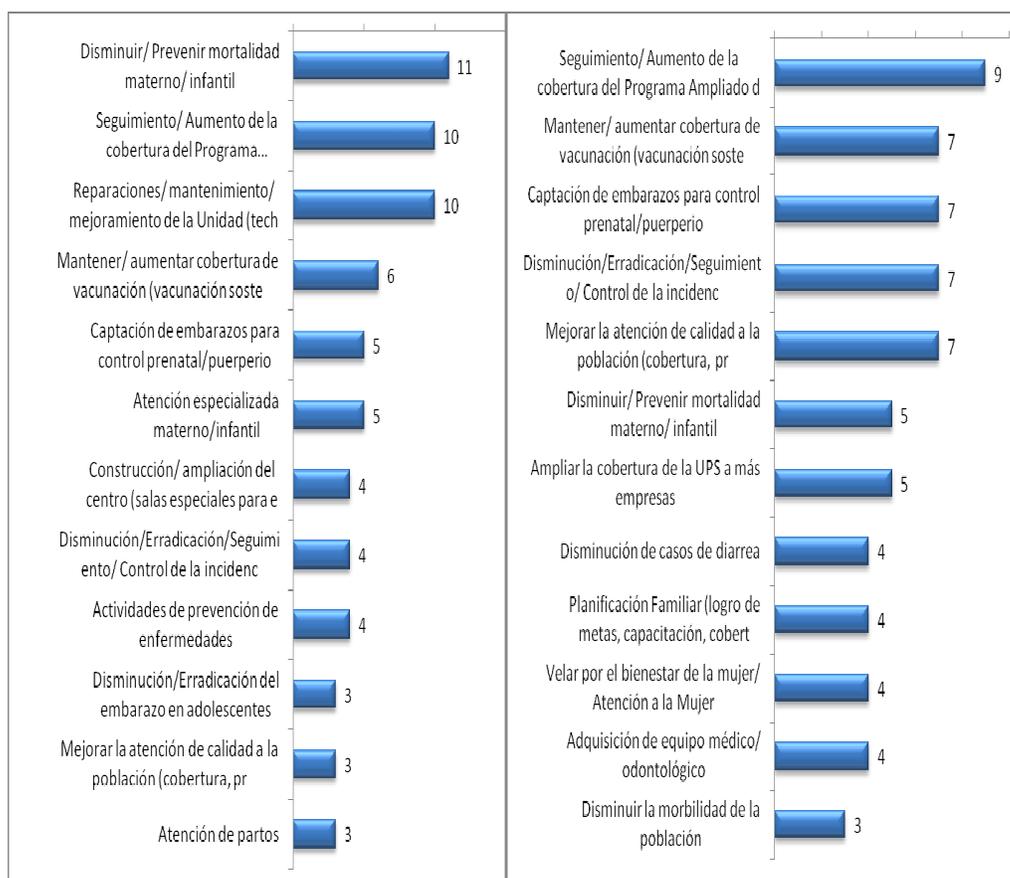
3.130. The annual plans produced by both facilities and departmental offices follow an established methodology and template. They define objectives, usually by program, set goals and targets, and list activities and tasks to be undertaken during the year. Activities and programs are reportedly based on different approaches, as indicated in Figure 28; passive approaches such as repeating last year's activities or simply repeating MOH national priorities and programs are two main approaches. Even though many managers acknowledge that problem identification and needs assessment as important bases for the planning, a review of few actual plans show that in practice little attention is paid to identifying the problem to be addressed and providing epidemiological data to justify investments or spending in particular programs or activities. The objectives and targets included in the plan are very general and difficult to assess; they are mostly defined in terms of service provision rather than results or impact, and there is no justification for the definition of particular priorities or goals.

3.131. The activities and tasks are often very specific – such as “performing X quantity of a given diagnostic test” – not clearly connected to the objectives and do not necessarily contribute to achieving them. One hundred and twenty-four activities or programs were cited among the three top priorities of the plan for 2009. They range from real objectives to established national programs and from infrastructure building or repairing to intermediate activities not clearly related to any result (Figure 29).

3.132. Another weakness identified in the planning process is that the documents analyzed do not demonstrate a clear connection between the regional and facility levels. Documents produced at both levels do not make any reference to the other level. The departmental POA appears to be a plan for the departmental office itself rather than for the departmental facility network.

3.133. Budgeting appears to be a completely separate process from planning, and the two documents – annual plan and budget – do not show any links between them. Even when the annual plan includes resource needs, they are quite different and unrelated to budget allocation. The budget is mostly set based on values from the previous year. In many cases, budget or financial planning is very detailed, to the level of purchasing particular supply items, without any clear link to what activity this relates to.

Figure 29. Priority programs and activities cited for Plan 2009



3.134. The budgeting process itself presents some additional challenges. The Ministry of Finance releases budget quotas each trimester between March and February, but it is common for the last quotas to be frozen, reducing effective time for budget execution to six months, thus producing debts with suppliers of goods and services. On the other hand, budget spending is a complex and bureaucratic matter that requires 50 steps, including repeated authorizations, signatures, and recordings (World Banks, 2008).

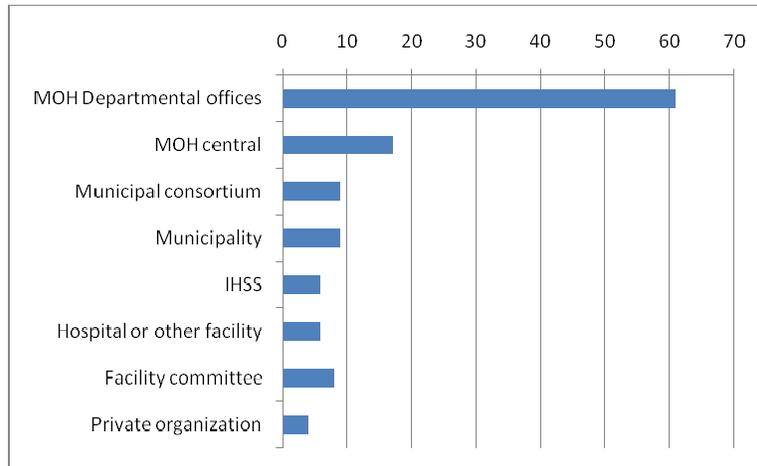
3.135. Nearly all facility managers surveyed report having to render accounts on a regular basis, usually monthly. Nearly half of the facilities render accounts to MOH regional offices, and 14 percent to MOH headquarters. Almost 15 percent do render accounts to municipal governments or consortia (Figure 30). The most common forms of account rendering are management reports (59 percent), budget execution reports (32 percent), unspecified “detailed reports or formularies” (32 percent), performance or results evaluation (21 percent), health care data or reports (16 percent) and other forms (37 percent)⁶⁷. As was mentioned in the planning and budgeting section and for other management tools, accounts rendering appears to be a formality with little impact on performance or accountability.

3.136. In recent years, the GOH has undertaken significant steps to increase transparency and accountability in public spending. For instance, most ministries have

⁶⁷ Total is greater than 100% due to multiple responses.

on their website a page on transparency, where some financial information – related specifically to the budget – is made available to the public. A comprehensive financial information system (SIAFI) was put in place and is now the main source of budget information. However, such information appears to be fragmented and incomplete.

Figure 30. Accounts rendering by authority



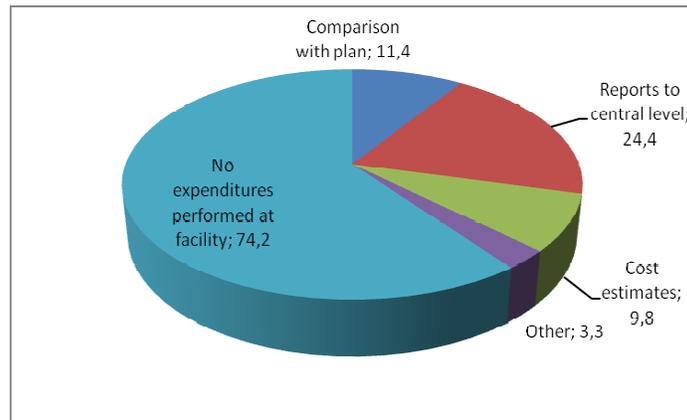
3.137. The survey highlighted important evidence of insufficient or absent transparency. Firstly, the lack of publicly available information on user fees, revenues and spending: such information was not available online, and could not be obtained from the MOH. The extent to which these revenues are recorded in the SIAFI system could not be verified. Secondly, SIAFI does not consolidate all public sources of funding for health, namely municipal funds and a significant part of donor funding. Thirdly, even budget information available from the MOH and SEFIN website is aggregated (preventing analysis for health centers), difficult to analyze, and does not cover the resource flows that bypass the budget system. Fourthly, no financial information could be obtained from IHSS regarding its facilities.

Management Practices and Tools

3.138. This section will present the main management practices and instruments in place in health facilities of different levels. Overall, the health facilities surveyed showed limited use of modern management practices and tools.

3.139. The majority of the facilities surveyed do not undertake any monitoring or control of expenditures because most of their procurement is conducted at the central or regional level. Only 24 percent of them prepare and submit reports to the central level, and 10 percent have some kind of cost estimation (Figure 31).

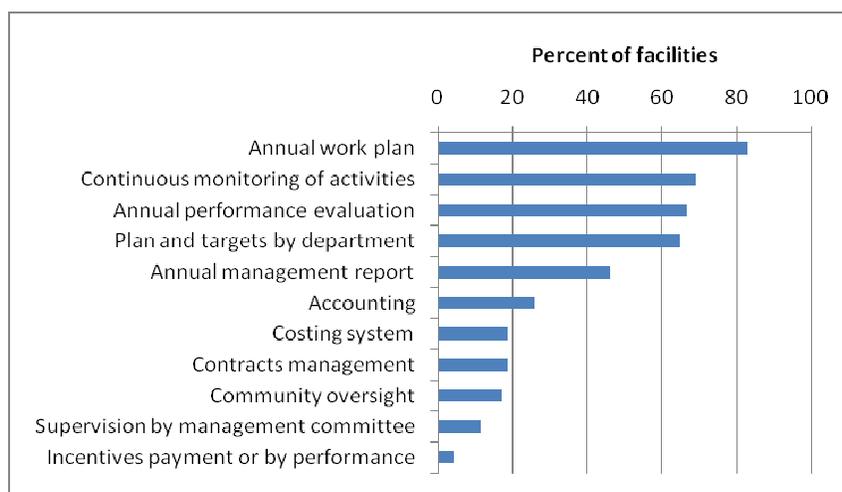
Figure 31. Monitoring and control of expenditures at the facility level



3.140. Many of them report using one or more management tools, such as an annual workplan, monitoring of activities, or performance evaluation (Figure 32). A relatively small but significant number of facilities have implemented computerized information or management systems, especially for accounting (23 facilities), personnel (20), budgeting (18), procurement (15), patient information (14), and quality (13). However, around 60 percent of these facilities are private ones, and such systems are present in very few public facilities, especially larger hospitals and CLIPPERS.

3.141. The relatively high reported use of some management tools is surprising, in contrast with the weaknesses in management and control identified in this survey and other reports, and with the situation of other sectors in Honduras. This suggests that significant efforts have been made to implement appropriate tools, but although they may be in place, they are ineffective in ensuring control in resource use, quality or efficiency. This may be due to inadequate training of facility managers in actually applying and using such tools.

Figure 32. Most commonly used management tools



Maintenance of Facilities

3.142. Lack of or inadequate maintenance of buildings and equipment is an important problem in many facilities. Over half of the facilities that gave information (53.2 percent) had no organized maintenance system for buildings, installations and equipment. 32.5 percent had a system for both preventive and corrective maintenance (Figure 33), while the remainder had only a corrective system (11.7 percent) or a preventive one (2.6 percent). About 70 percent of public health centers and nearly 20 percent of public hospitals had no system at all, while most (86 percent) of private clinics had an organized system. Furthermore, among facilities with an organized system, 27.8 percent of them were non-functioning, including over half of the health centers with a maintenance system in place. Most public hospitals and all private clinics had a functioning system, if a maintenance system were in place.

3.143. As a result, facilities are often physically inadequate: 80 percent of public hospitals and 67 percent of public ambulatory units are in a state of disrepair, and 50 percent and 47 percent respectively, do not have adequate space. Private units, on the other hand, are nearly all in good working condition, on account of being in a good state of repair and having adequate space.

3.144. The most frequent reasons for area inadequacy in public facilities are: insufficient space (71.7 percent), bad working conditions of building and installations (13.2 percent), inadequate location (9.4 percent), no sanitation, no room for offices and humidity (7.5 percent each), no area for immunizations and pharmacy, building inadequate for service provision (5.7 percent), small waiting area, small and unventilated stocking area, inadequate space distribution, building disrepair (3.5 percent).

Figure 33. Maintenance systems by type of facility

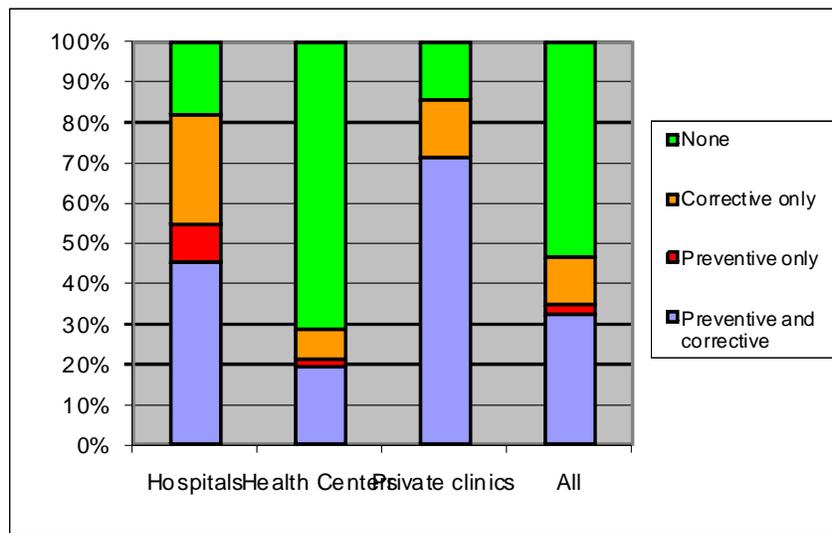
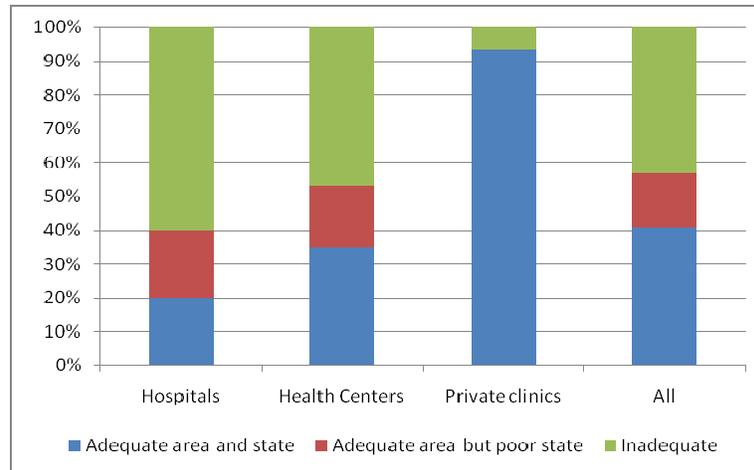


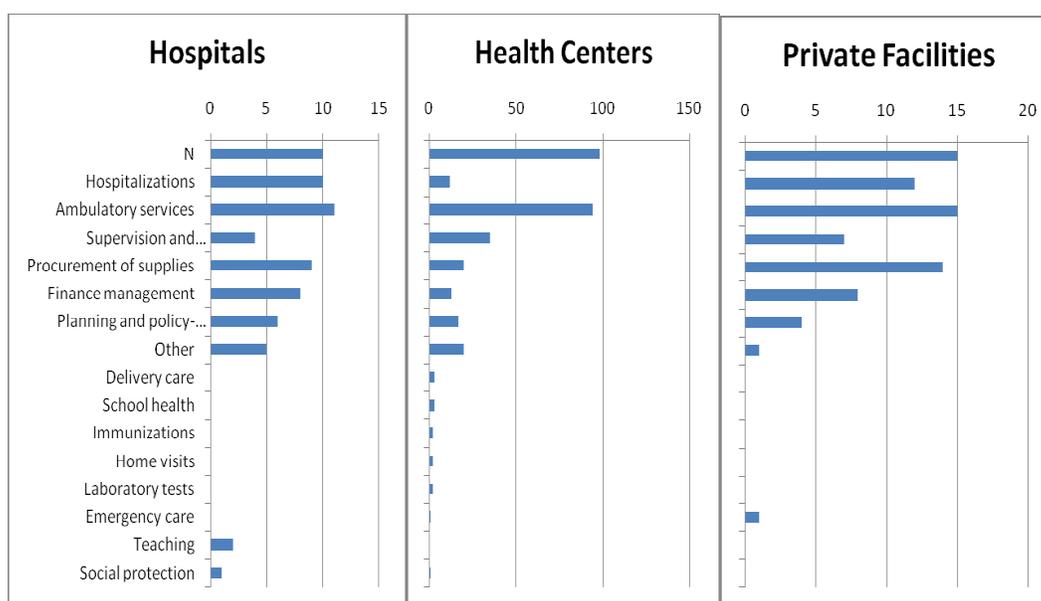
Figure 34. State of installations by type of facility

Health Care Management

3.145. This section reviews the organization and management of health services at the facility level, analyzing the evidence from the survey regarding efficiency and quality of the health care services provided.

3.146. The role and function of the different types and levels of facilities is not consistent across facilities of the same type, and present some unexpected results. This may come from insufficient standardization of facility roles and responsibilities, and thus unclear design of the health system, non-standardized terminology, lack of clear understanding and information from the part of facility managers, or greater diversity of facility types than reflected in official classification. For instance some facilities categorized as hospitals do not report providing hospital services, and some facilities categorized as ambulatory units do provide hospitalization services (Figure 36). The latter is mostly the case of CMIs (Maternal and Child Centers), which provide delivery care, but not all CMIs report providing hospitalizations. Some activities that usually apply to central and regional offices are reported as being undertaken at the facility level (such as “supervision and support of other facilities”). More surprisingly, some of the most obvious activities are hardly mentioned, such as primary care and immunizations in health centers.

3.147. Comparing the facility-reported hospitalizations with the existence of beds and number of hospitalizations reported shows some inconsistencies, with facilities with no beds reporting hospitalizations and others with beds reporting no hospitalizations. It is not clear whether these inconsistencies are due to the lack of standard definition of beds and hospitalizations, to the quality of the information reported, or to large variations in facility structure.

Figure 35. Main activities undertaken by the facilities

Note: The "Other" category is broken down into the activities following it; however, only the larger subcategories are shown.

Productivity

3.148. Physician productivity has been estimated in several facilities. Table 52 shows that the reported number of consultations varies significantly by type of facility. Further analysis and verification is needed to check the comparability of these figures and adjust the figures for the effective number of hours worked. The Medical Statute (*Estatuto Medico*) defines a standard daily work time for all physicians at 6 hours. Assuming a generally accepted standard of four consultations per hour for a general practitioner, and that hospital physicians spend 60 percent of their time in the outpatient unit, physician productivity reported in the survey appears very high in hospitals. On the other hand, productivity seems somewhat low in many outpatient facilities (except in CMIs, where physicians are also supposed to attend deliveries).

Table 52. Mean physician productivity by type of facility (number of visits/hour contracted), 2006-2008

	N	2008	2007	2006
National Hospitals	3	9.12	9.14	9.49
Regional Hospitals	0	na	na	na
Local Hospitals	3	23.70	19.44	19.44
IHSS Facilities	2	4.50	na	na
CESAMOS	30	5.14	4.80	4.72
CESARs	28	3.24	3.16	3.23
CMIs	3	2.44	1.89	2.42
CLIPPERS	5	3.47	3.37	3.27
Municipal Facilities	3	3.44	3.33	3.33
Private clinics	10	3.05	3.18	3.48

3.149. Hospital efficiency and use of resources has been measured along three indicators: bed rotation (number of hospitalizations per bed); total staff per operational bed (multiplied by 10); and hospitalizations per (total) staff. The resulting estimates, shown in Figure 37, reveal large variation in the indicators across the hospitals surveyed. National hospitals (in tones of blue) tend to be less efficient than regional and local hospitals (in tones of red), with much lower bed rotation index and hospitalizations per staff. Little differences were found in the ratio of staff per bed, which is consistently around two. These findings suggest that national hospitals may treat more severe patients, who require longer stays, than regional and local hospitals.

3.150. Productivity in outpatient services was also computed, as the sum of consultations, emergency services and primary care services, divided by the total number of staff. Wide variations were found across facilities (Figures 37-38), without any clear pattern across types or models of facilities. As expected, hospitals show very low outpatient productivity (below 600), since all staff is related to one of the hospital's products; the same applies to CMIs (529). CLIPPERS (with an average productivity of 1,171) and the group of facilities managed by municipal consortia show lower productivity than most facilities (1,511). CESARs (2,437) and CESAMOs (2,124) have the highest average productivity, but surprisingly, private clinics also show low productivity (890).

3.151. More important than these averages, however, is the extreme dispersion of productivity values across facilities of all types. Several factors can contribute to this, for example: data errors (several outliers were found, and several facilities did not report data); an inadequate distribution of manpower across facilities; inefficient composition of staff within facilities (with large proportions of non-technical personnel, for instance); or facility staffing defined without appropriate reference to demand. There is no recognized standard for outpatient productivity when related to total staff, especially when facilities of different sizes and levels are pooled together, but the considerable variation in the indicator suggests that productivity is a matter of concern.

Figure 36. Hospital efficiency and productivity

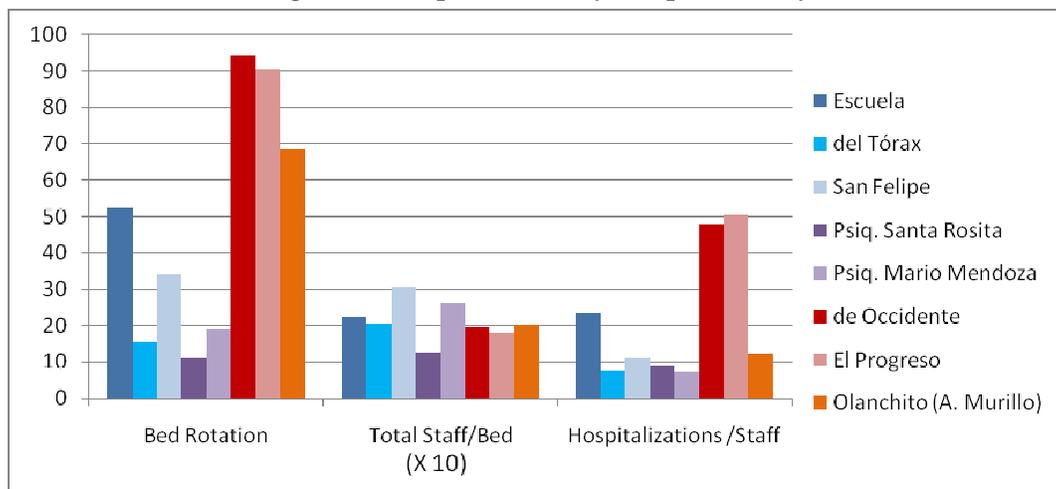
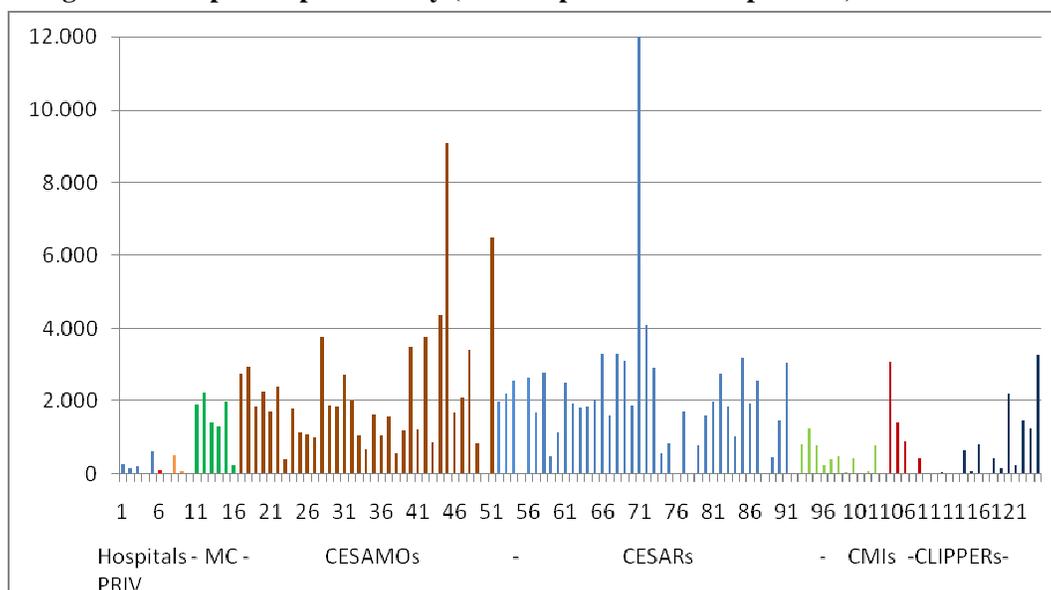


Figure 37. Outpatient productivity (total outpatient services per staff) across facilities



Quality of Care

3.152. Quality of care is difficult to measure in any setting, and harder when information systems are weak or unreliable. A subsample of 55 outpatient facility managers identified several problems that had a negative impact on the quality of care (Table 53). These problems were much more frequent in public facilities than in private ones. The most common were shortages of drugs and supplies, insufficient funding, and insufficient qualified personnel.

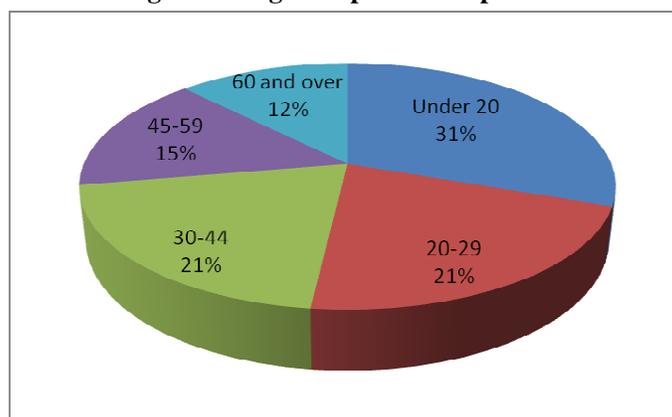
Table 53. Problems affecting quality of care

	CESAMO	CESAR	CMI	Private	TOTAL
Shortage of drugs and supplies	17	19	2	0	38
Insufficient financial resources	13	18	2	1	34
Insufficient qualified personnel	9	15	3	0	27
Lack of qualified management staff	6	13	2	0	21
Insufficient capacity to meet demand	9	11	0	0	20
Lack of managerial autonomy	10	5	0	0	15
Insufficient supervision	5	7	2	0	14
Inadequate or broken equipment, installations	5	5	1	0	11
Lack of management tools	3	4	1	0	8
Low qualification of personnel	1	5	1	0	7

THE USER'S PERSPECTIVE

3.153. This module of the survey aims to assess the provider-seeking behavior of facility users, their assessment of the quality of services, and some insight into access to care. The survey covered 558 users from the facilities sampled, of which 523 responded to the questionnaire. The vast majority of these users were female (82 percent), which reflects either a greater focus on maternal and child health in the health system, or, more likely, greater time availability among women to seek care, especially when accompanying children and the elderly. Nearly 60 percent were young adults, between 20 and 44 years old, and the elderly (aged 60 and over) accounted for 11 percent of the total. Indeed, almost 30 percent of the users interviewed were just accompanying a patient; in 63.2 percent of the cases it was the mother, in 7.7 percent the father, and in 6.5 percent the son or daughter. The age distribution of actual patients is shown in Figure 38.

Figure 38. Age composition of patients



3.154. Almost half of users sought care at health centers (49 percent), and the others were almost evenly divided among public hospitals and private clinics (Table 54). Thirty percent of the users were accompanying a sick family member or friend.

Table 54. Distribution of users simple by type of facility

Facility	Number of Users	%
Hospitals	135	24%
Health Centers	276	49%
“Municipal” facilities	18	3%
Private clinics	129	23%
Total	558	100%

3.155. Surprisingly, the vast majority of patients went to a facility near to their home: 24.1 percent live less than 1 km away, 20.6 percent between 1 and 5 kms, 8.6 percent between 5 and 10 kms, and 10.9 percent at more than 10 kms (35 percent could not tell the distance they lived from the facility). Consistent with this, most patients – 70

percent – took less than one hour to reach the facility, 39.4 percent actually walked to the facility. For 51.8 percent of users, this was the closest facility to their home, for 38.4 percent, it was another health center, and for 9.8 percent, it was another hospital.

Reasons for Seeking Care

3.156. This section analyzes the reasons for facility users choosing a particular facility for care, and describes users' profile and main characteristics.

3.157. Nearly half (46.7 percent) sought care for a health problem they knew they had. While 14.9 percent did so for feeling unwell or for an unidentified pain, and 13.8 percent for a health problem they thought was urgent (40 percent of which was a delivery). The most frequent specific diagnoses or symptoms referred by users are detailed in Table 55.

Table 55. Most frequent diagnoses or symptoms driving patients to the facility

	N	%
Prenatal care	51	9.8
Delivery	29	5.5
Fever	30	5.7
Cold, flu or amigdalitis	30	5.7
Hypertension	23	4.4
Diabetes	13	2.5

3.158. Referrals appear to be relatively common in the sample of facilities surveyed: while overall 15.5 percent of patients were referred from another facility or from a physician's office in the sample, this proportion increased to 59.3 percent among users of national hospitals, and 33.3 percent in regional hospitals.

3.159. While nearly half of the users chose the facility for its proximity to home, they also took into account other factors such as perceived quality (42 percent), lower cost (30 percent), insurance coverage by IHSS (12 percent), and recommendation from a family member or friend (6.7 percent).

Perceived Quality of Services

3.160. Overall, users were quite satisfied with the care they received: 56.6 percent thought it was excellent and 38 percent good. Less than six percent thought it was average or bad (Table 56). Medical care was also judged excellent or good (63.3 percent and 28.1 percent respectively). 75.9 percent of patients were seen by a physician (22.5 percent by a nurse), and in 96 percent of the cases, they reported their health problem was "resolved".

3.161. Waiting times were also low compared to many other countries; 40.5 percent waited 30 minutes or fewer; 16.8 percent waited between 30 and 60 minutes; and 23.9 percent of them waited more than two hours. Overall, the majority of users deemed these waiting times acceptable. In another indication of users' satisfaction with the services received, 97 percent would go back to the same facility, and 86 percent would make the same choice again. No clear differences emerge across facility types regarding patient satisfaction.

Table 56. Perceived quality of care and facilities

	Excellent	Good	Average	Bad
General care	56,6	38	5,2	0,2
Medical care	63,3	28,1	2,5	0,2
Facility amenities	35,2	53,2	9,9	1,7

Coverage and Copayments

3.162. Here the survey findings are presented according to the degree and type of insurance coverage of facility users, and the extent and amount of payments and copayments made by users at the point of service.

3.163. Only 18.6 percent of patients were covered by health insurance, mostly the IHSS (16.6 percent). More than half (55.4 percent) of users paid some amount for their medical consultation, with a mean payment of 63.5 Lps. Around 10 percent of users paid for drugs received, diagnostic tests or hospitalizations, as shown in Table 57. Very few patients were exempted from paying, but most patients paid a very low amount for consultation: around only five Lempiras. Nearly all patients in public facilities paid less than 20 Lempiras, while almost all patients in private clinics paid between 50 and 500 Lempiras. Even in public facilities, however, the variation in the amounts paid suggests the lack of a regulated or standardized fee schedule for health services provided.

Table 57. Payments made for care received

	N	%	Mini- mum	Maxi- mum	Mean	Standard. Deviation	Median
Medical Consultation	290	55.5	0	700	63.55	34.83	5.00
Drugs	67	12.8	0	3000	381.90	68.94	200.00
Diagnostic tests	46	8.8	10	2000	57.67	460.04	237.50
Hospitalization	56	10.7	0	150000	0,386.77	2,492.52	200.00

3.164. The mean payments made by users by type of facility and service are shown in Table 58. The mean amount paid for a given service (consultation, medication, diagnostic test or hospitalization) varies significantly across facility types, and the high standard deviation⁶⁸ shows large variation even within the same type of facility. Another important finding is that even given that variation, patients using a public facility pay much less than those using a private facility; more than 10 times less in some cases.

3.165. No user reported having paid any additional amount to be seen more quickly. However, patient information regarding user fees appears inadequate. 37.9 percent of users did not know in advance how much they would have to pay for care, and 95 percent were not shown any fee schedule (this proportion is lower – 87 percent – in private clinics). Paying user charges does not appear to be a problem to users, since only 1.5 percent asked to be exempted from payment.

⁶⁸ In the table the value of 2 standard deviations is shown, indicating that most patients have paid within that range.

Table 58. Users payments by type of service and type of facility, 2008 (in Lp)

	National Hospitals	Regional Hospitals	Area Hospitals	IHSS Hospitals	Municipal Centers	CESAMOs	CESARs	CMI	CLIPPERS	Private Clinics	TOTAL
Total N	54	9	27	45	18	105	84	63	24	129	558
Consultations											
N paid	28	2	15	0	10	84	70	9	10	62	290
Mean Payment	4,25	10,00	4,40	-	3,00	6,05	6,80	8,89	9,70	274,74	63,55
2 SD	3,11	-	2,48	-	-	5,33	7,02	17,87	14,24	337,17	--
Medicines											
N Prescribed	54	8	23	40	18	98	76	31	17	95	460
N paid	19	0	0	0	0	6	0	1	3	38	67
Mean Payment	137,84	-	-	-	-	8,83	-	-	12,00	602,08	381,90
2 SD	390,44	-	-	-	-	13,88	-	-	12,17	1.327,95	--
Diagnostic Test											
N Prescribed	14	6	8	9	0	8	4	1	7	55	112
N paid	7	0	7	0	0	3	0	0	1	28	46
Mean Payment	442,14	-	113,43	-	-	21,67	-	-	46,00	444,75	357,67
2 SD	1.386,75	-	517,77	-	-	32,15	-	-	-	871,00	--
Hospitalization											
N used	23	4	12	10	2	0	0	10	0	23	84
N paid	17	0	11	0	0	0	0	5	0	22	55
Mean Payment	205,88	-	132,73	-	-	-	-	166,00	-	26.221,27	10.593,78
2 SD	111,14	-	283,84	-	-	-	-	64,19	-	59.742,76	--
Total											
N paid	53	9	27	43	18	105	82	48	20	117	522
Mean Payment	176,09	123,33	85,93	-	1,67	5,89	5,80	18,96	8,95	5.395,16	1.237,95
2 SD	811,15	456,84	344,92	-	3,07	11,97	8,08	103,55	24,27	32.557,56	--

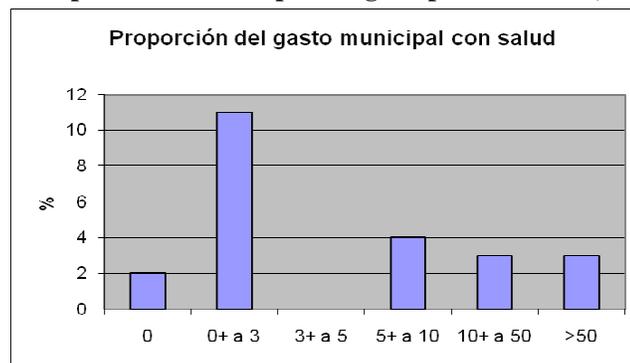
ROLE OF THE MUNICIPALITIES IN THE HEALTH SECTOR

3.166. The survey of municipalities was intended to assess the role and involvement of municipalities in the health system in the context of a new decentralization model, by gathering information on their institutional capacity in health and on municipal health spending. Twenty-three municipalities were surveyed out of a total of 85 existing in the four departments covered by the survey. The main finding is that, although few municipalities operate facilities of their own, they play an important role in the health system in two respects.

3.167. Firstly, a significant number of municipalities have developed the institutional capacity to oversee or participate in a local health system. Of the 23 municipalities surveyed, 16 had established an administrative unit (usually a *Delegacion Municipal de Salud*) to manage its health related activities. Seventy-four percent of the municipalities prepare an annual plan for health, and 61 percent base their plan on prior requests from the facilities; 30 percent do it on request from central levels. More than 65 percent conduct an annual assessment of the execution of their health plan: In 14 of them, the Municipal Health Officer participates in regular meetings with the Regional Health Officer or facility managers (monthly or quarterly), and in the others, meetings were occasional. Municipalities most often supported MOH facilities by hiring nursing or support personnel (17 municipalities), providing equipment or building maintenance (16), procuring drugs (nine) and other supplies (seven), and providing drug storage (five).

3.168. Secondly, most of the municipalities surveyed spend significant amounts from their own budget on health. Twenty of the 23 municipalities surveyed had allocated some funds to health activities. The distribution of the municipalities surveyed according to the proportion of health spending is shown in Figure 39. Municipal health plans and spending tend to prioritize hiring or paying staff (11), construction of health centers (nine), immunization campaigns (seven) and other public health activities (eight), and water and sanitation projects (six).

Figure 39. Proportion of municipal budgets spent on health, 2008



3.169. Municipal health expenditure averaged more than one million and six hundred thousand Lempiras, or 6.2 percent of the municipalities' budget. . The construction or repair of health centers represent more than half of the municipal spending in health and more than 13 percent is for salaries of staff (doctors, nurses and support staff), as shown in the following table.

Table 59. Municipal spending on education per category of expenditure

Category of expenditure	Lps	%
Construction of health centers	731,528.30	43.96%
Repairs	197,668.64	11.88%
Doctors and nurses salaries	145,869.92	8.77%
Support staff salaries	77,520.34	4.66%
Other	511,525.00	30.74%
Total	1,664,112.2	100%

3.170. However, the municipalities report spending on average over 4 million Lempiras in the health sector per annum. Many of these expenses are not documented or are not classified correctly, so they could not be verified during the survey. The following table shows the average expenditure of municipalities by source of income as reported by the municipalities themselves.

Table 60. Municipal spending on education per source of income, as reported by the municipalities

Source of income	Lps	%
SGJ 5% transfer	713,143.31	16.60%
PRS transfer	1,163,000.00	27.08%
FHIS allocation	242,592.32	5.65%
Own resources	808,037.60	18.81%
Regional Development Fund (Nacional Congress)	1,368,331.24	31.86%
Others	242,673	5.65%
Total	4,295,104.48	100.00%

MAIN FINDINGS AND POLICY RECOMMENDATIONS

3.171. *Two areas are identified as vulnerable: out-of-pocket expenses and procurement of drugs and supplies.* However, inconsistencies between databases make it difficult to track these resources and quantify leakages. User fees are determined locally, usually by the managers of the facility themselves, and there is no national fee schedule. User fees are not published and there is little information available to the users of health services in this regard. Significant evidence was found of waste and leakages in the management of drugs and supplies. On average, the amount recorded in stock cards was much lower than the one reported by accounting reports, with 56 percent of facilities showing a difference in stock of 50 percent or more. However, it should be noted that information submitted and accounts rendered to central offices are often considered unreliable.

3.172. *Not all sources of income at the facility level are accounted for.* A significant proportion of funds from international cooperation and municipal governments bypasses the MOH and is channeled directly to facilities. Those funds are not recorded in the budget and therefore no consolidated information on budget financing or spending at the facility level was available. Similarly, facilities are allowed to retain most of the user fees they collect. However, where revenues are reported, there is no effective checking mechanism to verify that all revenues are reported and accounted for.

3.173. *Limited managerial autonomy and weak governance structure.* Most public facilities have little managerial autonomy and decision-making power. Even though all facilities report preparing an annual plan, decisions regarding resource allocation and human resources in particular are centralized. Only hospitals have a separate budget and thus monitor budget execution. Most outpatient facilities have no information on key elements such as expenditure, purchases or human resources. More importantly, the surveyed alternative management models also lack managerial autonomy, since all decision-making authority rests on the organization in charge of managing it; facility managers themselves do not manage resources and have little information for decision making. Twenty-six per cent of the facilities surveyed had a management, consultative or technical committee as part of its governance structure. However, the role those committees play is so diverse that it is difficult to reach meaningful conclusions.

3.174. *Promising planning and budgeting process but still insufficient.* There is a formal and structured planning and budgeting system in place, which represents a significant step forward compared to other sectors in Honduras. Each facility prepares an annual plan which supposedly should be the basis for budget preparation. However, the planning exercise is more of a formality and has little use for actual management of resources and activities. The bottom line is an inherent contradiction between a relatively sophisticated tool versus low capacity at the local level to actually use them effectively, and a decision-making process that is still centralized and has not followed the decentralized planning process. In addition, since the budget system allocates funds based mostly on historical values, it does not provide any incentive for improving performance at the facility level.

3.175. *Need to improve managerial capacity and practices to reap benefits from decentralization.* Many facilities report using management tools and techniques such as planning, monitoring, performance evaluation and contracts management. However, facility managers – especially from smaller facilities – complain about their lack of knowledge, tools and trained staff for management. In spite of their availability, use

and effectiveness of these tools for decision making and evaluation is low. In particular, outpatient facilities have little or no information about their use of resources, because resources allocated to them, and purchase of supplies and services, are managed at the regional MOH offices. Having no financial or resource information prevents meaningful management at the facility level.

3.176. *Severe problems are apparent in HR management, and important distortions are evident in the incentives structure.* Firstly, management of personnel is centralized, and facility managers in the public sector have little say or autonomy in defining staff numbers, profile and qualifications. Secondly, payment levels are severely distorted, with salaries in the public sector being far above market levels, especially in the case of physicians. A huge difference exists between the wages of physicians and other professional categories. Finally, even though some systems to reward performance appear to be in place, it is uncertain whether they convey appropriate incentives to facility staff or if they are more a routine administrative process. Staff management is also hampered by inadequate regulations that include multiple contracting regimes and reflect the power of interest groups or professional categories, rather than a rational allocation and use of human resources.

3.177. *The results of the QSD and PET surveys described above highlight major governance weaknesses in the health system.* These weaknesses can be traced to the following features of the system: First, there are often not clear lines of accountability across different levels of government and different institutions regarding the provision of health services. The IHSS and the Health Secretariat both have responsibilities in the sector, but so do municipalities. There is no clear division of responsibilities between frontline providers and the policymaking level of the Secretariat. Second, the incentives faced by frontline providers are not conducive to improve performance. Third, the information available on sources of funds, expenditure, and health personnel is often limited and unreliable. Fourth, patients do not have information on the fees they need to pay for services and communities have almost no influence on the management of the facilities.

Policy Recommendations

3.178. *Strengthen the Results-Based Management System (SGPR), a reform that constitutes an important effort to improve the accountability of policymakers in the sector.*⁶⁹ Through the SGPR, the Government is trying to include sectors and institutional goals in its planning process so that budgets are prepared and monitored based on the achievement of pre-defined goals. This effort however needs to be strengthened by (i) expanding it to include the regional and local levels; (ii) standardizing indicators used across different administration levels; (iii) establishing mechanisms for verification of the reported results; and (iv) making the results available through various channels of information (see Honduras IGR, 2009).

3.179. *Continue evaluating the decentralized models of services delivery and, if appropriate, scale them up.* These models tried to strengthen the accountability of providers by signing contracts with alternative providers (CBOs, NGOs, and mancomunidades). These contracts clearly delineate each party responsibility as well as the rewards and sanctions in case of non-compliance. In addition, these contracts are

⁶⁹ World Bank. 2009. Honduras IGR

financed through a per capita payment that is disbursed based on results. The percapita payment in theory should give an incentive to the providers to increase efficiency; the disbursement based on results in theory should also give providers incentives to achieve the pre-determined coverage targets. The incentives based on results are one of the features of the contracts with alternative provider organization that could be extended to other public providers. These incentives, however, do not seem to be faced by the frontline provider, but only the provider organization which could potentially limit the sought effect on coverage. A strengthened incentive structure, the accountability of actors involved, jointly with information and performance standards are considered governance and performance fundamentals or enabling conditions to a good performing health system (Lewis and Pettersson, 2010). Without these fundamentals, the other policy recommendations listed below might not be able to significantly improved performance.

3.180. *Strengthen the role of the community in the management and monitoring of health facilities.* About two thirds of the facilities surveyed had a users' committee. These committees are not used to voice users' complaints and feedback. To strengthen clients' power vis-à-vis providers it would be important to improve their capacity to demand good quality services. This could be achieved by disclosing information on resources allocated to health facilities and on performance, and by developing and disclosing service standards (such as waiting times, operation hours, some protocols to be followed, user fees, etc.)⁷⁰.

3.181. *Additionally, client's power could be strengthened through the continuation and expansion of social audits of health facilities.* The Public Accounting Authority initiated a process to promote citizen participation in audits performed in two hospitals. Both financial and legal compliance audits were performed in the San Marcos Hospital and the Medical School Hospital in Tegucigalpa. These audits have highlighted financial management weaknesses in these facilities such as inadequate controls and record-keeping.⁷¹

3.182. *Improve the collection, consolidation, and availability of information particularly information about:* (i) sources of funds; (ii) health spending, disaggregated up to agency and facility level; (iii) service production; and (iv) health care personnel at the facility level. Facility management and central and community oversight requires reliable information on service production and use of resources. To policymakers and providers accountable to the public, reliable information needs to be available. Even though basic information systems are in place, they are deemed unreliable and are little used for management, monitoring and evaluation.

3.183. *Strengthen the system of information verification and checks and balances, particularly regarding revenues, staffing, and pharmaceutical products.* This could be done through random checks of facilities to verify if staff are working where they have been assigned and check availability of essential drugs and consistency between accounting reports and stock cards.

3.184. *Improve the planning and budgeting process as a management tool.* Even though already established as a formal management instrument, the planning and budgeting process could be significantly improved by:

⁷⁰ Idem.

⁷¹ Idem.

- a) Increasing the capacity at the local and facility level to prepare plans in a more integrated way, linking the different phases and elements of the process;
- b) Increasing the capacity, through training, of regional offices (MOH departmental offices) to review and consolidate facility plans into consistent regional plans; training those responsible for preparing and monitoring plans and budgets would be very beneficial;
- c) Streamlining the whole process and making it less of a bureaucratic requirement and more of a practical tool for local managers; this would imply strengthening the usability of plans and budgets as management tools, and training local managers to use these instruments for problem finding and solving and decision making in general; and
- d) Streamline and strengthen the national budget so that it becomes a reliable tool for tracking and consolidating all sources of health sector financing.

3.185. *Consolidate and fully implement the decentralization and regionalization policy.* In order to remedy the patchwork of levels and lines of authority and responsibilities, the MOH should clarify the decentralization policy and make each level of facility report to the same administrative unit. This would likely be the central MOH for national hospitals, and departmental offices for regional and local hospitals and outpatient units. Along these lines, decentralization should be fully implemented with the transfer of executing responsibilities to regional and local levels.

3.186. *Improve managerial capacity at the regional and facility levels.* To reduce resource waste and inefficiency in resource allocation, facility staff should be trained in the management of the supply chain (including, but not restricted to, drugs), and management controls over stocks, and supply distribution and use should be improved. Streamlining the procurement and budget execution processes, and reducing the number of administrative steps needed for procurement, would also contribute to better resource management.

3.187. *Consolidate and unify user fees policies and systems.* In order to ensure greater equity, user fees charged for different types of health services should be standardized and unified under one national policy, which should include adjustments for regional differences in earnings and cost of living.

3.188. *Consolidate or reduce the different staff-contracting regimes.* Consolidating the different contracting regimes for staff in public facilities under the same management model, and reducing their number across the board, would contribute a great deal towards unifying the different personnel databases and rationalizing the management of human resources.

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