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Report No: AUS5649

Republic of Congo

Enhancing efficiency in education and health public spending for improved quality service delivery for all

A public expenditure review of the education and health sectors

June 2015

Education Global Practice

AFRICA

Document of the World Bank

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Abbreviations and Acronyms

AFD	*Agence Française de Développement*
BIA	Benefit Incidence Analysis
CAR	Central African Republic
CMR	Child Mortality Rate
COMEG	*La Congolaise des Médicaments Essentiels et Génériques* (Congo Essential Generic Drugs Agency)
CONFEMEN	*Conférence des Ministres de l'Éducation des États et Gouvernements de la Francophonie* (Conference of Ministers of Education of French Speaking States and Governments)
CSI	*Centre de Santé Integré* (Integrated Health Center)
CSS	*Circonscriptions socio-sanitaire* (Health District)
DDS	*Direction Départementale de Santé* (Departmental Health Directorate)
DGGT	*Délégation Génerale de Grands Travaux* (General Delegation for Major Works)
DHS	*Enquête Démographique et de Santé* (Demographic and Health Survey)
ECOM	*Enquête de consommation des ménages* (Household Consumption Survey)
EDSC	*Enquête Démographique et de Santé du Congo* (Congo Population and Health Survey)
GDP	Gross Domestic Product
GER	Gross Enrollment Rate
GEPRSP	Growth, Employment, and Poverty Reduction Strategy Paper
HIPC	Heavily Indebted Poor Countries
IFC	International Finance Corporation
IMF	International Monetary Fund
IMR	Infant Mortality Rate
LEB	Life Expectancy at Birth
MDG	Millennium Development Goal
MEFPIPP	*Ministère de l'Économie, des Finances, du Plan, de l'Intégration et du Portefeuille Public* (Ministry of Economy, Finance, Plan, Integration, and Public Portfolio)
MEPSA	*Ministère de l'Enseignement Primaire, Secondaire et Alphabétisation* (Ministry of Primary and Secondary Education, and Literacy)
MES	*Ministère de l'Enseignement Supérieur* (Ministry of Higher Education)
METPFQE	*Ministère de l'Enseignement Technique, Professionnel, de la Formation Qualifiante et de l'Emploi* (Ministry of Technical and Professional Education, Qualifying Training, and Employment)
MMR	Maternal Mortality Rate
MSP	*Ministère de la Santé et de la Population* (Ministry of Health and Population)
NDP	National Development Plan (*Plan National de Développement)*
NER	Net Enrollment Rate
NGO	Nongovernmental Organization
NHA	National Health Accounts
OOPS	Out-of-pocket Spending
PASEC	*Programme d'Analyse des Systèmes Educatifs de la CONFEMEN* (Program for the Analysis of the Educational Systems of the CONFEMEN Countries)
PBF	Performance-based Financing
PER	Public Expenditure Review
PNDS	*Programme National de Développement Sanitaire* (National Health Development Program)
PPP	Purchasing Power Parity

PRAEBASE	*Projet d'Appui à l'Education de Base* (Basic Education Support Project)
PRCTG	*Projet de Renforcement des Capacités de Transparence et de Gouvernance* (Transparency and Governance Capacity Building Project)
PTR	Pupil-Teacher Ratio
SSA	Sub-Saharan Africa
TVET	Technical and Vocational Education and Training
UNMG	*Université Marien NGouabi* (Marien Ngouabi University)
UNESCO	United Nations Educational, Scientific, and Cultural Organization
UNICEF	United Nations Children's Fund
WBWDB	World Bank's World DataBank
WHO	World Health Organization

Acknowledgements

This Public Expenditure Review (PER) of the Education and Health sectors in the Republic of Congo was prepared by a team led by Cristina Panasco Santos (Sr. Education Specialist). The following team members and consultants contributed to the PER: Cristina Panasco Santos wrote Part I - Overview and Part II - Education Report, with contributions from Rita Costa (Consultant), Kebede Feda (Human Development Economist), Vitor Dionizio (Consultant), and Luc Laviolette (Sector Leader). Rita Costa and Ricardo Bitran (Consultant) wrote Part II - Health Report, with guidance from Hadia Samaha (Sr. Operations Officer) and Helene Barroy (Senior Economist). Etaki Wa Dzon (Consultant), Kirsten Majgaard (Education Economist), and Marie-Yvette Sacadura (Consultant) provided inputs to early drafts. Fulbert Tchana Tchana (Sr. Economist) provided inputs and guidance to the overall PER. Peter Materu (Sector Manager) and Luc Laviolette provided overall guidance and advice to the team. Technical inputs were also provided by Deon Filmer (Lead Economist) as well as by Keiko Inoue (Sr. Education Specialist) and Hebatalla Elgazzar (Sr. Human Development Economist), who peer reviewed the report. Sylvie Dossou (Country Manager) and Yisgedullish Amde (Country Program Coordinator) provided guidance to the finalization of the PER.

The team expresses its gratitude to government officials from the Ministry of Primary and Secondary Education, and Literacy (*Ministère de l'Enseignement Primaire, Secondaire et Alphabétisation* [MEPSA]); the Ministry of Technical and Professional Education, Qualifying Training, and Employment (*Ministère de l'Enseignement Technique, Professionnel, de la Formation Qualifiante et de l'Emploi* [METPFQE]); the Ministry of Higher Education (*Ministère de l'Enseignement Supérieur* [MES]); and the Ministry of Health and Population (*Ministère de la Santé et la Population* [MSP]); and the Ministry of Economy, Finance, Plan, Integration, and Public Portfolio (*Ministère de l'Economie, des Finances, du Plan, de l'Integration et du Portefeuille Public* [MEFPIPP]), who kindly provided data and were involved in the discussions around the preparation of the PER.

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PART I - OVERVIEW

I. Introduction

1. **The development of a wealthier, literate, and healthy society is a fundamental goal of the Republic of Congo's National Development Plan (NDP) 2012–16 and Growth, Employment, and Poverty Reduction Strategy Paper (GEPRSP) 2012–16.** Although human development indicators have been improving in recent years, such progress has not been commensurate with the level of economic growth of the country, and close to half of the Congolese population is still poor or extremely poor. Despite this gap, reaching the education and health Millennium Development Goals (MDG), institutional strengthening of both education and health systems, and improving the quality of service delivery in education and health provision are key aims of the NDP and GEPRSP 2012–16. The Congolese authorities have been developing and implementing policies and programs aimed at achieving these objectives.

2. **Appropriate funding allocations and efficient use of funds in education and health are fundamental for the development of the sectors.** With the end of the armed conflicts in 2003, Congo has progressively been increasing funding allocations to the social sectors. This is an important trend but does not suffice. Education and health systems require well-qualified staff, distributed appropriately by the various regions of the country and with the necessary quality inputs to respond to the needs of the population. Further, education and health funds need to be used efficiently and in an equitable manner, ensuring that the poor receive the immediate and future benefits of education and health.

3. **This Public Expenditure Review (PER) of the Congolese education and health sectors aims at providing inputs to improve efficiency and equity in spending in these sectors.** This PER is a sectoral follow-up of the 2009 World Bank macro PER and it takes into account the following findings of the macro PER: (a) spending on the social sectors is still low although it has increased over time; (b) the fiscal space generated by the increased oil revenues has largely boosted investment expenditure; and (c) budget execution is low, which contributes to lowering the real level of public spending. While looking at such issues in detail regarding the education and health sectors, the current PER is guided by the following research questions:

(a) Do budget allocations (level and composition) contribute to achievement of the set strategic education and health goals?

(b) Is there space for re-prioritizing and improving the efficiency of both allocation and operations in the education and health sectors?

(c) Does public spending contribute to improving equity in access to quality education and health services?

4. **To respond to these questions, the analysis in the PER uses data from various sources and makes use of various methodological approaches that provide inputs on sectoral performance, sectoral spending, efficiency, and equity.** Data sources include (a) administrative data from the Ministry of Primary and Secondary Education, and Literacy (*Ministère de l'Enseignement Primaire, Secondaire et Alphabétisation* [MEPSA]); the Ministry of Technical and Professional Education, Qualifying Training, and Employment

(*Ministère de l'Enseignement Technique, Professionnel, de la Formation Qualifiante et de l'Emploi* [METPFQE]); the Ministry of Higher Education (*Ministère de l'Enseignement Supérieur* [MES]); and the Ministry of Health and Population (*Ministère de la Santé et la Population* [MSP]); (b) administrative data from the Ministry of Economy, Finance, Plan, Integration, and Public Portfolio (*Ministère de l'Economie, des Finances, du Plan, de l'Integration et du Portefeuille Public* [MEFPIPP]); and (c) survey data: household and demographic and health surveys from 2005 and 2011. Among the analytical approaches used are benefit incidence analysis (BIA), performance analysis, education rate of returns analysis, and catastrophic payments for health care analysis. Data limitations (which are discussed in each of the sector reports) limited the scope of the analyses.

5. **The PER is divided in two main parts**. Part I, in which this introduction is included, constitutes an overview of the two sector reports. Thus, it presents a brief analysis of the context of the country, a summary of findings of the education and health public expenditure reviews, a discussion of cross-cutting themes in spending in the two sectors, and a summary of recommendations. Part II presents the education and health public expenditure reviews.

II. Country Context

Economic and Fiscal Context

6. **The Republic of Congo is among the richest, on a per capita basis, and least populated countries in Sub-Saharan Africa (SSA)**. With a population of 4.3 million inhabitants, it is the region's second most urbanized country after Gabon, with 62 percent of the population living in urban areas, mostly in the capital city of Brazzaville and in the port city of Pointe Noire. It has one of the lowest population densities in SSA, with 12 persons per square kilometer. About one-half of the population lives below the national poverty line (46.5 percent in 2011).

7. **Macroeconomic performance has improved and economic resilience increased despite the global economic downturn, as a result of improved fiscal discipline and debt management**. Despite the dominance of oil, macroeconomic stability has been relatively well established in Congo since 2008. The country reached lower-middle-income status some years ago, and the gross national income per capita in 2012 was US$2,550. During the last decade, Congo's economic growth has been higher than world growth and almost equal to SSA growth, yet lower than growth in lower-middle-income countries. Between 2000 and 2013, on average, the global growth rate was about 2.6 percent, while Congo's growth was about 4.5 percent. (The average growth rate for SSA was about 4.9 percent). However, Congo is still lagging behind the lower-middle-income countries, which have experienced strong economic growth, with an average annual rate of 6 percent during the same period.

Figure 1. GDP per Capita (constant 2005 US$)

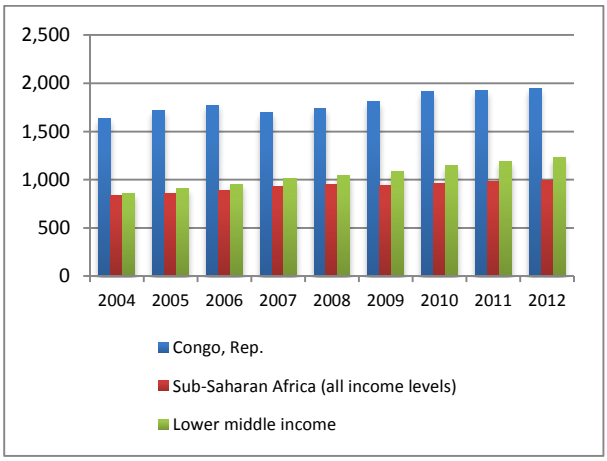
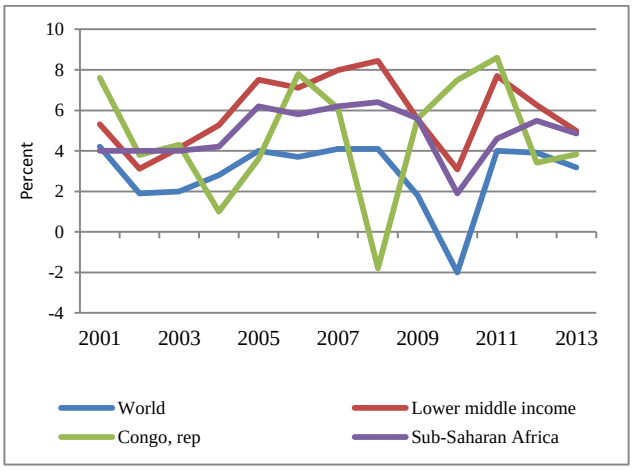


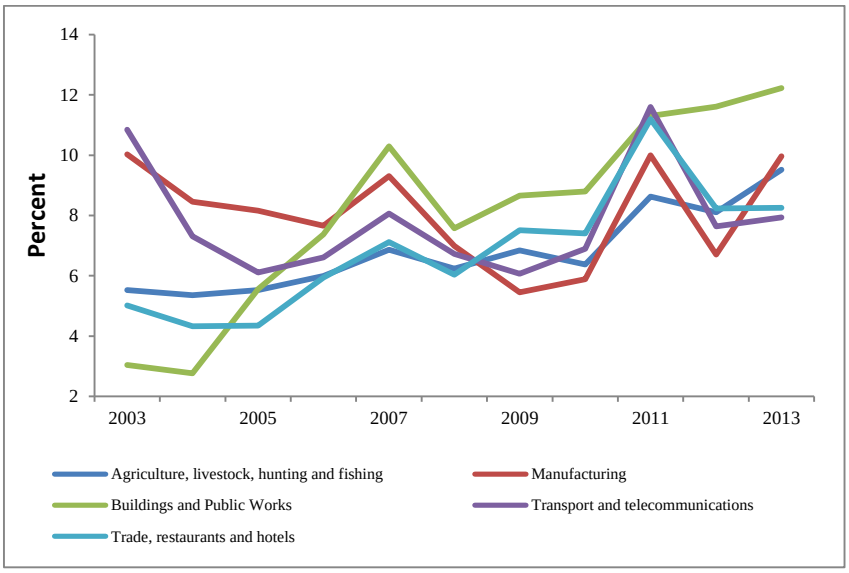
Figure 2. GDP Annual Growth Rate



Source: World Development Indicators, 2013.

8. **The Republic of Congo's economy is dominated by the oil sector, which has been the main driver of growth, but economic diversification is key for sustainable growth.** In nominal terms, the share of the oil sector in the gross domestic product (GDP) has remained above 60 percent over the last five years. The lowest share was recorded in 2009, with 62 percent of GDP, while the highest was recorded in 2011 (mainly due to an increase in prices) in which the sector accounted for 70 percent of GDP. Since then, with the global oil price stabilization, its size has slightly declined and it is estimated to have been at 63 percent of GDP in 2013. During the last three years, the non-oil sector grew at an average rate of 9.0 percent, also a sharp increase from an average growth rate of 5.4 percent during the 2005–2009 period, with all non-oil sectors experiencing positive growth from 2011 to 2013. The sector with the least growth—forestry and logging—increased at an average growth rate of 2.2 percent, while the highest growing sectors—manufacturing, buildings, and public works—grew, on average, at 9.4 percent. In 2011 and 2012, agriculture and livestock, manufacturing, and buildings and public works were the top performers among the non-oil sector, with almost double-digit growth rates. Economic diversification is very important in Congo to sustain the growth of the non-oil sectors. Although Congo is still one of the main oil producing countries in SSA, the maturity of Congo's oil fields is already resulting in a decline in oil production. In fact, in real terms, the share of the oil sector in Congo's GDP has been falling since 2000, with an annual average rate of −2.2 percent, dropping from 43.6 percent in 2000 to 23 percent in 2013.

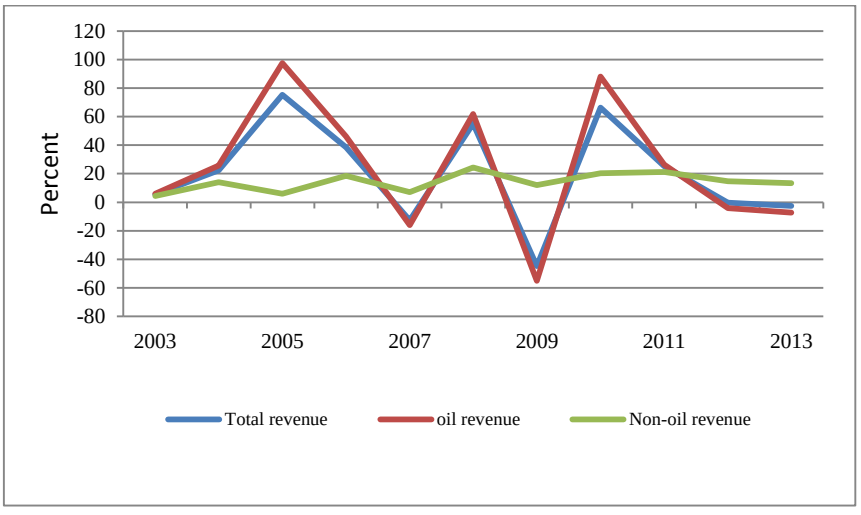
Figure 3. Annual Growth of Non-oil Sectors



Sources: World Bank, International Monetary Fund (IMF), and National Authorities.

9. **Oil revenues account for three-fourths of Congo's total revenues; however, government revenues from taxes have been growing steady in the last ten years.** In 2013, government revenues decreased by −2.5 percent and by −0.4 percent in 2012. This came as a result of the sharp decline in oil revenues consecutive to a drop in oil production, which was not compensated fully by a strong increase of non-oil revenues. In 2013, the tax administration is estimated to have collected about 96 percent of the forecasted non-oil revenue, which is a good rate as a result of significant progress made in the revenues management accounting system.

Figure 4. Government Revenue Growth, 2003–2013



Sources: World Bank, IMF, and National Authorities.

10. **From 2011 to 2013 government spending also increased steadily.** Total expenditure increased with an annual average rate of 21.5 percent from 2011 to 2013, consisting mainly of capital expenditure (62.0 percent on average). This expenditure represented 30.4 percent of GDP on average each year. Current expenditure increased on average by 6.4 percent, partly due to the response to the large explosion of an ammunition depot in Brazzaville, which caused a high number of casualties and destroyed much of the infrastructure in the immediate environment. Capital expenditure has been growing at a higher pace, 39.4 percent on average, reflecting the government's commitment to provide relevant infrastructure in support of economic activities. Spending in the social sectors rose from 20.0 percent in 2011 to 22.5 percent in 2013, mainly due to the declaration by the Head of State making 2012 as *l'Année de la Santé pour tous*—the Year of Health for All—and 2013 as *l'Année de la Formation Qualifiante*—the Year of Skills Training and Professional Qualifications.[1] The infrastructure sector remained stable, accounting for more than 30 percent of the total state budget during each of the three years. Also, the share of Public Finance and Economic Affairs increased from 15.1 percent in 2011 to 18.7 percent in 2013, mainly driven by the sharp increase of the budget of the Ministry of Finance. The other sectors saw a decrease of their share.

11. **Nonetheless, budget execution rates continue to be low.** From 2009 to 2012, the execution rate averaged 93.4 percent, with a low of 83.9 percent in 2012. The execution rate has been lower for investment spending (90.6 percent) than for current spending (95.4 percent). This low execution rate is explained by difficulties in procurement and disbursement. Since the adoption of the new public procurement code, a lack of procurement specialists, resistance of some stakeholders involved in the procurement process, and the adoption of a lengthy procedure to move from the preparation to a tender for public contracts have posed some challenges. Further, the centralization of the process by the Ministry of Finance has led to increasing delays in the awarding of public contracts. The disbursement system also has many bottlenecks and is not transparent enough.

[1] Further discussion on this will be developed in the next subsection.

Figure 5. Share of Total Government Budget by Sector, 2011–2013[a]

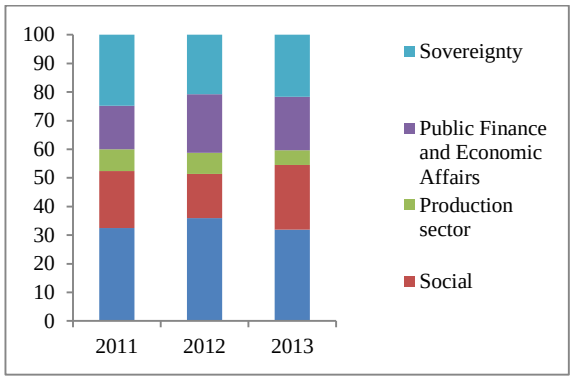
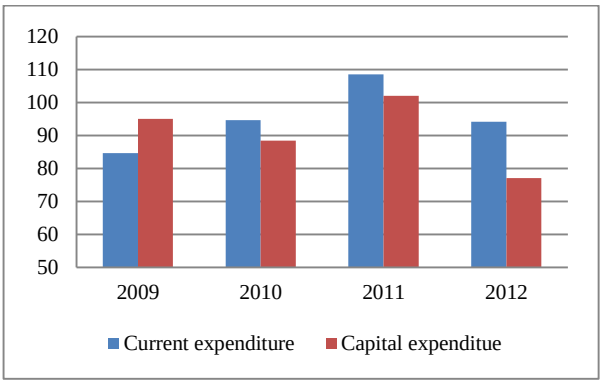


Figure 6. Current and Capital Expenditure Execution Rates, 2009–2012



Sources: World Bank and National Authorities.
Note: Sovereignty includes presidency, justice, foreign affair, interior and security and defense. Production sector included ministries related to infrastructure (energy, water, telecommunication, public work, construction, and so on) and the following ministries: Agriculture and Livestock; Economical Forestry; Mines and Geology; Hydrocarbons, Energy, and Water; Fisheries and Aquaculture; Industry and Private Sector; Commerce; Small and Medium Enterprises; and Handicrafts, Tourism, and Environment.

Human Development in Congo

12. **Despite the macroeconomic successes, poverty remains pervasive with about half of the 4.3 million Congolese living below the poverty line.** As economic growth has not been associated with a diversified economy, it has not led to job creation. The majority of the Congolese earn a living in the informal sector or are underemployed. Unemployment is high among the youth. According to the 2009 Employment and Informal Sector Survey (*Enquête sur l'Emploi et le Secteur Informel au Congo* [EESIC]), in urban areas, 25 percent of the age group 15–29 years is unemployed. The countrywide survey of 2005 had shown that the unemployment rate for the same age group was more than 40 percent. The unemployment rate declines significantly with age: only 5 percent of those over 50 years are unemployed. Women are more affected than men, with lower labor participation rates, especially in the 30–49 years age group.

13. **Further, progress has been made in human development but important challenges still remain.** Congo still ranks very poorly in the Human Development Index; in 2013, Congo ranked 142 out of 187 countries. Progress towards the achievement of the MDGs[2] has been continuous but uneven. Congo is far from meeting MDG 1 (Eradicate Extreme Poverty) as almost half of its population still lives below the poverty line. The country has, however, seen more progress in achieving universal primary education (MDG 2) and in some aspects of MDG 3 (Promote Gender Equality and Empower Women). Most school-age Congolese are in school, with 12.2 percent of boys and 13.1 percent of girls being out of school. However, in spite of improvements, not all complete primary education, for which the completion rate in 2011 was 88 percent. Gender parity has seen a significant improvement in all education levels. Data from

[2] MDG 1 - Eradicate Extreme Poverty; MDG 2 - Achieve Universal Primary Education; MDG 3 - Promote Gender Equality and Empower Women; MDG 4 - Reduce Child Mortality; MDG 5 - Improve Maternal Health; MDG 6 - Combat HIV/AIDS, Malaria and Other Diseases; MDG 7 - Ensure Environmental Sustainability; MDG 8 - Global Partnership for Development.

the latest household and demographic and health surveys point to important improvements in meeting MDGs 4 and 5, with important progress made in reducing child mortality and improving maternal health. There has been progress with regard to MDG 6, though malaria is still endemic in the country and responsible for a large number of deaths every year. HIV/AIDS rates are relatively low, with an estimated prevalence of 3.3 percent (Survey on the prevalence and AIDS indicators in Congo [SPAIC]).

14. **In conclusion, in recent years Congo has experienced high rates of economic growth mainly due to oil revenues.** There is need for increased diversification as oil reserves have reached maturity and oil production is dropping. Steps have been taken in this direction and improvement of growth rates has been seen in some non-oil sectors. Economic prospects for Congo are good; there is need, however, for a reflection on how to achieve similar success in human development and poverty reduction. Almost half of the Congolese live below the poverty line and earn their living in the informal sector. Progress has been made in human development, but more is required. The Congolese authorities are aware of the need to invest in the social sectors and spending has been slowly increasing, even if overall country budget execution rates are still low. The next section provides a summary of the public expenditure reviews of the education and health sectors, discussing in more detail results, spending trends, efficiency, and equity in the sectors' service delivery.

III. Public Spending in Education and Health

Education

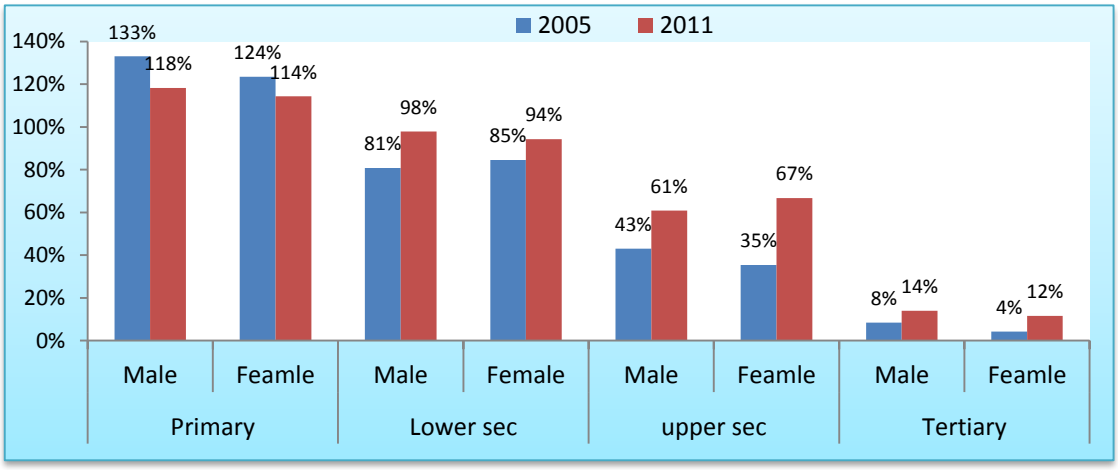
Good progress in access but important challenges on quality and retention

15. **Education development in Congo is guided by four main objectives expressed in the NDP and GEPRSP 2012–16.** These are (a) ensuring universal primary education for all by 2015 (in line with MDGs 2 and 3); (b) improving retention in primary and secondary education while improving the flow of students through the cycles; (c) developing technical and vocational education in line with market needs and economic diversification; and (d) developing quality higher education in line with market demands and growth of the priority sectors. To meet these objectives, in principle primary education is free, textbooks and learning materials are distributed to schools, more primary schools have been built across the country, and teacher training programs have been implemented; 2013 was declared *l'Année de l'éducation de base et de la Formation Professionnelle* (The Year of Basic Education, Skills Training, and Professional Qualifications) with the aim of supporting physical and technical upgrading of technical and vocational education and training (TVET). New legislation on

higher education is being launched to fix quality assurance and governance mechanisms for the subsector.[3]

16. **Since 2005, good progress has been made in provision and gender equity; less progress has been made with regard to completion and quality.** Currently, close to all school-age Congolese boys and girls enroll in primary education. In 2011, primary gross enrollment rate (GER) and net enrollment rate (NER) were 116 percent and 89.5 percent, respectively. Completion rate was 85.3 percent and gender parity was achieved; further, important improvements in gender parity have also taken place at other education levels, with gender parity achieved in lower secondary and within reach (0.9) in upper secondary and higher education. With regard to quality, the previous results from the *Program d'Analyse des Systèmes Éducatifs de la CONFEMEN*[4] (PASEC) (2007) position Congo as a low performer in comparison to other countries such as Cameroon. Congo's performance at fifth grade was slightly below the average for PASEC countries in French (34 percent) and well below the performance of Cameroon (55 percent) while slightly above the average in mathematics.

Figure 7. Enrollment Rates by Gender and Level of Education, 2005 and 2011



Source: Authors' estimations calculated from ECOM 2005 and ECOM 2011 data.
Note: ECOM = *Enquête de consommation des ménages* (Household Consumption Survey).

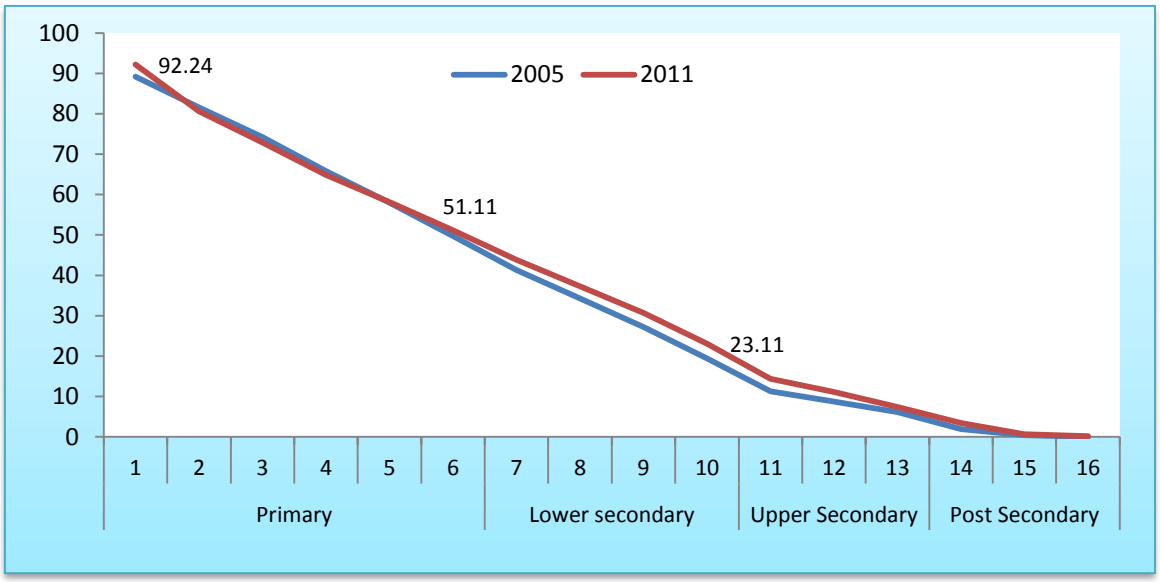
17. **However, student retention is very low.** Repetition is still very high, close to 25 percent in primary education, which combined with the high cost of post primary education (supported by the households) contributes to low student retention, even if enrollment rates have been increasing over time. Repetition remains high in post-primary education, reaching

[3] Congo's education system includes several subsectors as follows: 3 years of preprimary education, followed by 6 years of primary education; secondary education includes 4 years of lower secondary and 3 years of upper secondary. TVET is delivered at the secondary education level, at *Centres des Métiers* (2 years) and *Collèges d'Enseignement Technique* (2 years) at the lower secondary level and at *Lycées de Enseignement Technique* (3 years) et *Écoles Profissionnelles* at the upper secondary level. Higher education is organized by the system Licence, Master, Doctorat (first degree, master, and doctorate). Each subsector is under the mandate of a specific ministry. Preprimary, primary, secondary, literacy, and nonformal education fall under the mandate of MEPSA; TVET falls under the mandate of the METPFQE. The MES has the mandate of higher education.

[4] *Program d'Analyse des Systèmes Éducatifs de la CONFEMEM* stands for Program of Analysis of CONFEMEN Education Systems, and *Confereration des Ministres de l'Éducation des États et Gouvernments de la Francophonie* (CONFEMEN) stands for Confederation of the Ministers of Education from States and Governments of Francophone Countries.

18.4 percent in lower secondary (*Collège*) and 17.2 percent in upper secondary (*Lycée*). Repetition is a key factor in dropouts, which is the main reason for out-of-school kids. Congo's out-of-school numbers have decreased over time and the out-of-school rate (12 percent) is below the average for SSA (26 percent). Of the total out-of-school children, 5 percent were never in school and 7 percent dropped out. Eight percent of primary-school-age Congolese children were out of school in 2011, and the respective percentages for lower secondary and upper-secondary-age children were 10 and 26 percent. Congo is among the worst SSA performers with regard to repetition, comparing favorably only to Burundi, but it is a top performer with regard to out-of-school children, favorably comparing to its neighbors, Cameroon and Democratic Republic of Congo.

Figure 8. Retention Rate by Level of Education



Source: Authors' estimations calculated from ECOM 2005 and ECOM 2011 data.

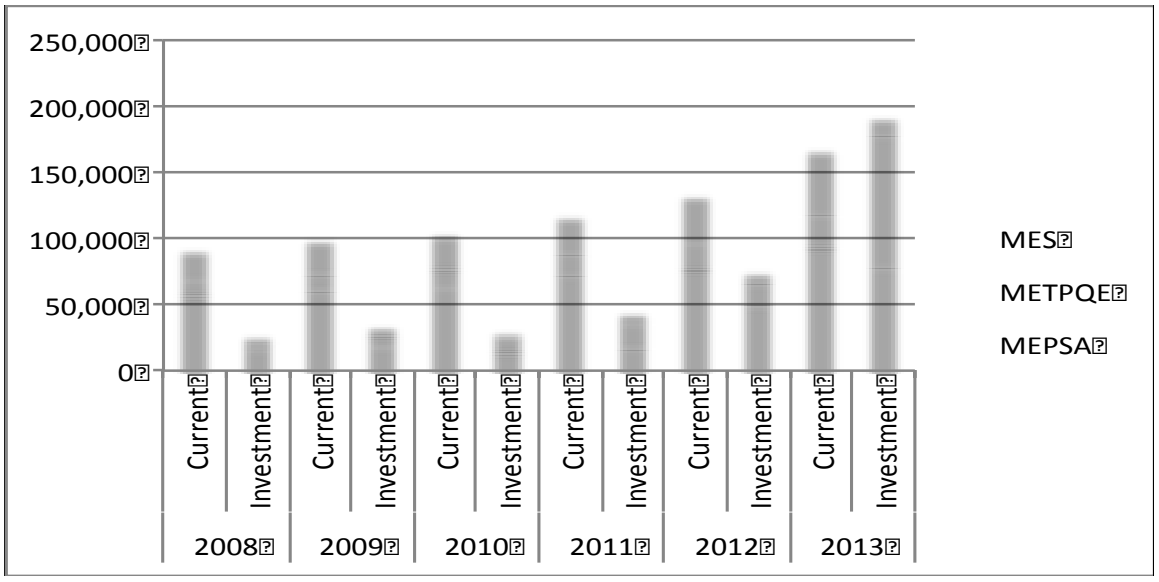
There is an increased funding for education, but it is still below the SSA average, change in intra-sectoral allocations favoring TVET and investment expenditure, extremely high unit costs for higher education

18. **Funding for education has been steadily increasing.** The sector is mostly funded by the public budget, though the private sector plays an important role. The share of education in the country's budget, as a percentage of total public expenditure, declined from 9.8 percent to 7.8 percent (executed) between 2008 and 2012 but increased to 12.9 percent in 2013 (planned). As a percentage of GDP this corresponds to an increase from 2.0 percent to 2.8 percent (and to 5.1 percent in 2013). The recurrent budget covers salaries, scholarships, and learning materials, while the investment budget covers mostly infrastructure and equipment. Financial aid represents an important share of the total recurrent expenditure in the education sector, and most of this is used in higher education scholarships. No maintenance of capital goods is

covered. Household contributions support salaries of *bénevoles*,[5] food, some furniture, and school maintenance. External financing has focused mainly on technical assistance and support to infrastructure development. Over 2008–2012, external financing contributed an amount of approximately US$70 million, which represented about 5 percent of total financing for the education sector. There is also some public financing of private education provision, as the salaries of teachers in private accredited schools are paid by public budget. In 2011, these teachers represented 20 percent of all primary school teachers and 4 percent of all secondary teachers paid by the state. In fact, private education plays an important role in Congo; 31 percent of primary school Congolese children are enrolled in a private school, which is a high rate when compared to 16.6 percent that is the average for SSA. Private higher education provision allows for enrollment of almost half (44 percent) of all higher education students.

19. **In 2013, a shift in intra-sectoral funding allocations took place, benefiting TVET and increasing significantly the overall investment expenditure in education.** Until 2012, a large proportion of the education budget was allocated to MEPSA, in line with the objective of achieving the MDGs in 2015. Increasing attention to the goal of developing skills for the growth sectors led to a very significant increase in the funding allocation to the METPFQE. This accompanied the Head of State's declaration of 2013 as *l'Année de l'éducation de base et de la Formation Professionnelle* (The Year of Basic Education, Skills Training, and Professional Qualifications). As a result, MEPSA's allocation decreased, while the allocation for the METPFQE doubled. The 2014 budget does not change this new intra-sectoral allocation pattern. Allocations to higher education have not changed significantly during the period. Further, until 2012, both the METPFQE and MES were allocated an increasing share of recurrent expenditure, whereas MEPSA benefited from a higher share of capital expenditure. In 2013, 83 percent of the 2013 budget allocated to the METPFQE was for investment.[6]

Figure 9. Evolution of Budgeted Education Expenditure (XAF, millions), by Ministry (2008–2013)



[5] The *bénévoles* are primary and lower secondary teachers hired by the communities, often with very limited capacity and qualifications. Most of them were hired during the period of the conflicts to fill the void left in the public provision of education services.

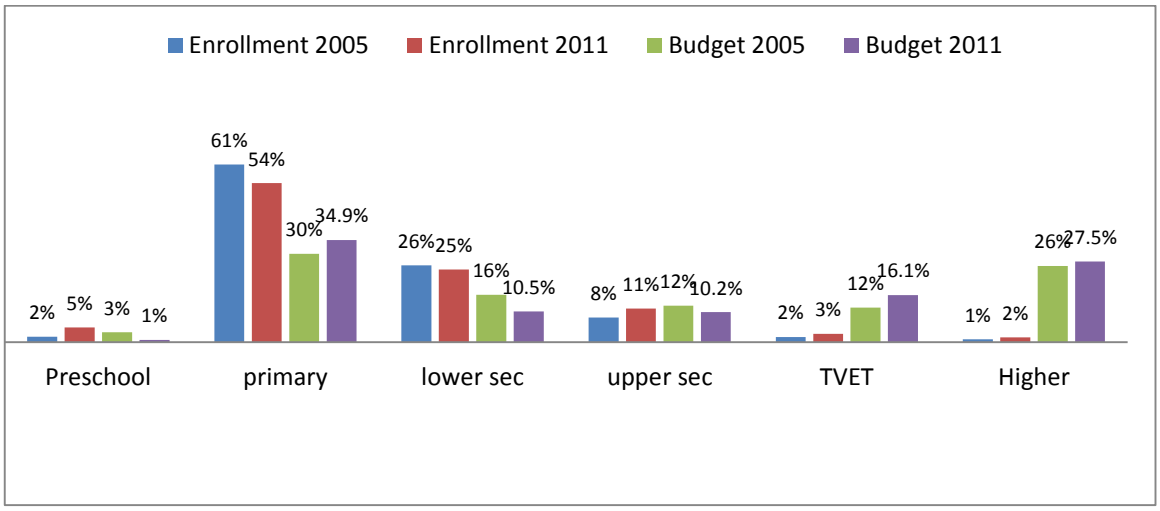
[6] The percentage of investment expenditure budget for the METPFQE for 2014 is slightly lower but still very high: 77 percent.

Source: MEFPIPP Budget Execution and other data, 2008–2012; Loi de Finances 2008–2012.

20. **The execution rates of the consolidated education budget improved noticeably over the last years, both for recurrent and investment expenditure, although the latter are systematically lower than the previous; further, they vary among the three education ministries.** The education budget consolidated execution rate increased from 89.9 percent to 94.6 percent between 2008 and 2012. The execution rate for investment expenditure is lower than for recurrent expenditure, but this rate showed the most remarkable improvement, increasing from 39 percent in 2008 to 83.4 percent in 2012.[7] The lowest budget execution rates are found in METPFQE and MEPSA, and in investment expenditure.[8] The major increase in METPFQE investment expenditure can pose additional challenges to investment and consolidated execution rates. The MES seems to be facing overruns both in recurrent (5 percent in 2012) and investment expenditure (14 percent in 2011), although more significantly in the latter.

21. **Except for TVET, unit costs have been decreasing, yet higher education unit costs are disproportionately high.** The main drivers for unit costs in TVET and higher education are teacher salaries and scholarships. Spending on salaries accounted for 36 percent and 56 percent on average, respectively; spending on scholarships accounted for 26 percent and 37 percent on average. In the case of higher education, the low enrollment rate combined with the large amount spent on scholarships explains the disproportionately high unit cost for this education level.

Figure 10. Enrollment and Budget Allocations by Education Level, 2005 and 2011



Source: Authors' estimations calculated from ECOM 2005 and ECOM 2011 data.

[7] It should be noted that 2012 was atypical due to the passage of a supplemental budget, following the government's response to the immediate effects of the explosion of the ammunitions depot in Brazzaville. The supplemental budget increased the recurrent expenditure by over 46 percent and doubled the investment expenditure compared to 2011. In practice, these expenditure levels were kept practically unchanged, in nominal terms in the budget for 2013, thereby setting in a new expenditure base. The impact of these changes in the education sector was basically felt on the investment side, which rose 69 percent between 2011 and 2012.

[8] It was not possible to provide an analysis of the causes explaining the lower execution rates due to the unavailability of recent data on the composition of investment expenditure.

Although financing of the sector has increased, there are important sources of inefficiency preventing many Congolese from benefiting from education returns, which are very high in Congo.

22. **Costs of low student retention and high repetition are very high for both public financing and households.** In 2011, grade repetition costs amounted to about 0.6 percent of GDP, close to 21 percent of the annual current education expenditure (at 2011 prices).[9] School dropout has important implications for public and household expenditure and income. The current dropout rate in Congo (7 percent, 2 percentage points lower than in 2005) implies an opportunity cost of 3.3 percent of GDP and 10 percent of household total consumption expenditure.[10]

23. **Poor management of human resources is another important source of inefficiency.** With regard to the share of trained teachers and pupil-teacher ratio (PTR), Congo ranks in the middle of SSA countries, comparing favorably with countries such as Cameroon and Togo. In 2011, the primary school PTR for Congo was an average of 59.5 to 1. In the same year, the share of trained primary teachers was 80 percent. However, the system was bloated with nonteaching staff, as shown by Congo's teacher-administrative staff ratio: 1.5 teachers to each nonteaching staff in primary education; 1.7 at the *Collège* level, and 3.3 at the *Lycée.* Further, the number of teachers with more than one function is very high: 21 percent of the teaching staff in primary and 6.7 percent in *Collège* combine teaching and administrative functions; 10.8 percent of the total number of primary school teachers are also school directors. When teachers do not have a specific status within the public service, they can request to carry out other functions than teaching. Schools are then forced to recruit lower-qualified staff from the community to replace them. The financial implications of these overlapping functions are not known, as the level of aggregation of the data from the Ministry of Finance does not allow for an accurate analysis. The latest primary education teaching census dates from 2008 and at the time it allowed for the identification of 5,148 'ghost' teachers, whose salaries were subsequently stopped, and 1,672 'ghost'[11] personnel, whose salaries were also suspended. Further, 2,253 staff who actually worked at other ministries emerged under MEPSA's budget.

24. **Internal inefficiency prevents many Congolese from benefiting from education and improving their living conditions, although education rates of return are very high in Congo.** Between 2005 and 2009, the contribution of education to a change in earnings was on average 91 percent; this was much higher than the average for any other associated labor market factors (35 percent). The highest impact results from holding a TVET or higher education diploma. Both incomplete primary and complete primary education produce much

[9] The cost of grade repetition is calculated based on (a) the direct cost of schooling that is generated from total number of repeaters based on per student annual unit cost in public and private schools and (b) discounted value of forgone opportunity costs of expected earnings due to lag and length of labor market engagement. The latter is estimated based on wage employment earnings by taking into account the age of labor market entry and associated unemployment rate.

[10] The earnings of individuals by level of education are estimated to determine the forgone opportunity costs. This is done by reviewing the earning difference between those completing the level of education and those who dropped out before completing such level.

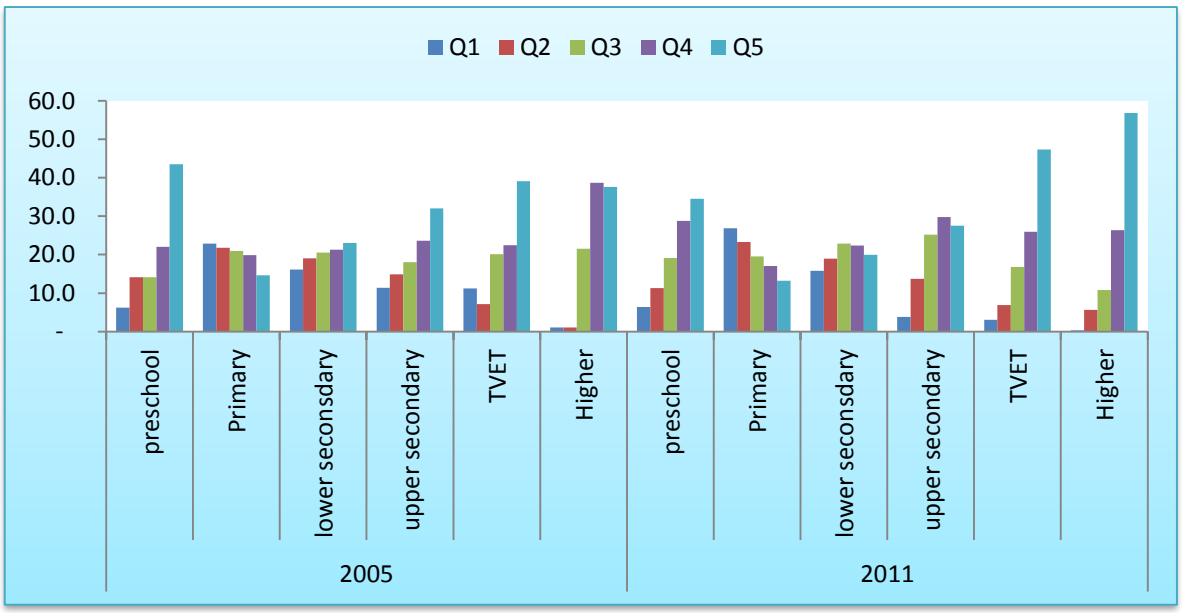
[11] 'Ghost' teachers and 'ghost' personnel are individuals who appear in wage lists but no longer are or have never been part of the ministry staff.

lower rates of return compared to any other education level. Having an upper secondary education diploma or higher education is more important for women than men. The employment profile varies accordingly with the education level; thus, those with higher education are mostly employed in wage jobs and earn more than the others. In 2011, 80 percent of those with a higher education diploma were in wage employment compared with lower rates for graduates of TVET (55 percent), secondary (56 percent), lower secondary (36 percent), primary (21 percent), incomplete primary (14 percent), and no education (10 percent). Given that currently out of 100 Congolese children enrolled in grade 1, only 23 will reach grade 10, that is, the last grade of lower secondary education, the remaining 77 are prevented from benefiting fully from education and are typically caught in an intergenerational cycle of poverty.

Inequity is a major challenge in education: primary education is pro-poor but postprimary education benefits the well-off and is not affordable by the poor.

25. While enrollment in primary education decreases with income, the opposite is the case for enrollment at post-basic education levels; disparities of income are also present in attainment. This suggests that children from poor households benefit much less from post-basic education. While it is true that improvement has taken place from 2005 to 2011, the proportion of children from poor households in secondary and higher education is still extremely low. Further, during this period, there have been big increases in the number of children from the wealthiest households in secondary and, particularly, in higher education.

Figure 11. Enrollment by Education Level and Quintile, 2005–2011



Source: Estimate based on ECOM 2005 and ECOM 2011.

26. **Disparities in educational attainment are very high in Congo compared to other SSA countries.** For example, the gap between the poorest and richest quintiles in upper secondary enrollment is 78 percent in Congo compared with 59 percent average for SSA. Congo is among the 6 worst performers in a group of 37 SSA countries. Further, it compares poorly as well with SSA countries of a similar income, for which the average is 68 percent.

27. **Income, area of residence, and gender play a role in the average years of education of the working-age population in Congo, and income and rural urban disparities are very significant.** While the average number of school years for working-age Congolese in the top quintile is 10.2, the equivalent for those in the lowest quintile is 5.3. Different regions of the country also present different results, with Brazzaville presenting 9.9 years of schooling (highest) and Pool only 4.7 years (lowest). Given the education disparities among the young Congolese and among those of working age, these seem to be replicated in an intergenerational manner. At the national level, only 17 percent of the total income is earned by the two lowest quintiles, which represent 40 percent of the Congolese population. A regional comparison of 27 SSA countries for which data is available positions Congo among the 10 higher-income high-inequality countries. Further, analysis of 2005 and 2011 household survey data shows that the income earned by the bottom 40 percent has remained constant over the period. Figure 12 shows that 67 percent of the income is earned by households in the top two income quintiles (44 percent in the highest quintile), whereas the bottom 40 percent earn only 17 percent of the income.

Figure 12. Share of Total Income per Quintile, 2005 and 2011

Source: Authors' estimations from data from ECOM 2005 and ECOM 2011.

28. **Current spending on education does not favor the poor: while it is pro-poor in primary education, it is regressive at postprimary levels.** In 2011, the poorest quintile received 21.1 percent of the public benefits allocated to primary (just slightly above the population share of the quintile), while the richest received 16 percent (4 percent less than the population share of the quintile). For post-basic education, however, the situation is different, with 22 percent of the budget allocated to higher education and per student spending 12 times higher than for any other level. Compared to 2005, the benefit to poorest households decreased, even in primary education, and increased for the richest households.

In conclusion

29. **After the end of the conflicts in the 2003, the Congolese authorities have steadily been investing in the development of the education sector, guided by a comprehensive set of goals, including the achievement of the MDGs for the sector, and the establishment of**

an education system that is capable of providing the necessary skills for a diversified economy. Good results have been obtained in access; however, less progress has been seen in quality and, above all, in student retention. Dropout and repetition are very costly for both the public budget and households and an important source of inefficiency along with poor human resources management. Financing of the sector has focused on primary education in line with the objective of achieving the MDGs, but this focus has shifted toward TVET, in line with the goal of providing skills for growth. Revamping TVET institutions has significantly increased investment expenditure. Overall, budget execution rates have been improving but are still low. Congo's returns to education are very high and education is a fundamental means to reduce poverty. However, financing of education is progressive in primary and regressive in post-primary. Thus, issues of inequity are fundamental, and the education system in Congo is not yet making a real contribution to poverty reduction and equality. Policies and interventions are required to reverse this situation.

Health

Good recent progress in major health outcomes but important challenges in inequality and infectious diseases

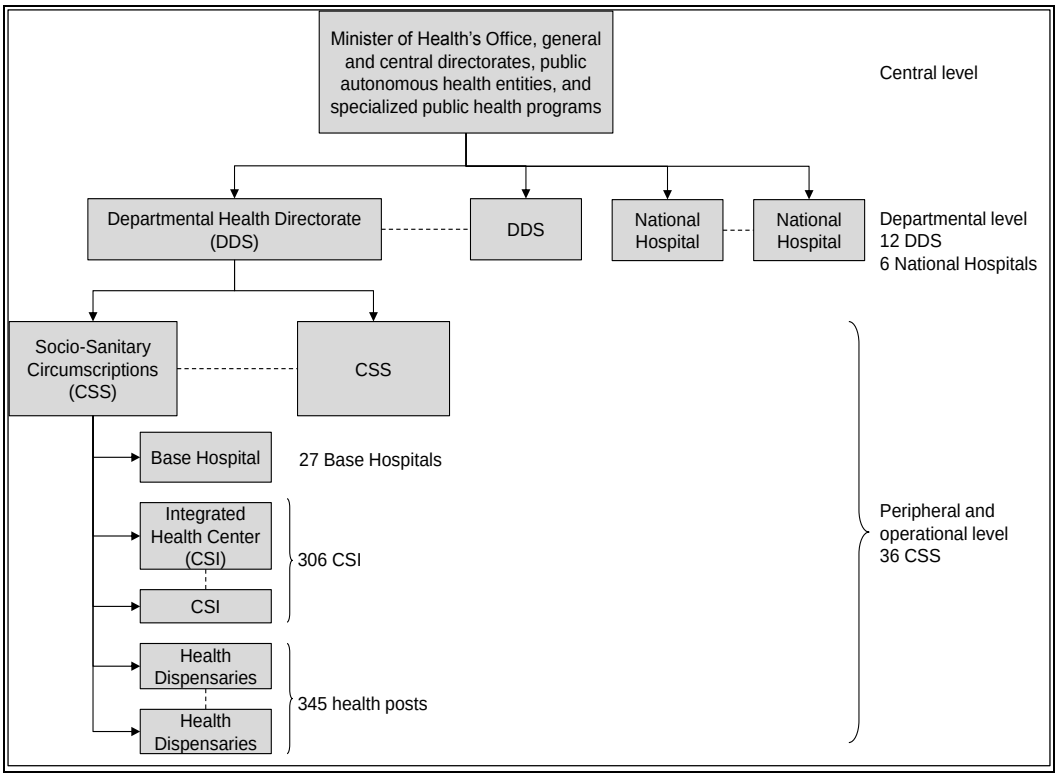
30. **In Congo, the improvement of the health conditions of the population is considered fundamental to achieving poverty reduction and economic growth outcomes and this can be clearly seen in its GEPRSP 2012–16.** The GEPRSP and the *Programme National de Développement Sanitaire*[12] (PNDS)—currently being updated—define key areas of intervention in the sector. Priority is given to the achievement of the MDGs for health in the fields of child/infant mortality, maternal health, fighting HIV, and malaria and other infectious diseases, by guaranteeing the population equitable access to quality health care services. Significant attention is also given to a general strengthening of the health system in governance. An important focus is reducing inequities in access to health services for the poor and for vulnerable pregnant women. Strengthening the supply of health care by promoting health services, social markets, and communication is also a priority. The plans recognize the importance of improving the quality of services and stronger management of essential medicine supply, including strengthening the Congo Essential Generic Drugs Agency (*La Congolaise des Médicaments Essentiels et Génériques* [COMEG]).

31. **Raising public expenditure in health and ensuring an efficient use of resources is an important means for improved health outcomes, thereby contributing to poverty reduction and increased equity.** Balanced intra-sectoral budget allocations can play an important role in ensuring that priority sector policies are implemented. Gains in efficiency allow for improved health outputs and outcomes. Although it is a middle-income country, in 2011 Congo's poverty rate was 46.5 percent. Equity in access to public health services is crucial to guaranty that such a large section of the population is not simply excluded.

[12] *Programme National de Développement Sanitaire* stands for National Health Development Program.

32. **The government health care delivery system is formally decentralized and comprises three hierarchical levels: (a) central, (b) departmental,**[13] **and (c) operational.** At the bottom of the public delivery system are the health dispensaries. According to the recent Health Statistics Yearbook issued by the MSP[14] in 2012, there were 345 dispensaries distributed across all *départments*, except in the two largest urban centers in the country, Brazzaville and Pointe Noire. The next referral level is composed of Integrated Health Centers (*Centres de Santé Integré* [CSIs]).[15] The first referral facility for CSIs is the Base Hospital (*Hôpital de base*). In 2012, all *départment*s except Kouilou had one or more Base Hospitals. These inpatient facilities, in turn, have as their referral in the public system, the General Hospital (*Hôpital general*), of which there are six in the country, including the University Hospital Center (*Centre hospitalier universitaire*) located in the capital city of Brazzaville. Private health care providers also play a major role in Congo's health system, but there is little coordination between public and private providers and little regulation of the latter. According to a World Bank/International Finance Corporation report that analyzed Congo's private health care delivery system, in 2005 there were 1,712 health care providers in the country, of which more than half (1,002) were private. The vast majority of private providers (88 percent) were for-profit.

Figure 13. Structure of Congo's Public Health System



Source: CNSEE 2005; CNSEE and ICF International 2012.

33. **The pharmaceutical products procurement agency, COMEG, has the responsibility of procuring and supplying government hospitals and health centers with**

[13] The territory of Congo is divided into regional areas called *départments*; thus, the word departmental is used in this case, in relation to each of Congo's 12 *départments.*

[14] *Ministère de la Santé et de la Population* stands for Ministry of Health and Population.

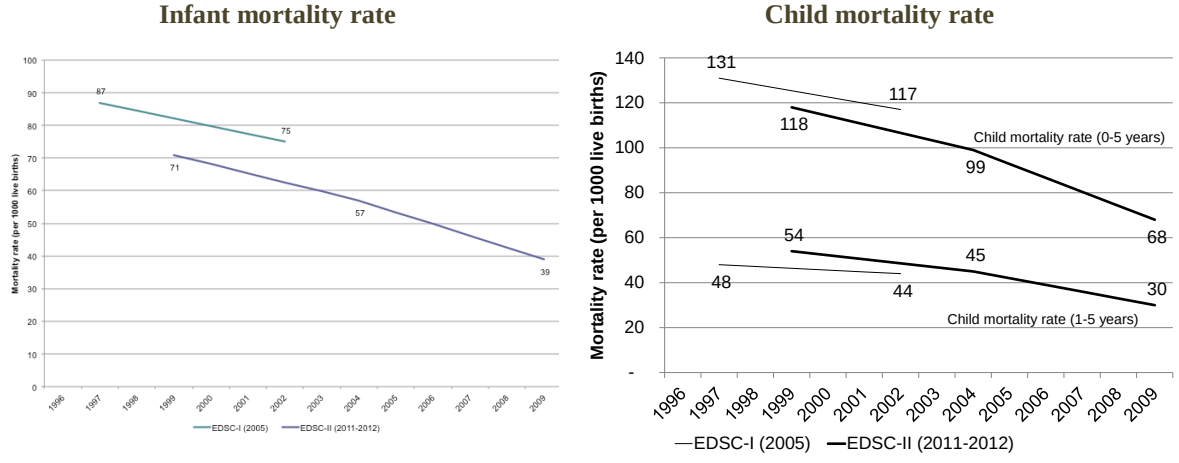
[15] *Centre de Santé Integré* stands for Integrated Health Center.

generic drugs and consumables. Its management capabilities and performance are limited and many public providers, including Base Hospitals and CSIs, prefer instead to bypass the institutional procurement system to purchase drugs and supplies directly from private providers, at lower prices. The lack of regulation and control of the private drugs procurement system poses patient safety problems.

34. **In health outcomes, up until recently Congo was lagging behind other countries in the region.** Before the release of the most recent Demographic and Health Survey, EDSC 2011–12, Congo seemed to be outperformed by other countries in the region on most health indicators. Accordingly, the 2010 government's Millennium Development Goals report stated that Congo had made little or no progress toward the MDG goals of reduced infant/child mortality (Government of Congo 2010).

35. **In contrast to these trends, the EDSC 2011–12 report presented an encouraging picture.** By comparing the estimates of the infant mortality rate (IMR) and child mortality rate (CMR) between the previous EDSC (2005) and the most recent one (2011–12), the report concluded that both of these rates had decreased and that their improvement was statistically significant and accelerating. It estimated that in 2009, the IMR was 39 deaths per 1,000 live births (down from 57 in 2005 and 71 in 1999). The CMR decreased from 118 per 100 live births in 1999 to 68 in 2009, and the death rate for children ages 1–5 decreased from 54 per 1,000 to 30 during the same period (Figure 15). The maternal mortality rate (MMR) has also fallen considerably from 781 deaths per 100,000 live births reported in 2005 to the rate of 429 reported in EDSC 2011–12. This improvement is likely related to the positive performance of several indicators related to maternal health, including Congo's high rate of institutional deliveries by qualified personnel, which has improved from 2005 to 2011–12 but still shows important inequalities across income quintiles.

Figure 14. Infant and Child Mortality Rates, 1997–2009 (deaths per 1,000 live births)



Source: CNSEE 2005; CNSEE and ICF International 2012.

36. **Significant improvement can also be observed for most other health indicators presented in EDSC 2011–12:** child vaccination (except for polio); access to the treatment of diarrhea with oral rehydration salts for children under five years of age; rate of institutional deliveries by qualified health personnel; knowledge about contraception; use of prenatal care; and HIV prevalence, among other indicators.

37. **It is also important to keep in mind, however, that the indicators mask important inequalities in outcomes for different populations,** particularly across income quintiles and different areas of residence, with poorer households and those living in rural areas presenting worse outcomes. Infectious diseases like malaria also continue to pose significant challenges despite the progress.

Figure 15. IMR by Mother's Education and Household Income Quintile, 2005 and 2011–2012 (deaths per 1,000 live births)

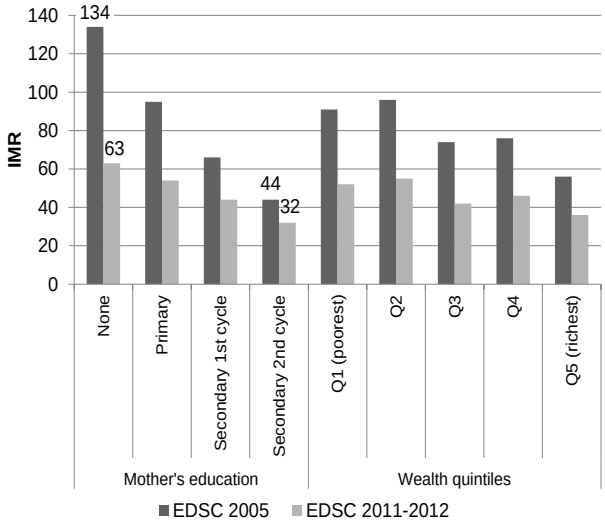
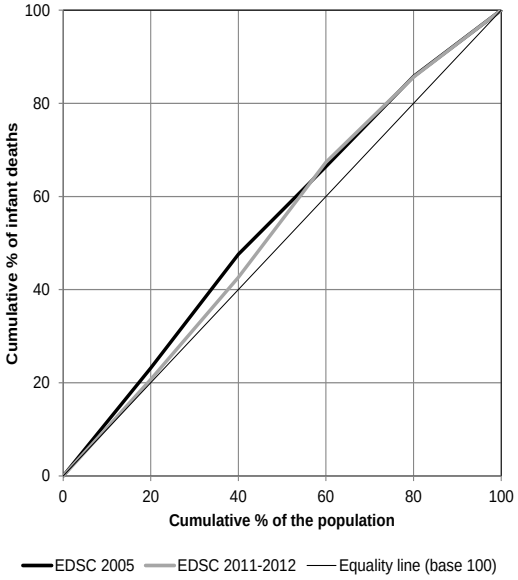


Figure 16. Concentration Curve for the IMR, 2005 and 2011–2012



Source: CNSEE and ICF International 2012; World Bank's World DataBank (WBWDB).

38. **It should also be noted that a few indicators that are critical for sustained growth are still lagging in Congo.** Fertility has increased: the average number of children born per woman was 5.1 in EDSC 2011–12, an increase from 4.8 in 2005. The country also still has a quarter (24 percent) of its children under five years of age chronically malnourished (stunted), with two-thirds (67 percent) of children in the same age group suffering from anemia. Both fertility and malnutrition rates are higher in households living in rural areas and households from the poorest income quintiles.

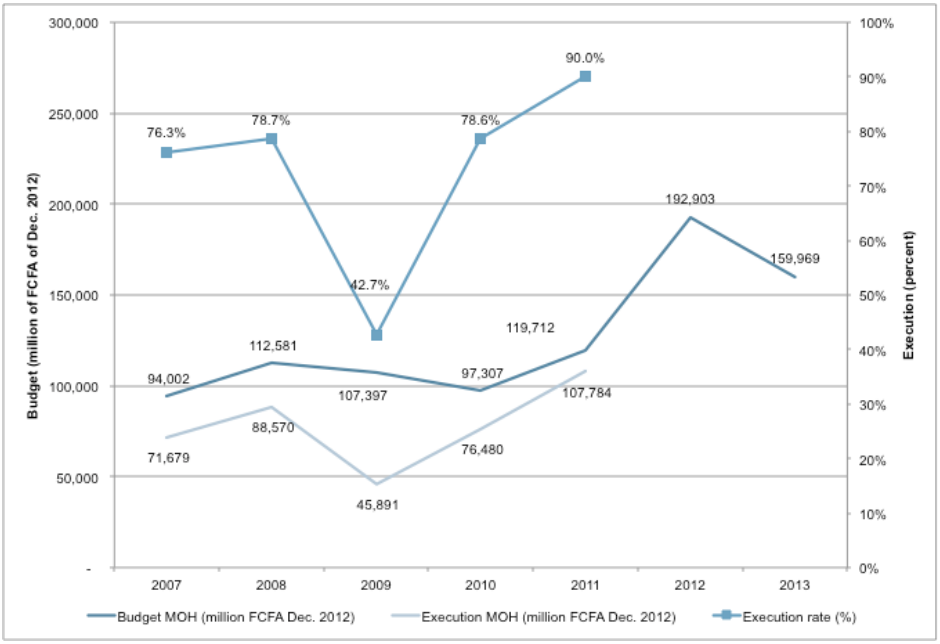
Increasing public funding for health but still among the lowest in SSA, high dependency on household health spending, which creates an access barrier for the poorest households

39. **The analysis of the government expenditures shows that the MSP budget remained nearly constant, in real per capita terms, between 2008 and 2011.** On one hand, the share of the government budget devoted to the social sectors dropped sharply in 2009, though it subsequently experienced a mild but progressive increase. Between 2008 and 2009 the social sectors' share of the public budget fell by one-half, from 19.6 percent to 10.0 percent, but from then on, it increased progressively, albeit mildly, to reach 13.3 percent in 2012. On the other hand, within the social sectors, the MSP has been gaining importance. In 2009 the MSP budget represented about 75 percent of the budget for Education but by 2012, the MSP and Education budgets were similar. In 2011 the MSP budget represented 3.8 percent of total

government budget, a slight increase from 3.4 percent in 2010. This percentage increased to 5.3 percent in 2012 and decreased again to 4.2 percent in 2013.

40. **Still, when seen in the regional context, in Congo, both total health expenditure as a share of GDP and government health expenditure as a share of total government spending are very low in relation to the country's per capita income.** Whereas Congo's per capita income in international dollars is among the highest in SSA, the share of the economy that is devoted to the health sector is among the lowest, and so is the share of government spending going to health. Despite recent increases, Congo's proportion of government expenditures allocated to health falls short of the Abuja Declaration commitment of increasing government funding for health to 15 percent of total government expenditure.

Figure 17. Government, MSP Budget, and Budget Execution (XAF, millions on the left axis and percentage on the right axis)



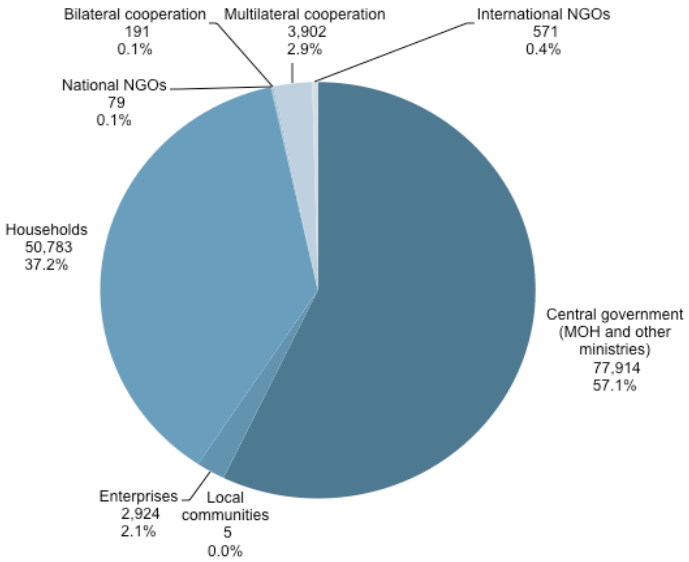
Source: MSP budget information supplied by the MEFPIPP, December 2012.

41. **It is important to keep in mind, however, that health system performance is influenced by many variables other than health spending.** One way of analyzing the situation is to use a target outcome such as IMR and assess a country's performance by its deviation from both predicted IMR and predicted total health spending as a percentage of GDP, using linear regression techniques. A good performing country would be one with an IMR better than predicted and total health spending below prediction. Congo is a poor performer from that analysis: it spends less on health than expected, given its income level and literacy rate, and it has an IMR that is higher than expected given those two explanatory variables.

42. **The degree of actual execution of the MSP budget has historically been weak but with an upward trend.** In 2007, 2008, and 2010, the execution of the health budget was under 80 percent. In 2009, only 42.7 percent of the budget was executed. The year 2011 saw the highest level of execution, at 90 percent. Between 2007 and 2011, the total amount of executed health budget increased in real terms from XAF 71.679 million (of December 2012) to XAF 107.784 million.

40. **A National Health Accounts (NHA) analysis was carried out with support from the World Bank and the World Health Organization (WHO), with information for 2009 and 2010.** It shows that besides government expenditure, health system financing in Congo is heavily dependent on households' out-of-pocket spending (OOPS). According to the NHA study, in 2009, 48 percent of all financing for health care came from households; in 2010, it fell to about 37 percent. Estimates obtained by these authors using the latest ECOM (2011) household survey indicate that household health spending may have been largely underestimated in the NHA study and may actually represent more than one-half of total health pending. On the other hand, donor financing for health care is relatively low by regional standards, and other sources of financing, such as community contributions and spending by enterprises, are also very small overall at the national level.

Figure 18. Sources of Health Financing, 2010

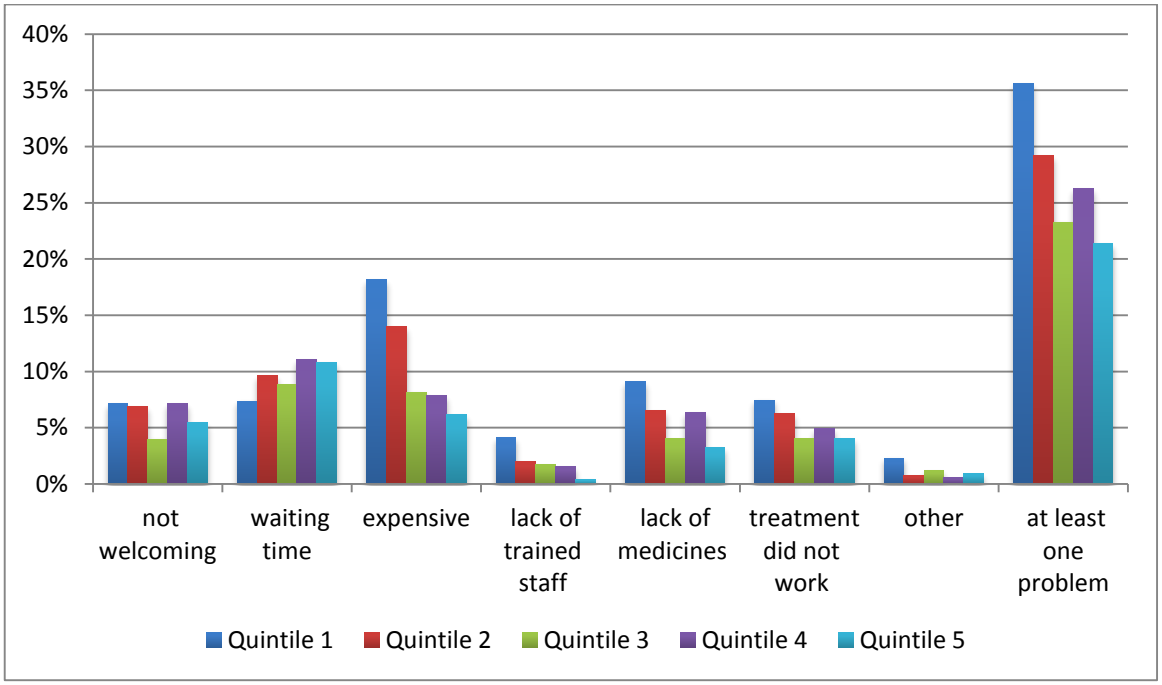


Source: Ministère de la Santé et de la Population (2013).

41. **Strong reliance on household spending in Congo is partly the consequence of a drug revolving fund-like system that operates in all or virtually all government health facilities.** Besides autonomous public hospitals, which receive a block grant and may use part of their budget to purchase medicines, all other public providers lack budget resources to purchase medicines and other medical supplies. To have a stock of medicines, they charge patients a user fee and with the revenue collected from these fees, they purchase medicines from COMEG or private providers. Moreover, the fact that the government has not issued any guidance regarding the services and products that can be subject to a fee and the level of fees has resulted in each facility adopting its own fee system. This means that user fees in public facilities may be imposed not only on medicines but also on other goods and services provided to patients and these fees vary from one facility to another. All of this challenges equity in the system, with poor households having less access to treatment and, especially, medicines due to financial constraints. Indeed, the most common cause of discontentment with the health system or reason for not visiting a health facility when needed is the high price charged, a problem that is a lot more common among the poorest households (Figure 19).

42. **Looking at the structure of household OOPS by category, obtained from ECOM 2011, medicines are the major expenditure category, accounting for more than half (56 percent) of household spending on health.** Spending on actual medical services, in the form of fees paid to public and private providers, represents just 20 percent of the households' OOPS.

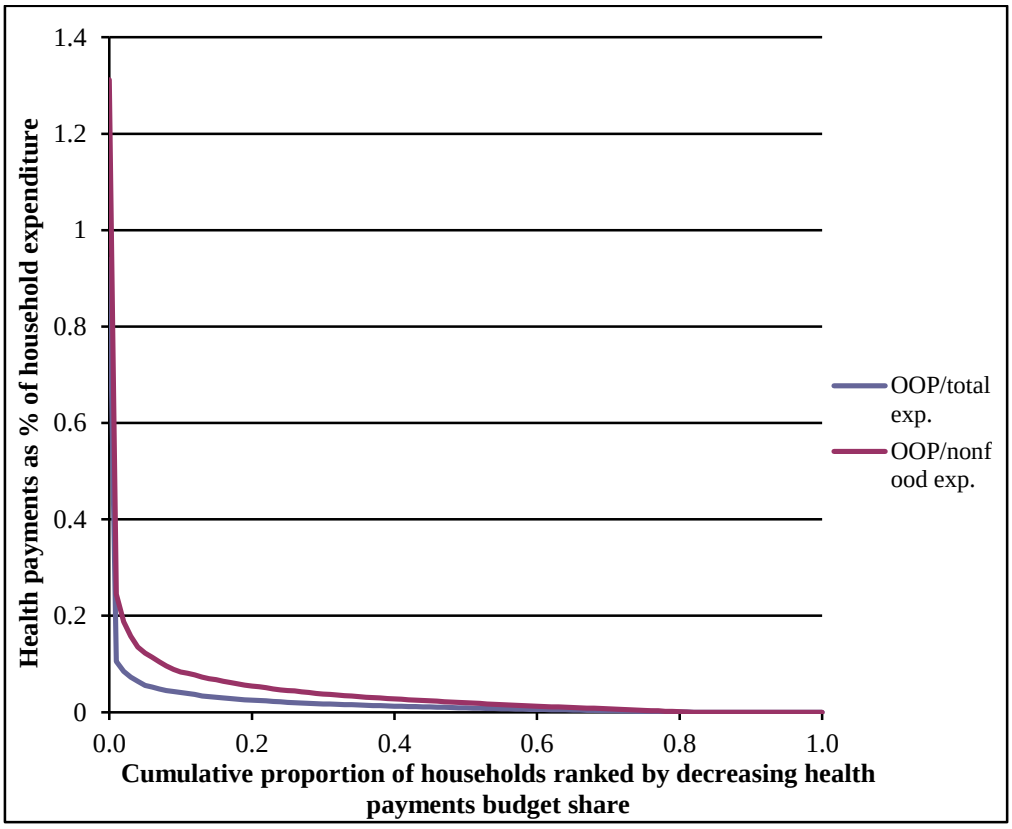
Figure 19. Problems Identified During Last Visit to Health Facility, if Any



Source: ECOM 2011.

43. **Analysis of catastrophic payments for health care carried out by the authors indicate that OOP payments for health care in Congo absorb more than one-quarter of household resources net of food costs in 0.9 percent of households, with this percentage reaching 2 percent for the lowest quintile of income.** Graphically, Figure 20 highlights that the percentage of households spending more than 20 percent of their nonfood income in health is reduced. Even though such numbers are low and can be considered common in developing countries, they mean that for some of the poorest families such levels of spending can only be accommodated through the diversion of considerable resources from current consumption and/ or through the accumulation of debt or the exhaustion of savings and assets with long-term consequences for household welfare.

Figure 20. Health Payment Shares



Source: Authors' calculations based on ECOM 2011.

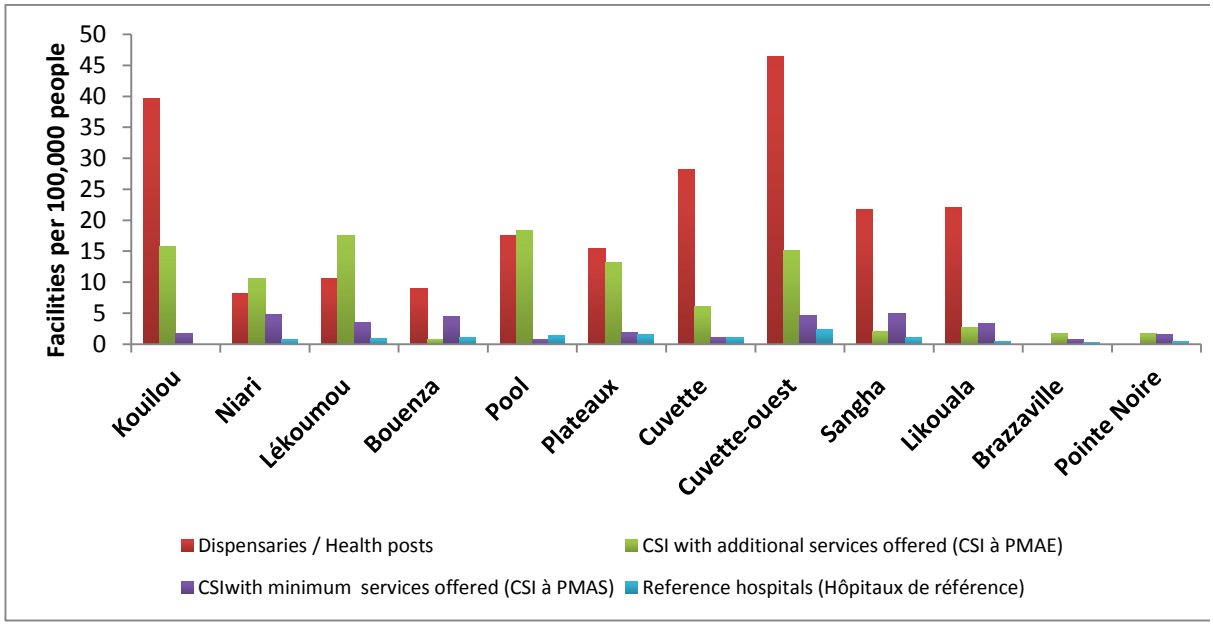
Important challenges in system management remain: departmental inequalities in the deployment of staff, distribution of facilities and resources, and low bed utilization rates in base hospitals; there is some evidence of correlation between different levels of spending per capita in each of the departments and utilization of the system.

43. **Human resource management remains one of the main challenges in Congo's health system.** Weak management has led to poor deployment of professional staff and functionality of facilities, especially in rural and remote areas. The number of health personnel in all categories has, however, increased significantly, from 10,000 in 2005 to about 15,000 in 2010 (of which 80 percent are in the public sector). Unfortunately, this important recruitment effort has not succeeded in addressing the existing major urban-rural disparity issues in service delivery. When comparing Congo with other SSA countries, one can see that with 0.1 doctors per 1,000 people, the country has fewer medical doctors than would be expected given its per capita income and it also presents a deficit of hospital beds and nurses with just 0.84 nurses and 1.6 hospital beds per 1,000 people. Yet, Congo has a huge asset of health personnel, which is to be found within its diaspora; they are estimated to be more numerous than those working inside the country.

44. **There is broad variation in the availability of health facilities across *départments*.** The availability of dispensaries is hard to evaluate since factors like population density and the degree of rurality of the *départment*s can influence departmental needs. In the case of the CSIs,

the MSP policy calls for one CSI per 2,500 to 10,000 people in rural areas and one CSI per 10,000 to 15,000 people in urban areas, so it is evident that at least three *départments*, Brazzaville, Bouenza, and Pointe Noire, do not meet the norm.

Figure 21. Availability of Health Facilities by *Département*



Source: MSP 2013c.
Note: CSI à PMAE = Integrated Health Center with Expanded Minimum Services (*Centre de Santé Intégré à Paquet Minimum d'Activités Elargi*);
CSI à PMAS = Integrated Health Center with Standard Minimum Services (*Centre de Santé Intégré à Paquet Minimum d'Activités de Standard*).

45. **When looking at estimates of government per capita expenditure by region we see strong disparities.** The *départmen*t where the government spends the most per person (Cuvette) on health is three times more than the lowest-spending *département* (Kouilou). This is not necessarily bad; the levels of rurality in different *départments* are diverse and providing health services to rural, widespread populations might result in a much higher cost per capita than in urban settings (more information is required to evaluate). In the same way, the burden of disease as well as the exact needs of the population might vary across *départments* and that could influence spending patterns.

46. **To assess the levels of efficiency of the system, the authors analyzed the existence of any correlation between different levels of spending per capita in each of the *départments*, variables that approximate the use of the system (numbers of visits) and health outcomes in each of the *départments*.** This analysis is illustrative only, pending more regular and reliable collection of health data at the *département* level. The analysis reveals that there is some evidence of a positive relationship between public per capita spending and indicators of health system performance, such as number of visits to public health facilities (as reported in the ECOM 2011 survey), the use of contraceptives, and the percentage of women who received prenatal care and those who took antimalarial drugs during pregnancy. However, the positive relationship does not hold for all outcomes. Important indicators of children's health, like the percentage of fully immunized children, show negative correlation with per

capita spending. There is also evidence of a positive correlation between number of beds in public facilities and public spending on health per capita

47. **Utilization rates of beds are very low in Base Hospitals, except in Brazzaville.** Hospital utilization rates were as low as 7 percent in one *département* (Sangha), and in 8 out of 11 *départment*s they were below one-third. Considering that utilization was computed on the basis of available hospital beds, these low rates of utilization reveal a major inefficiency in Congo's government health system—scarce public resources are being allocated to hospitals that are seldom used.

48. **Low access to curative care may be the result of relatively high user fees, user fees being charged to all patients in government facilities irrespective of their ability to pay, poor quality of health services, and other problems in supply.** A study about quality of care in government ambulatory and inpatient facilities found that, while most CSIs studied had basic medicines at the time of the visit, more than half had experienced inventory stock-outs in the 30 days preceding the survey. It also found that few facilities had treatment protocols and few health staff had been trained in the use of protocols (PDSS 2010).

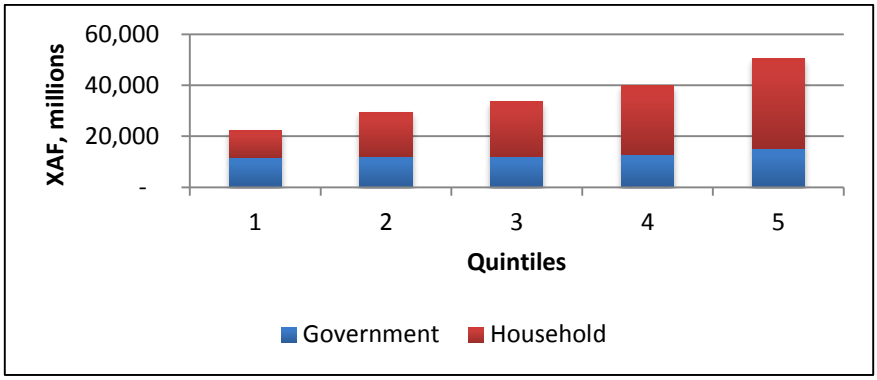
49. **In Congo, the prevalence of health problems does not vary much across quintiles,** according to self-reported survey data about illness in the previous four weeks (ECOM 2011). In the same way, the percentage of respondents who reported seeking help from some type of health provider did not differ much across the income quintiles. This seems to be a good sign with regard to equity—poorer individuals are not excluded from the system and know where to seek health care. It can also be a sign of the high level of urbanization of the country; according to the same survey, a vast majority of the population (85 percent) lives within 5 kilometers of a health facility. When looking at the type of health providers sought, however, it is clear that the population in richer quintiles has more access to private care and resorts less frequently to traditional medicine healers. The use of public facilities, however, does not vary much across quintiles, which is also a positive sign in equity of access to public services.

50. **With regard to expenditure, on the government side there is not much variation across quintiles (slightly larger for the 5th quintile), which is also a good sign of equity.** However, as can be seen in Figure 22, richer quintiles spend a lot more of their own money in absolute terms on obtaining health services. As discussed, there is a real possibility that households in the poorer quintiles are not accessing all the services and medicines they would need for lack of financial resources. Indeed, when asked about their level of satisfaction with the service received at health facilities, the most common problem identified is that of service being too expensive. This complaint is, unsurprisingly, more common in the lowest quintile of income. Similarly, when analyzing the reasons why respondents did not go to a health facility when they became ill, high prices is the number one reason mentioned, particularly for the bottom quintiles of income. In fact, BIA carried out by these authors indicates that government spending with ambulatory care is pro-poor, while government spending in hospitals is slightly pro-rich.

51. **Rural populations report a slightly higher rate of illness than urban ones (40 percent versus 36 percent) but they also report a higher use of health services for the reported illnesses.** This indicates that services are available and populations know how to

access them even in rural areas. With regard to providers, there is less reliance on private health services in rural areas and more reliance on informal providers such as traditional healers and churches.

Figure 22. Expenditure on Health by Government and Households



Source: ECOM 2011 and MSP.

In conclusion

52. **In recent years, the Congolese authorities have steadily been paying attention to the health sector, guided by a comprehensive set of goals, including the achievement of the MDGs for health: child/infant mortality, maternal health, fighting HIV, and malaria and other infectious diseases.** Despite the fact that financing for the health sector is still below regional standards for a country of its level of income and that the health budget has remained nearly constant in real per capita terms between 2008 and 2011, recent survey data show positive results in most, albeit not all, health outcomes. Strong progress has been recorded in reducing child and maternal mortality, but there remain high rates of fertility and of child malnutrition. HIV/AIDS prevalence has also been reduced but malaria remains a significant public health problem.

53. **The limited resources (human, physical, and financial) available in Congo are not distributed evenly across the country, which contributes to inequalities in access and outcomes across different populations.** The excessive price of services, especially medicines, seems to create a barrier to the poorest households and those in rural areas. The low utilization of beds in Base Hospitals and limited use of services in general suggests efficiency problems in the system. Health financing in general and particularly the purchase of medicines in health facilities heavily relies on household spending, which contributes to inequalities. Finally, the system still presents serious challenges in efficient management of staff and physical and financial resources. In addition to increases in public spending on health, policies and interventions focusing on strengthening system management, with an equity lens, will be crucial in the near future.

IV. Cross-Cutting Issues in Education and Health

54. **During the past decade, Congo has made progress in the delivery of education and health services, which has been reflected in the improvement of key indicators.** Education and health are key priority sectors in Congo's NDP and GEPRSP 2012-2016 and several well-defined policies and interventions have been and are expected to be implemented to meet the defined targets, among them, the MDGs. In education the most significant progress is in access and gender parity, which positions Congo well with regard to achieving the MDGs for the sector around 2015. In health, positive trends in several indicators position Congo well with regard to MDGs 4 and 5. However, achievement of the education and health goals has been uneven. In education, challenges remain with regard to student flows and appropriateness and quality of basic and post-basic education. In health, malnutrition and fertility rates remain high. It is very important for Congo to sustain these gains while improving performance in areas that are still lagging behind.

55. **Financing for both education and health is still low but has been steadily increasing, although this is more the case for education than health; further, both sectors depend to a significant degree on household contributions.** Financing of the education sector has increased in recent years and there have been intra-sectoral reallocations in line with the government decisions around the pursuit of specific education objectives. Thus, a shift toward the development of skills for growth sectors has led to an increase in the budget allocation to the TVET subsector and to a reduction in the allocation for primary and secondary education. The education budget declined from 9.8 percent to 7.8 percent (executed) of the total state budget between 2008 and 2012 but increased to 12.9 percent in 2013 (planned). As a percentage of GDP, this corresponds to an increase from 2.0 percent to 2.8 percent (and to 5.1 percent in 2013). In 2009, total health financing amounted to about XAF 103,000 million, equivalent to 2.1 percent of GDP. Both total health financing and GDP have been going up, so total health financing as a share of GDP has been more or less constant around 2 percent between 2008 and 2012, with the highest share being recorded in 2012 at 2.8 percent. Both the education and health budgets are low for the income level of Congo. It is also worth noting that initiatives such as *l'Année de la Santé, 2012*—The Year of Health—and *l'Année de l'éducation de base et de la Formation Professionnelle, 2013*—The Year of Basic Education, Skills Training, and Professional Qualifications—led to significant increases in sector budgets and changes in intra-sectoral allocations, not always associated with sound planning and with the real absorptive capacity of the ministries. While such initiatives are commendable as they focus on moving forward with the improvement of human development and give visibility to the sectors, they should be accompanied by sound planning and implemented in a sustainable manner. While donor financing is very low in both education and health budgets, household contributions are significant, particularly in health, reaching almost half of the overall budget for the sector in 2008. Households pay for medicines and palliative care. In education, household contributions pay fees, salaries of *bénévoles*, and school maintenance and materials in post-primary education. Recurrent spending in education and health supports mostly staff and administrative services.

56. **As is the general case in Congo, budget execution rates are low both for the education and health budgets, particularly so for investment.** Budget execution rates have improved but continue to be low. Education budget execution rates are higher than those in health, but the impressive increase in investment expenditure for the development of TVET may decrease the consolidated execution rate for the sector. The challenges encountered by other sectors, associated with the introduction of the new procurement code and the centralization of procurement for large works, have also been seen in the education and health sectors.

57. **There are important sources of inefficiency in both sectors, one being poor management of human resources.** Quality of human resources is an issue for both sectors and so is distribution. Further, in education, the high proportion of administrative staff combined with the high number of staff with multiple functions has an important impact on the wage bill. In health, the availability of doctors and nurses is below the average for similar income countries, there are important geographic inequalities in distribution of those resources, and there is limited information about the quality of the services delivered. A major source of inefficiency in the education system is very low retention and high repetition and dropout rates, which have very important costs for both households and the public budget. In health, the lack of regulation on the fees applied by health care providers and the challenges around procurement of drugs have important inefficiency effects.

58. **Inequity is an issue in both education and health.** Postprimary education is expensive for the poor, yet completing only primary education does not offer them significant returns. Low student retention and poor quality of learning outcomes prevent young Congolese from obtaining a diploma that could allow them to benefit from wage employment. Further, financing for post-basic education is regressive and does not help the poor enhance their chances of gaining higher incomes. Spending on higher education scholarships produces extremely high unit costs for this level and favors the well-off as very few, if any, poor reach tertiary education. This is exacerbated further by the policy of not offering any scholarships in Year 1 of university and giving untargeted scholarships starting in Year 2. In health, the excessive out-of-pocket costs for care and medicines prevent the poor from reaching good-quality health services. Analysis of catastrophic payments for health care highlights that, for some of the poorest families, the levels of spending in health can only be accommodated through the diversion of considerable resources from current consumption and/or through the accumulation of debt or the exhaustion of savings and assets with long-term consequences for household welfare. Further, challenges remain with regulation of fees applied by providers, with a direct impact on poor households.

59. **Data gaps and weaknesses are common for both sectors, and further analysis is required to better understand the sectors.** The education sector does have a working information and management system. However, administrative data is not always reliable, timely, or complete. Further, there is limited information on human resource management, a key area that requires improvement. Getting accurate budget data is also challenging. Budget categories change over time, and data aggregation often limits the analyses that could be done. Data on health require further confirmation as the results of the most recent Demographic and

Health Survey (*Enquête Démographique et de Santé* [DHS]), although more reliable than the administrative data, present a very significant discrepancy from other data. Further, while in the education sector it is easier to analyze progress in outcomes in relation to expenditure, this is not the case in health. Although progress is not simply explained by expenditure, Congo has been a poor performer, and little expenditure increase has taken place that can justify some of the progress observed. Improvements in information and management systems in health and education are very important.

V. Recommendations

60. **Increase public financing for education and health in a planned and sustainable manner.** Further, improving education performance and health status and financial protection in Congo's education and health sectors necessarily calls for increased volumes of financing. This would be in line with international recommendations such as the Abuja Declaration by which African Union Members pledged to commit 15 percent of their budgets to health and the Global Partnership for Education recommendation of 20 percent budget allocation to education.

61. **Maintain and further increase the rate of budget execution through better procurement and disbursement procedures.** Strong budget execution begins with how the budget is formulated. This should be a process in which a range of stakeholders are consulted. A more decentralized budget management process may increase execution. In the case of health, the block grants currently allocated to national hospitals should be evaluated to determine the efficiency consequence of such grants. In the case of education, intra-sectoral allocations should be balanced and take into account financial sustainability. Large works are procured and paid for outside the regular budgets of the education and health ministries. Improvements in procurement of large works and payments of large contracts throughout the country will also contribute to better execution rates in the education and health sectors. Such improvements are urgent.

62. **Implement measures to improve quality of services and improve the allocation of human and physical resources throughout the country.** In health, the performance-based financing (PBF) approach, which will be scaled up nationally, has been shown to generate improvements in quality through its incentive structure which is focused not only on quantity of services delivered but also tracks and remunerates according to measured quality. Further, increasing financing to ambulatory health providers could be considered. A growing share of public financing should also be allocated to the poorest *départment*s in the country. Policies to ensure a more equal geographic distribution of health staff should also be put in place. In education, further data on teacher distribution, *bénévoles*, and 'ghost' and administrative staff is required to define efficiency driven policies on human resources distribution and to improve the payroll. Measures to improve teacher quality and quality education inputs are also required.

63. **Track carefully the evolution of inequality in health and education and adopt policies, as needed, to bridge the gap between the poor and nonpoor.** Defining a national policy to identify the poor and vulnerable, to exempt them from user fees in government health

facilities might help reduce inequity in access to basic health services. Ensure that schools receive allocations for maintenance and that all *bénévoles* are integrated in the government payroll to effectively implement the fee-free primary education policy. As completion of lower secondary education is fundamental, consider incentives to the poor to ensure their retention in the system, along with measures to decrease repetition and dropout rates. Allocating a growing share of public financing to the poorest *départments* in the country and to urban areas with a high concentration of poor residents might help achieve these goals.

64. **Carry out national surveys at regular intervals and build capacity for statistical analysis.** Given the importance of data for decision making and the gaps and discrepancies in the data available in Congo to undertake PERs, a new survey should be conducted in the near future to verify that the gains reported in EDSC 2011–12 are maintained or furthered. Also, the government and its development partners should continue to support in a systematic way the initiative that led to the production of the 2012 Statistical Yearbook, as well as the improvement of the education and information management system. This involves strengthening institutional capacities in health and education information management systems, training of staff involved in data collection and reporting, and the supply of computers and other equipment required to operate such systems.

Other sector-specific recommendations include the following:

Education

(a) **Propose a balance between allocations to TVET and secondary education to increase the allocation to the latter.** Completion of lower and upper secondary education produces the highest benefits to the Congolese. On the other hand, TVET unit costs are very high and benefit a low proportion of the population. Further, international experience shows that the most successful TVET provision occurs when it is within an overall framework of close partnership between the public and private sectors. Such partnership should be promoted in Congo both at the technical and financial level (the example of the current partnership with the Chamber of Commerce of Pointe-Noire, the *Union Patronale et Interprofessionelle du Congo* (UNICONGO), and the *Union Nationale des Opérateurs Economiques du Congo* (UNOC), to align supply and demand of skills and allow for the development of secondary education.

(b) **Revision of recurrent and investment expenditure for higher education.** Budget overruns have been recurrent in higher education. This needs to be resolved. Further, the excessive expenditure with higher education scholarships leads to very high unit costs for the subsector. A review of the scholarship policy and implementation is recommended and should lead to new policy on the matter.

(c) **Define and implement an in-service teacher-training program to improve the teaching skills and knowledge of all teachers (including *bénévoles*) and review preservice teacher training**. Quality of learning outcomes depends a great deal on the

quality of the teaching and learning process. To improve learning outcomes, teacher-training programs that are customized to the existing teaching staff should be developed, to improve knowledge and teaching skills of staff in the system as well as the *bénévoles*. Further, a progressive reform of preservice teacher training could also be considered.

(d) **Establish a planning and monitoring system for teacher distribution.** This would allow for a distribution of human resources according to geographic and population needs while also improving the efficiency of the system by identifying 'ghost' personnel.

(e) **Additional studies.** These include a census of teachers and administrative staff, a study on causes of repetition, and a study on the impact of an incentives package to support the poor in attending secondary education.

Health

(a) **Introduce innovations in provider payment methods.** So far, Congo has not innovated much with regard to provider payments, beyond the block grants and PBF, which is planned for national scale-up. Despite anticipated implementation challenges, it is likely that PBF will result in higher output, better quality, and more equitable access.

(b) **Increase the share of the government budget that is allocated at the CSI level.** The share currently allocated at the CSI level is exceedingly low and signals a major problem of allocative efficiency. It should be a priority to progressively expand the share of public resources going to health dispensaries and health centers. This would allow CSIs to waive fees for the poor and vulnerable patients, and it would serve to attract more qualified health staff to these facilities through higher salaries and the adoption of economic incentives.

(c) **Define a specific benefits package for health providers in Congo.** Expanding and rationalizing government health spending and moving toward Universal Health Coverage (UHC) may call for the explicit definition of a benefits package for Congo. There has been some experience (that is, Cordaid) in Congo to define and cost a benefits package. An actuarial study of this or an alternate package will be necessary to determine the volume of public and private financing required to deliver explicit benefits.

(d) **Focus on policies that can compensate for the heavy reliance on OOPS.** This could start with a review of the implementation of ongoing programs that offer free health services. There should also be regulation of fees to ensure that they are not abusive, that they are waived for the poor, and that they are charged only for medicines and not for other services.

(e) **Additional studies.** Carry out specific studies assessing hospital occupancy, the reasons behind low occupancy rates, the feasibility of closing some beds, and ways to meet human resource needs.

PART II - SECTOR REPORTS

Education Public Expenditure Review

I. Introduction

65. **The education sector in general, and primary education in particular, is fundamental to achieving the poverty reduction and economic growth outcomes in the Congo GEPRSP 2012–16.** Education policy and strategy are guided by Congo's NDP 2012–16. GEPRSP 2012–16 and the *Document de Stratégie sectorielle de l'Education 2008–2020*[16] define key areas of intervention in the sector. Priority is given to the achievement of the MDGs for education, that is, completion of universal primary education and gender parity. However, important attention is also given to post-basic education in line with the need to develop education and training in an aligned manner with labor market demands and economic diversification goals.

66. **Raising public expenditure in education and ensuring an efficient use of resources is an important means to improve educational outcomes, thereby contributing to poverty reduction and increased equity.** Balanced intra-sectoral budget allocations can play an important role in ensuring that priority sector policies are implemented. Gains in efficiency allow for improved education outputs and outcomes. Although a middle income country, in 2011 Congo's poverty rate was 46.5 percent. Equity in access to education and retention can help improve overall equity in the country.

67. **This chapter examines recent achievements of access in educational outcomes at various levels, the trends and composition of public expenditure in the education sector as a whole and in subsectoral allocations for 2008–2011, and provides insights into internal and external efficiencies in the sector; particular attention is paid to issues of equity.** The chapter is guided by three main research questions:

(a) Do budget allocations (level and composition) contribute to the achievement of the established strategic education goals?

(b) Is there space for re-prioritizing and improving allocative and operational efficiency in the education sector?

(c) Does public spending contribute to improving equity in access to quality education services?

68. **The analysis uses a combination of methods to respond to the research questions:** (a) key sector performance indicators were calculated to assess progress toward sector priorities and MDGs; (b) budget data were analyzed to provide insights into sector and intra-sectoral allocations, composition of the budget, and rate of execution; (c) quality of education, retention, and use of resources were analyzed to provide information on the sector's internal efficiency;

[16] In the text, this document will be referred to as the education sector strategy. A review and update of the strategy was initiated early 2014 under the leadership of the education authorities and the coordination of UNICEF. It is worth noting that implementation of the strategy was never assessed and thus, it is not clear how far associated interventions may have had any impact. Further, the main policy for the sector (free primary education) preceded the strategy.

(d) external efficiency was discussed based on an analysis of rates of returns to education and educational attainment in the labor market; and (e) an analysis of disparities in access to education was used to provide insights into equity along with an analysis of household contributions to education spending, education levels in the human capital stock, and a BIA. Annex A provides information on the various methods used in the analysis.

69. **Several data sources were used for the analyses in the chapter.** These include administrative data from the three ministries in charge of the education sector, namely MEPSA, the METPFQE, and the MES; administrative data from the MEFPIPP;[17] and data from the 2005 and 2011 household surveys. Annex A also provides information on the data used and its limitations.

70. **The chapter is organized in five main sections.** Section II provides an overview of the sector and of sector progress; Section III focuses on sector expenditures; Section IV discusses the internal and external efficiency of the education sector; Section V provides an analysis of equity and education; and finally, Section VI provides conclusions and recommendations for the next five years.

II. Education Sector in Congo

Objectives of the Education Sector

71. **Education is one of the priority sectors under Pillar 4 - Social Development and Inclusion of GEPRSP 2012–16.** Both the GEPRSP and the *Document de stratégie sectorielle de l'éducation 2008–2020* set the following key objectives for the sector:

(a) Ensure universal primary education for all by 2015 in line with the MDGs.

(b) Improve retention in primary and secondary education while improving the flow of students through the cycles.

(c) Develop technical and vocational education in line with market demands and economic diversification.

(d) Develop quality higher education in line with market demands and the growth of priority sectors.

72. **To achieve these objectives, several programs and interventions were proposed, and some are under implementation.** School construction for primary education along with interventions aimed at improving the quality of service delivery have been under implementation. These include teacher training, distribution of textbooks, and incentives for minority children to attend school (including distribution of school uniforms and learning materials), among others. School-based activities, such as support for school-based management and further teacher training are proposed to improve retention levels and improve

[17] MEPSA stands for Ministry of Primary and Secondary Education, and Literacy; METPFQE stands for Ministry of Technical and Professional Education, Qualifying Training, and Employment; MES stands for Ministry of Higher Education; and MEFPIPP stands for Ministry of Economy, Finances, Plan, Integration, and Public Portfolio.

the flow of students between cycles. These programs were originally launched to support the implementation of the 2007 free primary education policy. Updating of technical and vocational education provision through improved facilities and updated curricula is another proposed intervention, along with a reform of higher education focusing on improving quality. To support the implementation of some of these reforms, 2013 was declared *l'Année de l'éducation de base et de la Formation Professionnelle* (The Year of Basic Education, Skills Training, and Professional Qualifications) by the Head of State. During 2013, a new law regulating higher education was also submitted to the cabinet.

Governance and Management of the Education System

73. **The mandate on education is shared between MEPSA, the METPFQE, and the MES.** MEPSA is responsible for primary and secondary education as well as literacy and nonformal education programs. Primary education lasts six years, followed by four years of lower secondary and three years of upper secondary education. TVET is offered primarily at the technical secondary education level, with the first diploma offered four years after completed primary schooling (*Brevet d'Étude Technique*).[18] Additional diplomas build upon the *Brevet d'Étude Technique* after additional years of schooling. TVET falls under the administrative mandate of the METPFQE, established in 2002 to support the development of this education level. Higher education has recently adopted the system 'License, Master, and Doctorate' and it is managed by the MES. Box 1 provides a summary of the structure of the education system. There are other ministries with education included as part of their mandate, including the *Ministère de la Recherche Scientifique et de l'Innovation Technologique*, *Ministère de la Jeunesse et de l'Education Civique*, *Ministère des Sports et de l'Education Physique*, *Ministère des affaires sociales et de la solidarité*, *le ministère de la communication et des relations avec le parlement,* but this document focuses on the three that were mentioned initially.

74. **Education management in Congo is highly centralized at the ministry level despite some recent steps toward greater decentralization.** MEPSA and the METPFQE are organized by directorates at the departmental level, which constitute an intermediate layer for administrative and pedagogical coordination between the central administration and schools. Devolution to the departmental directors of education, including their taking over some responsibility over pedagogical guidance and staff allocation, has been taking place. However, overall staff management is centralized and schools have very limited autonomy. Each ministry individually implements its own policy, and there is no coordinating body overseeing policy making and implementation for the overall sector. The establishment of a *Conseil National d' Éducation*[19] to play such a coordinating role is included in the education sector strategy; however, this has not yet been established.

[18] *Brevet d'Étude Technique* stands for certificate of technical studies.
[19] *Conseil National d' Éducation* stands for National Education Council.

Box 1.1. Structure of the Education System

Age	Number of years of study	Cycle	Type of institution and degree		
26	8	3rd cycle of higher education studies	Faculties, Institutes and *Grands Ecoles*	Doctorate	
25	7				
24	6				
23	5	2nd cycle of higher education studies		Master	
22	4				
21	3	1st cycle of higher education studies		First Degree	
20	2				
19	1				
18	*Terminale*	Upper secondary	*Lycée*	*Lycée technique*	Professional Schools
17	1st				
16	2nd				
15	3rd	Lower secondary	*College*	*College technique*	
14	4th				
13	5th			*Centre de métier*	
12	6th				
11	CM2	Primary	Primary Schools		
10	CM1				
9	CE2				
8	CE1				
7	CP2				
6	CP1				
5	P3	Preprimary	Preprimary centers		
4	P2				
3	P1				

Source: MEPSA, METPFQE, and MES.

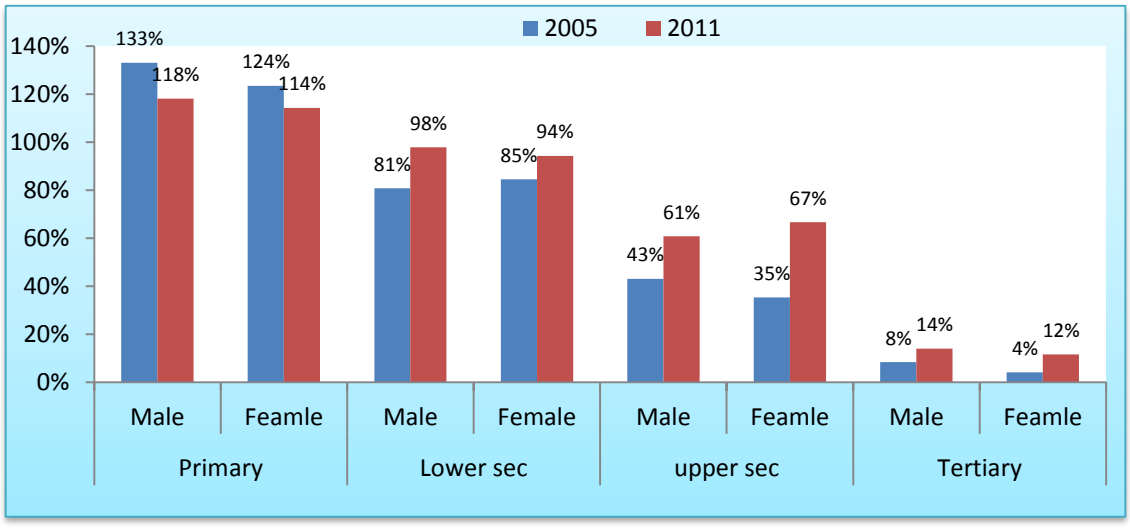
75. **The private sector plays an important role in education delivery in Congo.** After the liberation of education decided by a sovereign national conference of 1991, framed by Law 25-95 of November 17, 1995, amending School Act No. 008/90 of September 6, 1990, and reorganizing the educational system in the Republic of Congo, Decree No. 96/221 regulating the private practice of teaching, and Decree No. 2004/307 of July 16, 2004 amending Decree No. 96/221, private education has grown rapidly with the creation of institutions. The massive retirement of teachers working in public service, without replacement by new recruits because of the freeze imposed by the Structural Adjustment Program (SAP) in the 1990s, had caused a

significant deficit in teachers in the sector. Thus, in light of the lack of teachers in public schools, some parents have opted for the recruitment of young people with limited capacities and skills to ensure the education of their children in these private institutions. The wages of these 'volunteer' teachers, mostly involved in primary education and lower secondary, is provided by parents' contributions and/or by parliamentarians from the related location. Given the population explosion of students and the lack of childcare facilities in the public schools, resulting in difficult learning conditions, some private establishments were also created to supplement the state; they take care of the salaries of their teachers. Private schools at all levels opened in the country. As a result, today 31 percent of primary school-age Congolese children are enrolled in a private school, which is high when compared to the 16.6 percent average for SSA. Private higher education provision allows for enrollment of almost half (44 percent) of all higher education students. There are also accredited schools (*écoles conventionées*), which are basically religious schools; nonetheless, they represent a small percentage within the overall private sector provision in the country.

Access and Quality

76. **From 2005 to 2011, there were important improvements in access at all levels of education.** Most school-age Congolese children are enrolled in primary education (in 2011, GER and NER were 116 percent and 89.5 percent, respectively) and good progress has been made at all other education levels. However, the number of school-age Congolese attending secondary (lower and upper) education is still low (NER of 49 percent for lower secondary and of 24 percent for upper secondary). While primary education is free (school fees were abolished in 2007, as mentioned) and in principle, textbooks and learning materials are distributed to schools by MEPSA, less the case for postprimary education, for which families are forced to make an important financial contribution. Enrollment in higher education more than doubled from 2005 to 2011, mostly due to an increase in provision mostly by the private sector. Data on TVET is spotty, but this level covers on average only 0.3 percent of all Congolese students.

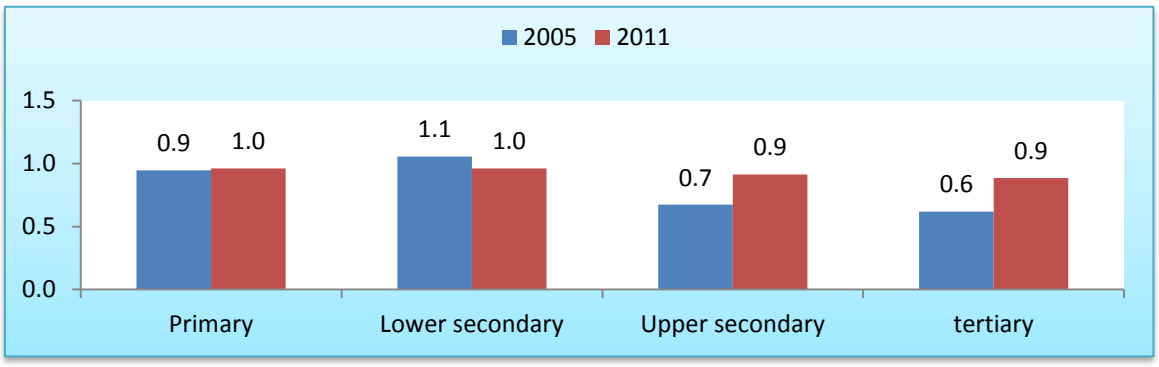
Figure 1.1. Enrollment Rates by Gender and Level of Education, 2005 and 2011



Source: Authors' estimations calculated from ECOM 2005 and ECOM 2011 data.

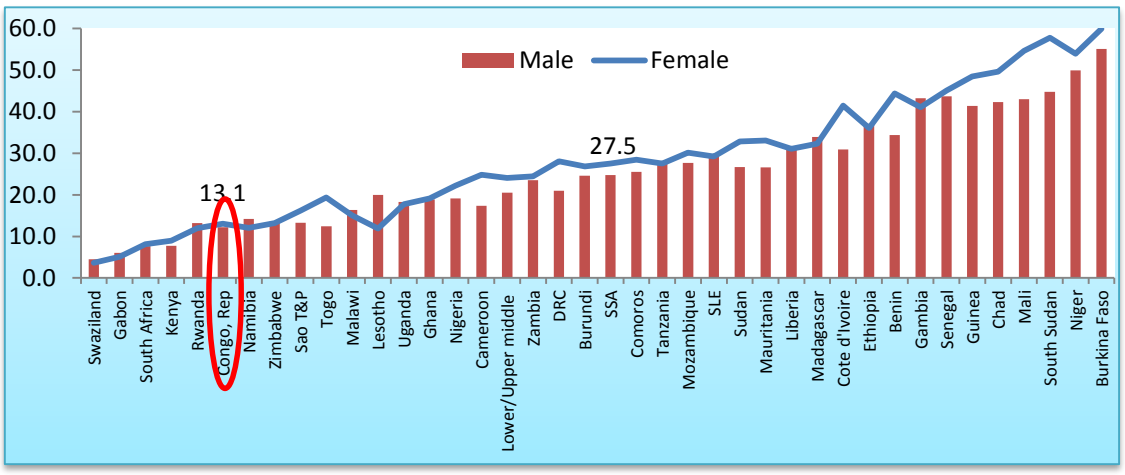
77. **Access to primary education is high in Congo for boys and girls.** Gender parity in access to primary education has been achieved, and progress toward gender parity in postprimary education is even more significant (Figure 1.2). In recent years, a significantly higher number of girls have enrolled in secondary and higher education, making gender parity attainable at these levels in the near future. In fact, with regard to access to primary education (for both boys and girls), Congo compares well with countries such as Namibia and has access rates higher than the average for SSA and some of Congo's neighboring countries, such as Cameroon and Gabon (Figure 1.3). Further, such high access also indicates a low number of out-of-school children, both boys and girls.[20]

Figure 1.2. Gender Parity by Level, 2005–2011



Source: Authors' estimations calculated from ECOM 2005 and ECOM 2011 data.

Figure 1.3. Out-of-school Rate for School-age Children, SSA Countries, circa 2011 (percentage)

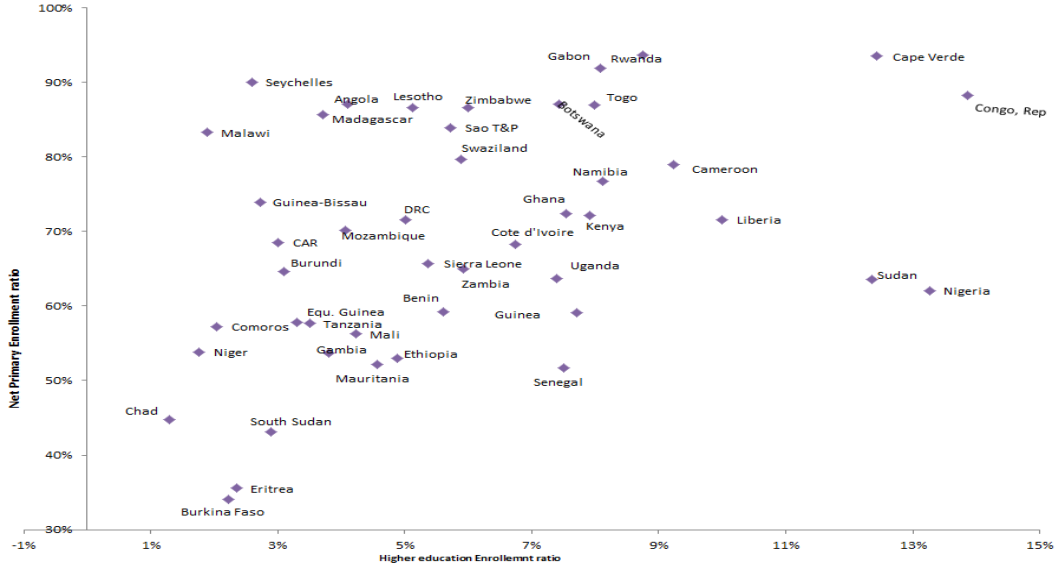


Source: Authors' computation using ECOM 2011 for Republic of Congo and similar household surveys in other countries: Benin (2010), Burkina Faso (2010), Burundi (2010), Cameroon (2011), Chad (2011), Côte d'Ivoire (2011), Comoros (2004), Democratic Republic of Congo (2010), Ethiopia (2011), Gabon (2011), The Gambia (2010), Ghana (2010), Guinea (2012), Kenya (2008), Lesotho (2011), Liberia (2010), Madagascar (2010), Malawi (2010), Mali (2010), Mauritania (2008), Mozambique (2009), Namibia (2010), Niger (2011), Nigeria (2010), Rwanda (2010), São Tomé and Principé (2010), Senegal (2011), Sierra Leone (2011), South Africa (2012), South Sudan (2009), Sudan (2009), Swaziland (2010), Tanzania (2010), Togo (2011), Uganda (2010), Zambia (2010), and Zimbabwe (2011).
Note: DRC = Democratic Republic of Congo; Sao T&P = São Tomé and Principé.

[20] Further discussion on out-of-school children in Congo will be developed later in the chapter.

78. **Although not all young Congolese complete primary education, the number of completers has increased in the last decade.** The primary completion rate increased from 73.8 percent in 2005 to 85.3 percent in 2011. The primary female completion rate also showed good progress, increasing from 69 percent to 77 percent in the same period. Thus, even if Congo will not be able to attain the MDG, it compares very favorably with most SSA countries. As Figure 1.4 highlights, by presenting a regional comparison of the net primary rate (which is a proxy for primary completion rate) and higher education access rate, Congo compares with strong performers such as Cape Verde and performs better than its neighboring countries such as Gabon.

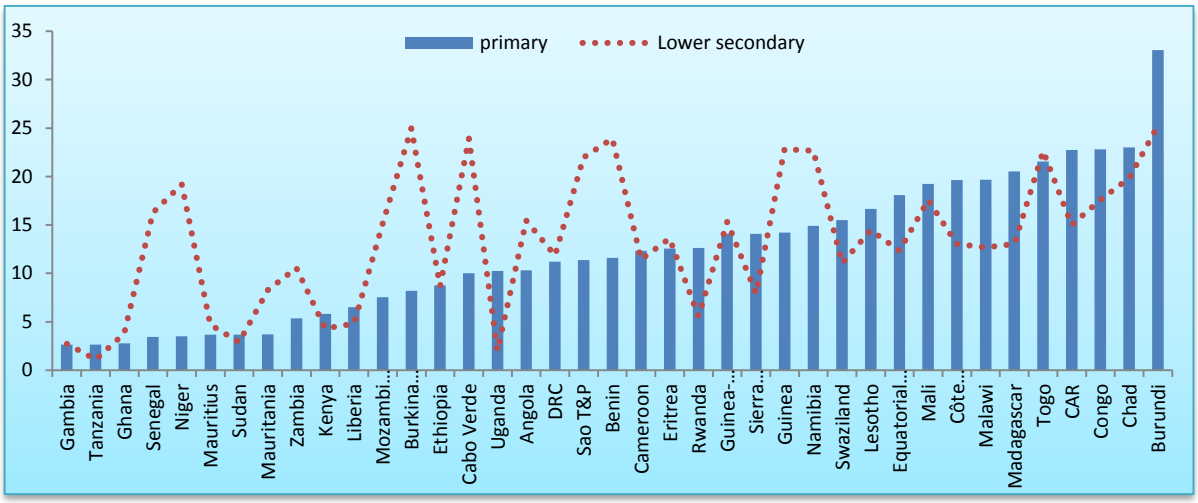
Figure 1.4. Regional Comparison of Net Primary Enrollment Rate and Higher Education Access Rate



Source: Authors' computation using ECOM 2011 for Republic of Congo and similar household surveys in other countries: Benin (2010), Burkina Faso (2010), Burundi (2010), Cameroon (2011), Chad (2011), Côte d'Ivoire (2011), Comoros (2004), Democratic Republic of Congo (2010), Ethiopia (2011), Gabon (2011), The Gambia (2010), Ghana (2010), Guinea (2012), Kenya (2008), Lesotho (2011), Liberia (2010), Madagascar (2010), Malawi (2010), Mali (2010), Mauritania (2008), Mozambique (2009), Namibia (2010), Niger (2011), Nigeria (2010), Rwanda (2010), São Tomé and Principé (2010), Senegal (2011), Sierra Leone (2011), South Africa (2012), South Sudan (2009), Sudan (2009), Swaziland (2010), Tanzania (2010), Togo (2011), Uganda (2010), Zambia (2010), and Zimbabwe (2011).
Note: DRC = Democratic Republic of Congo; CAR = Central African Republic.

79. **Access to education and completion of primary education has improved in recent years in Congo; however, challenges remain with regard to student repetition, which is one of the highest in SSA.** Repetition is high at all education levels, but particularly so for primary education. Close to 1 in 4 Congolese primary school children is a repeater. Repetition rates reach 18.4 percent in lower secondary (*Collège*) and 17.2 percent in upper secondary (*Lycée*). Such high rates place Congo among the worst performers in SSA countries, with only Burundi presenting higher repetition rates for primary and lower secondary education (33.1 percent for primary and 25.2 percent for lower secondary). Congo's rates are similar to those of neighboring Central African Republic (CAR) (22.7 percent for primary and 15.0 percent for lower secondary) but much higher than Cameroon (12.3 percent for primary and 11.4 percent for lower secondary) or the Democratic Republic of Congo (11.2 percent for primary and 11.9 percent for lower secondary) (Figure 1.5).

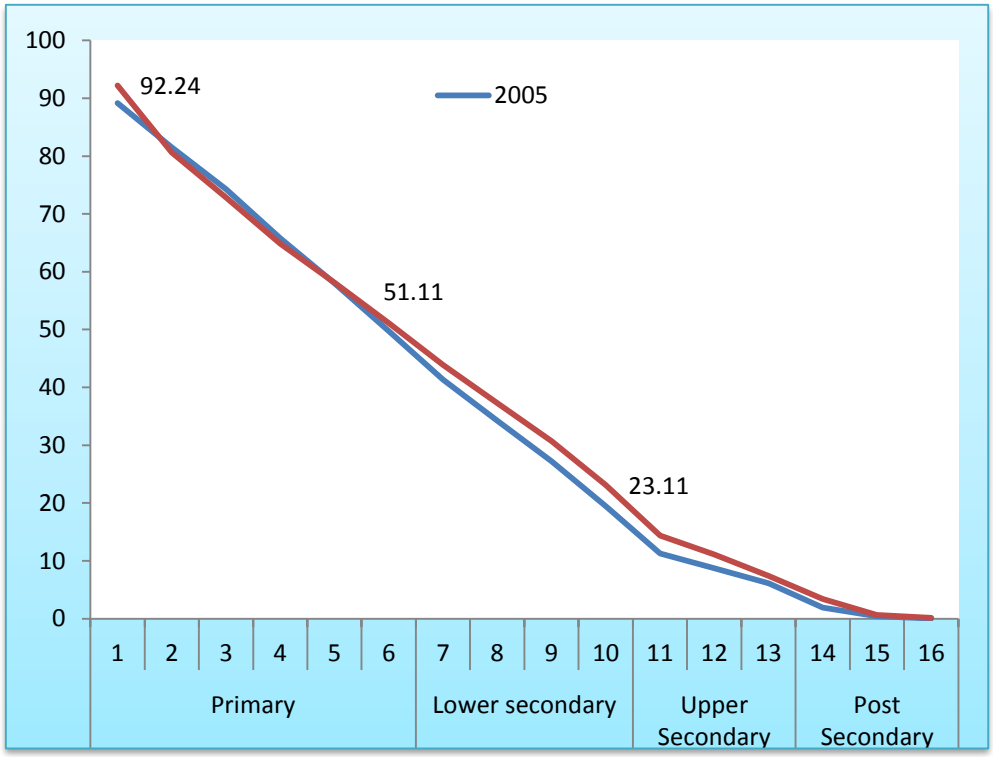
Figure 1.5. Percentage of Repeaters in Primary and Lower Secondary Education in SSA, circa 2011



Source: Authors' computation using ECOM 2011 for Republic of Congo and similar household surveys in other countries: Benin (2010), Burkina Faso (2010), Burundi (2010), Cameroon (2011), Chad (2011), Côte d'Ivoire (2011), Comoros (2004), Democratic Republic of Congo (2010), Ethiopia (2011), Gabon (2011), The Gambia (2010), Ghana (2010), Guinea (2012), Kenya (2008), Lesotho (2011), Liberia (2010), Madagascar (2010), Malawi (2010), Mali (2010), Mauritania (2008), Mozambique (2009), Namibia (2010), Niger (2011), Nigeria (2010), Rwanda (2010), São Tomé and Principé (2010), Senegal (2011), Sierra Leone (2011), South Africa (2012), South Sudan (2009), Sudan (2009), Swaziland (2010), Tanzania (2010), Togo (2011), Uganda (2010), Zambia (2010), and Zimbabwe (2011).
Note: DRC = Democratic Republic of Congo; CAR = Central African Republic.

80. **Although some improvement has occurred, retention in school until the last grade of basic education remains an issue,** given the primary completion rate of 85.3 percent and lower secondary completion rate of 54.9 percent. The education system still fails many through repetition which, combined with dropout, is responsible for this low performance. Even so, the rate of out-of-school children (ages 6–18) in Congo (12 percent) is well below the average for SSA (26 percent) and has improved 5 percent during 2005–2011 (see also Figure 1.3). Of the total out-of-school children, 5 percent were never in school and 7 percent dropped out. Eight percent of primary school-age Congolese children were out-of-school in 2011, and the respective percentages for lower secondary and upper secondary age children were 10 and 26 percent.

Figure 1.6. Retention Rate by Level of Education



Source: Authors' estimations calculated from ECOM 2005 and ECOM 2011 data.

81. **Quality as measured by learning outcomes is also still a challenge even if improvements have taken place in recent years.** The latest results from the PASEC (2007) position Congo as a low performer in comparison to other countries such as Cameroon. Congo's performance at fifth grade was slightly below the average for PASEC countries in French (34 percent) and well below the performance of Cameroon (55 percent), while slightly above the average in mathematics.

82. **In conclusion, between 2005 and 2011, with the abolishing of school fees, the Congolese education system attracted most young Congolese, both boys and girls, significantly reducing the number of out-of-school children in the country.** More students, including many girls enrolled in post-primary education and with the expansion of private higher education, are now enrolled in tertiary education. However, there is room for improving the quality of learning outcomes, and many challenges remain with regard to repetition and the ability of the system to retain its students. Although more Congolese are completing the various levels of education, the numbers decrease with the education level.

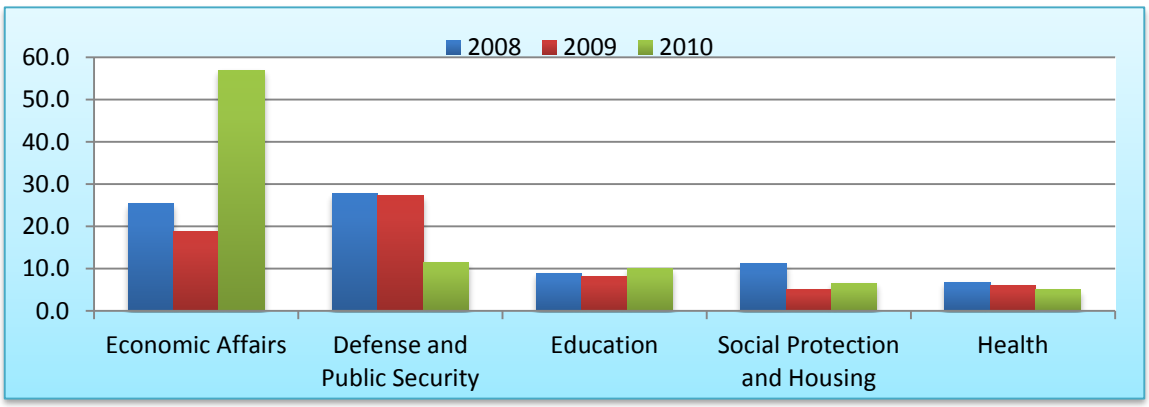
III. Spending on Education

Sources of Financing

83. **Education in Congo is mostly financed through the public budget, although it also benefits from external partners and household contributions.** The recurrent budget covers salaries, scholarships, and learning materials, while the capital budget covers mostly infrastructure and equipment. No maintenance of capital goods is covered. Household contributions support salaries of *bénévoles*, food, some furniture, school maintenance, and examination fees. External financing has focused mainly on technical assistance and support to infrastructure development. Over 2008–2012, external financing contributed approximately US$70 million, which represented about 5 percent of total financing for the education sector. Among the external partners supporting the sector, the World Bank was the main funder (33 percent), followed by the World Food Programme (WFP) (22.5 percent), and UNICEF (13.2 percent). Smaller funders include the United Nations Educational, Scientific, and Cultural Organization (UNESCO); the *Agence Française de Développement* (AFD); the United Nations Development Programme (UNDP) (which mostly implements projects from other funders); and the International Partnership for Human Development (IPHD). Other than paying the salaries of teachers in private accredited schools, there are no direct public subsidies of private education provision by the public budget. In 2011, these teachers represented 20 percent of all primary school teachers and 4 percent of all secondary teachers paid by the state.

84. **The commitment made to education development by the Congolese authorities has been reflected in increasing budget allocations to the sector.** Public spending in education is the highest among the social sectors. However, it is still lower than spending by *Affaires Economiques*[21] (mainly composed by capital expenditure for infrastructure development) and *Defence et Securité Publique*.[22]

Figure 1.7. Budget Allocations for Selected Sectors, 2008–2010, (percentage of total state budget)



Source: MEFPIPP, *Loi de Finances*.

[21] *Affaires Économiques* stands for Economic Affairs.
[22] *Defence et Securité Publique* stands for Defense and Public Security.

Trends in Spending and Intra-Sectoral Allocations

85. **In relative terms, the share of education expenditure in total public expenditure increased between 2008 and 2010 from 8.5 to 11.1 percent.** This trend was interrupted in 2012 due to the response to the catastrophe resulting from the explosion of an ammunitions depot in Brazzaville, when the share dropped to 7.8 percent. Despite that hiccup, in nominal terms, the actual total expenditure for education increased from XAF 107,256 million in 2008 to XAF 197,214 million in 2012, an overall increase of 84 percent. If the 2013 budget were fully executed, the education share in total public spending would climb to 12.9 percent. However, these figures are still below the average for SSA, which was 20 percent in 2011. When measured as a percentage of GDP, expenditure on education increased from 2 percent in 2008 to 2.8 percent in 2012.

Table 1.1. Weight of Actual Education Expenditure in the Total Expenditure and in the GDP, 2008–2013

	2008	2009	2010	2011	2012	2013
Total recurrent and capital expenditure in Education (XAF, billions)	**107**	**106**	**135**	**155**	**197**	**257.6**
As a percentage of total public expenditure (%)	**9.8**	**10.7**	**11.1**	**8.8**	**7.8**	**14.0**
Recurrent	15.5	16.3	17.0	16.8	13.1	17.7
Capital	2.2	5.0	5.0	3.8	4.2	**10.7**
As a percentage of GDP	**2.0**	**2.3**	**2.3**	**2.3**	**2.8**	**3.9**
Per capita in XAF	*28,300*	*27,348*	*34,027*	*38,017*	*47,214*	*59,906.98*
Per capita in US$	*63.2*	*57.9*	*68.7*	*80.6*	*92.5*	*121.3*

Sources: Authors' estimates based on IMF, Republic of Congo: 2012 Article IV Consultation—Staff Reports (December 2012 and May 2013) and Loi de Finances for each year (planned) and Executed Sectoral Budget.

86. **From 2013 onwards, there has been a change in intra-sectoral allocations benefiting the METPQE.** Until 2012, a large proportion of the education budget was allocated to MEPSA, in line with the focus of achieving the MDGs in 2015. Increasing attention to the goal of developing skills for growth sectors led to a very significant increase in the funding allocation to the METPQE. This accompanied the Head of State's declaration of 2013 as *l'Année de l'éducation de base et de la Formation Professionnelle* (The Year of Basic Education, Skills Training, and Professional Qualifications). As a result, MEPSA's allocation decreased, while the allocation for the METPQE doubled. The 2014 budget does not change this new intra-sectoral allocation pattern. Allocations to higher education have not changed significantly during the period.

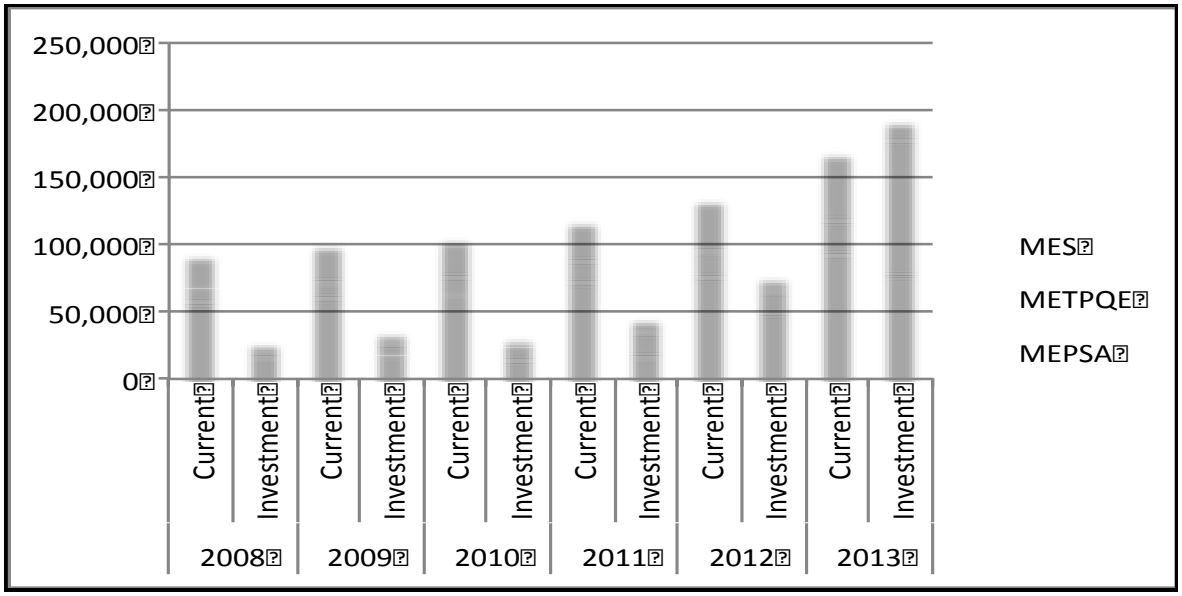
Table 1.2. Intra-sectoral Allocation, 2008–2013 (Percentage of total education budget)

	2008	2009	2010	2011	2012	2013 Programmed
MEPSA	61.3	65.3	61.6	56.2	61.5	49.0
METPFQE	16.9	11.5	17.3	20.1	16.7	34.5
MES	21.8	23.2	21.1	23.8	21.8	16.5
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: MEFPIPP Budget Execution and other financial data, 2008–2012.

87. **The pattern of expenditure across the three education ministries changed in favor of an increase in investment expenditure.** Until 2012, both the METPQE and MES were allocated an increasing share of recurrent expenditure, whereas MEPSA benefited from a higher share of capital expenditure. In 2013, the METPQE's allocation doubled through an increase in investment expenditure: 83 percent of the 2013 budget allocated to this ministry was for investment.[23] This was to allow revamping of outdated infrastructure and equipment to meet TVET needs. The increase brought the MTPFQE investment budget from XAF 7 billion in 2012 (executed) to XAF 100 billion (programmed) in 2013, corresponding to 52 percent of the total investment in education. This is a significant change that consolidates the upward trend: in 2008, investment in education represented 10 percent of the total expenditure; in 2012, it reached 31.9 percent. If the budget for 2013 was implemented as planned, then capital expenditure would have been higher than recurrent expenditure.

Figure 1.8. Evolution of Budgeted Education Expenditure (XAF, millions), by Ministry (2008–2013)

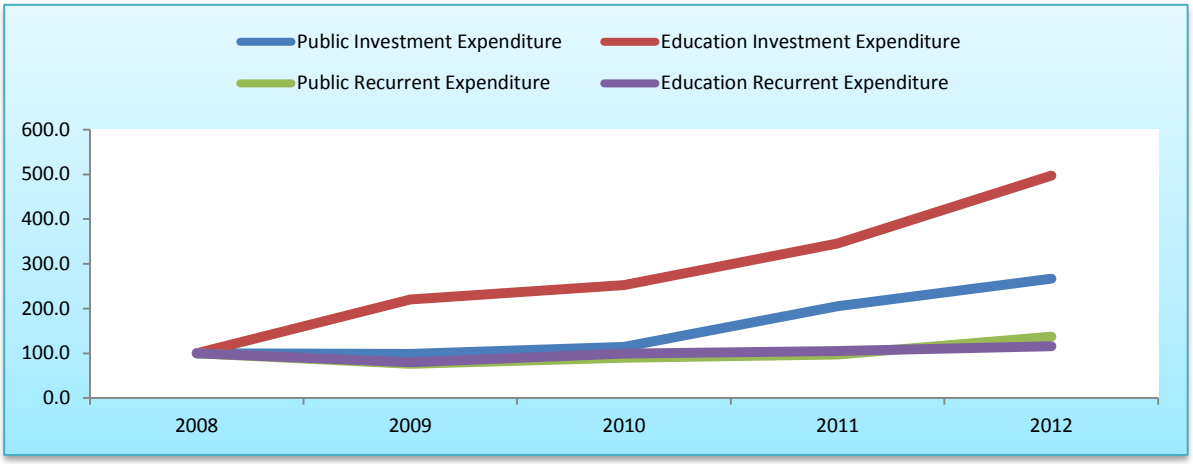


Source: MEFPIPP, Loi de Finances.

88. **Between 2008 and 2012, in real terms,[24] overall public expenditure in education grew at an average rate of 11.4 percent, a figure that was nonetheless below the growth rate of total public expenditure for the same period—17.9 percent.** This strong growth in education was largely the result of an imbalance between investment and recurrent allocations, strongly favoring investment ones. During the period, education capital expenditure was multiplied by a factor of 5.0, whereas total public capital expenditure was multiplied by a factor of 2.7. Recurrent expenditure in education followed the same pattern as overall public recurrent expenditure.

[23] The percentage of investment expenditure budget for the METPFQE for 2014 is slightly lower, but still very high: 77 percent.
[24] The estimate of the public education expenditure in real terms was based on the consumer price index (World Bank source).

Figure 1.9. Evolution of Public and Education Expenditure (recurrent and investment), 2008–2012



Source: Authors' estimates from the MEFPIPP Budget Execution and other financial data, 2008–2012.

Budget Execution

89. **The execution rates of the consolidated education budget improved noticeably over the last years, both for recurrent and investment expenditures, although the latter are systematically lower than the former.** The consolidated execution rate increased from 89.9 percent to 94.6 percent between 2008 and 2012. While it is true that the execution rate for investment expenditure is lower than for recurrent expenditure, it is important to note that it was the previous rate that showed the most remarkable improvement. The investment expenditure execution rate increased from 39 percent in 2008 to 83.4 percent in 2012.[25] The introduction of a new procurement code in May 2009 (revised in 2011), along with the implementation of other measures from the Public Financing Management Program (PFMP) framework, such as the decentralization of budget execution and the introduction of a computerized budget chain, seem to have been responsible for the good results.

90. **In spite of the good progress made, there are several important challenges to address to continue to improve budget execution rates in the education sector.** The implementation of the new procurement code seems to have not yet been fully appropriated and requires sound dialogue among the various ministries. All procurement higher than XAF 1 billion, irrespective of the ministry, falls under the responsibility of the *Délégation Génerale de Grands Travaux*[26] (DGGT). In 2012, projects managed directly by the DGGT accounted for 73 percent of all projects in Congo. This centralization of large procurements can lead to different investment budget execution rates in the various ministries. Procurement for high visibility and larger projects may precede other procurements and thus, favor the budget execution rate of one ministry over the others. Other challenges in the execution of public

[25] It should be noted that 2012 was atypical due to the passage of a supplemental budget, following the government's response to the immediate effects of the explosion of the ammunitions depot in Brazzaville. The supplemental budget increased the recurrent expenditure by over 46 percent and doubled the investment expenditure compared to 2011. In practice, these expenditure levels were kept practically unchanged, in nominal terms in the budget for 2013, thereby setting in a new expenditure base. The impact of these changes in the education sector was basically felt on the investment side, which rose 69 percent between 2011 and 2012.
[26] *Délégation Génerale de Grands Travaux* stands for General Delegation for Major Works.

investments relate to issues such as (a) delays from the Treasury during the payment phase, (b) a highly centralized decision-making mechanism at the ministerial level, and (c) different procedures required by external funders. It is worth noting that feasibility and sustainability studies are not often included in the decision-making process for investments, which poses risks to their sustainability.

91. **The budget execution rate varies among the three education ministries.** The MES seems to be facing overruns both in recurrent (5 percent in 2012) and investment expenditure (14 percent in 2011) although more significantly in the latter. This suggests potential programing problems that the MES needs to address. The lowest budget execution rates are found in the METPQE and MEPSA and in investment expenditures.[27] In 2010, the last year for which there are available data on the composition of investment expenditure, the lowest execution rates were associated with (a) elaboration of studies (only 37 percent executed) and (b) acquisition of equipment (64 percent), potentially reflecting the limited capacity of the Directorate for Studies and Planning in the preparation of the tender processes.

Table 1.3. Budget Execution Rates (percentage) by Ministry, 2008–2012

	2008			2011			2012		
	Current	Investment	Total	Current	Investment	Total	Current	Investment	Total
Total Budget	52.7	104.7	67.0	107.2	107.3	107.2	121.6	76.6	90.1
MEPSA	100.3	29.0	83.2	90.7	95.0	91.6	97.1	84.6	92.1
METPQE	124.8	87.7	113.1	104.1	79.1	91.0	107.3	72.7	91.7
MES	107.5	21.4	96.3	111.7	114.3	112.3	106.1	99.4	105.0
Total Education	**104.9**	**39.0**	**89.9**	**97.2**	**91.6**	**95.6**	**100.9**	**83.4**	**94.6**

Source: MEFPIPP Budget Execution and other financial data, 2008–2012.

Financial Aid and Scholarships

92. **Financial aid represents an important share of the total recurrent expenditures in the education sector, and most of this was for scholarships.** For this chapter, three categories of financial aid will be considered: (a) tuition-free primary education and secondary education undergraduate implemented through transfers to schools of amounts based on a student per capita basis; (b) free textbooks (French and Math for primary education and *Collège*); and (c) scholarships for TVET and higher education students. The first two categories seek to improve access and quality of education by reducing household contributions to basic education. The scholarships policy dates back to 1997[28] and aimed at bolstering both TVET and higher education. In 2012, a total of XAF 26,870 million was spent on financial aid in the whole education system (tuition fees, textbooks, and scholarships), representing 20 percent of the total current expenditure with education, compared to 31 percent in 2008. Scholarships represented

[27] It was not possible to provide an analysis of the causes explaining the lower execution rates due to the unavailability of recent data on the composition of investment expenditure.
[28] Decree 77/515 setting out the decision process for awarding a scholarship.

the lion's share, reaching 72.8 percent of total financial aid in 2012.[29] The awarding of scholarships does not seem to be directly related to a pro-poor policy, and there is no clear framework for such targeting in spite of various revisions in the law.[30] This issue is discussed in the education strategy, but it basically focuses on higher education and in the specific context of the possible trade-off between the allocation of scholarships and the strengthening of ancillary (such as restaurants and dorm facilities for students) at the university level.

93. Of significance is the drop in 2011 and 2012 of the share of expenditure on textbooks. This reduction follows the previous years of significant investment in school infrastructure and equipment (including textbooks). While a stock of textbooks was established in the previous years of higher expenditure on these tools, it would be important to assess availability, to determine the need for renewal of stock when necessary.

Table 1.4. Public Financial Aid in Education (percentage of total) by Ministry, 2008–2012

	2008	2009	2010	2011	2012
Tuition fees	**3.1**	**7.4**	**19.8**	**19.3**	**16.4**
Textbooks	**29.3**	**7.5**	**21.0**	**9.2**	**5.0**
Scholarships	**36.9**	**75.1**	**42.2**	**58.8**	**72.8**
Internal (UNMG)	*11.5*	*24.3*	*13.9*	*18.2*	*20.0*
Internal (Technical Education)	*3.6*	*5.9*	*2.9*	*12.1*	*11.1*
Internal (Primary and Secondary)	*3.1*	*3.5*	*1.7*	*1.7*	*1.2*
Abroad (Tertiary)	*17.6*	*37.3*	*21.1*	*18.4*	*30.5*
Abroad (Technical Education)	*1.0*	*4.2*	*2.6*	*8.5*	*10.0*
Other (didactic material and so on)	**30.7**	**10.0**	**17.0**	**12.8**	**5.8**
TOTAL	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***

Source: MEFPIPP, Budget Execution, and other data, 2008–2012.
Note: UNMG = *Université Marien NGouabi* (Marien Ngouabi University).

94. **Most scholarships benefit higher education students but the number of scholarships has been decreasing, especially for those studying abroad.** In the academic year 2011–2012, a total of 14,990 students of the UNMG (57 percent of the total) benefited from a scholarship, down from 68 percent in 2007–2008. The relative number of students benefiting from an in-country scholarship has been increasing (from 73 percent in 2008 to 78 percent in 2012) as compared to those benefiting from a scholarship abroad. Furthermore, the relative weights of the scholarships paid in-country and abroad have reversed. In 2008, the value of domestic scholarships represented 40 percent of the total, whereas in 2012 it represented 57 percent. This trend seems to indicate a gradual reallocation of the financial aid to the domestic tertiary system. This is an important shift in financial terms as scholarships for studying abroad cost three times more than scholarships to study in Congo. Overall,

[29] Due to the paucity of data on these spending categories, the internal composition of this type of expenditure in previous years can be biased. In some years there is a large amount classified as other didactic material and so on.

[30] Law 25/95 sets out the general conditions that should be met to benefit from a scholarship, but secondary legislation is missing to set specific criteria; Decree 86/722 establishes the conditions for the attribution of scholarships, the different types of scholarships, and other social support measures to the beneficiary students; Decree 2012/68 of February 2012 sets the monthly values of the scholarships, to be paid for studying in Congo and abroad; and Decree 2012/17 of February 2012 lays down the budgetary procedures underlying the payment of scholarships.

scholarships in higher education make up 37 percent of the overall budget for this education level.

Table 1.5. Scholarships: Value and Number of Beneficiaries (public sector), 2008–2012

	2008	2009	2010	2011	2012
UNMG					
Number of beneficiary students	7,835	8,490	9,453	9,886	11,717
% of total	*73.1*	*73.5*	*76.6*	*78.5*	*78.2*
Total value (XAF, millions)	2,901	3,277	3,794	4,087	7,785
Unit value per student	37.0	38.6	40.1	41.3	66.4
Abroad					
Number of beneficiary students	2,881	3,058	2,887	2,706	3,273
% of total	*26.9*	*26.5*	*23.4*	*21.5*	*21.8*
Total value (XAF, millions)	4,282	4,659	3,785	3,582	5,933
Unit value per student	148.6	152.4	131.1	132.4	181.3
Total					
Number of beneficiary students	10,716	11,548	12,340	12,592	14,990
Total value (XAF, millions)	7,183	7,936	7,579	7,669	13,718
Unit value per student	67.0	68.7	61.4	60.9	91.5
Number of tertiary students (public)	*15,764*	*16,341*	*20,383*	*21,902*	*26,492*
% of students benefiting from a scholarship	*68.0*	*70.7*	*60.5*	*57.5*	*56.6*

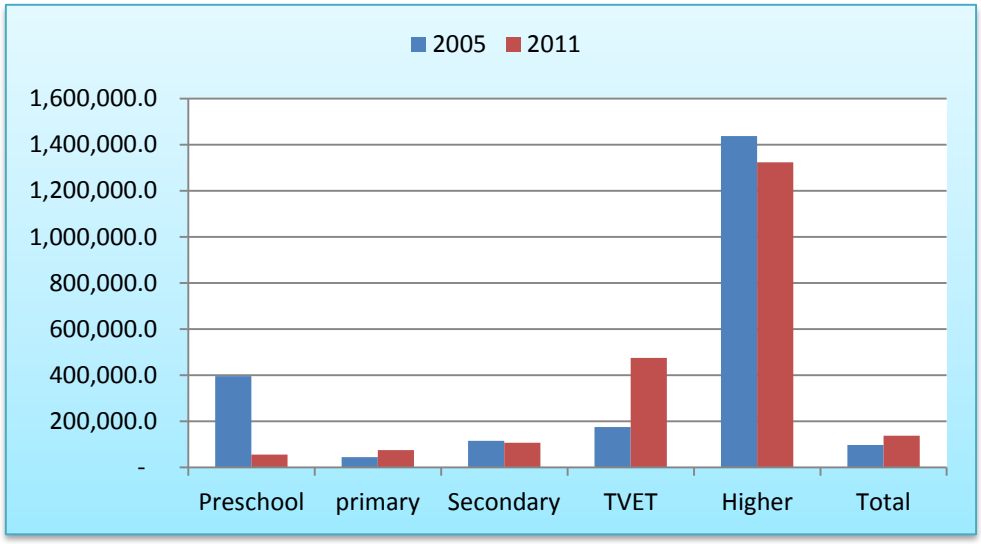
Source: MES, Number of scholarship students and annual financial impact; MEFPIPP, Budget Execution.

Unit Costs

95. **Student unit costs vary significantly among education levels.** Drivers of unit costs in primary education largely relate to teacher salaries. The slow increase between 2005 and 2011 in primary unit costs can be seen as resulting from a balance between an increase in teacher salaries and an increase in the student/teacher ratio. Between 2008 and 2010, the accumulated increase on the average salary (about 23.6 percent in nominal terms but only 3 percent in real terms) was compensated by a higher student/teacher ratio (almost 2 percentage points higher). Preliminary analysis on the short-term impact of the free tuition policy points to the continuation of a strong financial contribution from households in primary education. This seems to be the case mostly for schools that still include a large number of *bénévoles*, whose salaries are paid by parents.[31] Such a financial contribution has also been playing an important role in the low and relatively stable primary education unit cost, which could have significantly jumped with the introduction of the free tuition policy.

[31] Oulai and Farba (2001). The analysis further indicated (based on a survey conducted to support the analysis) that in the school year 2009–2010, 41 percent of schools mentioned still had not received transfers from MEPSA, thus justifying the fees charged to the parents.

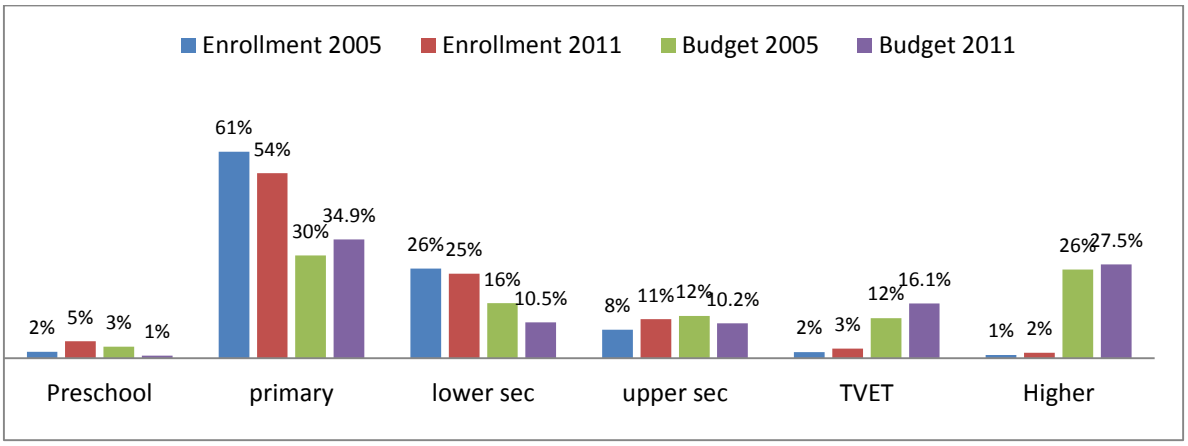
Figure 1.10. Unit Costs by Education Level, 2005 and 2011



Source: Authors' computation using ECOM 2005 and ECOM 2011

96. **Unit costs for TVET are high, but unit costs for higher education are disproportionally high in comparison to all others.** The main drivers for unit costs in TVET and higher education are teacher salaries and scholarships. Spending on salaries accounted for 36 percent and 56 percent on average, respectively; spending on scholarships accounted for 26 percent and 37 percent on average. In the case of higher education, the low enrollment rate combined with the large amount spent on scholarships explains the disproportionately high unit cost for this education level.

Figure 1.11. Enrollment and Budget Allocations by Education Level, 2005 and 2011



Source: Authors' computation using ECOM 2005, ECOM 2011, and MEFPIPP; Loi de Finances.

97. **In conclusion, overall spending in the sector has increased since 2008 even if it is still below the average for SSA.** The focus on developing skills for growth sectors produced a change in the pattern of intra-sectoral allocations favoring the TVET subsector. This change brought about a significant increase in overall investment expenditure in the education sector. Budget execution rates have improved since 2008, but challenges remain with regard to investment expenditure. Although primary education is free, many households continue to provide financial contributions to schools that, combined with a balance between increased

teacher salaries and increased PTRs, produced a small increase in unit costs in primary education from 2008 to 2012. The share of scholarships in higher education associated with the low enrollment in this subsector is responsible for the very high unit costs.

IV. Efficiency of the Education System

Internal Efficiency of Congo's Education System

98. **Internal efficiency.** Congo has made important progress in improving key indicators and thus, towards achieving its education goals; spending in education increased in line with goals and priorities. This subsection discusses the internal efficiency of the Congolese education system, as briefly defined in Box 1.2, and makes use of results from Sections II and III.

Box 1.2. Internal Efficiency

The internal efficiency of an education system can be analyzed in various ways. The chosen approach in this section is the most widely used and accepted, which can be defined as the ability of an education system to educate the greatest number of students in the shortest period and with the least use of financial and human resources. The following indicators/aspects are used in the analysis of internal efficiency: (a) repetition rate, (b) dropout or retention rates, (c) survival or completion rates by level of education, (d) quality of education, and (e) resource use (PTR, student-textbook ratio, and scholarship administration).

99. **Although Congo increased the budget allocated to education, student retention is very low and barely changed between 2005 and 2011; consequently, repetition is a key factor of inefficiency.** As discussed in Section II (see Figure 1.6), of 100 Congolese children enrolled in primary school, 50 reached grade 6, 23 reached grade 10, and hardly any reached university in 2011, very similar to what had been the case in 2005. High repetition is very costly. In 2011, the grade repetition cost in Congo was about 0.6 percent of GDP, close to 21 percent of the annual current education expenditure (at the 2011 prices).[32] School dropout has very important implications on public and household expenditure and income. The current dropout rate in Congo (7 percent, 2 percentage points lower than in 2005) implies an opportunity cost of 3.3 percent of GDP and 10 percent of total household consumption expenditure.[33] While improvements have taken place with regard to reducing the number of dropouts, repetition rates continued to be persistently high between 2005 and 2011 (as discussed in Section II), reaching more than 20 percent in primary education. On average, and at the national level, it takes 7.4 years of schooling for a Congolese child to complete 6 years

[32] The cost of grade repetition is calculated based on (a) the direct cost of schooling that is generated from the total number of repeaters based on per student annual unit cost in public and private and (b) discounted value of forgone opportunity costs of expected earnings due to lag and length of labor market engagement. The latter is estimated based on wage employment earnings by taking into account the age of labor market entry and associated unemployment rate.

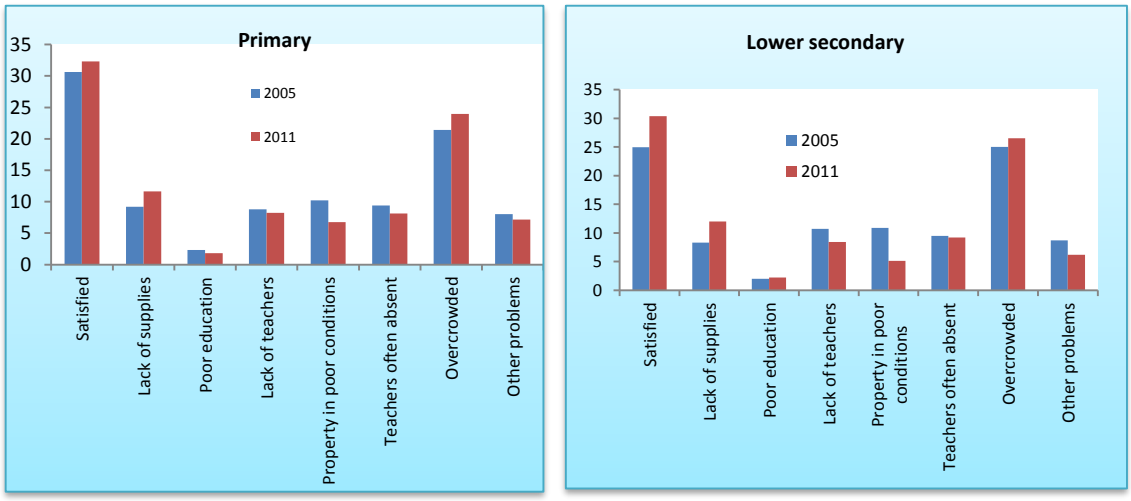
[33] The earnings of individuals by level of education are estimated to determine the forgone opportunity costs. This is done by reviewing the earning difference between those completing the level of education and those who dropped out before completing the level.

of primary education and 4 years to complete 3 years of upper secondary education. Efficiency gains can be made in this area.

100. **More Congolese children are completing primary education but quality is still an issue.** As the analysis in Section II pointed out, although the completion rate in primary education increased to 85.3 percent, Congo is a low performer among PASEC countries, and there is some indication that quality may decrease with grade in primary education. However, there have been important investments to improve the availability of quality inputs such as textbooks—close to 3 million French and Math textbooks were distributed between 2007 and 2012—and some initiatives in teacher training with more than 9,000 teachers benefiting from in-service training in the same period. [34]

101. **Nonetheless, most students seem to be satisfied with their schools, although many complain about overcrowded classrooms.** In fact, student satisfaction is high both for primary and lower secondary education, and it has slightly increased between 2005 and 2011. Nonetheless student perception of key factors for quality teaching and learning point to challenges around teacher distribution and teaching issues: overcrowded classrooms, lack of supplies, and teacher absenteeism. The fact that there are no major changes in students' perceptions between 2005 and 2011, may indicate the slow pace of improvement of key efficiency factors such as teacher distribution and teacher quality.

Figure 1.12. Student School Satisfaction, Primary and Lower secondary, 2005–2011 (percentage)



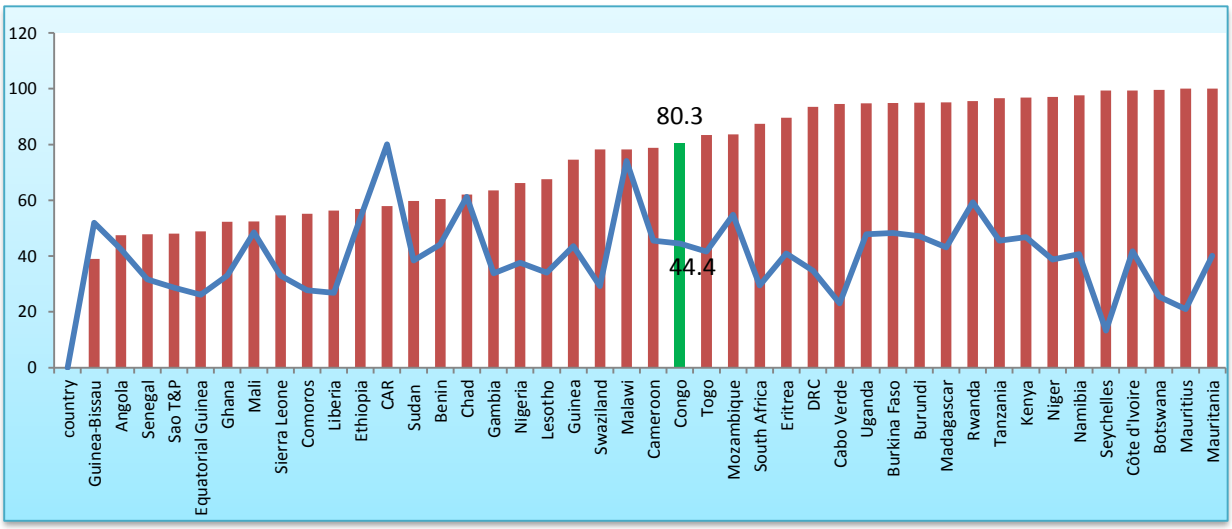
Source: Authors' computation using ECOM 2005 and ECOM 2011.

102. **With regard to the share of trained teachers and student-teacher ratio Congo ranks in the middle of SSA countries, comparing favorably with countries such as Cameroon and Togo.** PTR and share of trained teachers are two indicators that can be used to measure efficiency in use of resources and quality of service delivery. The PTR is an important indicator in education planning, and a low PTR may give a pupil a better chance of contact with the teacher, hence better (quality) teaching and learning. However, a low PTR also increases unit costs, since teacher salaries constitute a large proportion of the total cost of

[34] Information from Republic of Congo Support to Basic Education Project, World Bank Project Implementation Completion Report, April 2014.

schooling. In 2011, the primary school PTR for Congo was 44 to 1. In the same year, the share of primary trained teachers was 80 percent.

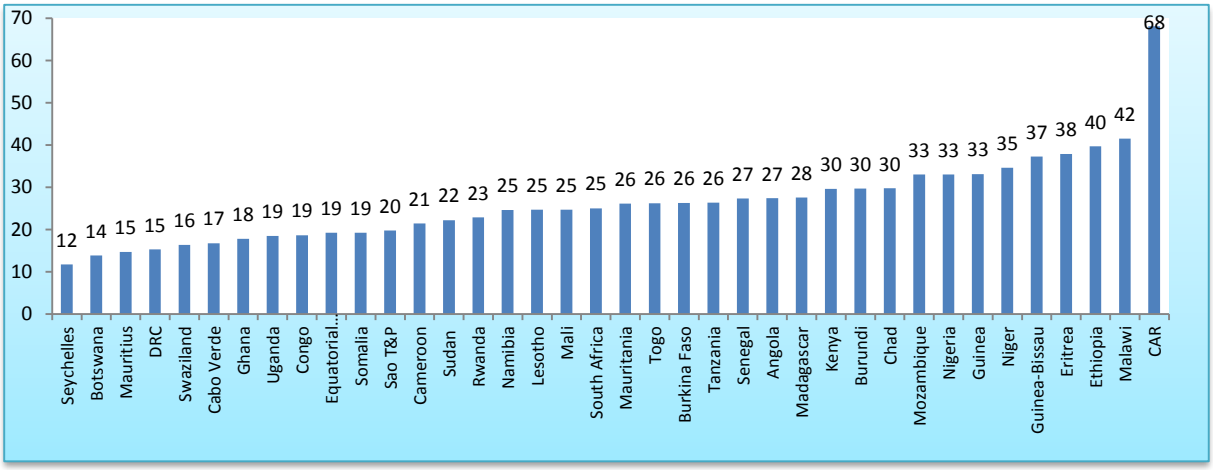
Figure 1.13. Percentage of Trained Teachers and PTR in Primary Schools in SSA Countries, circa 2011



Source: Authors' computation using ECOM 2011 for Republic of Congo and similar household surveys in other countries: Benin (2010), Burkina Faso (2010), Burundi (2010), Cameroon (2011), Chad (2011), Côte d'Ivoire (2011), Comoros (2004), Democratic Republic of Congo (2010), Ethiopia (2011), Gabon (2011), The Gambia (2010), Ghana (2010), Guinea (2012), Kenya (2008), Lesotho (2011), Liberia (2010), Madagascar (2010), Malawi (2010), Mali (2010), Mauritania (2008), Mozambique (2009), Namibia (2010), Niger (2011), Nigeria (2010), Rwanda (2010), São Tomé and Principé (2010), Senegal (2011), Sierra Leone (2011), South Africa (2012), South Sudan (2009), Sudan (2009), Swaziland (2010), Tanzania (2010), Togo (2011), Uganda (2010), Zambia (2010), and Zimbabwe (2011).
Note: Sao T&P = São Tomé and Principé; DRC = Democratic Republic of Congo.

103. **PTR in secondary education increased mostly at the lower level, indicating a lack of teachers to support the expansion of this level.** In secondary education, the student-teacher ratio increased from 24:1 in 2008 to 30:1 in 2012, because of the steep increase in enrollment, which seems to have not been accompanied by a correspondent increase in teacher recruitment. This average ratio hides a significant difference between the *Collège* (lower secondary) and the *Lycée* (upper secondary). In fact, the ratio for the *Collège* (35:1) contrasts markedly with that for the *Lycée* (only 8:1). The very low ratio in the public Lycée deserves particular attention, as it suggests that there is room for substantial savings if the ratio is increased. Overall, Congo has low secondary education PTR compared with several SSA countries.

Figure 1.14. Secondary Education PTR, Regional Comparison, circa 2011



Source: UNESCO Institute of Statistics (UIS).

104. **Further, the proportion of administrative staff is very high in Congo, as shown by the teacher-administrative staff ratio, which indicates an additional inefficiency in the distribution of human resources in the education system.** The excessive number of administrative staff (1.5 teachers in relation to each nonteaching staff member in primary education; 1.7 in the *Collège* and 3.3 in the *Lycée*), suggests that the education system is being used as an employment buffer, implying a significant financial burden and expenditure on human resources that could be reallocated to other needed inputs. As the budget information provided by the Ministry of Finance does not distinguish between the remuneration of the teaching and nonteaching staff, it is not possible to calculate the associated financial implications. The teaching function is also often performed in conjunction with other functions. Indeed, MEPSA's education statistics reveal the functional accumulation of the school staff, including administrative staff who also teach (21 percent of the teaching staff in primary and 6.7 percent in the *Collège*), as well as school directors who also carry out teaching activities (10.8 percent of total teachers in the primary level). The financial implications of these overlapping functions are also not clear, given the level of aggregation of the information from the Ministry of Finance. In fact, there may be additional sources of inefficiency for which there is no available information. The latest primary education teaching census dates from 2008 and at the time it allowed for the identification of 5,148 'ghost' teachers, whose salaries were stopped, and 1,672 'ghost' personnel whose salaries were also suspended. Further, 2,253 staff from other ministries was identified under MEPSA's budget. However, no follow-up assessments were made, as no clear information has been collected on the existing *bénévoles* in the system. There is also no additional detailed information on staff paid under the METPFQE and MES. This is required as the staff costs for both ministries are very high and are one of key drivers of the high unit costs for TVET and higher education.

105. **In conclusion, there are important areas where efficiency gains can be made.** These need to focus on an overall improvement of quality of service delivery that increases the number of quality teachers, decreases the total number of administrative staff, makes better use of teaching time, and is based on improved planning in the distribution of human resources. Further, the quality of teaching needs to be addressed to support improvements in retention and

a consequent reduction in both repetition and dropout rates. Data collection and analyses on inefficiency factors are also required to better identify other sources of inefficiency and act upon them.

External Efficiency of Congo's Education System

106. **External efficiency.** While it is important to identify areas where internal efficiency gains can occur, the efficiency of an education system cannot disregard its impact on the social and private benefits and gains it generates. This subsection provides an analysis of the external efficiency of the Congolese education system.

Box 1.3. External Efficiency

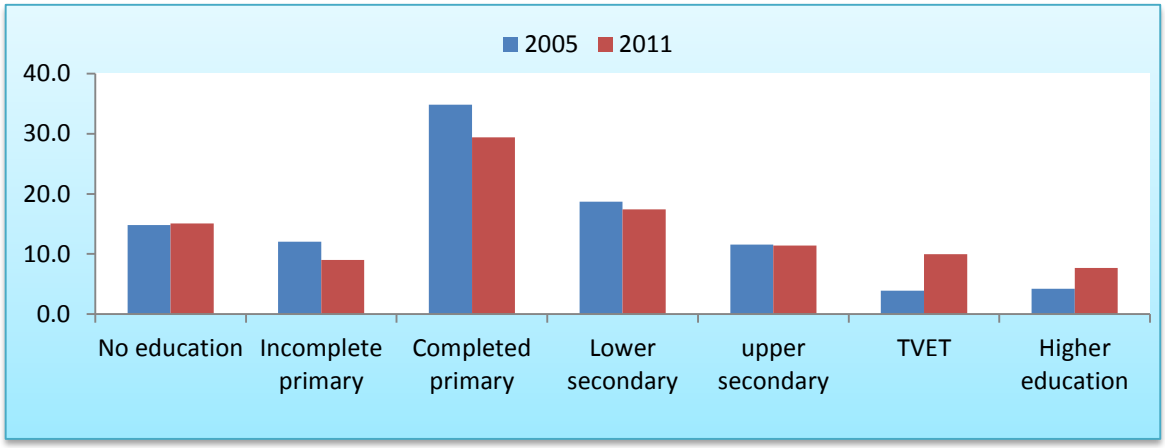
The external efficiency of the system provides a perspective of the social and private benefits generated by education, as well as other intermediate benefits of education that can lead to better social and economic rates of return. To provide some insights on the external efficiency of the Congolese education system, a Mincer regression model was used to estimate earning increases associated with additional years of school at various levels. A logistic regression was used to estimate the role of education in job choices, based on security and return differential. Further, given that educational attainment is a critical determinant of poverty in developing countries, an estimation of poverty incidence by level of education for the working age was also carried out.

107. **The educational attainment of working-age[35] Congolese is overall low; between 2005 and 2011, although the percentage of those with a higher education degree increased, the percentage of those with complete primary education decreased.** This decrease from 34.8 percent to 29.2 percent may be a reflection of the impact of the armed conflicts on education. The percentage of Congolese with complete post-primary education is low, indicating that for some time, the system has not been favoring progress between cycles. Further, men are more likely to attain higher levels of education than women: 4.6 percent of men concluded secondary education against 3.7 percent of women and 7.9 percent of men concluded higher education against 5.6 percent of women. The percentage of women with no education is more than double that of men (11.3 percent against 4.9 percent). This difference is wider in rural areas, where one woman out of five has not been to school.[36]

[35] Working age is defined as ages 15 to 64.

[36] Data from the Demographic and Health Survey of 2011–2012 was used for this analysis. The level of educational attainment is measured in this survey through the percentage of the population that has reached a certain level of education.

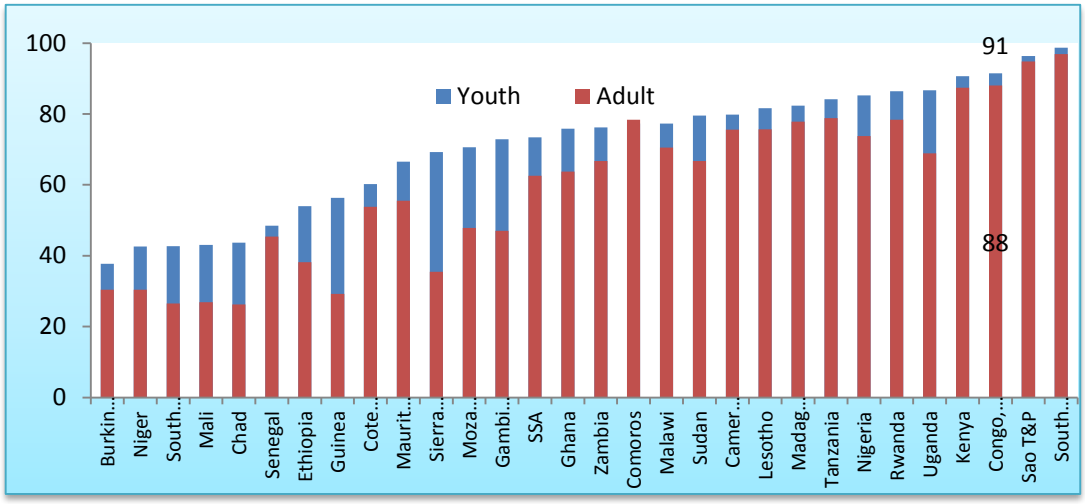
Figure 1.15. Educational Attainment of the Labor Force, 2005 and 2011



Source: Authors' computation using ECOM 2005 and ECOM 2011.

108. **However, Congo compares favorably with many SSA countries regarding the level of literacy of its working-age population.** In 2011, only about 15 percent of the working-age population in Congo had no formal education, a much lower figure than the average for SSA countries (32 percent) and lower than Cameroon (22 percent) but higher than Gabon (8 percent). In the same year, the household surveys show that the national average for youth and adult literacy rates were 91 percent and 88 percent, respectively. These figures are higher than the average for SSA (73 percent and 62.58 percent, respectively) and those from neighboring countries such as Cameroon (80 percent and 75.58 percent, respectively). Such high literacy rates point to a system that, despite some current challenges of quality, has been providing some basic skills to most of its population but not supporting most improvement of the education system.

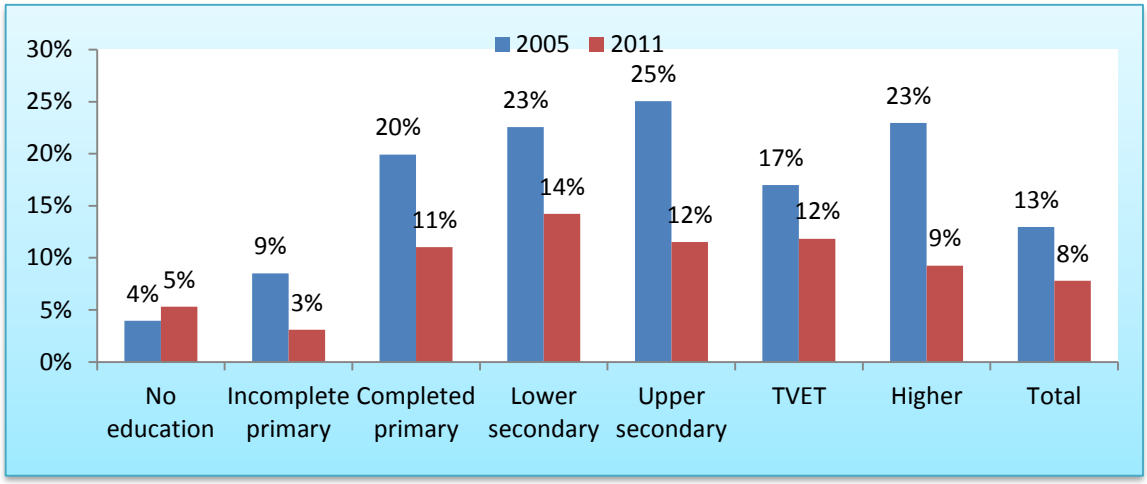
Figure 1.16. Youth and Adult Literacy Rates, 2011



Source: Authors' computation using ECOM 2011 for Republic of Congo and similar household surveys in other countries: Benin (2010), Burkina Faso (2010), Burundi (2010), Cameroon (2011), Chad (2011), Côte d'Ivoire (2011), Comoros (2004), Democratic Republic of Congo (2010), Ethiopia (2011), Gabon (2011), The Gambia (2010), Ghana (2010), Guinea (2012), Kenya (2008), Lesotho (2011), Liberia (2010), Madagascar (2010), Malawi (2010), Mali (2010), Mauritania (2008), Mozambique (2009), Namibia (2010), Niger (2011), Nigeria (2010), Rwanda (2010), São Tomé and Principé (2010), Senegal (2011), Sierra Leone (2011), South Africa (2012), South Sudan (2009), Sudan (2009), Swaziland (2010), Tanzania (2010), Togo (2011), Uganda (2010), Zambia (2010), and Zimbabwe (2011).
Note: Sao T&P = São Tomé and Principé.

109. **Between 2005 and 2011, unemployment dropped for all levels of education, particularly so for graduates of upper secondary and higher education.** Given the strong participation of the informal sector in the Congolese economy, unemployment figures should be read with caution. Such a low overall unemployment rate of 8 percent (or even of 13 percent as was the case for 2005) hides the fact that more than 6 out of 10 working-age Congolese earn a living in the informal sector. The formal sector is largely limited to the public sector (which employs one of out of three Congolese in Brazzaville), and the formal private sector is very limited. This can explain the low unemployment rates for working-age Congolese with very limited educational attainment—most of these do not have wage jobs and earn their living in the informal sector. As for the highly educated Congolese, they often find jobs in the public sector. It is the Congolese with a secondary education who find it more difficult to find wage jobs. However, some progress has been made as highlighted by the decrease from 25 percent to 12 percent of the unemployment rate of Congolese with a secondary education diploma.

Figure 1.17. Unemployment Rate by Level of Education, 2005–2011

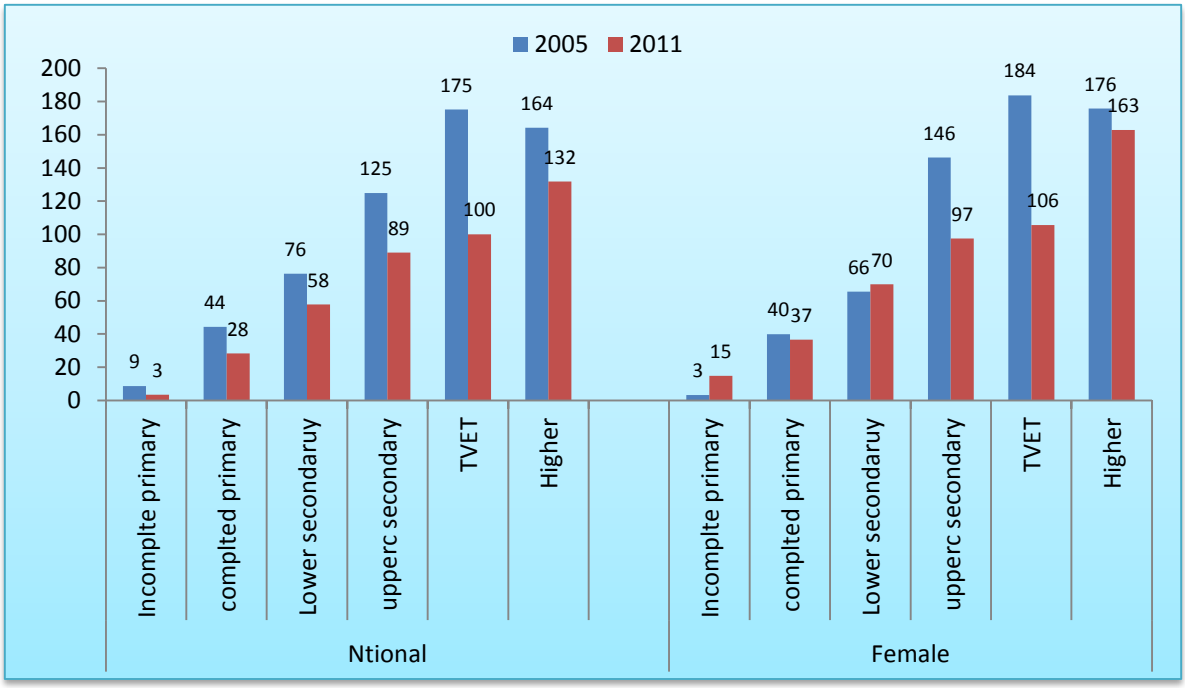


Source: Authors' computation using ECOM 2005 and ECOM 2011.

110. **Education rates of return in Congo are high, even if they decreased from 2005 to 2011, but education was the main factor linked to increases in earnings during this period.** Further, the higher the education level, the higher the probability of being wage-employed. During this period, education was responsible for an average earning change of 91 percent, while labor market factors only contributed to a 35 percent change.[37] The highest returns resulted from a TVET or higher education diploma, and this pattern is common to men and women although rates are slightly lower for women; the role of education in increasing earnings was more significant in 2011 than in 2005. Incomplete primary and complete primary education produce much lower rates of return when compared to any other education level. Holding an upper secondary education—or higher—diploma is more important for women than for men. The employment profile varies accordingly with the education level, and thus those with higher education are mostly employed in wage jobs and earning more than the others. In 2011, 80 percent of those with a higher education diploma were in wage employment against 55 percent, 56 percent, 36 percent, 21 percent, 14 percent, 10 percent for those with a TVET diploma, secondary, lower secondary, primary education, incomplete primary, and no education, respectively.

[37] Several factors affected earning changes during 2005–2011, and the most important factor was education. During the period, the impact of education in increasing average individual earnings was 91 percent while the corresponding impact for labor market factors was 35 percent. Thus holding a degree is more important to increase individual earnings than changes in labor market, such as salary increases and new types of jobs.

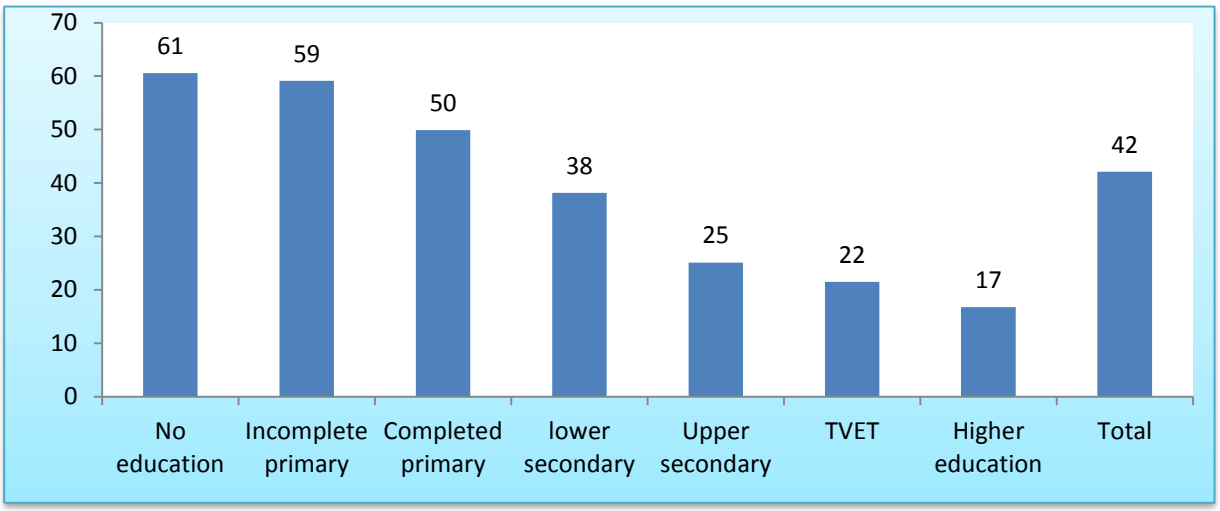
Figure 1.18. Rates of Return by Level of Education, National and Female, 2005–2011



Source: Authors' computation using ECOM 2005 and ECOM 2011.

111. **Further, education is a major factor in poverty reduction in Congo, where the poverty rate is 46.5 percent and varies inversely with educational attainment.** At the national level, about 47 percent of the total population and 42.1 percent of the working-age population lives below the absolute poverty line (less than US$1.25 a day). The poverty incidence falls extremely with the level of educational attainment. Estimates based on data from the ECOM 2011 for the working-age population (ages 15–64), reveal that about 61 percent of the workforce with no education lives below the extreme poverty line compared to 50 percent with complete primary education, and rates improve much further for higher levels of education. Completion of lower secondary education is fundamental for improving living conditions. As Figure 1.19 indicates, there is a substantial decrease in the percentage of working-age Congolese living below the poverty line with complete lower secondary education when compared to those with no primary education or incomplete primary education.

Figure 1.19. Percentage of the Working-age Population Living Below the Absolute Poverty Line by Level of Education, 2011



Source: Authors' computation using ECOM 2005 and ECOM 2011.

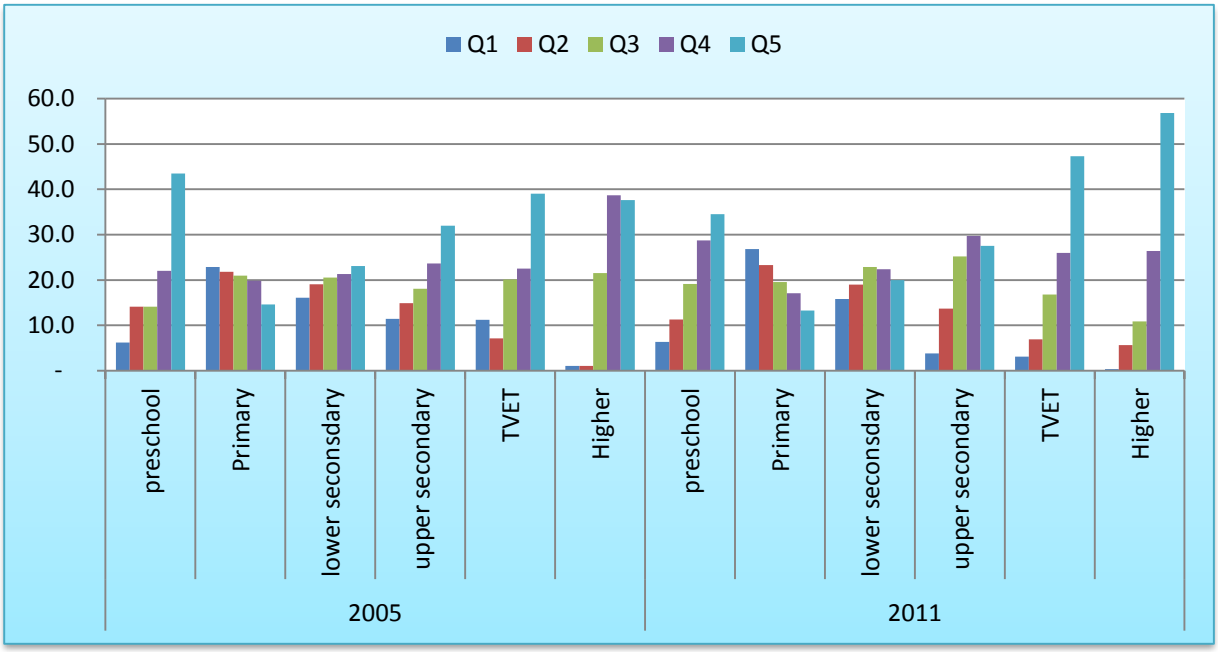
112. **In conclusion, the Congolese education system has been able to provide some basic education skills to the country's population.** However, the majority of the Congolese still do not reach post-basic education, the completion of which provides them with better opportunities for increasing their earnings and thus improving their living conditions. Education is not only the main factor in increasing individual earnings, although it contributes to that more than do labor market associated factors, but it is also crucial in reducing the very high poverty rate of the country. As many Congolese do not reach post-basic education, they are sidelined from wage employment and earn a living in the informal sector. This produces an apparent overall low unemployment rate for Congo, but that rate should be considered with caution.

V. Equity in Education

Affordability of Education and Equity of Access

113. **Education is a determinant factor for poverty reduction in Congo; however it is not affordable to all.** While enrollment in primary education decreases with income (as there are many more children from poor quintiles than from richer ones), the opposite is the case for enrollment in post-basic education levels. This suggests that children from poor households benefit much less from post-basic education. While it is true that improvement has taken place from 2005 to 2011, the proportion of children from poor households in secondary and higher education is still extremely low. Further, during the period, there have been big increases in the number of children from the wealthiest households in secondary and particularly higher education; this is a concerning trend that suggests an important inequity challenge. Given the high unit cost of higher education in Congo (as discussed in Section III), spending in post-basic education seems to be favoring the households with the highest income.

Figure 1.20. Enrollment by Education Level and Income Quintile, 2005–2011



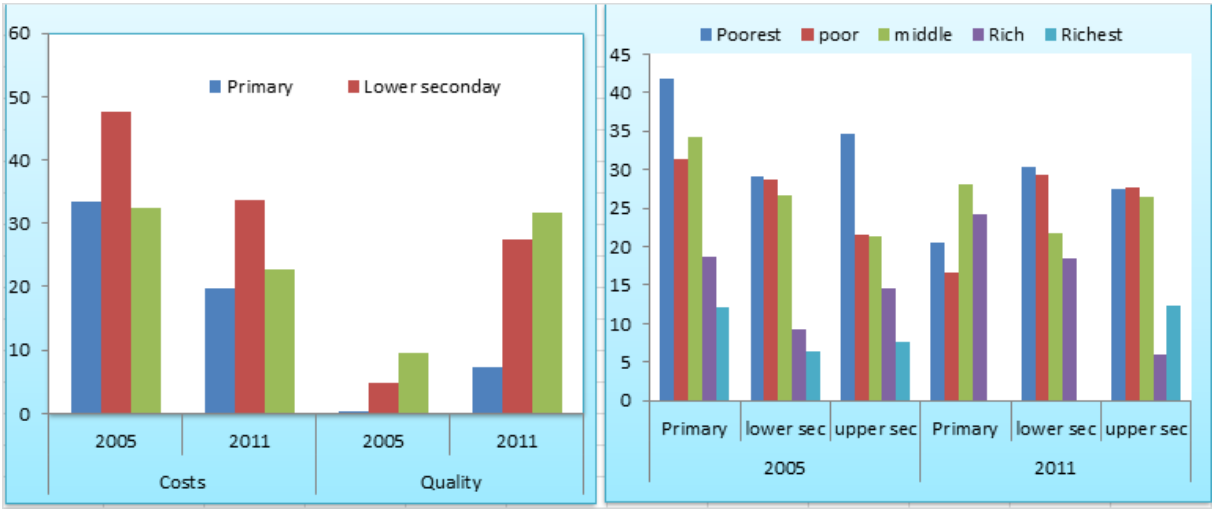
Source: Authors' computation using ECOM 2005 and ECOM 2011

114. **In fact, post-basic education is unaffordable for poor Congolese.** All levels of education are very expensive for poor Congolese households. Due to indirect costs such as books, uniforms, and payment of *bénévoles* salaries, among other expenses, households in the poorest quintile spend on average 41.5 percent of their per capita income on each child they send to primary school. Households from the richest quintile spend only 5.2 percent. Spending increases to prohibitive figures at the higher education level for the poorest households, reaching 952 percent of per capita income and making higher education completely unaffordable for them. While poor households spend a high share of nonfood expenditure in primary education, the opposite is true for non-poor households, who spend most of their education budget on post-primary education. This is an indication that poor households have no capacity to invest in post-basic education. For example, the richest households spend more than 57 percent of total education spending on secondary and tertiary education, compared with only 33 percent for the poorest households. Given that the richest households have better total nonfood consumption expenditures, the share allocated to post-primary education is high, which implies that well-to-do families invest more on education in anticipation of future returns.

115. **A lack of affordability of education is also the main reason that children are out of school in Congo, and the situation worsened from 2005 to 2011 especially for post-basic education.** Econometric analyses using data from 2011 indicate that household socioeconomic status is the main determinant of school attendance for children ages 6 to 18, followed by the level of education of the household head. Children from the richest quintile have a 117 percent probability of attending school; for children from the poorest quintile this probability is only 63 percent (middle quintile and rich quintile probabilities are 88 percent and 101 percent, respectively). Further, holding all other characteristics constant, primary-age children from the richest households in 2005 had 73 percent more chance of attending school than their poorest

counterparts, and this figure only slightly decreased to 71 percent in 2011. However, this was not the case for secondary-school-age children, where higher household income increased the probability of school attendance from 60 percent in 2005 to 79 percent in 2011. The level of education of the household head is also important—the probability of secondary school attendance for a child from a household where the head has incomplete primary school is 40 percent compared to a probability of 79 percent where the household head completed primary education and 88 percent where the head has a secondary education or more. A rural child is half as likely to attend secondary school compared to an urban child (21 percent and 40 percent, respectively); however, the impact of the area of residence on attendance nearly disappears when all other factors are accounted for. The same is the case for gender.

Figure 1.21. Reasons for Being Out of School by Level of Education (left panel) and Breakdown of Those Out of School by Income and Level of Education (%)



Source: Authors' computation using ECOM 2005 and ECOM 2011

116. **Approximately 8 percent of Congo's population is composed of members of the autochthonous population group, which faces important challenges regarding access to education.** This nomadic population is distributed over several regions of the country.[38] It is estimated that 65 percent of autochthonous adolescents (ages between 12 and 15 years) are out of school. However, access to school for this population does not depend solely on the supply of education services in their communities but is conditioned by traditional economic and social activities. A legal framework[39] has been established to support measures to increase access to education for autochthonous children and some progress has been made in recent years. There is very limited information about the autochthonous population to allow for a detailed analysis.

[38] Autochthonous population is distributed along nine *départments* (Likouala, Sangha, Cuvette Ouest, Plateaux, Lékoumou, Niari, Pool, Bouenza et Kouilou).
[39] *Stratégie Nationale d'Éducation des Populations Autochtones du Congo*, under implementation since 2009.

Table 1.6. Primary GER and NER of Autochthonous Population, circa 2010[a]

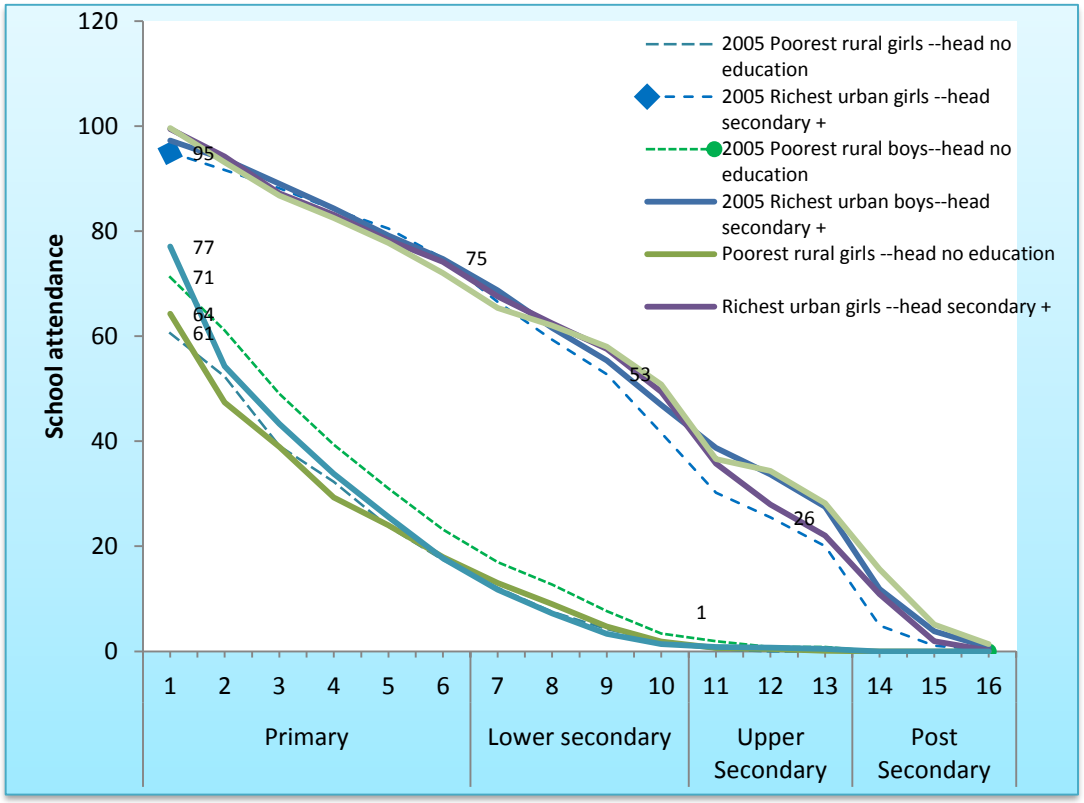
Indicator	Percentage of Autochthonous Population
GER (Primary)	
Men	76.9
Women	59.0
Total	67.9
NER - Primary (6–11 years)	
Men	47.8
Women	40.2
Total	44.0

Source: CNSEE, Census of 2007.
Note: a. There is very limited data regarding the autochthonous population.

Equity of Attainment

117. **Household income is the main determinant of inequity in attainment, though the area of residence and the education level of the household head also play an important role.** Gaps have widened from 2005 to 2011, as educational attainment has risen faster for the wealthy than for the poor. Girls from the poorest, uneducated, and rural families are the most severely excluded from education. Poor rural children have the lowest primary enrollment rates and very high dropout rates. Primary enrollment of children from urban households of the top quintile, whose head of household has a secondary or higher education diploma, is more than 95 percent, with less than five percent dropout rate each year. In contrast, enrollment of children from rural households of the lowest quintile, whose head has no education, is 51 percent and 41 percent for boys and girls, respectively. By the end of six years of primary school, enrollment among the urban top quintile children from high education households hovered around 75 percent for boys and girls both in 2005 and in 2011, compared with enrollment for children from the rural lowest quintile with poorly educated households, which was below 25 percent. Not only is this disparity of critical concern, but the fact that even children in the top quintile do not all complete primary education indicates a serious problem or retention in the system that goes beyond economic factors. Moreover, the stagnation of these figures over the past 10 years signals a problem that merits further study. The disparities grow exponentially with education levels attained, and the gap widened between 2005 and 2011. In that year, of 100 children from the lowest quintile, only 1 completed 13 years of education compared to 60 from the top quintile (boys and girls).

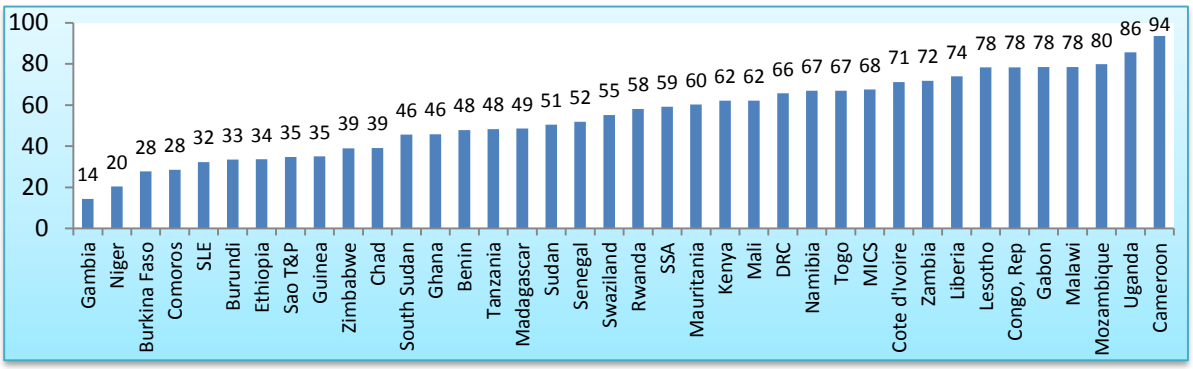
Figure 1.22. Factors Affecting Educational Attainment



Source: Authors' computation using ECOM 2005 and ECOM 2011.

118. **Disparities in educational attainment are very high in Congo compared to other SSA countries.** For example, the gap between the poorest and richest quintiles in upper secondary enrollment is 78 percent in Congo compared with 59 percent, which is the average for SSA. Congo is positioned 32nd out of 37 countries for which data are available, performing very poorly on equity. Further, it compares poorly as well with SSA countries of a similar income, for which the average is 68 percent. However, it is a better performer than Gabon and Cameroon.

Figure 1.23. Regional Comparison of Gap between Poorest and Richest Quintile in Net Primary Enrollment Rate (percentage)



Source: Authors' computation using ECOM 2011 for Republic of Congo and similar household surveys in other countries: Benin (2010), Burkina Faso (2010), Burundi (2010), Cameroon (2011), Chad (2011), Côte d'Ivoire (2011), Comoros (2004), Democratic Republic of Congo (2010), Ethiopia (2011), Gabon (2011), The Gambia (2010), Ghana (2010), Guinea (2012), Kenya (2008), Lesotho (2011), Liberia (2010), Madagascar (2010), Malawi (2010), Mali (2010), Mauritania (2008), Mozambique (2009), Namibia (2010), Niger (2011), Nigeria (2010), Rwanda (2010), São Tomé and Principé (2010), Senegal (2011), Sierra Leone (2011), South Africa (2012), South Sudan (2009), Sudan (2009), Swaziland (2010), Tanzania (2010), Togo (2011), Uganda (2010), Zambia (2010), and Zimbabwe (2011).
Note: Sao T&P = São Tomé and Principé; DRC = Democratic Republic of Congo.

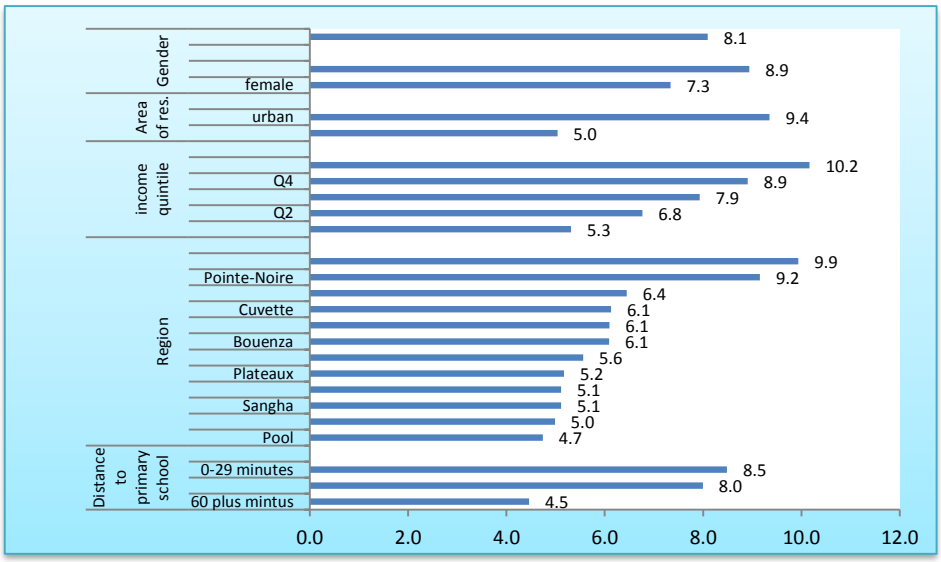
119. **Disparities based on income and area of residence are also found in learning outcomes.** In both PASEC exercises discussed in Section II, aggregate national results hid statistically significant differences. The most important differences relate to geographic and income variables, while the gender variation was marginal. Both boys and girls did significantly better in urban areas than in rural ones. Children in private schools scored better (11–12 points higher) than those in public schools. Despite the higher average performance of private schools, when examining overall performance relative to school budgets, none of the schools that have above-average performances across grades and subjects while using below-average financial resources was private. In part, this may be because private schools are more expensive. However, the schools that are uniformly below average in performance and above average in costs are mostly in urban areas (95 percent of students in such schools). Interestingly, the majority of children in underperforming schools were in public schools in Pointe Noire (39 percent), followed by public schools in Brazzaville (17 percent).

Equity in the Human Capital Stock

Income, area of residence, and gender play a role in the average years of education of the working-age population in Congo, and income and rural-urban disparities are very significant. On average, the Congolese working-age population has completed primary education but not secondary school. At the national level, the number of years of schooling of the working-age population is 8.1; however, this figure is very different in rural and urban areas: 5.0 and 9.4, respectively. Better equity is found with regard to gender, as the average number of years for women is 7.3 and for men 8.9. The most important differences are once again found at level of income. While the average number of school years for working-age Congolese in the top quintile is 10.2, the equivalent for those in the lowest quintile is 5.3.

Different regions of the country also present different results, with Brazzaville presenting 9.9 years of schooling (highest) and Pool only 4.7 years (lowest).

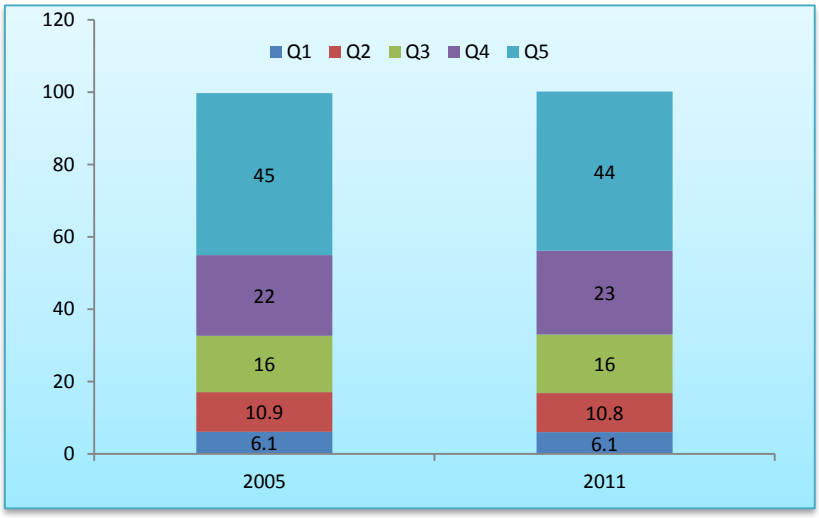
Figure 1.24. Average Years of Education of Working-age Population by Gender, Income, Region, and Proximity to School



Source: Authors' computation using ECOM 2005 and ECOM 2011.

120. **Education disparities among young Congolese and those of working age seem to be replicated in an intergenerational manner, which has extremely negative consequences—inequality in educational outcomes in Congo closely correlates with income, leaving many Congolese stuck in a poverty cycle.** At the national level, only 17 percent of the total income is earned by the two lowest quintiles, which represent 40 percent of the Congolese population. A regional comparison of 27 SSA countries for which data is available (see Annex A.1) positions Congo among the top 10 high-income high-inequality countries. Further, analysis of 2005 and 2011 household survey data shows that the share of income earned by the bottom 40 percent slightly decreased over that period.

Figure 1.25. Share of Total Income by Quintile, 2005 and 2011

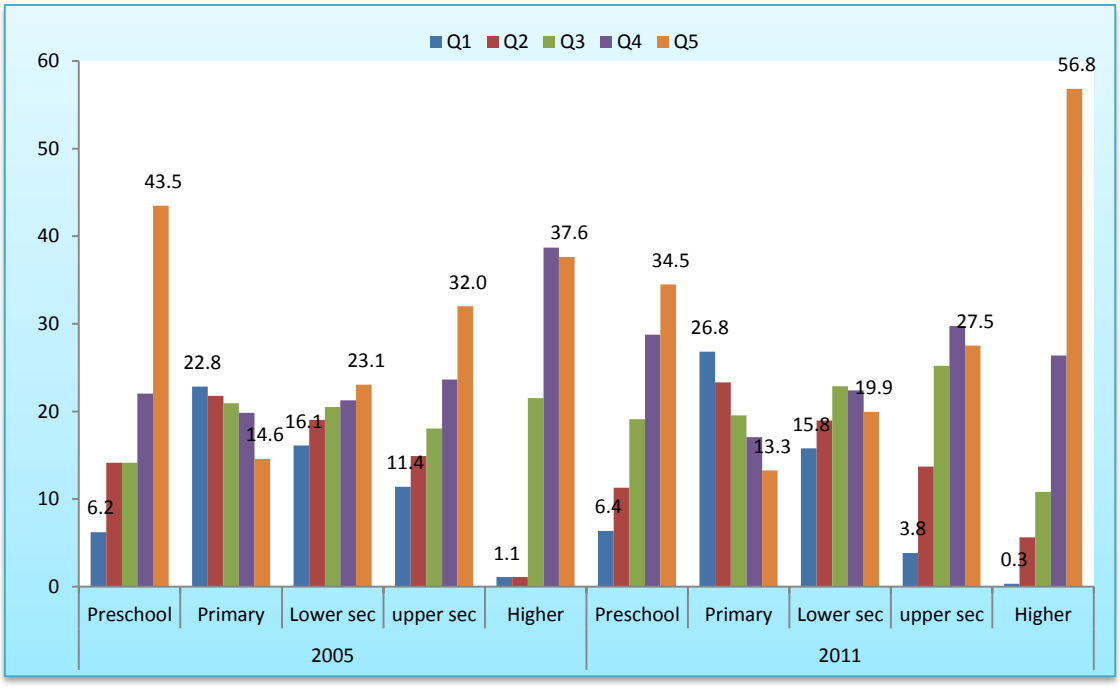


Source: Authors' computation using ECOM 2005 and ECOM 2011.

Spending on Education and Equity

121. **Population of primary school age and enrollment at primary level seemingly decrease with the income quintile, from the poorest to the richest quintile.** This means that in comparison to the richest households, more children from poor households are enrolled in and benefit from public spending at the primary level.[40] At post-primary levels, although the population figures show very minor differences (except for the richest quintile, where there are fewer primary-school-age children), enrollment figures clearly show that the children from the poorest households benefit less from post-primary education. It should also be noted that, as stated above, primary education has been free in principle in Congo since 2007, which would have contributed to the increase in the share of primary enrollment from the poorest households from 22.8 percent to 26.8 percent between 2005 and 2011. Post-primary education poses an important financial burden on households, and mostly children from high-income quintiles are enrolled. For instance, in 2011, only 3.8 percent of upper secondary students and 0.3 percent of higher education students came from the poorest households, while the corresponding figures from the richest quintile were 27.5 percent and 56.8 percent, respectively (Figure 1.26). Compared to 2005, the share of children from the poorest households enrolled in post-primary education declined. This implies that government spending on post-primary education benefits primarily more affluent households and that the situation has grown more inequitable over time.

Figure 1.26. Distribution of Enrolled Students and School-age Population by Quintile



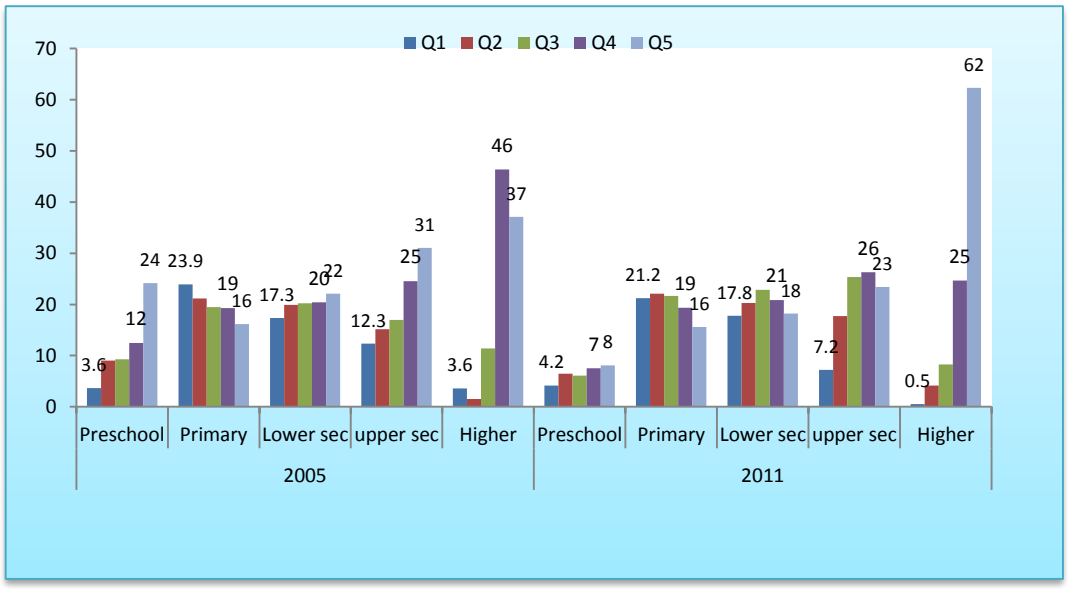
Source: Authors' computation using ECOM 2005 and ECOM 2011.

[40] There are several factors why poor households are associated with a large numbers of children: (a) more educated people have lower fertility rates and less prevalence of poverty; (b) children contribute to household production as they grow, and poverty level of the household diminishes with increased working household members; and (d) in rural areas where poverty rates are high, people have less access to health services and fewer of them practice family planning methods.

122. **Public spending on primary education has been relatively pro-poor, while spending on post-basic education has mostly favored the well-off.** In 2011, the poorest quintile received 21.1 percent of the public benefits allocated to primary education (just slightly above the population share of the quintile), while the richest quintile received 16 percent (4 percent less than the population share of the quintile). For post-basic education, however, the situation is different with 22 percent of the budget allocated to higher education and per student spending 12 times higher than for any other level. Compared to 2005, the benefit to poorest households decreased, even in primary education, and increased from the richest households (Figure 1.27).

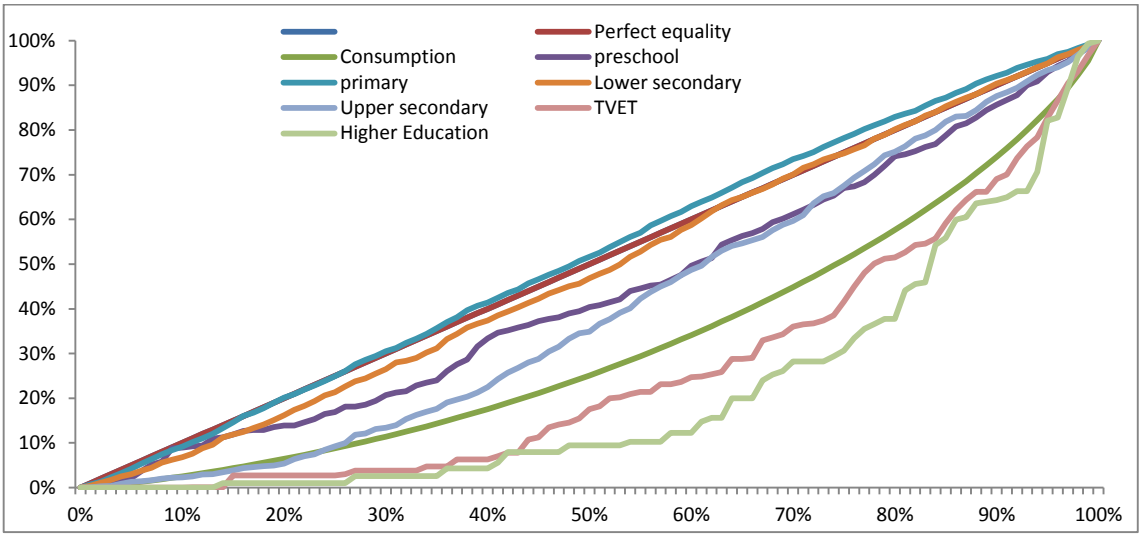
123. **The benefits of public expenditure on both primary and lower secondary education were relatively more biased towards the poor than was the distribution of income.** In other words, when looking at the Lorenz curves (Figure 1.28), expenditure on these levels of education was relatively more equitable than income, as the benefit incidence for public spending on each was above the consumption concentration curve. Public spending on primary education was progressive, while spending on lower secondary education was still progressive, though to a lesser degree.

Figure 1.27. Benefit Incidence Analysis of Public Expenditure on Education, 2011



Source: Authors' computation using ECOM 2005, ECOM 2011, and MEFPIPP; Loi de Finances.

Figure 1.28. Lorenz Curve for Household Consumption Expenditure and Public Spending on Education by Level



Source: Authors' computation using ECOM 2005, ECOM 2011, and MEFPIPP; Loi de Finances.

124. **Overall spending in education favors the richest households; however, the allocation of the education resources by education levels has clearly different patterns.** Whereas in primary and secondary education benefits are progressive, in TVET and higher education these are regressive (Figure 1.29). Although 32 percent of benefits accrue to the poor, given the higher returns of education for TVET and higher education, to which the poor have less access, overall the rich are benefiting more than the poor from current investments.

Figure 1.29. Education Benefits by Level

Source: Authors' computation using ECOM 2005, ECOM 2011, and MEFPIPP; Loi de Finances.

125. **In conclusion, the issue of inequity is very important in education in Congo.** The education system has been pro-poor in primary education and favored mostly the well-off in post-basic education, thus contributing to the intergenerational cycle of poverty among the

Congolese. Rural and urban disparities are important in the educational attainment of both young and working-age Congolese; regional differences are also significant, but disparities of income are the most important. Education in Congo is a fundamental factor for poverty reduction but spending on education has not supported this role.

VI. Conclusions and Recommendations

Congo has been making progress toward the achievement of its main education goals but important challenges remain.

126. **The Congolese education system has made progress over the past few years.** The Congolese education system suffered because of the armed conflicts of the 1990s, which jeopardized the country's ability to meet the MDGs by 2015. In response, the Congolese authorities focused policies and interventions during the first decade of this century on rebuilding the country's physical and human resources network to **ensure universal primary education for all by 2015**, one of the main strategic goals of the system. This resulted in important investments in civil works, teacher training, and in the implementation of the free primary education policy from 2007 onwards, which entailed the end of fees in primary schools, along with the distribution of free textbooks and learning materials. As a result, the country was able to bring into school most of the country's school-age children, both boys and girls. This progress has produced some improvement in access to all other levels of education for both boys and girls, making gender parity a possibility beyond primary education.

127. **The good progress made toward access and completion of primary education has not been so significant at other education levels.** While access to post-primary education increased, this has been much lower than desirable. High repetition rates, combined with dropouts and low retention particularly at lower levels of the system, along with school fees and limited financial support to poor households, who comprise close to half of the Congolese population, are blocking the access of young Congolese to post-primary education. The strategic goal of **improving retention in primary and secondary education while improving the flow of students through the cycles** is still far from being achieved even if some progress has been made. Meeting these goals is fundamental in Congo given the central role of education for poverty reduction. Such blockage in the system contributes to the intergenerational cycle of poverty in which many Congolese are trapped.

128. **The Congolese economy is highly reliant on oil; its diversification, among other things, requires a workforce that is capable of responding to the skills demands of growth sectors.** The Congolese authorities see the development of TVET as a means to prepare such a workforce, and to do so, they have made the revamping of the TVET subsector a goal in key strategic documents. The Head of State declared 2013 *l'Année de l'éducation de base et de la Formation Professionnelle* (The Year of Basic Education, Skills Training, and Professional Qualifications). The strategic goal of **developing technical and vocational education in line with market demands and economic diversification** is a new goal, and little can be said yet with regard to progress to its achievement other than the high level of attention being paid to it, including at the budget level. It is worth noting, however, that achievement of this goal will

require a concerted effort from stakeholders beyond the TVET subsector, to prevent a mismatch between skills demand and supply and ensure TVET provision in a sustainable manner, given that changes in the supply of skills require substantial reforms in the relevance, quality, and modalities for delivery of TVET and that unit costs for TVET are very high.

129. **Although more Congolese are completing higher education, and among them many women, higher education is very expensive both for households and the government.** As is the case in many countries, private provision of tertiary education in Congo increased with very little quality control or coordination. This allowed for an increase in the number of Congolese holding a tertiary education diploma but not necessarily to an improvement in the quality and numbers of the highly skilled workforce required by the country. Further, costs of higher education are prohibitive for the poor and the public sector spends large amounts on scholarships for the well-off. The strategic goal of **developing quality higher education in line with market demands and priority sector growth** has seen some progress especially at the policy level with the preparation and approval of new legislation aiming at regulating the sector, implementing mechanisms of quality control, and developing partnerships with the private sector, but there is still a long way to go before sound progress will be visible.

The national budget for education has increased; however, education expenditure is unevenly supporting the achievement of strategic education goals.

130. **Budget allocations to the education sector have increased and so have budget execution rates, even if these have varied among ministries.** Overall, among the social sectors, education has garnered the largest budget allocation. In relative terms, the share of education expenditure in total public expenditure increased in the last five years, particularly so in the budgets of 2013 and 2014, after the declaration of 2013 as *l'Année de l'éducation de base et de la Formation Professionnelle* (The Year of Basic Education, Skills Training, and Professional Qualifications). If the 2013 budget were fully executed, the share of education in total spending would jump from 8.5 percent in 2008 to 12.9 percent in 2013; nonetheless, this figure is well below the average for SSA of 20 percent. Budget execution rates have improved over the period, although with stronger improvement for recurrent than for investment expenditure. The consolidated budget execution rate for the education sector increased from 89.9 percent to 94.6 percent between 2008 and 2012. Budget execution rates varied among ministries, with the MES presenting overruns in both recurrent and investment expenditure and low execution rates for investment expenditure for MEPSA and the METPQE.

131. **The progress made in access to primary education can be seen as a result of the efforts made in civil works to rebuild the school network and in the introduction of the free primary education policy; budget allocations supported these efforts.** Between 2008 and 2012, MEPSA, the main body responsible for the implementation of policies supporting the goal of **universal primary education for all by 2015**, had on average budget allocations that were three times higher than those for the MES and METPQE. Most of these (see Table A.1 Annex A.1) were allocated to primary education. Recurrent expenditure largely supported teacher salaries, school fees, textbooks, and learning materials; investment expenditure supported school construction for primary education. The focus on primary education within

MEPSA's intra-subsectoral allocation was aligned with the international focus on meeting the MDGs by 2015 but may have prevented the implementation of policies and interventions that could have supported better results in meeting the goal of **improving retention in primary and secondary education while improving the flow of students through the cycles.**

132. **Revamping the physical infrastructure for TVET resulted in a major increase in the investment expenditure for the subsector.** This ties in with the aim of **developing technical and vocational education in line with market demands and economic diversification**. While such an increase (corresponding to more than doubling the allocation to the METPQE, of which 80 percent is allocated to investment expenditure—see Figure A.1 in Annex A.1) can be seen as a positive sign in the sense that financing is being made available to carry out interventions to meet the goal; it can also pose some stress in budget execution, especially if sound planning for the TVET sector has not been fully developed. Further, this increase in the METPQE investment expenditure increases the consolidated investment expenditure for the sector (making it higher than recurrent), which may have an impact on the execution rate of the consolidated budget.

133. **The MES has overruns both for recurrent and investment expenditure; budget allocations to higher education have not changed significantly over time.** In fact, a large amount of the MES expenditure is for scholarships, and although there has been a shift in the trend favoring in-country scholarships, expenditure is very high. Other than scholarships, the attribution of which generally favors those with the means for financing their first year of university or for obtaining placements overseas, the expenditure in higher education does not seem to have been fundamentally supporting interventions aimed at **developing quality higher education in line with market demands and priority sectors growth.**

There is space to re-prioritize and improve the allocative and operational efficiency of the Congolese education system.

134. **While all strategic education goals are fundamental for sector development, it will be important to better align budget allocations with such goals, based on strategic planning and sound understanding of the role of the public budget in key development areas.** The gains obtained in primary education need to be sustained. The development of TVET is important but revamping TVET infrastructure and equipment is not sufficient to ensure the development of the required skills. There is room for revising the investment allocation for the METPQE. A trade-off can be considered with secondary education, for which very limited funding is now being allocated and mostly to finance recurrent expenditure. Expenditure for scholarships in higher education is extremely high. Given the lack of regulation and control around the attribution of such scholarships, it is not even clear whether these are providing the Congolese labor market with the most appropriate high-level skills. Given the weight of scholarships in the MES overall expenditure and the recurrent overruns, there is need to reconsider the distribution of funds among expenditure categories within the MES budget. The scholarships category is a source of inefficiency. Both TVET and higher education have high unit costs; further economic diversification requires a dynamic skills development system that cannot exclusively rely on the public sector. Thus, there is need for the public sector,

through the MES and the METPQE, to create the conditions for establishing sustainable partnerships with the private sector that provide both technical and financial support and decisively contribute to the achievement of the strategic sector goals.

135. **Repetition and dropout are systemic sources of inefficiency in the Congolese education system.** Although practically all school-age Congolese children enroll in primary school, only close to half of them complete this level, and less than a fourth complete lower secondary education. Very few reach higher education. This pattern of retention has high costs for the system, for families, and for the Congolese labor market. There is a need to further understand the underlying causes of such high repetition levels and create the conditions to retain students in higher levels of education than primary. This will require a combination of policies and interventions that target improvement of quality of human resources and make at least the lower levels of post-basic education pro-poor.

136. **Although there is insufficient data to allow for a detailed understanding of the distribution of human resources, the high ratio of administrative staff to teaching staff and evidence that many parents still pay fees to cover salaries of *bénévoles* in primary education are areas of concern indicating potential systemic sources of inefficiency around human resources in the sector.** Further, the last teacher census indicated a large number of 'ghost' personnel in the sector. There is need to further understand the profile and distribution of human resources in Congo beyond the simple knowledge of PTRs, to allow for the definition of clear policies that can tackle the existing inefficiencies. Further, the quality of human resources is a key factor in quality of education, which is still poor in Congo.

Public spending in Congo is pro-poor in primary education, regressive in post-basic education, and overall favors the well-off; thus it does not contribute to improving equity in access and education attainment.

137. **Education could be a major variable to improve equity in Congo, with a much larger impact than any labor market associated factor; however, the current system favors the well-off and leaves many Congolese caught in a poverty trap.** Free primary education has supported access to education for poor Congolese; however, most of them either do not complete this level or even if they do so, do not move up the education ladder to secondary and upper levels, which are those that would allow them a significant increase in income. Post-primary education is unaffordable and higher education is prohibitively expensive for poor Congolese, who constitute half of the country's population. Although gender, distance to school, and geography play a role in equity of access and attainment, it is income that prevents poor Congolese from obtaining an education. At the same time, public spending is regressive in post-primary education, reinforcing the inequities—for example, the high level of spending in scholarships for higher education targets the most well-off, who are those who can reach this level. There is thus an urgent need to create the conditions to increase equity in education. Table 1.7 summarizes some concrete recommendations to address the identified issues.

Table 1.7. Summary of Issues and Recommendations

ISSUE	ACTION		OUTCOME
Education expenditure is unevenly supporting the achievement of strategic education goals.	**Improve intra-sectoral allocations and allocations between categories**		*Increased progress in strategic education goals*
	Policy/Intervention	• Trade-off between allocations to TVET and secondary education to increase the allocation to the latter • Revision of investment expenditure for TVET to ensure alignment with sound medium- and long-term planning and actual absorptive capacity • Revision of recurrent and investment expenditure for higher education • Establishment of the regulatory framework necessary for the participation of the private sector in education, especially at the TVET and higher education level • Promote the establishment of public-private partnerships in TVET and higher education both at the technical and financial level	
There are systemic sources of inefficiency in the Congolese education system: **(a) Low retention, high repetition, and dropout** **(b) Inefficient quality and use of human resources** **(c) Higher education scholarships**	**Improve retention rates**		*Larger number of Congolese complete primary education and secondary education of better quality.* *More funds are made available from improved use of resources.* *High-level skills in the labor market are better aligned with economy needs.*
	Policy/Intervention	• Analysis of causes of early grade repetition and definition of policies and measures to decrease it considering the possibility of regulating by law repetition rates	
	Improve the quality and use of human resources		
	Policy/Intervention	Carry out a teacher and administrative staff census for primary and secondary education and from its results: • Remove 'ghost' personnel from the system. • Define a sustainable method to incorporate still existing *bénévoles.* • Define and implement a teacher training program to improve the teaching skills and knowledge of all teachers (including *bénévoles*) and review preservice training. • Establish a planning and monitoring system for teacher distribution.	
	Improve the efficiency of the scholarship program in higher education		
	Policy/Intervention	Revise the scholarship regulatory framework, allocation criteria, and numbers of scholarships attributed and improve the alignment between skills needs and scholarships granted.	

ISSUE	ACTION		OUTCOME
Public spending in Congo is pro-poor in primary education, regressive in post-basic education, and overall favors the well-off; thus it does not contribute to improve equity in access and education attainment.	**Make postprimary education affordable**		*More Congolese improve their earnings due to better education.*
	Policy/Intervention	• Design a package of incentives to reduce the costs of secondary education (lower and upper) to the poor, including the attribution of scholarships for fees, for example. • Consider a policy change of making basic education (primary and lower secondary, perhaps of nine years) free and compulsory for all, looking at financial impact and sustainability. (These measures increase student retention and thus contribute to improved efficiency both internal and external.)	

Health Public Expenditure Review

I. Introduction

139. **In Congo, the improvement of the health conditions of the population is considered fundamental in achieving poverty reduction and economic growth outcomes and this can be clearly seen in its GEPRSP 2012–16.** The GEPRSP and the PNDS—currently being updated—define key areas of intervention in the sector. Priority is given to the achievement of the MDGs for health: child/infant mortality, maternal health, fighting HIV, and malaria and other infectious diseases. Significant attention is also given to the general strengthening of the health system in governance.

140. **Raising public expenditure in health and ensuring an efficient use of resources is an important means of improving health outcomes, thereby contributing to poverty reduction and increased equity.** Balanced intra-sectoral budget allocations can play an important role in ensuring that priority sector policies are implemented. Gains in efficiency allow for improved health outputs and outcomes. Although Congo is a middle-income country, in 2011 its poverty rate was 46.5 percent. Equity in access to public health services is crucial to guaranty that such a large section of the population is not simply excluded.

141. **This chapter examines recent achievements in health outcomes, the trends and composition of public expenditure in the health sector for 2008–2012, and provides insights into the sector efficiency and equity**, to respond to the following research questions:

(a) Do budget allocations (level and composition) contribute to achievement of the established strategic health goals?

(b) Is there space for re-prioritizing and improving allocative and operational efficiency in the health sector?

(c) Does public spending contribute to improve equity in access to quality health services?

142. **The analysis uses a combination of methods:** (a) key sector performance indicators were calculated to assess progress toward sector priorities and MDGs; (b) budget data was analyzed to provide insights on sector allocations, composition of the budget, and rate of execution; (c) quality of health services and use of resources were analyzed to provide information on the sector's efficiency; and, finally, (d) an analysis of disparities in access to health services was used to provide insights on equity across different quintiles of income and geographically disadvantaged populations. A BIA and catastrophic payments to health care analysis were also used.

143. **Several data sources were used for the analysis in the chapter.** These included administrative data from the MSP; administrative data from the MEFPIPP; and survey data from the 2005 and 2011 ECOM—household surveys—and Congo's DHS, known as EDSC 2005 and EDSC 2011–2012.

144. **In several instances there were data discrepancies between administrative and survey data.** In such cases, a preference was given to survey data since it is generally more reliable and, in most of the present cases, reflects the most recent information. The main source of discrepancy opposes the data reported by the WBWDB for Congo and the estimates obtained through the EDSC 2011–12 survey. The survey data were selected as the main reference since it is more recent, and in settings where administrative data collection is challenging (which is the case), survey data tend to be considered more reliable. For consistency, comparisons of health outcomes with other countries were also done using DHS data.

145. **The chapter is organized in seven main sections.** Section II introduces the objectives and organization of the health system; Sections III and IV provide an analysis of sector progress and sector spending; Section V focuses on issues of efficiency and equity in the delivery of health services; and Section VI provides conclusions and recommendations for the next five years.

II. Institutional Environment

Objectives of the Health System

146. **Congo adopted a National Health Policy in 2003.** The general objectives of this policy were (a) promoting the health of Congolese citizens throughout the country; (b) guarantying access to quality health care services by the population; and (c) reinforcing the national capacity of management of the health system.

147. **Two PNDS have since been published to translate these general goals into actionable measures.** With the support of development partners, the government set up and implemented the most recent PNDS between 2007 and 2011, aligned to achieve the MDGs and within the context of the vision laid out for the country and sector by the Head of State, known as the *Nouvelle Esperance* (New Hope). This plan, which is being updated, aims to improve the performance of the health system to reduce the burden of morbidity and mortality and promote health by strengthening care and services at the district level, general hospitals, and specialized support services, as well as strengthen institutional capacity and partnership coordination.

148. **Specific priorities for the health sector have also been identified in the most recent GEPRSP 2012–16 and will likely be the basis for the updated version of the PNDS.** These include

(a) improving the governance and direction of the sector by developing the institutional and legal framework for health development, planning, and programming, as well as reform of health sector financing;

(b) improving access to health care services by improving health coverage (building and equipping new health facilities, rehabilitating and equipping existing health training programs, and so on);

(c) reducing inequities in access to health services by ensuring access to health care for the poor and improving vulnerable pregnant women's access to prenatal care, intermittent preventive treatment, and sulfadoxine-pyrimethamine;[41]

(d) strengthening the supply of health care by promoting health services, social markets, and communication and developing health action appropriation mechanisms;

(e) improving the quality of services by developing leadership, including management teams, to improve the provision of medically assisted procreation and appropriate patient controlled analgesia and to respond to the population's needs, particularly for water, electricity, and a system for disposing of biomedical waste;

(f) managing medications by coordinating supplies, strengthening COMEG, streamlining the prescription of essential generic drugs, supporting the use of protocols for rational drug use in health care institutions, developing a quality assurance system, and managing auxiliary services, particularly the National Public Health Laboratory and the National Blood Transfusion Center;

(g) combatting communicable and non-communicable diseases, with particular emphasis on maternal and child health; and

(h) managing emergencies, disasters, and responses to epidemics by strengthening the health emergency management system and providing the *départments* with emergency kits.

Organization of the Government Health System

149. **The government health system in Congo is formally decentralized and comprises three hierarchical levels.** They are (a) central; (b) departmental (referring to the country's 12 *départments*, which are, in turn, subdivided into communes and/ or districts); and (c) peripheral and operational (Figure 2.1).

- The **central level** is strategic and normative and is responsible for the planning, monitoring, evaluation, coordination, mobilization, and resource allocation of the health system. It comprises the minister's office, the general and central directorates, public autonomous health entities, and specialized public health programs.
- The **intermediate level** is in the hands of the departmental health directorates (*Direction Départementale de Santé* [DDSs]). They provide technical support to the Health districts (*Circonscriptions socio-sanitaire* [CSSs] defined below) in the dissemination of information, the adaptation of national standards to local conditions, their implementation, and the supervision of staff.

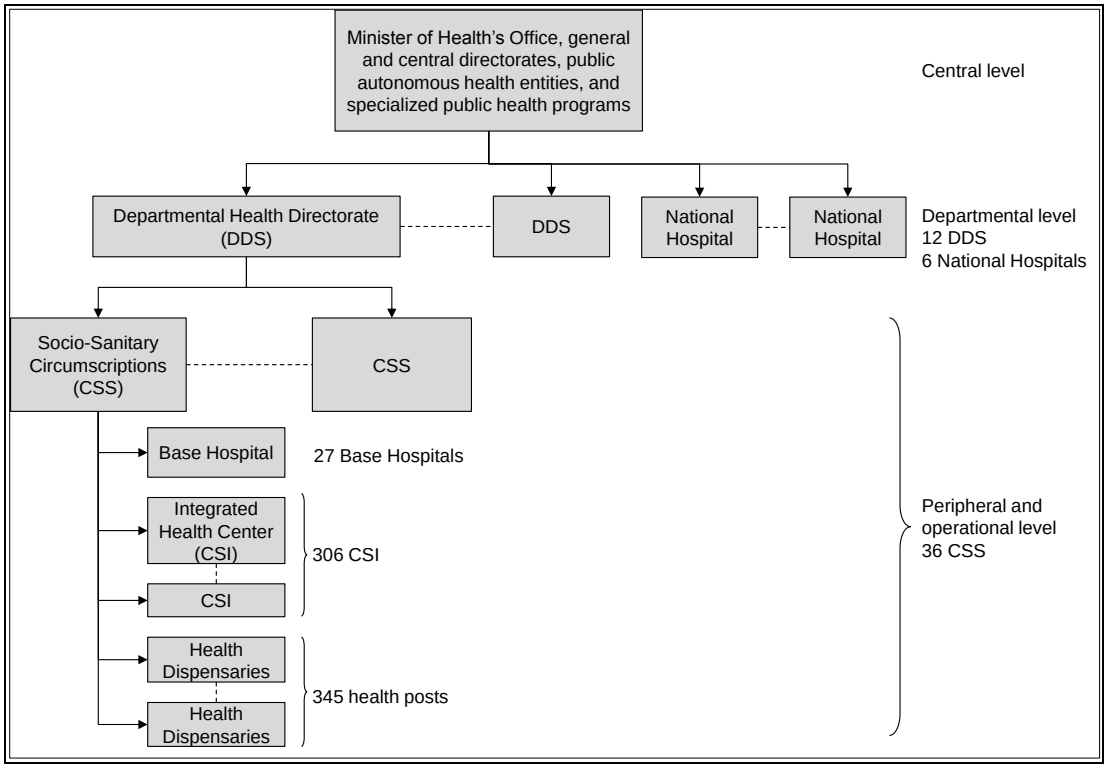
[41] Drug used in treatment and prophylaxis of malaria.

- The **peripheral and operational level** comprises operational units responsible for program planning and implementation. It is composed of CSSs, each of which is subdivided into health areas. A CSS consists of a network of ambulatory health providers, both public and private. The CSS is administered by a management team that is responsible for the planning of health activities and local resource management. In rural areas, a CSS typically has a catchment area of 50,000 to 100,000 inhabitants, while in urban areas it covers between 100,000 and 300,000 people. Each CSS, in turn, is subdivided into health areas, each of which operates a CSI with a catchment area of 2,500 to 10,000 people in rural settings and 10,000–15,000 people in urban areas.

150. **The government health care delivery system comprises a national network of health facilities distributed throughout the country and organized under a pyramidal referral system.** At the bottom of the public delivery system are health dispensaries. According to the recent Health Statistics Yearbook issued by the MSP, in 2012, there were 345 dispensaries distributed across all *départments*, except the two largest urban centers in the country, that is, Brazzaville and Pointe Noire. The next referral level is composed of CSIs, of which there are two types, depending on the services provided. The *Centres de Santé Intégré à Paquet Minimum d'Activités Elargi* (CSI à PMAE)[42] offer a broad array of preventive and curative ambulatory services, and in 2012, there were 84 such facilities around the country. The *Centres de Santé Intégré à Paquet Minimum d'Activités Standard* (CSI à PMAS)[43] offer a narrower set of such services, and in the same year, there were 222 of them. The first referral facility for the CSIs are the Base Hospitals (*Hôpitaux de Base*). In 2012, all *départments* except Kouilou had one or more Base Hospitals. These inpatient facilities, in turn, have as their referral, in the public system, the General Hospitals (*Hôpitaux Général*), of which there are six in the country, including the University Hospital Center (*Centre Hospitalier Universitaire*) located in the capital city of Brazzaville.

[42] In English, Integrated Health Centers with Expanded Minimum Services.
[43] In English, Integrated Health Centers with Standard Minimum Services.

Figure 2.1. Structure of Congo's Public Health System



Source: Authors, from information from the MSP.

151. **Private health care providers play a major role in Congo's health system, but there is little coordination between public and private providers and little regulation of the latter.** The private health sector was formally institutionalized 25 years ago, through Decree N° 88/430 of June 6, 1988, laying down the conditions for private practice of medicine and paramedical and pharmaceutical professions. Official documents (the National Health Policy of 2003, the National Health Development Plan 2007–2011, and the Health Sector Development Program 2010) confirm the government's commitment to collaborate with the private sector to strengthen the health system, improve the population's health status, and protect citizens' fundamental right to a healthy life. According to a 2012 World Bank/International Finance Corporation (IFC) report that analyzed Congo's private health care delivery system, in 2005, there were 1,712 health care providers in the country, of which more than half (1,002) were private. The vast majority of private providers (88 percent) were for-profit. The MSP's Health Statistics Yearbook listed 617 private for-profit providers throughout the country in 2012 (MSP 2013c). The private health care delivery sector is largely unregulated and poorly organized. Officially registering as a new health care provider involves a convoluted procedure, and as a consequence a large share of private providers have only temporary licenses to function (Results for Development Institute and Health Research for Action 2011). This problem with registration is the most likely explanation for the discrepancy between the number of private facilities in the official 2012 numbers and in the World Bank/IFC report.

152. **The pharmaceutical products procurement agency, COMEG, has the responsibility of procuring and supplying government hospitals and health centers with generic drugs and**

consumables, but its management capability and performance are limited. The MSP requires that government health providers buy drugs from COMEG using their own budgetary resources or revenue from user fees. However, many public providers, including Base Hospitals and CSIs, choose not to comply and prefer instead to bypass the institutional procurement system to purchase drugs and supplies directly from private providers, at lower prices.

153. **The lack of regulation and control of the private drugs procurement system poses patient safety problems.** The private drug supply system comprises five wholesalers and a large number of retailers, including pharmacies and shops, which sell their products to public and private health care providers. Whereas wholesalers and retailers must obtain government authorization to function, they are not subject to any quality controls by the public health authorities.

154. **In conclusion, the Congolese health sector is guided by a set of clearly defined objectives, aligned with the MDGs and focusing on improved service delivery.** The sector is decentralized at three main levels and uses a referral system. The private sector plays an important part in delivery of care; however, there are important challenges associated with it: (a) little regulation and a burdensome registration process and (b) few quality control mechanisms concerning procurement of drugs. This is also an issue with regard to public health providers, as these many times bypass COMEG and procure directly from private providers at lower prices.

III. Health Outcomes and Health Risks

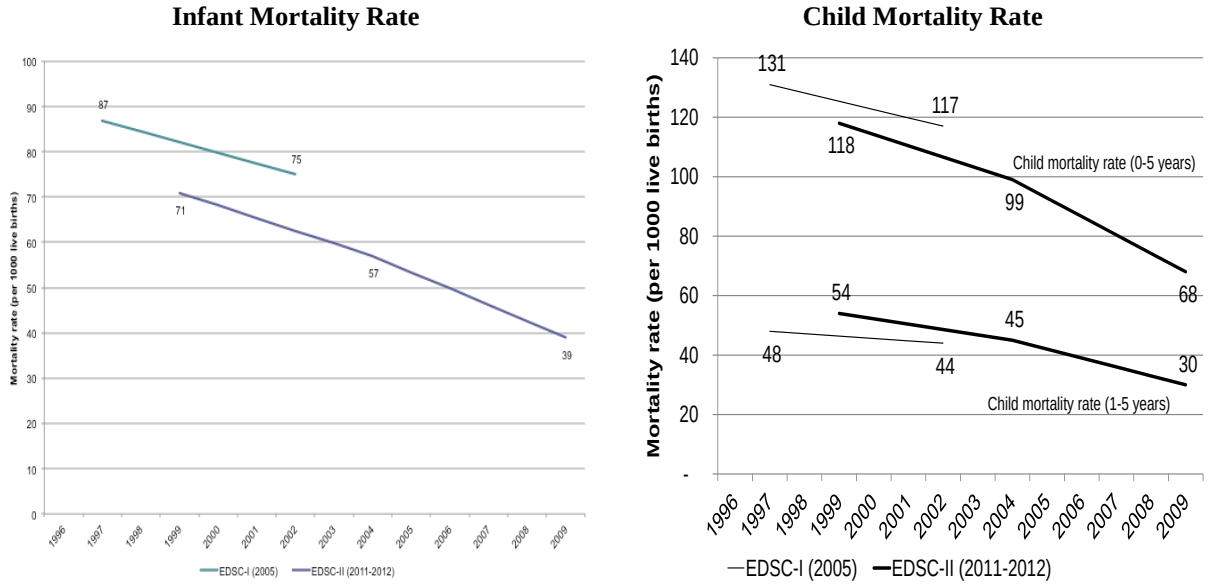
Infant Mortality Rate and Child Mortality Rate

155. **Up until recently Congo was lagging behind other countries in the region on health indicators.** Before the release of the most recent DHS, EDSC 2011–12, Congo seemed to be outperformed by many countries in the region with respect to IMR and CMR. Accordingly, the government's 2010 MDGs report stated that Congo had made little or no progress toward the MDG goals of reduced infant/ child mortality (Government of Congo 2010).

156. **In contrast to these trends, EDSC 2011–2012 report presented an encouraging picture.** By comparing the estimates of the IMR and CMR between the previous EDSC (2005) and the most recent one (2011–2012), the report concluded that both these had decreased (Figure 2.2.) and that their improvement was statistically significant and accelerating. It estimated that in 2009, the IMR was 39 deaths per 1,000 live births, the CMR was 68, and the death rate for children ages 1–5 was 30.[44]

[44] As discussed in the introduction, preference is given to survey data over administrative data. However, it is important to note that there is a large discrepancy between the data reported by the WBWDB for Congo and the estimates obtained through the EDSC 2011–12 survey. The WBWDB reports much flatter IMR and CMR rates over time and this tendency is felt in most health indicators with EDSC 2011–12 showing better results than the WBWDB.

Figure 2.2. Infant and Child Mortality Rates, 1997–2009 (deaths per 1,000 live births)



Source: CNSEE 2005; CNSEE and ICF International 2012.

157. **Congo performs well in comparison to neighboring countries such as Cameroon and Gabon with regard to child health outcome indicators.** Congo is the second richest country among those selected, after Gabon. When looking at the EDSC-reported IMR of 39.0, Congo stands out as the best performer in the group, even slightly outperforming the much richer Gabon. The same result emerges when using the neonatal mortality rate (24.0). For better comparison, all the mortality data come from DHSs implemented in the respective countries in close years.

Table 2.1. Infant, Child, and Neonatal Mortality Rates, 2011 in a Group of SSA Countries with Per Capita Income above PPP of US$1,400

	Per capita GDP 2011 (in 2005 PPP, US$)	IMR (deaths per 1,000 live births)	CMR (deaths per 1,000 live births)	Neonatal mortality rate (deaths per 100,000 births)
Benin (2011–12)	1,430	42	70	23
Côte d'Ivoire (2011–12)	1,580	68	108	38
Cameroon (2011)	2,053	62	122	31
Senegal (2010–11)	1,834	47	72	29
Congo (2011–12)	**3,850**	**39**	**68**	**24**
Gabon (2012)	13,998	43	65	26

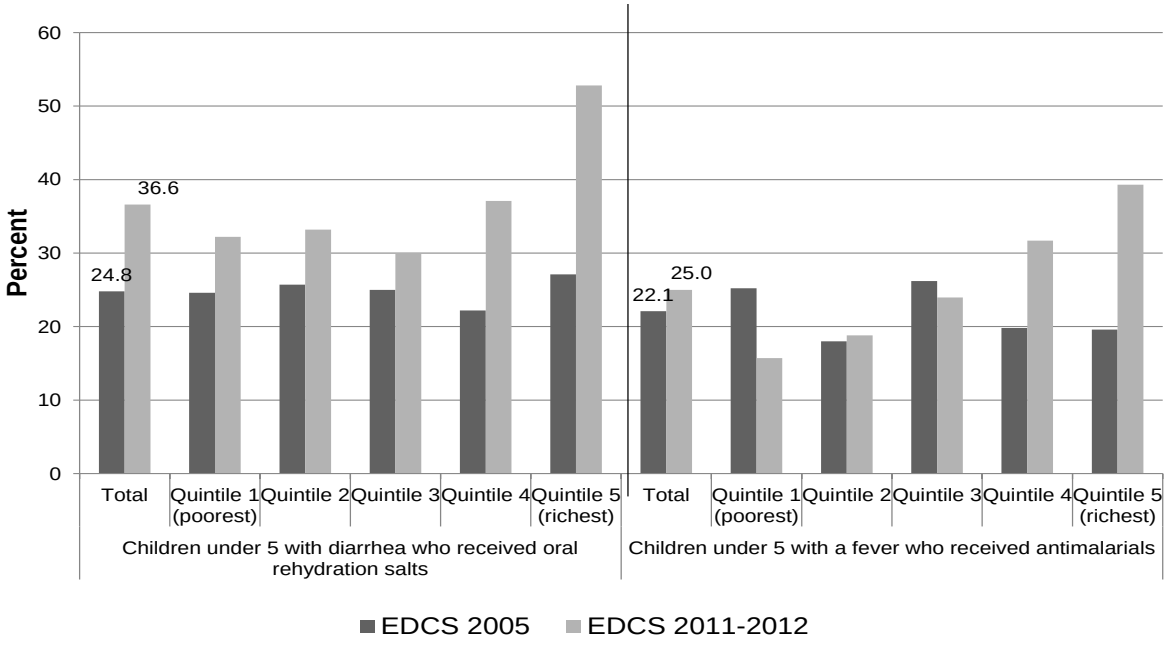
Source: WBWDB and ICF International (2012).
Note: PPP = Purchasing power parity.

158. **Several factors and government initiatives seem to have contributed to the positive trends observed in IMR and CMR.** For instance, according to EDSC 2011–12, child vaccination coverage has improved overall for Bacillus Calmette-Guérin (BCG) against tuberculosis (from 90.0 to 93.9 percent); diphtheria, pertussis (whooping cough), and tetanus (DPT) (from 64.8 to 71.9

percent); and measles (from 66.2 to 74.9 percent). The coverage of the yellow fever vaccine also increased significantly, from 31.8 percent to 54.5 percent, with a marked reduction in income inequalities. An exception has been the polio vaccine where there was an overall drop in the coverage (see Annex B.1).

159. **There was also a 50 percent increase in access to treatment of diarrhea with oral rehydration salts (ORS) for under-five-year-old children.** Whereas the increase was by far higher among children in the richest quintile, all quintiles experienced an improvement on this indicator. In contrast, the accessibility to antimalarial medicine worsened for the poorest quintile but improved for the other income groups (Figure 2.3).

Figure 2.3. Treatment of Diarrhea and Malaria, 2005 and 2011–2012 (percentage)

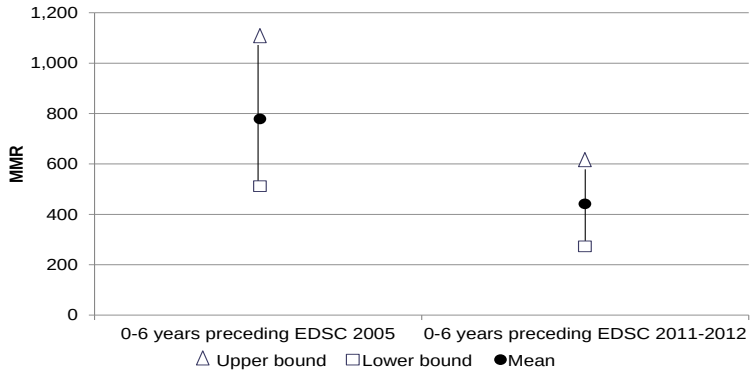


Source: Authors' calculations with data from EDSC 2005 and EDSC 2011–2012.

Maternal Mortality Rate

160. **The MMR has also fallen in Congo.** EDSC 2005 reported an MMR of 781 deaths per 100,000 live births for the six years preceding the survey, whereas EDSC 2011–2012 reported a rate of 429 for the six prior years. Congo's MMR compares favorably with that of countries with similar per capita income, including Cameroon, Mauritania, Nigeria, and Swaziland.

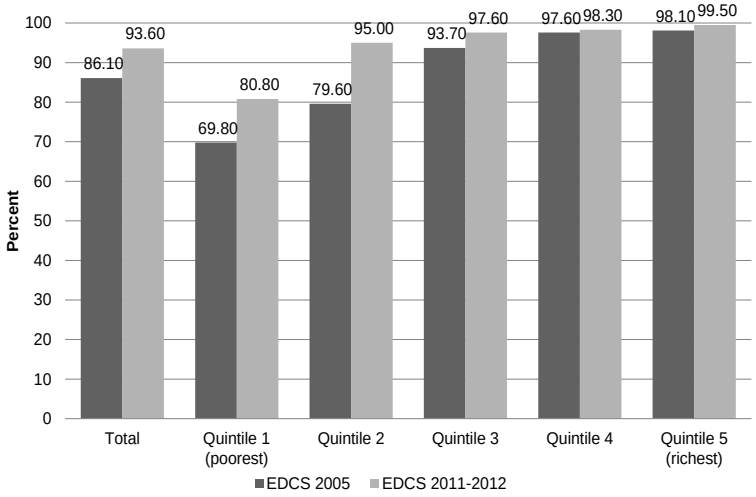
Figure 2.4. MMR - Mean and Confidence Interval, 2005 and 2011–2012 Surveys (deaths per 100,000 live births)



Source: Authors' calculations from CNSEE 2005 and CNSEE and ICF International 2012.

161. **This improvement can be related to the positive performance of several indicators associated with maternal health, including Congo's high rate of institutional deliveries by qualified health personnel** that has improved from 2005 to 2011–2012, although still showing important inequalities across quintiles (see Figure 2.5.).

Figure 2.5. Percentage of Assisted Deliveries by Qualified Health Personnel, 2005 and 2011–2012

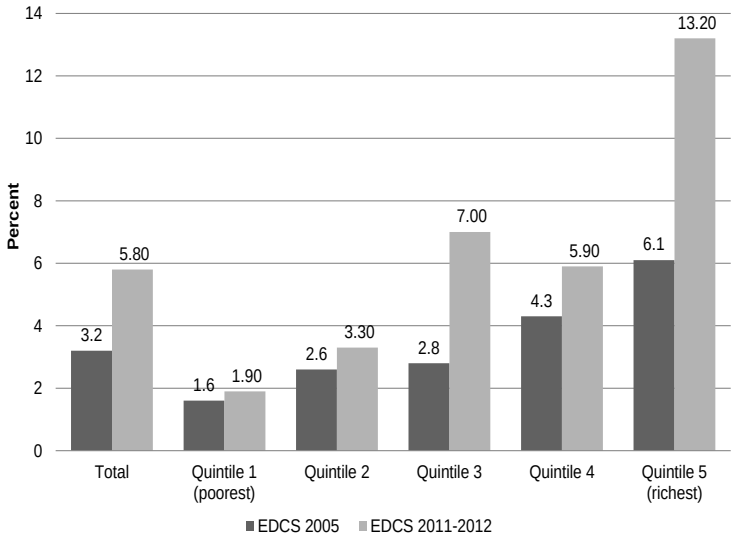


Source: CNSEE 2005; CNSEE and ICF International 2012.

162. **A policy implemented by the government, whereby public providers offer free cesarean sections, seems to have resulted in a sharp increase in the cesarean rate.** The intended effect of this policy is to reduce maternal deaths and improve child health and survival and is likely one of the factors that has led to significant improvements in the MMR and IMR.

163. **Knowledge about contraception improved in an important way between the two surveys, inequalities in knowledge narrowed significantly, and use of contraception went up.** Knowledge increased everywhere and inequality in knowledge among population groups dropped. Use of modern contraception by women improved in an important way between the two surveys, although the gain was almost negligible among women in the poorest quintile (Figure B.5).

Figure 2.6. C-sections as a Share of All Deliveries, 2005 and 2011–2012 (percentage)



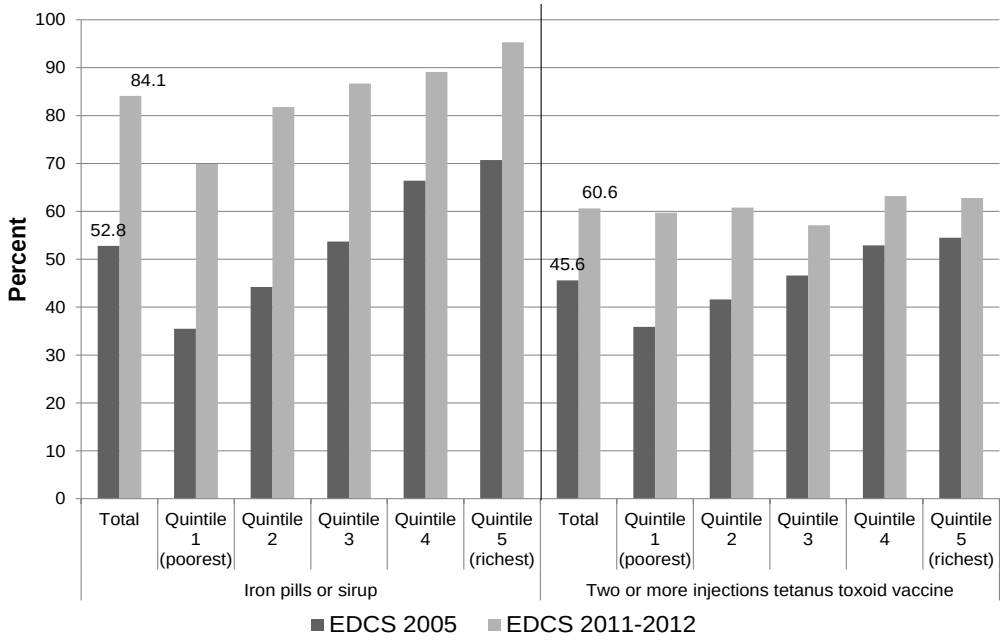
Source: CNSEE 2005; CNSEE and ICF International 2012.

164. **The intergenesic period (the time lapse between birth of one child and conception of the following child) has also increased, albeit only slightly—by about 6 months overall—with greater increases among women in the higher quintiles, providing them with more of the health benefits associated with the trend.**

165. **Use of prenatal care is very high overall according to the data.** For all pregnant women, it increased from 88.2 percent in 2005 to 92.6 percent in 2011–2012. The increase took place in all quintiles, although as expected, women from poorer quintiles present lower usage rates.

166. **Not only has coverage and utilization of services improved between the 6–7 years that elapsed between these two surveys, but there also seems to have been a reduction in inequality.** As Figure 2.7. shows, in 2005 there were large differences among quintiles in the distribution of iron supplements to women and in the provision of the tetanus toxoid vaccine. The delivery of these two services increased in an important way, and the increase was higher among poorer women, such that by 2011–2012 the quintile distributions became almost flat.

Figure 2.7. Services Provided during Prenatal Visits, 2005 and 2011–2012 (percentage)



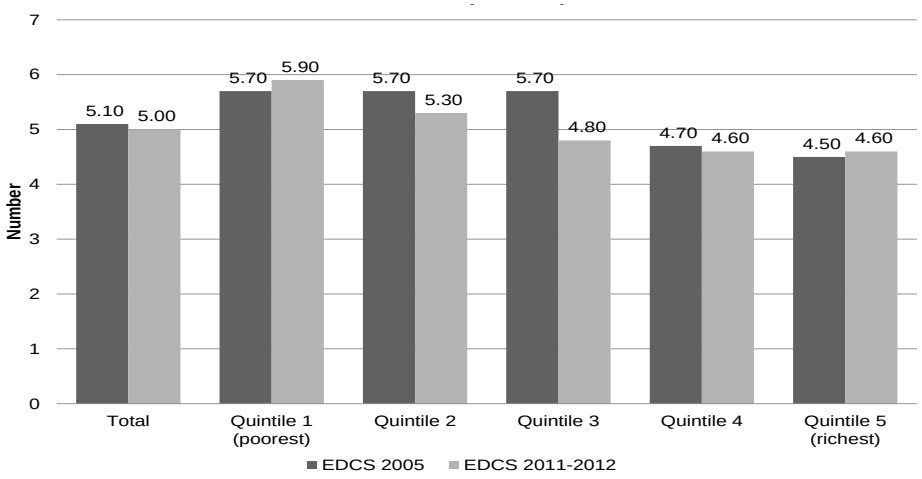
Source: Authors' calculations from CNSEE 2005 and CNSEE and ICF International 2012.

167. **Indeed, when looking at Congo's performance on reproductive health indicators, one could expect an even lower MMR.** The higher MMR is a common feature in African countries and reflects the low quality of services offered.

Fertility and Malnutrition

168. **Fertility has increased: the average number of children born per woman was 5.1 in EDSC 2011–12, an increase from 4.8 in 2005.** Fertility rates are higher in households living in rural areas and households from the poorest income quintiles. Moreover, women continue to show a preference for a high number of children—according to Congolese women, the ideal number of children was 5 in 2011–12, slightly lower than 5.1, which was the figure in 2005; further, the ideal number of children is still above 4 for all the income quintiles.

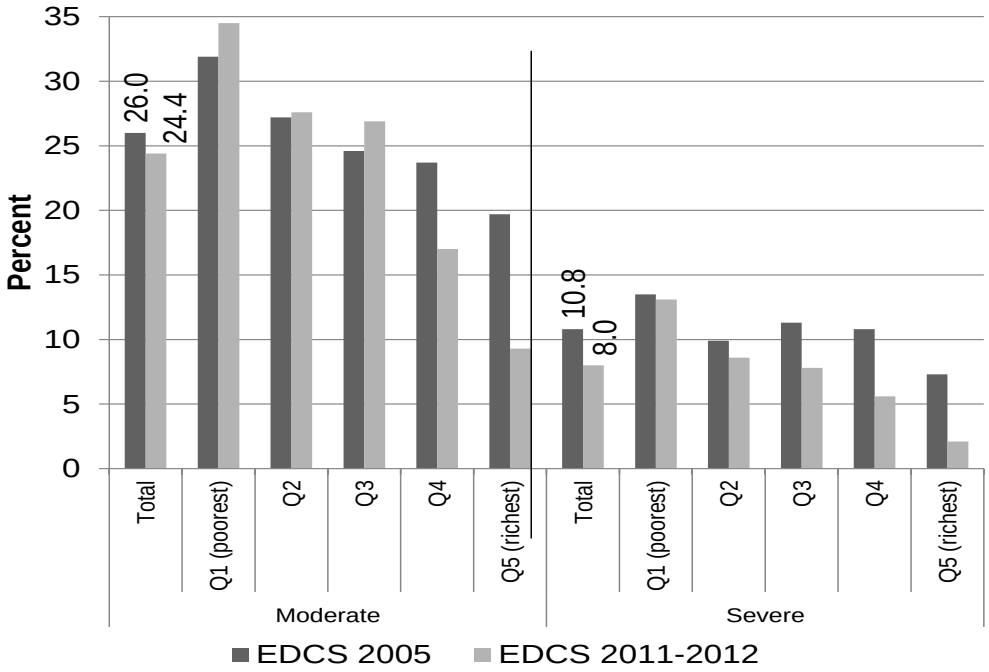
Figure 2.8. Ideal Number of Children According to Women, 2005 and 2011–2012



Source: Authors' calculations from CNSEE (2005) and CNSEE and ICF International (2012).

169. **The country also still has a quarter (24 percent) of its children under five years of age chronically malnourished (stunted), with two-thirds (67 percent) of children in the same age group suffering from anemia.** Even though the prevalence of child malnutrition dropped overall in Congo during the seven-year period that elapsed between the two household surveys, this reduction was very small. The 2005 survey reported a chronic malnutrition rate of 26 percent whereas the 2011–2012 survey reported a slightly lower rate of 24.4 percent. Overall, severe malnutrition fell from 10.8 percent to 8.0 percent. Whereas both moderate and severe chronic malnutrition fell for nearly all income quintiles, inequality in this health indicator worsened. Moreover, moderate malnutrition increased for the three poorest quintiles. Therefore, the slight improvement in the overall indicator is the result of a sharp drop in malnutrition in quintiles 4 and 5.

Figure 2.9. Chronic Child Malnutrition, 2005 and 2011–2012 (percentage)

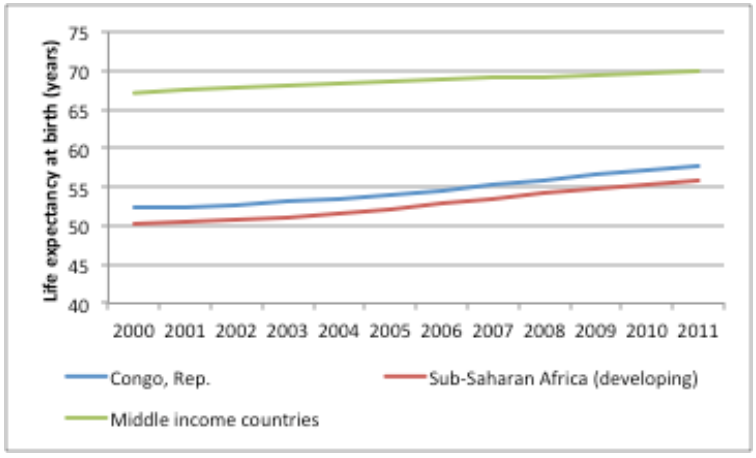


Source: Authors' calculations from CNSEE 2005 and CNSEE and ICF International 2012.

Life Expectancy at Birth

170. **The life expectancy at birth (LEB) for Congo was reported as 57.8 years in 2011 (WBWDB).** However, this number may be underestimated since the recently released information about the drop in the country's IMR and CMR probably does not reflect in these numbers. Still, the LEB in Congo has steadily been going up for the past decade, presenting a value slightly above the average for SSA (Figure 2.10.) and is in line with the values observed for African countries with similar income per capita and HIV prevalence. However, when compared to middle-income countries worldwide, it still has a lot to catch up.

Figure 2.10. LEB in 2011



Source: WBWDB.

HIV/AIDS

171. **In Congo, the prevalence of HIV among adults ages 15–49 stands at 3.2 percent.** It is below the average of 4.9 percent for the SSA region and significantly below the average of 8.4 percent for the 10 richest countries in the region. This prevalence rate has been dropping steadily from 3.9 percent in 2000. Implementation of the second-generation strategic framework (2009–2012) likely contributed to this reduction. Some of the measures implemented in this context are listed:

- Purchase and start-up of the first complete Mobile HIV Screening Unit in December 2009, allowing a large number of people to learn their serological status
- Prevention activities also carried out among men who have sex with men
- Continued preventive work among sex workers
- Increased activity of the Yellow Line (HIV/AIDS telephone information line) and appreciable increase in the number of calls
- Organization of AIDS fairs during school holidays in Brazzaville, Pointe Noire, and Ouesso
- Continued use of the cultural approach, involving traditional actors mediators in the fight against AIDS
- Increasingly larger numbers of people agree to be screened and more people living with HIV being treated in health institutions across the country's twelve regional *départments*

Malaria

172. **According to available hospital statistics, malaria is the most common cause for which people seek health services, are hospitalized and die; it accounted for 23,723 cases of hospitalization in 2012 (MSP 2013c).** The EDSC 2011–2012 survey tested children for hemoglobin levels in an effort to identify the prevalence of malaria—a level below 8.0 g/dl is considered a good indicator of malaria. At the national level, 4 percent of children of 6–59 months show a level below the threshold. There is a particularly high prevalence in the *département* of Cuvette-West (12 percent). The survey also showed that the proportion of children with a level of hemoglobin below the threshold decreases from the poorer to the richer household quintiles, from a maximum of 6 percent to a minimum of 2 percent.

173. **Malaria is considered stable in Congo, meaning that transmission is permanent and continuing.** The situation is maintained by malaria-favorable socioeconomic and ecological/climatic conditions. Some specific factors that contribute to a high prevalence of malaria in the country are

- resistance of the plasmodium to the most usual antimalarial medicines (chloroquine: 80 to 90 percent, sulfadoxine-pyrimethanine: 15 to 30 percent)—the malaria treatment protocols changed in 2006 to respond to this;
- the frequent scarcity of medicines in the health care institutions;
- not following the therapeutic schemes defined in the national policy against malaria; and
- inadequate use of mosquito nets and other materials treated with insecticide.

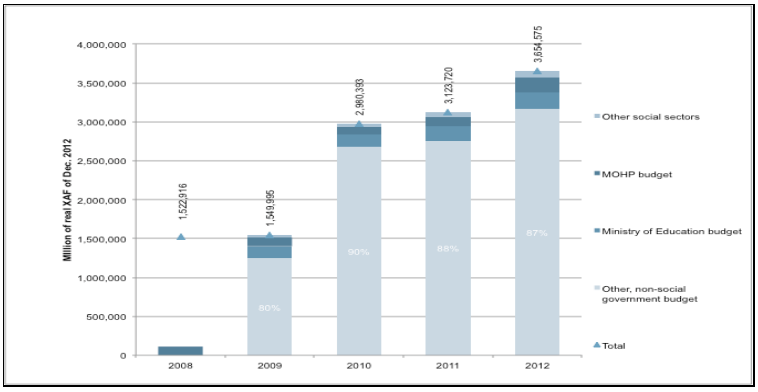
174. **In conclusion, the latest EDSC 2011–12 has revealed a positive tendency of improvement of key health status indicators in the country.** Up until the release of that report, key health indicators, such as the infant, child, and maternal mortality rates were much higher than expected in the SSA context for a country with such a high per capita income. Further, it was reported that these indicators were stagnant or deteriorating and that the prospects that Congo would reach the health MDGs were remote. In contrast, the latest estimates indicate that Congo has achieved considerable gains in health status. The positive trends shown by the most recent data are definitely a good sign and cannot be neglected. A necessary next step will be to continue collecting data that can further confirm this trend and help fine-tune the real magnitude of the gains. It is also important to state that endemic diseases such as malaria still pose significant challenges, and issues of child malnutrition deserve particular attention. Further, improvements in some indicators have been less significant for the poorer quintiles.

IV. Public Resource Mobilization and Sources of Finance

Government Budget for Health

175. **Within the social sectors, the MSP has been gaining importance.** In 2009, the MSP budget represented about 75 percent of the overall education budget. By 2012, the MSP and overall Education budgets were similar.

Figure 2.11. Government Budget Within and Outside of Social Sectors, 2008–2013 (real XAF, millions of December 2012)

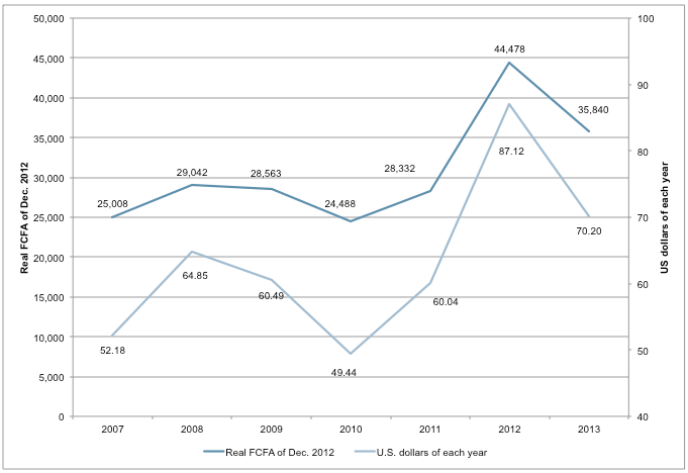


Source: Authors' calculations using budget data from the MEFPIPP.

176. **The MSP budget remained nearly constant, in real per capita terms, between 2008 and 2011.** The MSP's real per capita budget was nearly the same in 2008, 2010, and 2011, in the range XAF 28,000–29,000 (US$60–65). Yet, as a percentage of the total government budget, the MSP budget increased by approximately 50 percent between 2011 and 2012, and in 2013 it fell, but to a level that was considerably higher than in the years before 2012. In 2011, the MSP budget represented 3.8 percent of the total government budget, a slight increase from 3.4 percent in 2010. This percentage increased to 5.3 percent in 2012 and decreased again to 4.2 percent in 2013.

177. **In 2012, the MSP budget experienced a sharp increase to reach about XAF 45,000 per citizen, or US$87.** This one-year increase reflected the government's decision to declare 2012 as the country's 'The Year of Health'. Budget information for 2013 confirmed that this increase was a one-off phenomenon, although the 2013 per capita real MSP budget, of approximately XAF 35,840 (US$70), was much higher than in preceding years. A graphical representation of the trends in nominal and real MSP per capita budgets can be seen in Figure 2.12.

Figure 2.12. Nominal (US$) and Real Per Capita (XAF of December 2012) Public Health Budget, 2009–2013

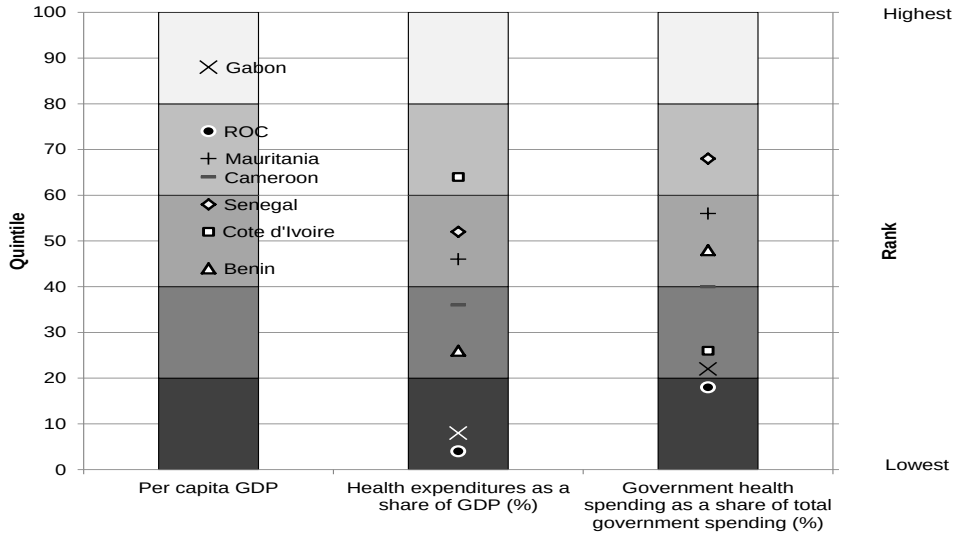


Source: MSP budget information supplied by the MEFPIPP.

178. **When seen in the regional context, in Congo both total health expenditure as a share of GDP and government health expenditure as a share of total government spending are very low, in relation to the country's per capita income.** Whereas Congo's per capita income in U.S. dollars is among the highest in SSA, the share of the economy that is devoted to the health sector is among the lowest and so is the share of government spending going to health. Congo's pattern

is similar to that of neighboring SSA countries such as Gabon. Despite recent increases, Congo's proportion of government expenditures allocated to health falls short of the Abuja Declaration commitment of increasing government funding for health to 15 percent of total government expenditure.

Figure 2.13. Government Health Spending as a Share of GDP and of Total Government Spending, 2011 (percentage)

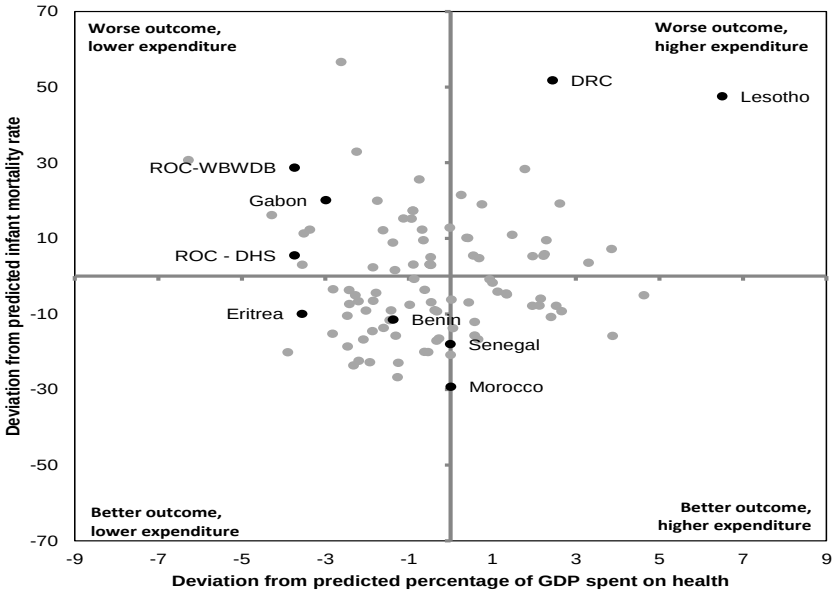


Source: Authors' calculations from the WBWDB.

179. **It is important to keep in mind, however, the idea that health system performance is influenced by many variables other than health spending.** Figure 2.14 was originally presented in the World Development Report 1993 (World Bank 1993) to illustrate this point, using the IMR as the target health outcome. The analysis and figure have been updated here using information for 2011 and include all WHO members with available data. The figure ranks a country's performance by its deviation from both predicted IMR and predicted total health spending as a percentage of GDP (THS%GDP). Predictions are based on two separate linear regressions, one for IMR and another for THS%GDP, where the independent variables are per capita GDP (in PPP international dollars) and the literacy rate. Countries are therefore grouped into four categories. The best performers are those with an IMR better than predicted and total health spending below prediction. These are countries that have achieved a relatively low IMR with a relatively small amount of resources dedicated to health. Congo is not in this category; it spends less than expected on health, given its income level and literacy rate, and it has an IMR that is higher than expected given those two explanatory variables. Congo is a poor performer. In Annex B.1, equivalent figures are shown for the CMR, MMR, and LEB.[45]

[45] It is worth noting that although Congo is among the poor performers, it is not very clear how poor such performance is given the combination of data used to prepare Figure 12 and equivalent figures for CMR, MMR, and LEB. What seems clear is that Congo does not spend much on health and there are positive trends in key health outcome indicators. Further analysis will be required to better understand this.

Figure 2.14. IMR and Health Expenditure: Deviations from Estimates Based on Per Capita Income and Schooling, 2011



Source: Authors' calculations.
Note: Predicted values are based on countries' per capita income (PPP-adjusted dollars) and schooling (literacy rate in percentage), 2011.

Government Budgeting, Spending, and Resource Allocation in the Health Sector

180. **Public funding for the health sector is channeled through either *delegated credits* or *transfers,* both of which are directed to institutions and health care providers.**[46]

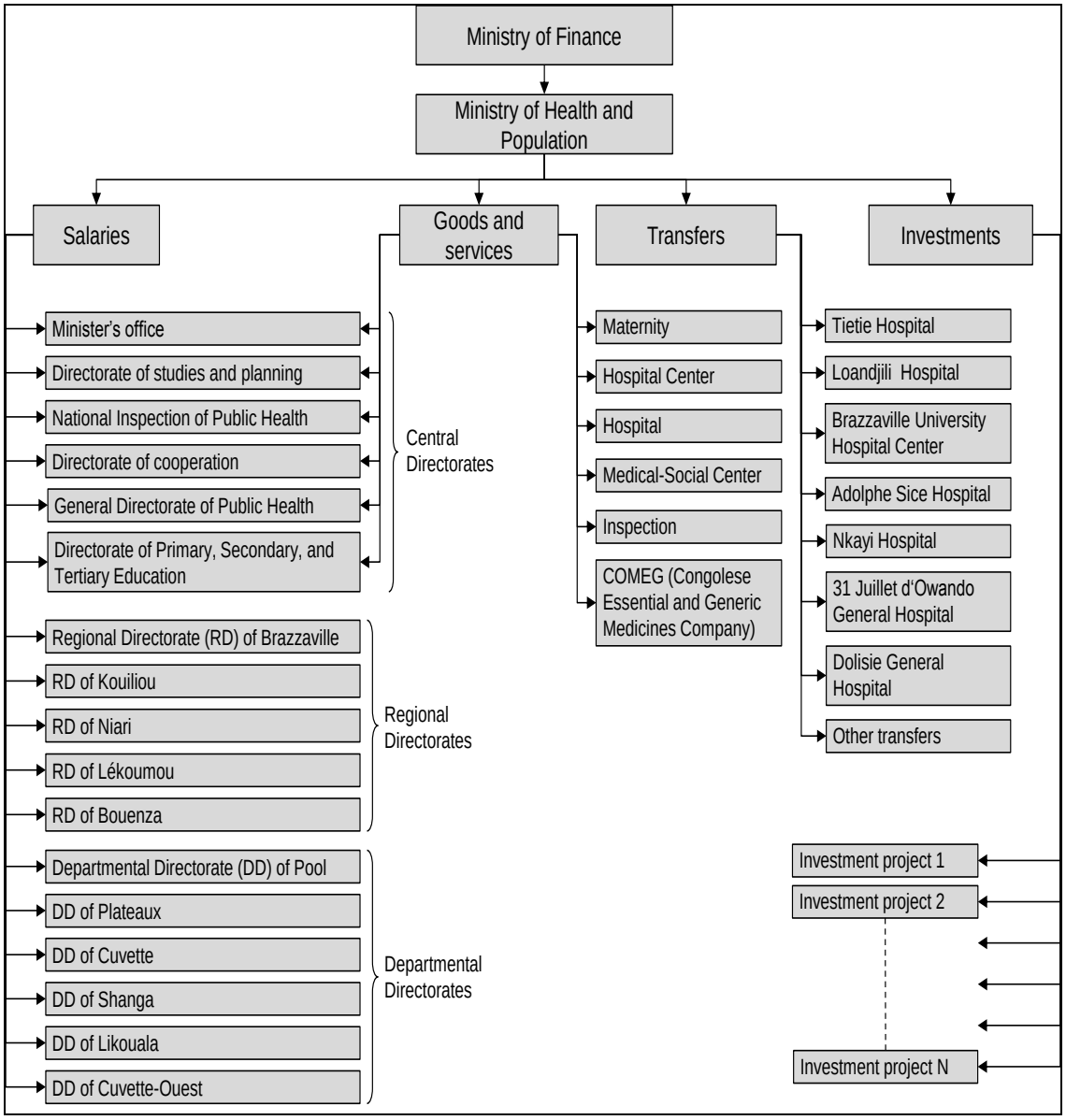
- *Delegated credits* call for the execution of budget items whose nature and amount are preset by government. This allocation mechanism seeks to ensure that the public resources allocated to the sector will be spent according to government's intent. The authorizing officer should, in principle, allow the disbursement of funds from a specific budget item only if such a disbursement is consistent with the definition of the budget line. However, such a mechanism can only be effective when the recipients have been involved or consulted during the budget preparation. Otherwise, there is a high chance that both the nature and/or the amount of the credit lines will not match the needs of recipient institutions.
- *Transfers* involve the allocation of a budget envelope, or block grant, to recipients who are given the freedom to allocate these resources according to their needs and priorities. Such autonomy, when exercised in the spirit of a results-based management approach, can be effective for the health system. Transfers are allocated on a lump sum basis and carry no conditions with respect to how they should be spent.

[46] These paragraphs draw on MSP 2013b.

181. **In Congo, just under two-thirds of all government financing for health is in the form of delegated credits and over one-third is channeled to health care providers in the form of transfers of block grants.** Yet, according to the NHA report (MSP 2013b) transfers do not seem to have had a sizable impact in terms of improvements in health indicators.

182. **The health budget, formulated mostly at the central level, between the MSP and the MEFPIPP, is structured into four main budget items.** As is common in developing countries throughout the world, the government budget for health is broken into four categories: salaries, goods and services, transfers, and investments. Salaries are centrally allocated to central and regional directorates. Funds for goods and services are allocated to central directorates as well but not to the departmental level. Thus, resources for procurement of goods and services at the regional level must come mostly from user fees. Goods and services are also envisioned in the budget for central health institutions, including some health care providers and, in particular, COMEG. Transfers are directed primarily to autonomous public hospitals.

Figure 2.15. Structure of the Government's Budgeting and Expenditures System in the Health Sector

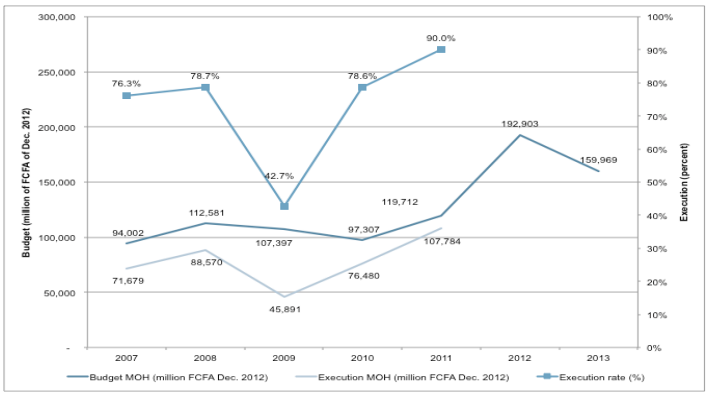


Source: Authors, from information from the MSP.

Health Budget Execution[47]

183. **In Congo, the degree of actual execution of the MSP budget has been variable but with an upward trend.** This is shown in Figure 2.16, which has been constructed based on the information presented in Table 2.2. In 2007, 2008 and 2010, the execution rate of the health budget was under 80 percent. In 2009, only 42.7 percent of the budget was executed. The year 2011 saw the highest level of execution, 90 percent. Between 2007 and 2011, the total amount of executed health budget increased in real terms from XAF 71.679 million (in constant December 2012 XAF) to XAF 107.784 million. The MSP execution rate has been lower than the overall government's budget execution rate that averaged 93.4 percent between 2009 and 2012, with a low of 83.9 percent in 2012.

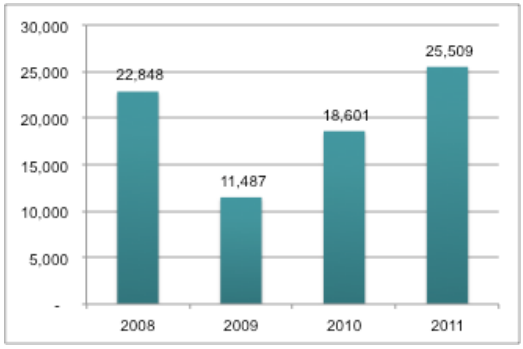
Figure 2.16. Ministry of Health Budget and Budget Execution (XAF, millions of December 2012 and percentage)



Source: MSP budget information supplied by the MEFPIPP.

184. **Between 2008 and 2011 the real executed budget per citizen went up by one-tenth.** On a per capita basis, the real executed health budget between 2008 and 2011 was as shown in Figure 2.17.

Figure 2.17. Executed MSP Budget Per Capita (XAF December 2012)



Source: MSP budget information supplied by the MEFPIPP.

[47] Obtaining and analyzing government budget and budget execution information was challenging. The MEFPIPP cannot provide the MSP budget and budget execution data in electronic format owing to technical limitations in its computerized budgeting system; therefore, data analysis first required a lengthy data entry process. Additionally, changes in the nomenclature of budget items from year to year make it hard to track budgets and expenditure items over time.

Table 2.2. Government Health Budget and Execution, 2007–2012

Budget item	2008			2009			2010			2011			2012		
	Budget	Execution	Execution rate	Budget	Execution	Execution rate	Budget	Execution	Execution rate	Budget	Execution	Execution rate	Budget	Execution	Execution rate
XAF, millions of each year															
Personnel	18,448	16,787	91	19,937	9,129	46	18,596	15,680	84	20,614	14,613	71	31,214	n.a.	n.a.
Goods and services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	21,938	25,528	116	22,565	22,565	100	30,642	n.a.	n.a.
Transfers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	22,093	20,989	95	24,093	24,120	100	36,914	n.a.	n.a.
Subtotal goods and services + transfers	47,796	50,053	105	47,939	23,714	49	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Investment	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	29,811	10,456	35	47,957	42,450	89	94,134	n.a.	n.a.
PIP (including HIPC)[a]	30,486	9,260	30	35,500	11,330	32	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	96,730	76,100	79	103,376	44,173	43	92,438	72,653	79	115,229	103,748	90	192,903	n.a.	n.a.
XAF, millions of December 2012															
Personnel	21,471	19,538	91	20,713	9,484	46	19,576	16,506	84	21,416	15,181	71	31,214	n.a.	n.a.
Goods and services	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	23,094	26,873	116	23,443	23,443	100	30,642	n.a.	n.a.
Transfers	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	23,257	22,095	95	25,030	25,058	100	36,914	n.a.	n.a.
Subtotal Goods and services + Transfers	55,628	58,255	105	49,804	24,637	49	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Investment	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	31,381	11,007	35	49,823	44,101	89	94,134	n.a.	n.a.
PIP (including HIPC)[a]	35,482	10,777	30	36,881	11,771	32	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total	112,581	88,570	79%	107,397	45,891	43%	97,307	76,480	79%	119,712	107,784	90%	192,903	n.a.	n.a.

Source: MSP budget information supplied by the MEFPIPP.

Note: a. Program Implementing Partners (including Heavily Indebted Poor Countries Initiative [HIPC Initiative]).

n.a. = Not available.

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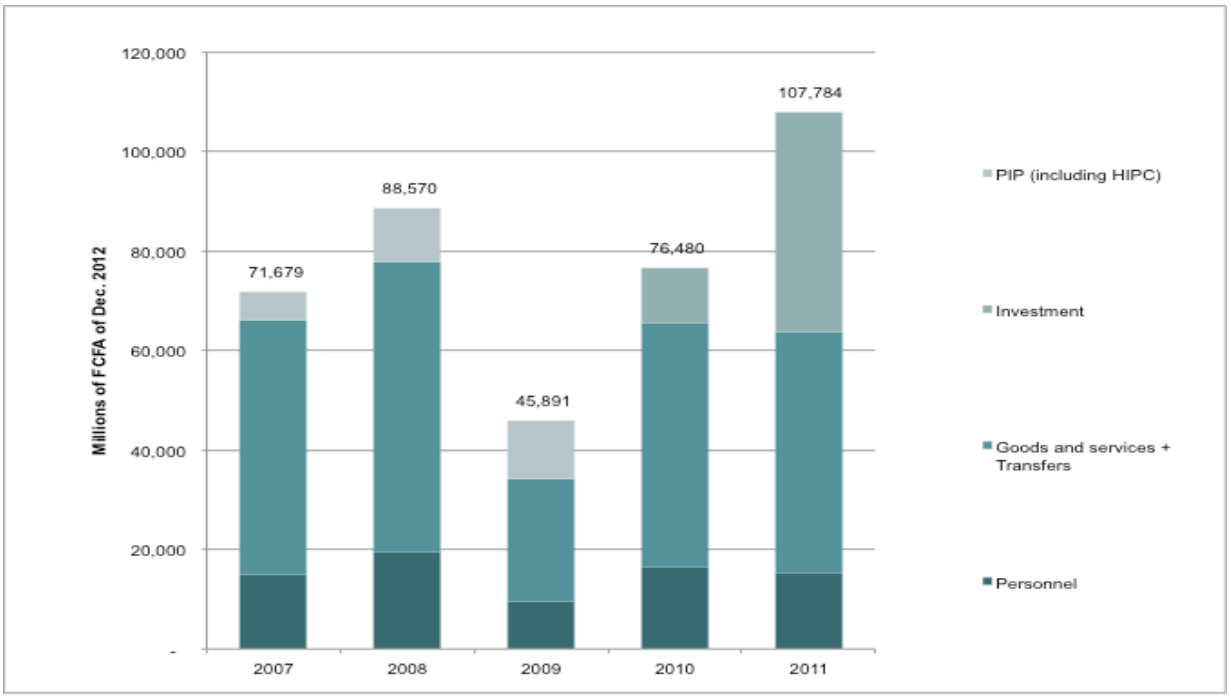
185. **Budget items have changed over time making the analysis of trends in budget execution by budget item a challenging exercise.** As can be seen in Table 2.2., budget items differed between the period 2007–2009 and the period 2010–2013. In the former period the items *Salaries* and *Goods and Services* were lumped together while no information was presented for *Investments*. Instead, the budget item *Program Implementing Partners* (including Heavily Indebted Poor Countries Initiative, HIPC) showed up in the data. In the latter period, *Salaries* and *Goods and Services* were presented separately, *Investments* were reported, and the item *Program Implementing Partners* (including Heavily Indebted Poor Countries Initiative, HIPC) was removed. Given this discontinuity in budget line items, it is not possible to present a systematic analysis of trends by item. Figure 2.18. depicts the trends in execution of the government's health budget and its components. Between 2007and 2010, *Personnel* accounted for approximately one-fifth of total government health expenditure. While in 2011, it fell to 14 percent. *Goods and services and Transfers* represented a decreasing share of total expenditure, from 71.3 percent in 2008 to 45 percent in 2011. Investments accounted for 14.4 and 40.9 percent in 2010 and 2011, respectively. In terms of execution of individual budgeted components, the rate seems to be lower for investment spending than for current spending, but in the two years with data available there was a big improvement in the execution rate of investment that went up from 25 percent in 2010 to 89 percent in 2011.

Figure 2.18. Execution of Government Health Budget, 2007–2011 (XAF, millions of December 2012)



Source: MSP budget information supplied by the MEFPIPP.

Health Expenditure by Source

186. **An NHA study has been completed and NHA information is now available for 2009 and 2010.** The study, Congo's first, was completed in May 2013 by the MSP, with support from the World Bank and the WHO. Key NHA information from the study is presented in Table 2.3. and in the figures that follow. The study obtained information about the sources of health financing in the country for 2009 and 2010, including government, households, and donors, and the uses of those funds. Use of health funds was classified according to function (upper part of the table), and type of provider (lower part).

Table 2.3. Health Expenditures by Financing Agents, by Function, and by Providers, 2009 and 2010 (XAF, millions of each year)

Function	2009					2010				
	Ministry of Health and Population	Other Ministries including Prefectures	Households	Other Sources	Total	Ministry of Health and Population	Other Ministries including Prefectures	Households	Other Sources	Total
Health expenditures by financing agents according to function										
Curative care	20,230	602	24,973	922	46,727	20,889	2,633	25,701	2,015	51,238
Laboratory exams	571	—	1,349	—	1,920	674	—	1,388	1	2,063
Imaging exams	—	—	722	—	722	—	—	743	—	743
Pharmaceutical products	—	103	20,019	491	20,613	—	679	20,603	950	22,232
Therapeutic devices	—	—	2,282	—	2,282	—	—	2,348	—	2,348
Maternal and child health care	271	—	—	129	400	881	—	—	134	1,015
Fight against transmissible diseases	507	3,411	—	38	3,956	5,463	7,959	—	60	13,482
Other promotion and public health activities	2		—	—	2	31	—	—	−31	—
Public management of health system	21,932	27	—	4	21,963	27,308	264	—	6	27,578
Unspecified	—	—	—	40	40	75	77	—	—	152
Capital formation	3,777	—	—	167	3,944	13,211	1,747	—	424	15,382
Human resource formation	60	—	—	—	60	66	2	—	1	69
Research and development	—	—	—	23	23	—	—	—	—	—
Sanitary inspections	—	—	—	—	—	—	38	—	—	38
Total	47,350	4,143	49,345	1,814	102,652	68,598	13,399	50,783	3,560	136,340
Health expenditures by financing agents according to provider										
Hospitals	19,841	582	10,776	922	32,121	23,180	2,543	11,090	100	36,913
Medical and dental offices	0	0	14,341	0	14,341	0	0	14,759	1,906	16,665
Other health professional's offices	0	0	3,856	0	3,856	0	0	3,969	0	3,969
Ambulatory health centers	2,239	20	2,685	1	4,945	6,091	820	2,763	172	9,846
Laboratories	571	0	0	0	571	728	0	0	0	728
Other ambulatory care providers	771		26	0	797	827	0	27	−1	853
Pharmacies	0	10	55	492	557	0	0	57	950	1,007
Optical, hearing, and other medical devices	0	0	53	0	53	0	0	55	0	55
Retailers of pharmaceutical products	0	0	16,548	0	16,548	0	0	17,030	0	17,030
Public health program	754	3,411	0	167	4,332	5,906	8,054	0	196	14,156
Public management of health system and of health insurance	23,099	119	0	28	23,246	29,980	1,236	0	6	31,222
COMEG	75	0	0	0	75	60	0	0	0	60
Training institutions	—	—	—	—	—	66	402	—	—	469
Other institutions delivering related health services	—	—	—	—	—	0	38	—	—	38
Rest of the world	0	0	173	0	173	0	228	178	3	409
Unspecified	0	0	829	0	1,037	1,762	77	854	258	2,951
Total	47,350	4,142	49,342	1,610	102,652	68,600	13,398	50,782	3,590	136,371

Source: MSP 2013b.

187. **In 2009 and 2010, total health system financing in Congo represented a relatively small share of GDP.** In 2009, total health financing amounted to about XAF 103,000 million, equivalent to 2.1 percent of GDP (Table 2.4.). Both total health financing and GDP went up in 2010, but total health financing as a share of GDP remained rather constant, at 2.2 percent. About one-half of total financing came from government and the other half from households.

Table 2.4. Total Health Financing in Absolute Amount and as a Share of GDP, 2009–2010 (XAF and percentage)

Financing component	2009	2010
GDP	5,006,906	6,260,496
Absolute amount (XAF of each year)		
Total health financing	102,652	136,369
Government financing	49,206	77,914
Household financing	49,344	50,783
Donors and NGOs	2,681	4,743
Other financing	1,421	2,929
Relative amount (% of GDP)		
Total health financing	2.1%	2.2%
Government financing	1.0%	1.2%
Household financing	1.0%	0.8%
Donors and NGOs	0.1%	0.1%
Other financing	0.0%	0.0%

Source: MSP 2013b.
Note: NGO = Nongovernmental organization.

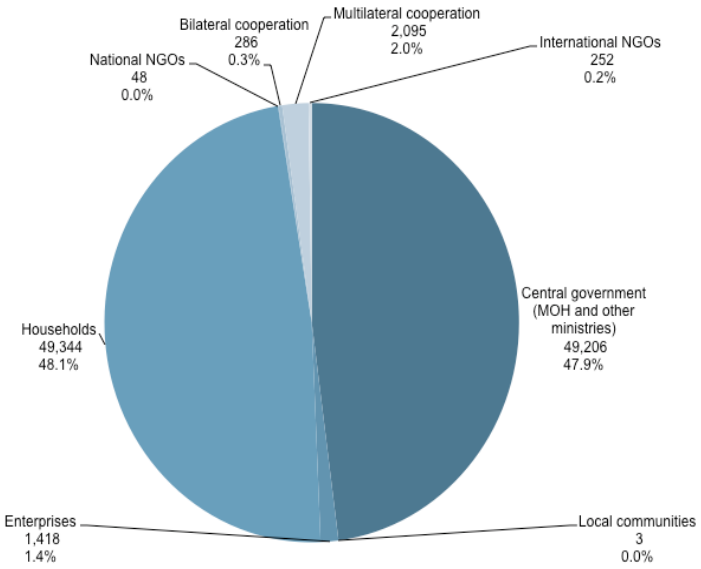
188. **Health system financing in Congo is heavily dependent on households' OOPS.** According to the NHA study, in 2009, 48 percent of all financing for health care came from households; in 2010 it fell to about 37 percent. However, those estimates may underestimate current figures since they were inferred on the basis of the 2005 ECOM household survey. When the NHA report was produced, results from the more recent 2011 ECOM survey were not yet available. An analysis of the more recent ECOM results estimates a total household spending amount of XAF 112,352 million; that is more than twice the equivalent figure reported in the NHA report for 2010 (about XAF 50,000 million). If this figure of XAF 112,352 million is the most accurate, then household OOPS on health would be 30 percent higher than the health spending of XAF 77,914 million in 2010, reported by the Government.[48]

189. **Donor financing for health care in Congo, on the other hand, is relatively low for regional standards.** Other sources of financing, such as community contributions and spending by enterprises are also very small overall at the national level.

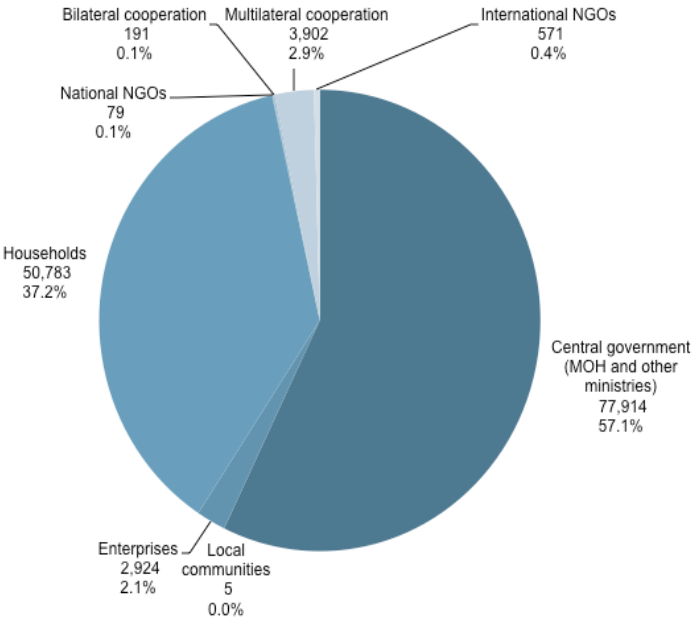
[48] The results obtained from the 2011 ECOM survey for households' OOPS on health in 2011 may or may not be directly comparable with those reported in the NHA report. Comparability depends on the exact methods used by the authors of the NHA report to estimate household OOPS for 2009 and 2010 on the basis of the health-related OOPS amount reported in the 2005 ECOM survey; however, they are further proof of the importance of household spending in health and its upward trend.

Figure 2.19. Sources of Health Financing, 2009 and 2010

2009



2010



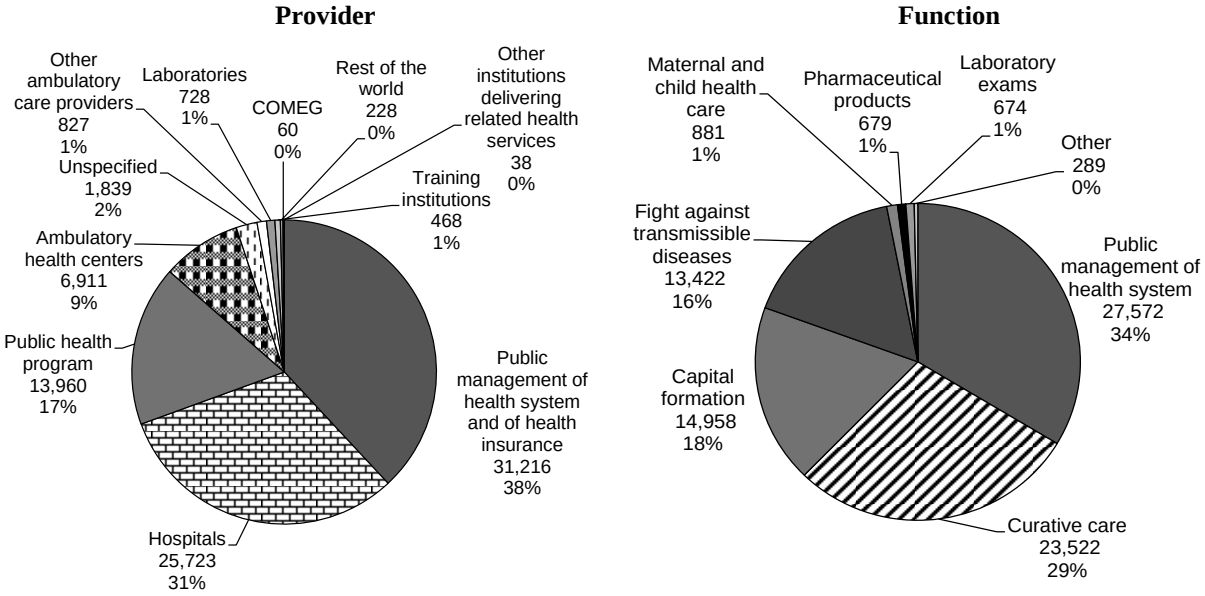
Source: MSP 2013b.

190. **Between 10 percent and 15 percent of all public spending on health care was channeled through ministries other than the MSP and various public institutions.** Much of that spending is dedicated to the fight against AIDS, through the SEP/CNLS (Permanent Executive Secretariat of the National Council for the Fight Against AIDS), and benefits the entire population,

while a small part of it is for the benefit of small population groups such as the staff and families of the Ministry of Defense and the National Assembly.

191. **A large share of government health spending—one-third—was devoted to health system administration.** The next most important spending category was the provision of curative care, with 29 percent of all spending. The third and fourth most important categories were investments (capital formation) and programs and activities for the fight against communicable diseases, such as HIV and tuberculosis. Maternal and child health services, a category which includes prenatal and postnatal care, as well as vaccination and growth monitoring for children, represented only 1 percent of government health spending in 2010.

Figure 2.20. Structure of Government and Households' Health Expenditures by Provider Category and Function, 2010 (XAF, millions and percentage)

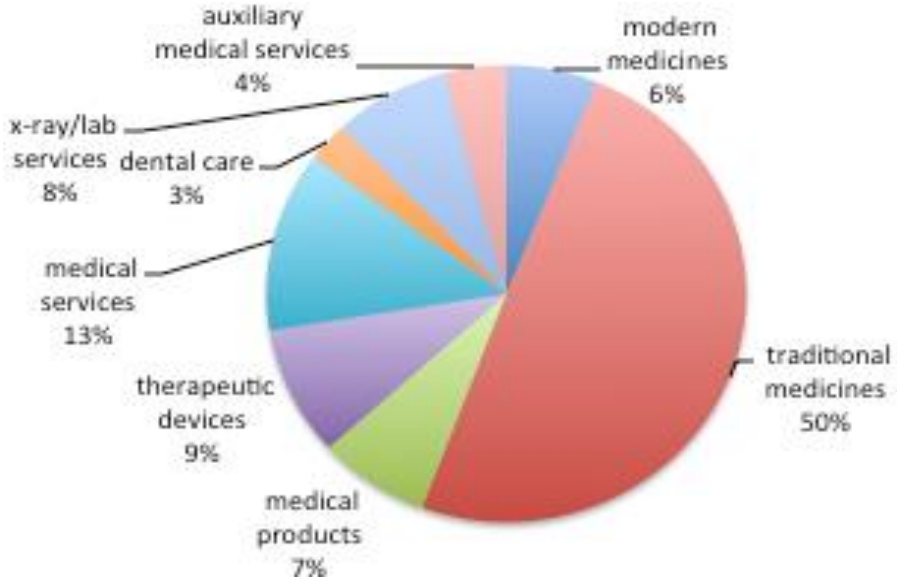


Source: MSP 2013b.

192. **Government spending on COMEG, the public central purchaser of essential medicines, represented a negligible share of public resources devoted to health in 2010.** Similarly, when looking at the structure of government, by function, as reported in the recent NHA report we find almost negligible spending by government on medicines (see Pharmaceutical products), equal to only 1 percent of its total health spending.

193. **For households, the situation was in quite stark contrast.** Looking at the structure of household OOPS by category, as obtained from the 2011 ECOM, medicines (so-called 'modern' and 'traditional' in the survey) is the major expenditure category, accounting for more than one-half, or 56 percent, of household spending on health. Spending on actual medical services, as fees paid to public and private providers, represents just 20 percent of household health OOPS (16 percent on medical and dental offices plus 4 percent on auxiliary medical services).

Figure 2.21. Structure of Household Annual OOPS on Health, around 2010–2011 (percentage)



Source: Authors' calculations from ECOM 2011 data.

194. **Further analysis of the ECOM 2011 dataset shows that the share of total spending devoted to health was almost constant among the income quintiles (Table 2.5.).** Total household OOPS on health was XAF 112,352 million, representing on average 1.5 percent of total household spending. The share of total spending devoted to health was almost constant among the income quintiles, with the households in the poorest quintile spending the highest at 1.8 percent.

Table 2.5. Household Total and Health Spending, around 2011 (XAF, millions)

	Total OOPS on Health	Total household spending (THS)	OOPS/THS
Quintile 1 (poorest)	10,831	618,408	1.8%
Quintile 2	17,228	1,028,264	1.7%
Quintile 3	21,728	1,388,241	1.6%
Quintile 4	27,026	1,830,854	1.5%
Quintile 5 (richest)	35,540	2,449,999	1.5%
Total	112,352	7,315,765	1.5%

Source: Authors' calculations from ECOM 2011 data.

195. **Strong reliance on OOPS in Congo is partly the consequence of a drug revolving fund-like system that operates in all or virtually all government health facilities.** Aside from autonomous public hospitals, which receive a block grant and may use part of their budget to purchase medicines, all other public providers lack budget resources to purchase medicines and other medical supplies. To have a stock of medicines, they charge user fees to patients and with the revenue collected from these fees, they purchase medicines from COMEG or private providers. In Congo, the reliance on user fees for financing of medicines in government health facilities is in line with the Bamako initiative, which calls for the implementation of a drug revolving fund.

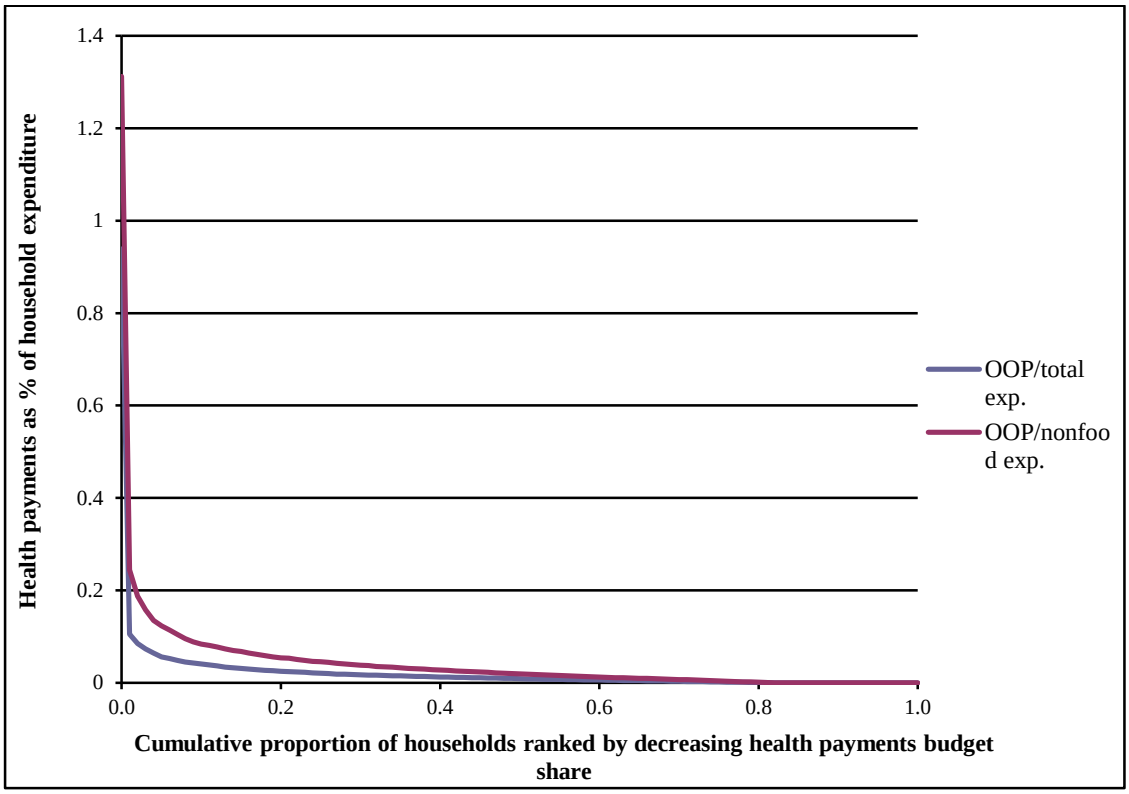
196. **The fact that the government has not issued any guidance regarding the services and products that can be subject to a fee and the level of fees has resulted in each facility adopting its own fee system.** There seems to be no single policy regarding the setting of fees. This means that user fees in public facilities may be imposed not only on medicines, but also on other goods and services provided to patients. It also implies that user fees vary from one facility to another. Additionally, there is no policy for the provision of waivers or reduced fees to lower-income patients.

Catastrophic Payments for Health Care

197. **Responding to medical needs can absorb a large share of the household budget, which may be considered catastrophic in view of the required sacrifice of current consumption and/ or the long-term consequences for household welfare of borrowing or depleting assets to pay for health care.** To further assess the impact of the disruptive effect of health OOPS on household living standards, an analysis of household catastrophic payments for health care was conducted using data from the ECOM 2011 survey and following the methodology outlined in O'Donnell et al. (2008). This approach consists of defining medical spending as ‘catastrophic’ if it exceeds some fraction of household total or discretionary (nonfood) expenditure in one year.

198. **Table 2.6. shows the results for Congo, presenting different thresholds of household nonfood expenditure.** Table B.1 in Annex B presents the same results using total expenditure instead of nonfood expenditure. In terms of which threshold to consider, it is important to think about the level at which the majority of households are forced to forgo other basic needs—while 10 percent of household expenditure on OOPS health care payments is catastrophic, 10 percent of discretionary expenditure is likely not catastrophic. Therefore, the results are presented considering different thresholds.

Figure 2.22. Health Payment Shares



Source: Authors' calculations based on ECOM 2011 data.

199. **OOPS payments for health care absorb more than one-quarter of household resources net of food costs in 0.9 percent of households; this percentage reaches 2 percent for the lowest quintile of income.** Graphically we can also see in Figure 2.22 how the percentage of households spending more than 20 percent of their nonfood income in health is reduced. Even though such numbers are low and can be considered common in developing countries, they mean that for some of the poorest families, such levels of spending can only be accommodated through the diversion of considerable resources from current consumption and/or through the accumulation of debt or the exhaustion of savings and assets, with long-term consequences for household welfare.

200. **In Congo, the average budget share for those exceeding the 25 percent of nonfood expenditure threshold is 12.5 percent, meaning that these households are dedicating of 37.5 percent of their nonfood budget to health.** This is given by the mean positive overshoot, also presented in Table 2.6..

201. **Results also show that in Congo the poorer households tend to spend larger fractions of total consumption on health care.** This can be seen by the negative concentration indexes (Table 2.6.). A limitation of this method is that it identifies only those households that actually acquire treatment and does not take into account households that have illness but cannot afford treatment. It is likely that these households actually incur a higher opportunity cost from poor

health and they tend to be a lot more common among the poorest quintiles.

Table 2.6. Incidence and Intensity of Catastrophic Health Payments, Using Non-food Expenditure

	Threshold budget share					
	5%	**10%**	**15%**	**25%**	**30%**	**40%**
Headcount (H)						
Lowest quintile	31.1	12.2	6.0	2.0	1.5	0.7
2	27.9	8.8	4.8	1.4	0.9	0.4
3	20.9	7.8	2.3	0.5	0.2	0.0
4	16.0	5.2	1.6	0.4	0.3	0.2
Highest quintile	15.0	3.6	0.9	0.1	0.1	0.1
Total	22.4	7.6	3.2	0.9	0.6	0.3
Mean positive overshoot (MPO)						
Lowest quintile	6.7	9.1	11.1	14.5	13.7	14.3
2	5.5	8.6	9.0	10.9	11.3	11.8
3	4.8	4.5	5.9	5.3	3.9	2.9
4	4.3	5.1	7.6	9.8	10.0	3.8
Highest quintile	4.1	5.1	7.7	25.4	26.3	31.1
Total	5.4	7.1	9.1	12.1	12.4	12.8
Concentration index, C_E	−0.158	−0.222	−0.362	−0.431	−0.478	−0.445

Source: Authors' calculations based on ECOM 2011 data.

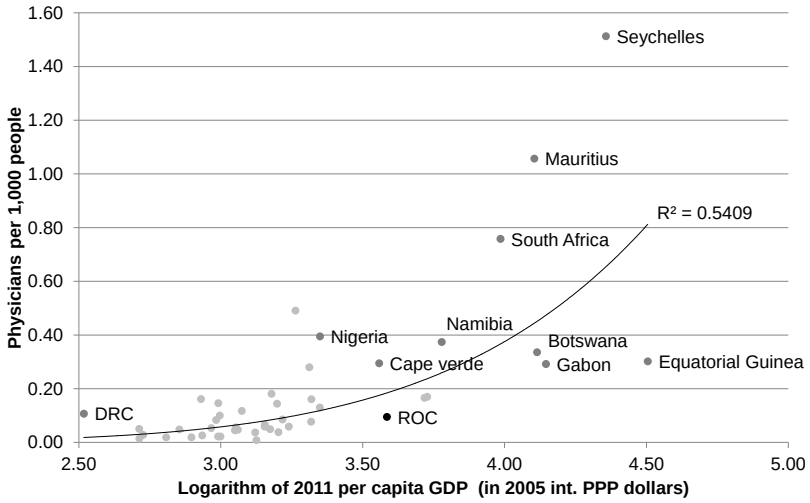
202. **In conclusion, except for 2012 ('The Year of Health'), public allocations to the health sector have been improving very mildly and in per capita terms, have remained mostly constant.** Overall, budget allocations to the sector are low in comparison to countries of similar income and in comparison to the average for SSA. The donor contribution to the health budget is also low by regional standards, but this is not the case for household contributions. The latter finance mostly curative care and medicines, and in 2010 household contributions to the health budget accounted for 37 percent or higher of total health expenditures. Analysis of catastrophic payments for health care points to the fact that for some of the poorest families the levels of spending on health can only be accommodated through the diversion of considerable resources from current consumption and/or through the accumulation of debt, or the exhaustion of savings and assets with long-term consequences for household welfare. Budget execution rates have improved. Challenges remain with regulation of fees applied by providers, as well as controls on the procurement of drugs both by public and private providers. Several measures introduced to improve service provision seem to be bearing fruit.

V. The Delivery and Utilization of Healthcare

Inventory of Resources - Manpower, Inpatient Beds, and Health Care Facilities

203. **Human resource management is one of the main challenges faced by Congo's health system.** Weak management has led to poor deployment of professional staff and low functionality of facilities, especially in rural and remote areas. The number of health personnel in all categories has, however, significantly increased, from 10,000 in 2005 to about 15,000 in 2010 (of which 80 percent are in the public sector).

Figure 2.23. SSA Countries: Physicians per 1,000 People, 2011

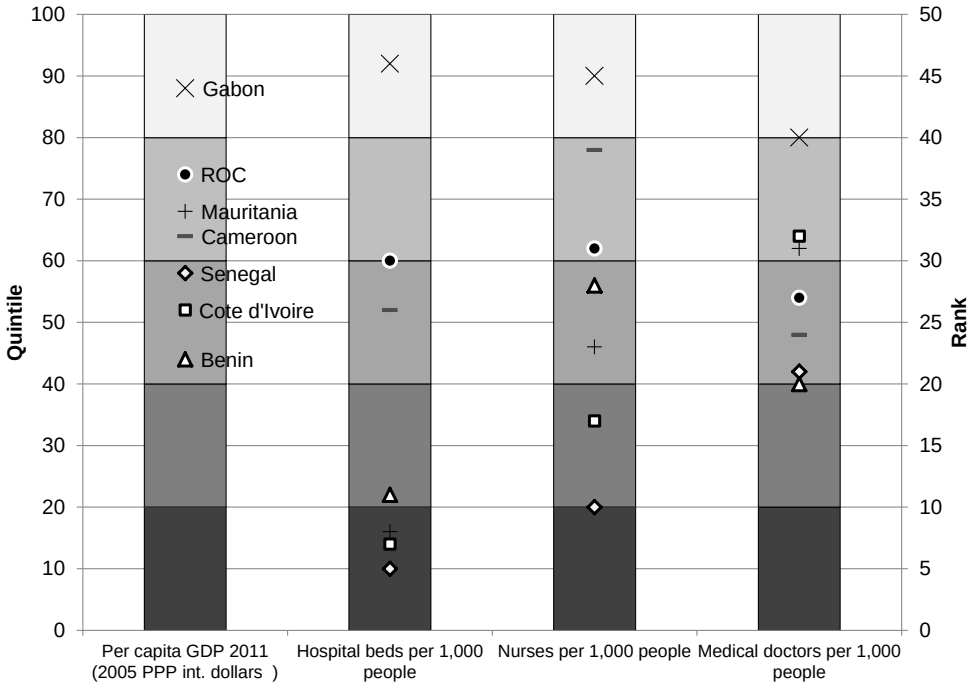


Source: WBWDB.

204. **When comparing Congo with other SSA countries, one can see that with 0.1 doctors per 1,000 people, the country has fewer medical doctors than would be expected, given its per capita income.** This is shown in Figure 2.23, which shows that richer countries in SSA tend to have a higher per capita availability of physicians. As the figure shows, all countries in the region that in 2011 had a higher per capita income than Congo had a greater per capita availability of physicians. Botswana, Equatorial Guinea, and Gabon are examples.

205. **Not only does Congo have a relatively low endowment of physicians given its income level, it also has a deficit of hospital beds and nurses,** with just 0.84 nurses and 1.6 hospital beds per 1,000 people.

Figure 2.24. Congo and Other Reference Countries in SSA Organized by Quintile: Selected Health Indicators, 2009



Source: WBWDB.

206. **Yet, Congo has a huge asset of health personnel, which is to be found within its diaspora, full of countless practitioners working in the West (France, Belgium, Germany, United States, and so on) and in other African countries.** They are even more numerous than those actually working inside the country. Thus, a significant improvement in the terms and conditions of exercising their profession on national territory could give them the desire and the possibility of returning to exercise their profession, and this would contribute to solving both the problem of scarcity and inadequacy of resources.

Box 2.1. On Quality of Service Delivery

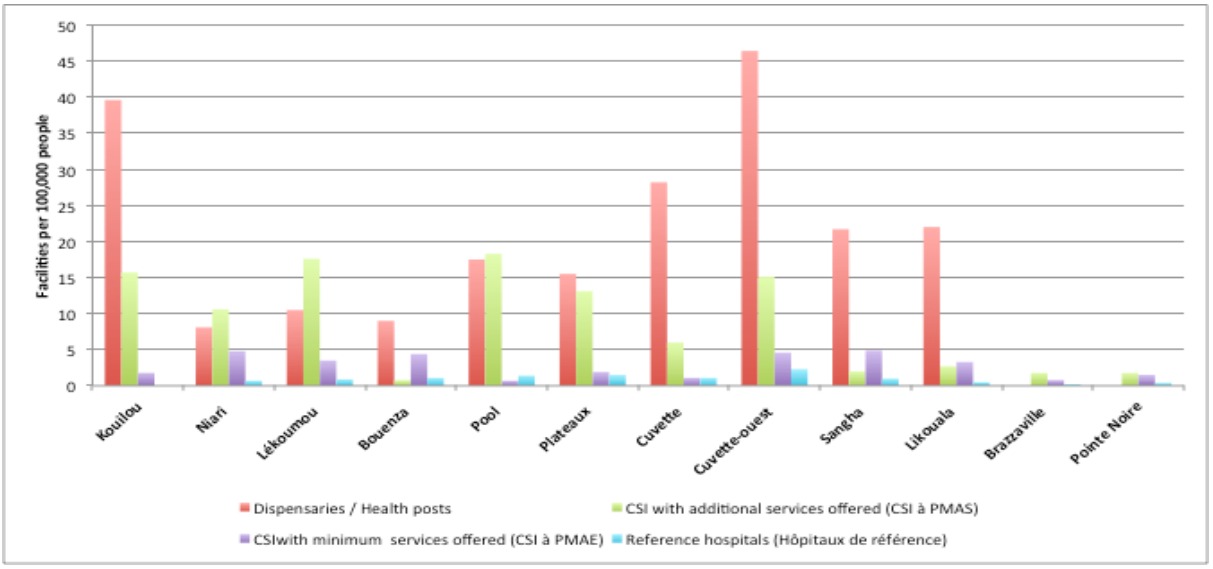
In undertaking this study, the authors were unable to find reliable data to describe the quality of health services in the country. However, the discrepancy between an outcome such as the MMR, which remains high in Congo at 429 maternal deaths for 100,000 live births and the very high rates of institutional deliveries assisted by qualified health personnel (94 percent overall and 81 percent in the lowest quintile) points to a deficit in quality of services. The PBF approach, which is being scaled up nationally, has been shown to generate improvements in quality while increasing the quantity of basic essential services. The incentive structure of PBF is focused not only on quantity of services delivered but the approach also tracks and remunerates based on improvements in quality. All levels of the health system are incentivized to improve service quality and to plan specific actions, which are assessed regularly and independently through an extensive quantified quality checklist. In the scaled-up approach, the checklist will include vignettes (standardized medical cases) that will check provider competence in treating common potentially life-threatening conditions and knowledge related to obstetrical danger signs.

Regional Disparities and Efficiency

207. **In 2012, the MSP sponsored the production of a statistical yearbook on health facilities and health services.** It was the first such effort carried out in 15 years. A draft report has recently been released (MSP 2013c). Figure 2.25 shows the regional distribution of health facilities of different types according to the information available in this report.

208. **Dispensaries, present only in rural areas, show broad variation among *départments*.** The highest availability occurs in Cuvette-Ouest, with 46.4 facilities per 100,000 people. This is equivalent to an average of 2,155 persons per facility. The lowest availability occurs in Niari, with 8.1 facilities per 100,000 people, equivalent to 12,345 persons per dispensary or health post. There is great disparity in availability, but this may respond in part to the degree of rurality of the *départments*. Additionally, appropriate interpretation of this information calls for a spatial analysis, which takes into account the area of a *département* (for example in square kilometers) and the population density.

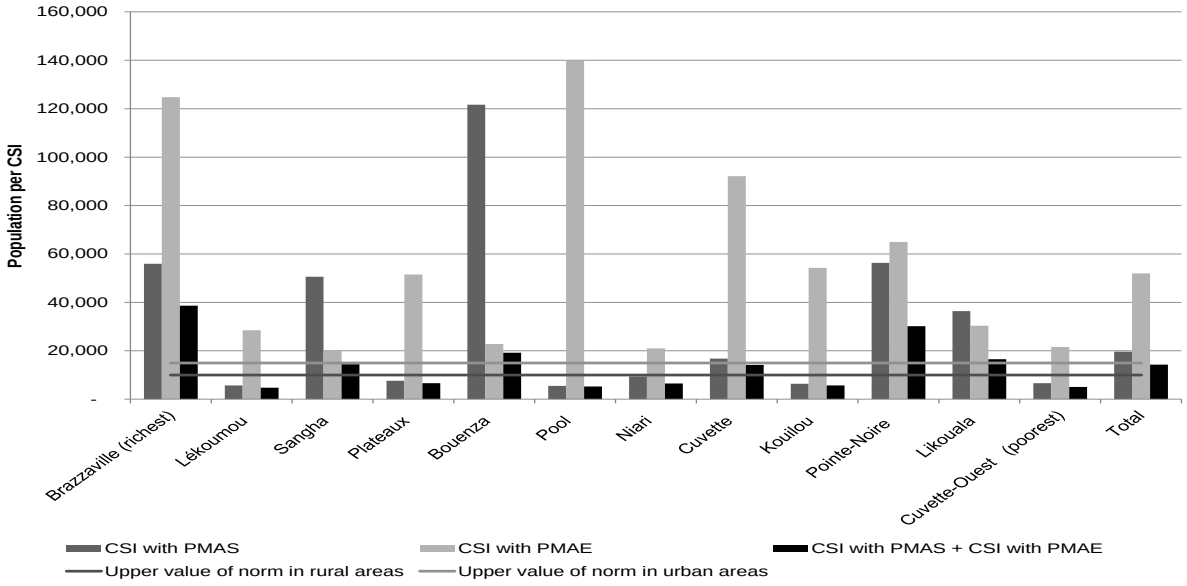
Figure 2.25. Availability of Health Facilities by *Département*



Source: MSP 2013c.

209. **There is also broad variation in the availability of CSIs across *départments*.** The MSP policy calls for one CSI per 2,500 to 10,000 people in rural areas and one CSI per 10,000 to 15,000 people in urban areas. In some *départments*, the availability of CSIs is consistent with the national standard, while in others it is not. This can more easily be seen in Figure 2.26, where the upper bound values of the urban and rural standards are shown as a horizontal line. Brazzaville, Bouenza, and Pointe Noire do not meet the norm.

Figure 2.26. Population per CSI, by *Département,* 2012



Source: MSP 2013c

210. **The country's two largest urban areas, Brazzaville and Pointe Noire, exhibit the lowest number of reference hospitals per 100,000 people.** They also present the highest population per hospital bed.

211. **Utilization rates of functional beds are very low in Base Hospitals, except in Brazzaville.** The annual Statistical Yearbook contains information about the number of functional beds, the number of hospitalizations, and the number of bed days in the country's Base Hospitals and National Hospitals. That information is summarized in Table B.2 through Table B.5 in Annex B. In 2012, Base Hospitals had a total of about 31,000 discharges while National Hospitals had 69,000 discharges, for a national total of approximately 100,000 discharges in the public sector. Whereas the private health sector is well developed, it is active mostly at the ambulatory level. Therefore, the above number of discharges may be close to the total in the country. With a population of 4.3 million, the resulting annual hospitalization rate in 2012 was 2.3 percent. Hospital utilization rates were generally low everywhere in the country, varying between a low of 7 percent in Sangha and a high of 54 percent in Kouilou. The exception was Brazzaville, with a much higher hospital utilization rate (98 percent). In National Hospitals, utilization rates were higher, reaching about 64 percent in Brazzaville's large *Centre Hospitalier Universitaire* (CHU).

Table 2.7. Utilization Rates in Base Hospitals, by *Département,* 2012 (percentage)

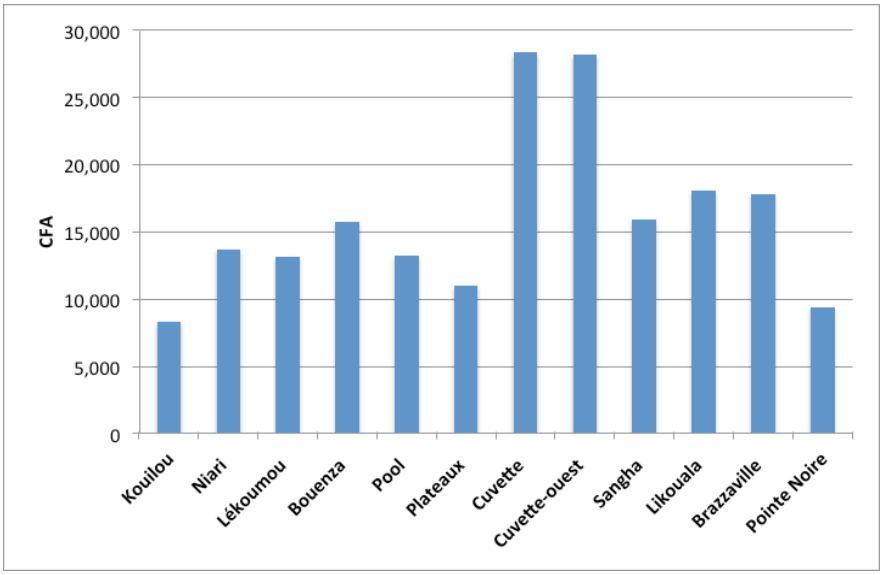
Department	Medicine	Pediatrics	Surgery	Obstetrics and Gynecology	Total
Kouilou	59	46	60	54	54
Niari	27	29	34	59	36
Lékoumou	24	43	20	12	25
Bouenza	9	92	18	3	16
Pool	37	35	24	15	27
Plateaux	28	48	25	27	31
Cuvette	19	17	20	9	16
Cuvette-Ouest	11	40	38	28	24
Sangha	6	16	6	3	7
Likouala	28	26	11	52	27
Brazzaville	34	135	69	116	98
Pointe Noire	21	43	22	28	28

Source: MSP 2013c.

212. **Low access to curative care may be the result of relatively high user fees, of user fees being charged to all patients in government facilities irrespective of their ability to pay, of poor quality of health services, and other problems in supply.** A study of the quality of care in government ambulatory and inpatient facilities found that while most CSIs that were studied had basic medicines at the time of the visit, more than half had experienced inventory stock-outs in the 30 days preceding the survey. It also found that few facilities had treatment protocols and few health staff had been trained in the use of protocols (PDSS 2010).

213. **When looking at estimates of government per capita expenditure by department, strong disparities are seen.** The *départmen*t where the government spends the most per person (Cuvette) on health is spending three times more than the lowest-spending *département* (Kouilou). This is not necessarily bad; as mentioned, the levels of rurality in different *départments* are diverse and providing health services to rural, widespread populations might result in a much higher cost per capita than in urban settings (more information would be needed to evaluate). In the same way, the burden of disease as well as the exact needs of the populations might vary across *départments* and that can influence spending patterns.

Figure 2.27. Estimate of Government Expenditure Per Capita by *Département*



Source: Authors' estimation based on data from MSP 2013c.

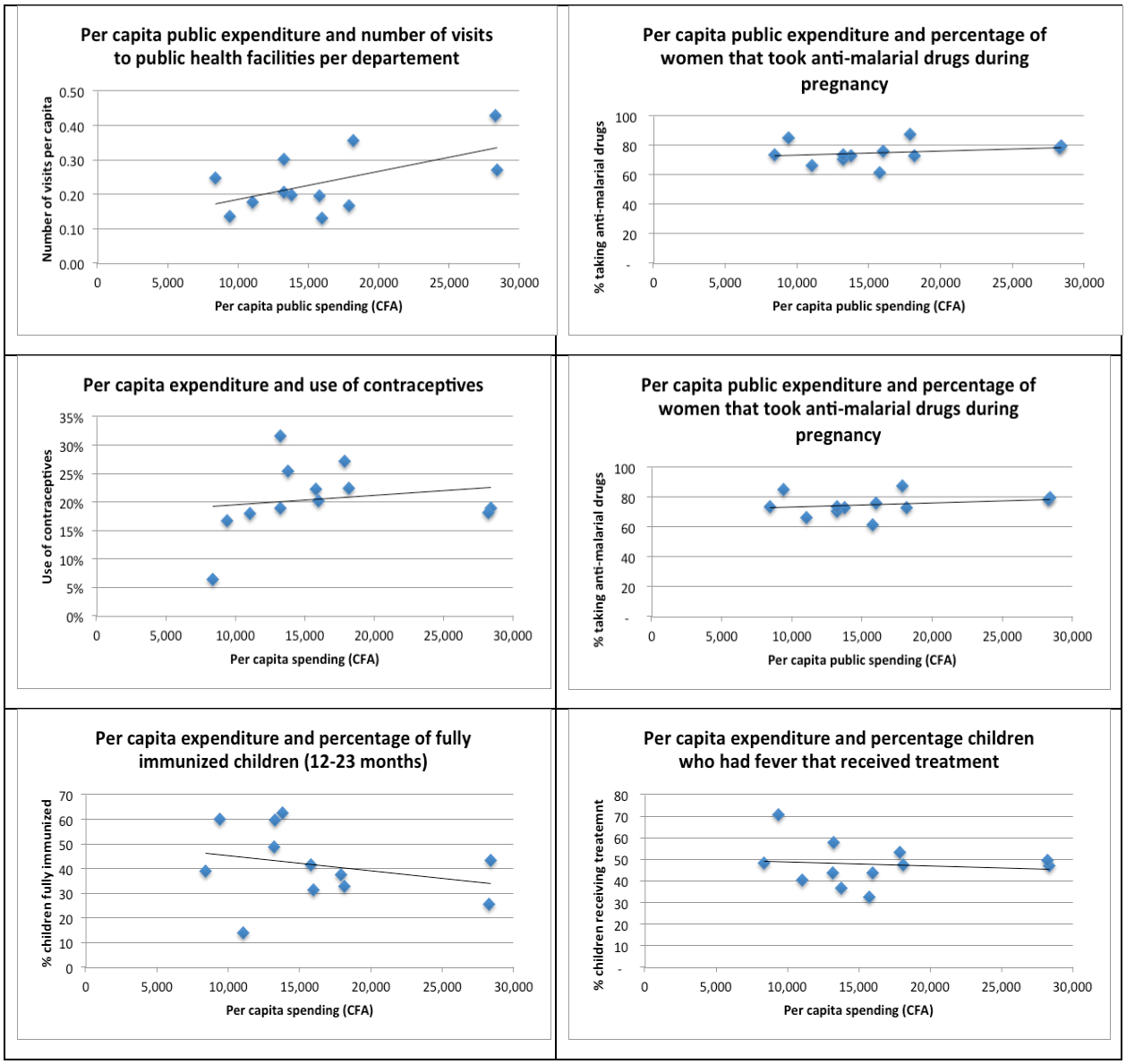
Analysis of Performance of Some Variables in the Health Sector

Box 2.2. On the Performance Analysis

To assess the levels of efficiency of the system, the authors tried to analyze the existence of any correlation between different levels of spending per capita, in each of the regions and variables that approximate the use of the system (numbers of visits) and health outcomes in each of the regions. This analysis is illustrative only, pending more regular and reliable collection of health data at the *département* level. First of all, there is a time consistency problem, the expenditure data refers to 2011, and the survey data on health use/outcomes was obtained from surveys that extend around 2011/2012. Also, some of the survey questions asked for information relative to the previous five years. Finally, government budget data was not complete at regional levels and the numbers for some categories of spending had to be imputed. Going forward, regular data collection at the *département* level should be encouraged if more reliable analysis of these relationships is to be undertaken.

214. **There is some evidence of a positive relationship between public per capita spending and indicators of health system performance**, such as number of visits to public health facilities (as reported in the ECOM 2011 survey), the use of contraceptives and the percentage of women who received prenatal care and took antimalarial drugs during pregnancy. However, the positive relationship does not hold for all outcomes. Important indicators of children's health, such as the percentage of fully immunized children, show a negative correlation with per capita spending.

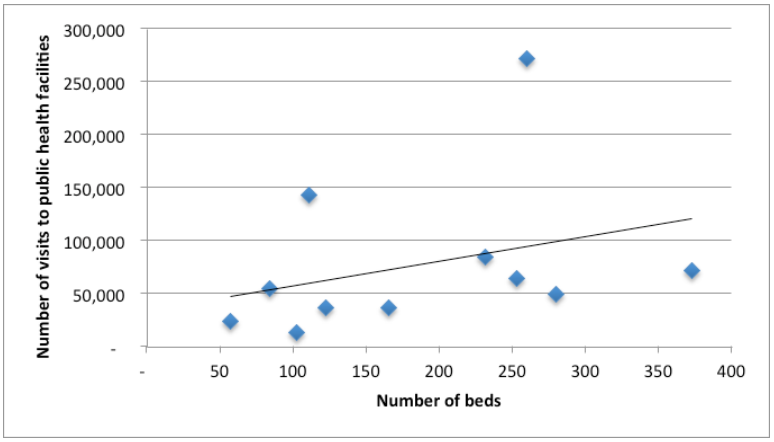
Figure 2.28. Relation between Per Capita Public Expenditure on Health by *Département* and Selected Indicators of Use and Performance



Source: Authors' estimation based on data from: Expenditure: MSP 2013c; Visits to health facilities: ECOM 2011; Health outcomes: EDSC 2011–2012.

215. **There is also evidence of a positive correlation between the number of beds in public facilities and number of visits to public health facilities**—this suggests that resources are located where people are looking for them. Brazzaville is an outlier with a much larger number of visits than any of the other departments.

Figure 2.29. Per Capita Public Expenditure on Health and Number of Beds in Public Facilities by Region

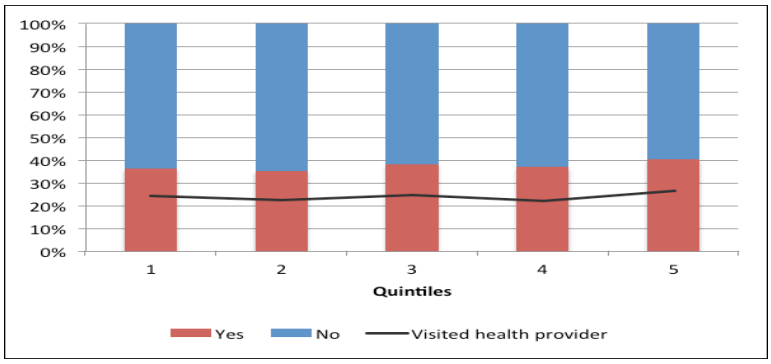


Source: Authors' estimation based on data from MSP 2013c.

Equity of Access

216. **By income.** In Congo, the prevalence of health problems does not vary much across quintiles, according to self-reported survey data when respondents are asked about illness in the previous four weeks (ECOM 2011). In the same way, the percentage of respondents who reported seeking help from some type of health provider for their self-reported illness does not differ much across the quintiles of income (Figure 2.30). This seems to be a good sign for equity—poorer individuals are not excluded from the system and know where to seek health care. It can also be a sign of the high level of urbanization of the country; according to the same survey a vast majority of population (85 percent) lives within 5 km of a health facility.

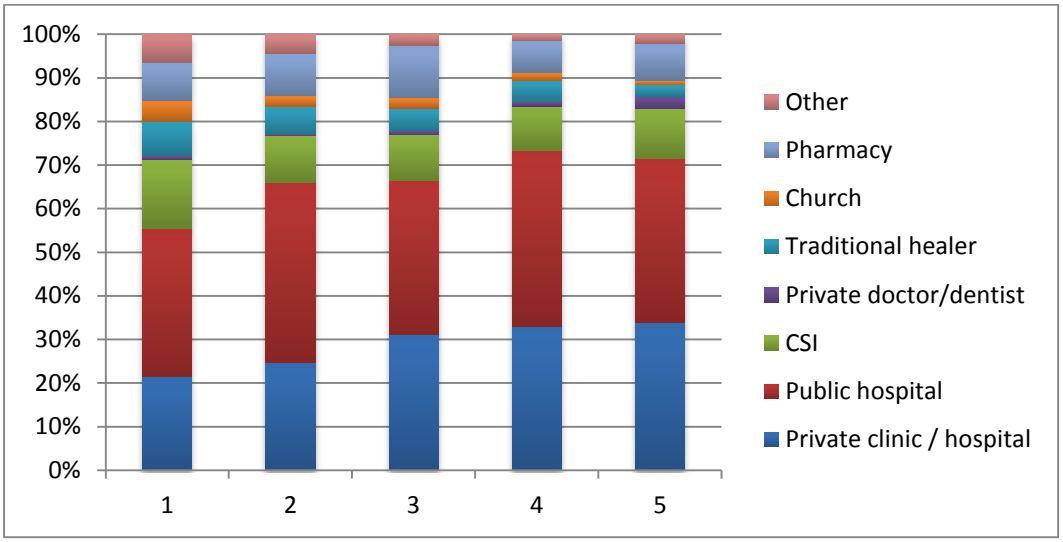
Figure 2.30. Reporting of Illness in Previous 4 Weeks and Visits to Health Provider



Source: ECOM 2011.

217. **When looking at the type of health provider sought, it is clear, as expected, that the population in the richer quintiles has more access to private care and uses less traditional medicine healers.** The use of public facilities, however, does not vary much across quintiles, which is also a positive sign for equity of access to public services.

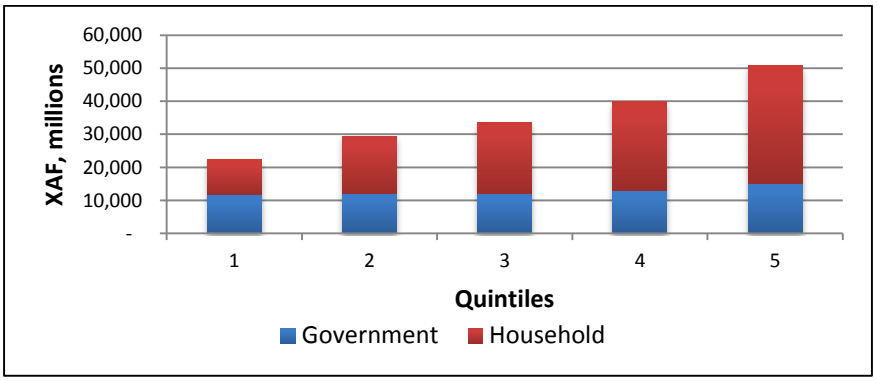
Figure 2.31. Visits to Health Facilities by Type of Provider and Expenditure Quintile



Source: ECOM 2011.

218. **Concerning expenditure, on the government side there is not much variation across quintiles (slightly larger for the 5th quintile), which is also a good sign for equity.** However, as we have seen in Table 2.5., richer quintiles spend a lot more of their own money, in absolute terms, on obtaining health services. As discussed, there is a real possibility that households in the poorer quintiles are not accessing all the services and medicines they would need for lack of financial resources.

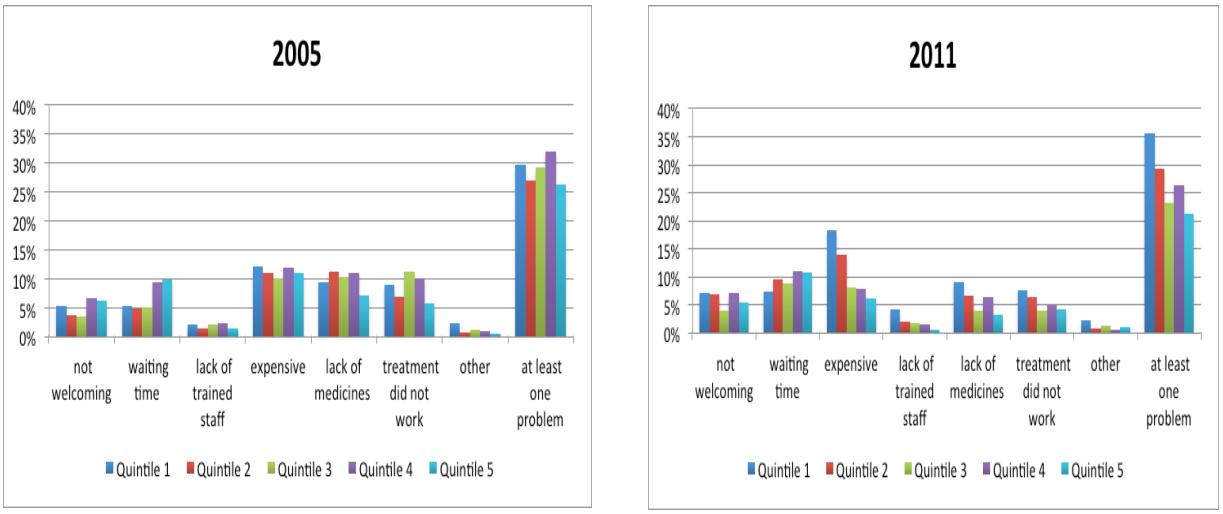
Figure 2.32. Expenditure on Health by Government and Households



Source: ECOM 2011 and MSP.

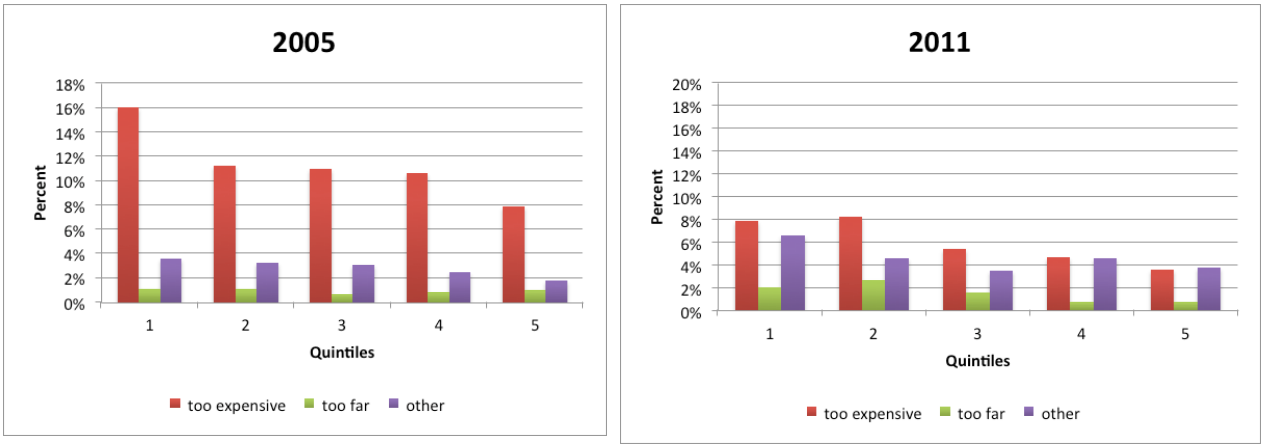
219. **Indeed, when asked about their level of satisfaction with the service received at health facilities, the most common problem identified is that the service is too expensive.** This complaint is, unsurprisingly, more common in the lowest quintile of income. This problem seems to have intensified for the bottom quintiles from 2005 to 2011. Similarly, when analyzing the reasons why respondents did not go to a health facility when they became ill, high prices is the number one reason mentioned, particularly for the bottom quintiles of income. In this case, however, the situation seems to have been improving from 2005 to 2011.

Figure 2.33. Problem Identified during Last Visit to Health Facility, if Any



Source: ECOM 2005 and 2011.

Figure 2.34. Reason for Not Visiting Health Provider when Needed during Last Illness Episode



Source: ECOM 2005 and 2011.

220. **All these differences in access and ability to afford services and medicines are reflected in different health outcomes across quintiles.** Obviously, not all the differences in health outcomes across quintiles can be attributed to inequities in access to the health system; several socioeconomic characteristics and behaviors that are correlated to income (education, type of housing, and so on) play an extremely important role as well. As an example, the following graphs depict the situation across quintiles for infant and child mortality and access to malaria treatment.

221. **Children living in better-off households exhibit a much lower IMR than children residing in poor households.** The inequality in the IMR among income quintiles has narrowed over time. The reduction in IMR inequality can also be seen Figure 2.36, which shows the IMR concentration curves for the two periods. The CMR has also dropped significantly since 2005, but

CMR inequality among income groups remained rather constant, if not increasing slightly between the two surveys. The same inequalities across quintiles can be seen when looking at malaria treatment for children who show malaria symptoms and mothers receiving antimalarial drugs during pregnancy.

Figure 2.35. CMR According to Mother's Education and Household Income Quintile, 2005 and 2011–2012 (deaths per 1,000 live births)

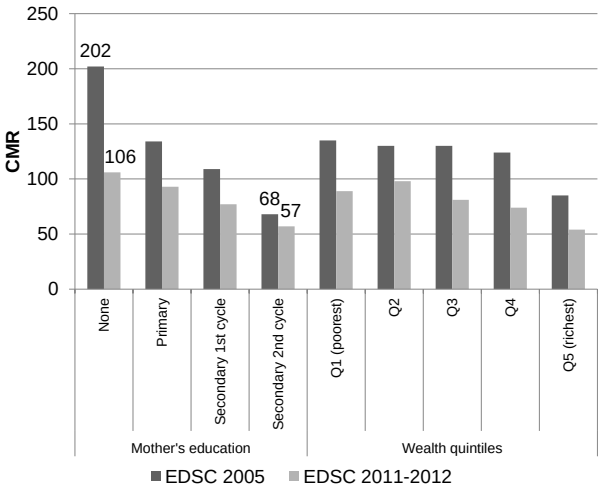
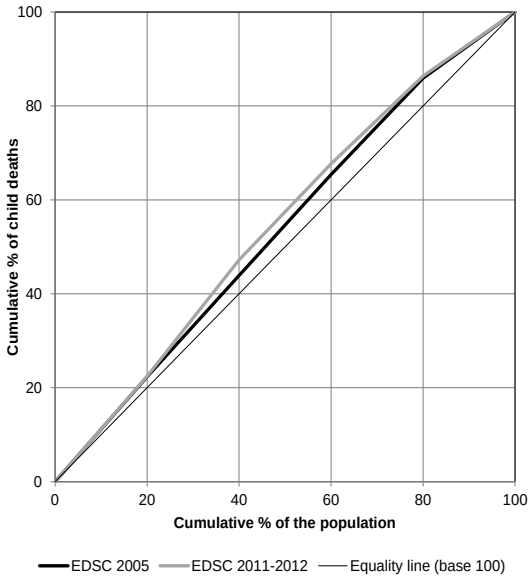
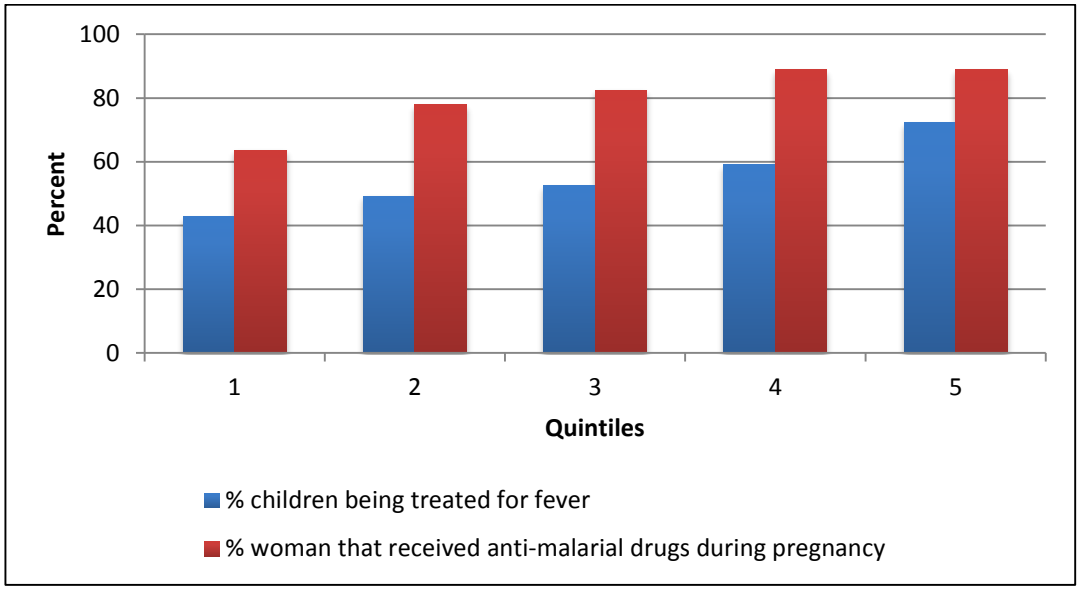


Figure 2.36. Concentration Curve for CMR, 2005 and 2011–2012



Source: CNSEE and ICF International 2012; WBWDB.

Figure 2.37. Access to Malaria Treatment by Expenditure Quintile



Source: EDSC 2011–2012.

222. **Minorities.** Most of Congo's autochthonous populations belong to the Baaka ethnic group and traditionally live in the forests. Autochthonous groups live on the margins of the dominant culture and maintain a distinct identity shaped by their environment and history. Their remoteness adds to their fragility. Living in the forest, away from roads, autochthonous populations very often do not have access to education or health services. General lack of awareness of health issues increases the risk of disease and malnutrition, so they are a group of concern when discussing the country's health system and in particular equity of access to the health system.

223. **In Congo, less than 18 percent of autochthonous women receive antenatal care and only one in four women gives birth in a health facility.** Most give birth in the forest or in their villages, sometimes alone, which increases risks for mother and child. With 781 deaths per 100,000 live births, maternal mortality is high for autochthonous women throughout the country. Although no data are available specifically on the risks associated with childbirth, these are likely to be much higher for the Baaka.

224. **Since data on access to health care for members of autochthonous groups are close to inexistent, an analysis of rural versus urban results for certain indicators was carried out, under the assumption that 'rural' data can give us an approximation of the situation of autochthonous minorities in Congo, particularly in the *départments* Likouala, Lékoumou, and Sangha, which present the highest number of autochthonous population.** It is important to keep in mind, however, the fact that a large share of these populations lives in remote areas in the forest and will likely be missed by any survey. Comparing urban and rural populations on a few selected health outcome indicators, it is not surprising to see that results are worse for rural areas on most indicators: IMR and CMR, use of contraceptives, prenatal care, and birth assistance.

With regard to IMR and CMR, it is encouraging to see that the improvements identified at the country level also hold for rural areas.

Table 2.8. Key Health Indicators in Urban and Rural Areas, 2005–2011

	Neonatal Mortality		Post-neonatal Mortality		Infant Mortality		Child Mortality	
	2005	2011–2012	2005	2011–2012	2005	2011–2012	2005	2011–2012
Urban	36	26	31	18	66	45	108	77
Rural	35	21	58	29	93	51	136	88

Source: EDSC 2005 and 2011–2012.

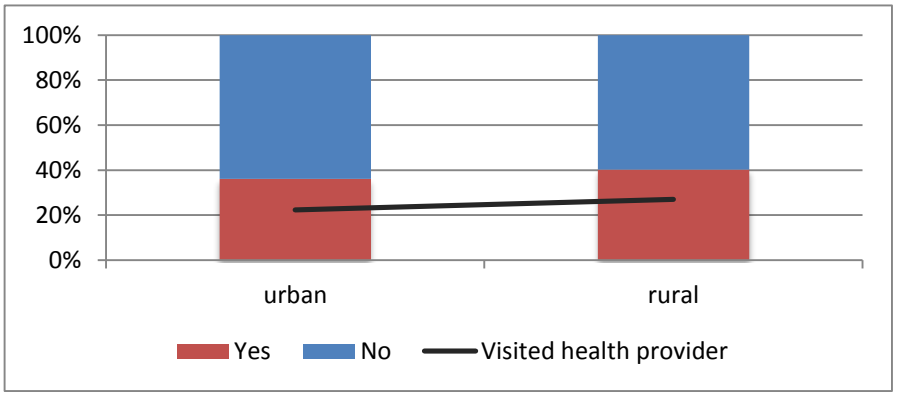
Table 2.9. Key Health Indicators in Urban and Rural Areas, 2011

	Uses One Contraceptive Method	Used Modern Contraceptive	Received Professional Prenatal Care	Gave Birth in Health Facility
Urban	46.3	24.6	95.9	97.4
Rural	41.9	11.7	86.8	82.4

Source: EDSC 2011–2012.

225. **Rural populations report a higher rate of illness than urban ones (40 percent versus 36 percent), but they also report a higher use of health services for the reported illness.** This at least gives some hope that services are available and populations know how to use them, including in rural areas (Figure 2.38).

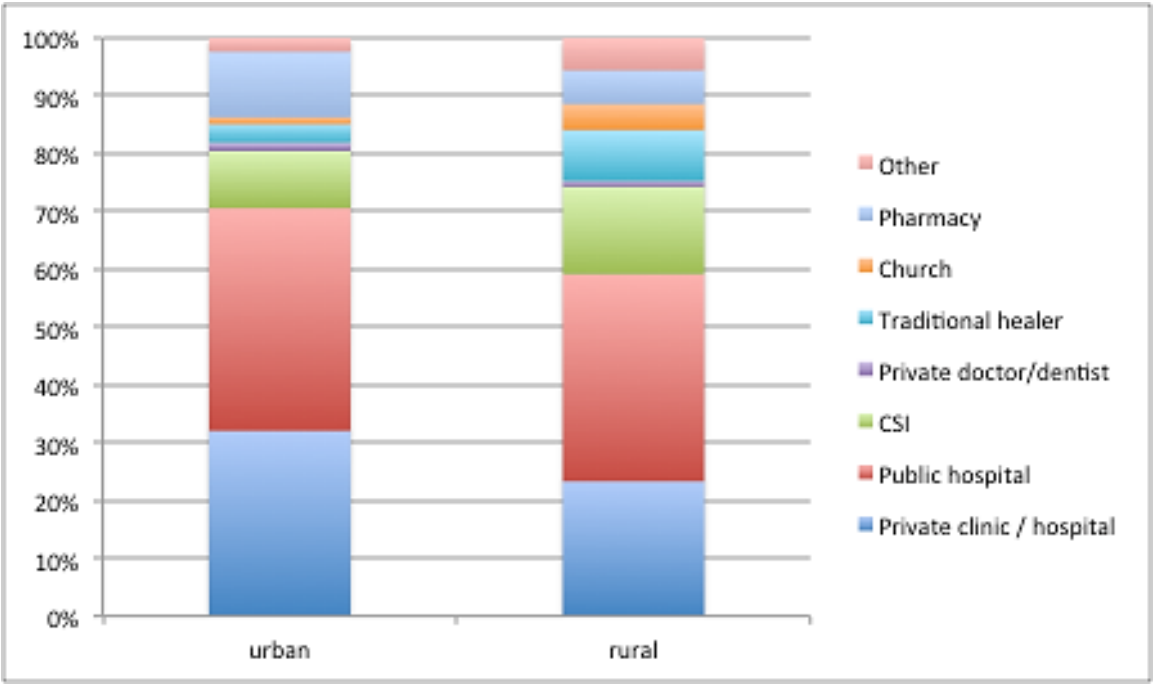
Figure 2.38. Reporting of Illness and Corresponding Visit to Health Providers



Source: ECOM 2011.

226. **When looking at the type of provider sought, it is clear that in rural areas there is less reliance on private health services and more reliance on informal providers such as traditional healers and churches.** The use of public services, however, does not vary much from urban to rural, with rural tending slightly more to CSIs than hospitals. These facts can be just a reflection of the different availability of services in rural areas.

Figure 2.39. Visits to Health Facilities by Type of Provider and Rural/Urban Location



Source: ECOM 2011.

227. **Consistently, the amount spent by rural households on health expenditures is much lower than that spent by urban households.** However, with regard to the proportion of total spending that health represents, there is not much difference between urban and rural households, with the rural ones even spending a slightly higher percentage.

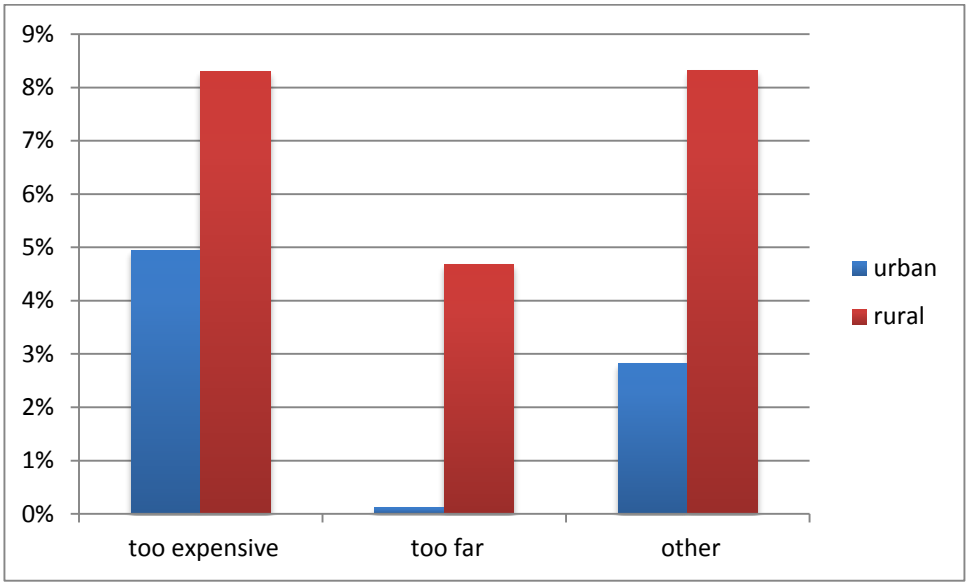
Table 2.10. Household Total Health Spending around 2011 (XAF, millions)

	Total OOPS on health	% of total household spending dedicated to health
Urban	83,888	1.4%
Rural	22,215	1.6%

Source: ECOM 2011.

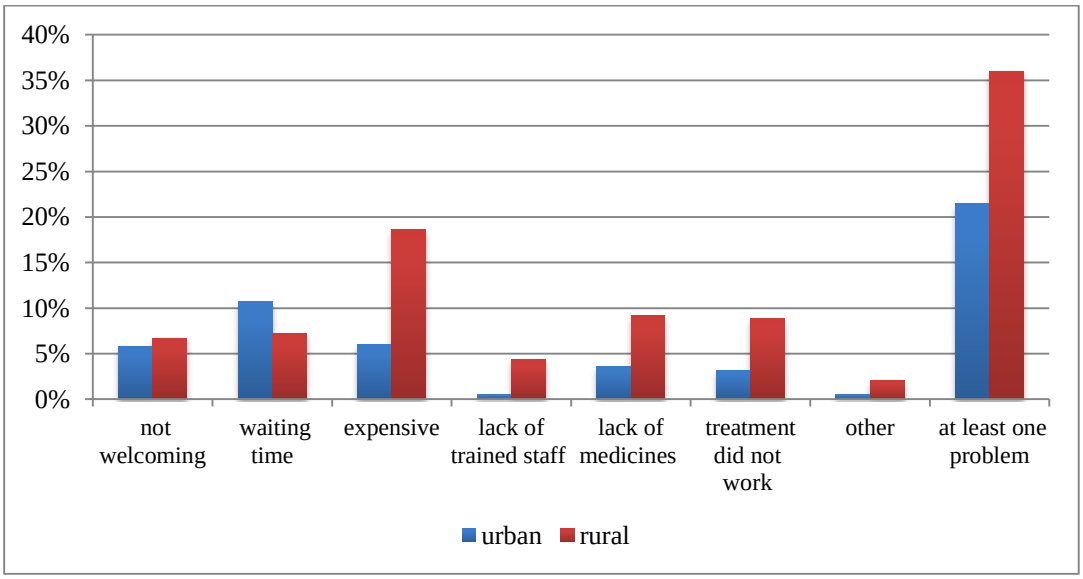
228. **Looking at reasons for not accessing a health provider in case of illness, it is clear that surveyed populations in rural areas report more problems than those in urban zones, both on the price of services and distance.** Also, rural households seem to have more reasons for complaining about the service recently received than urban families, with the 'too expensive' complaint leading the way, followed by 'lack of medicines'. These results seem consistent with the ones observed for the different income quintiles, and price again seems to be a barrier of access for low-income populations.

Figure 2.40. Reason for Not Using Health Service When Needed, 2011–2012



Source: ECOM 2011.

Figure 2.41. Reason for Dissatisfaction with Service, 2011–2012



Source: ECOM 2011.

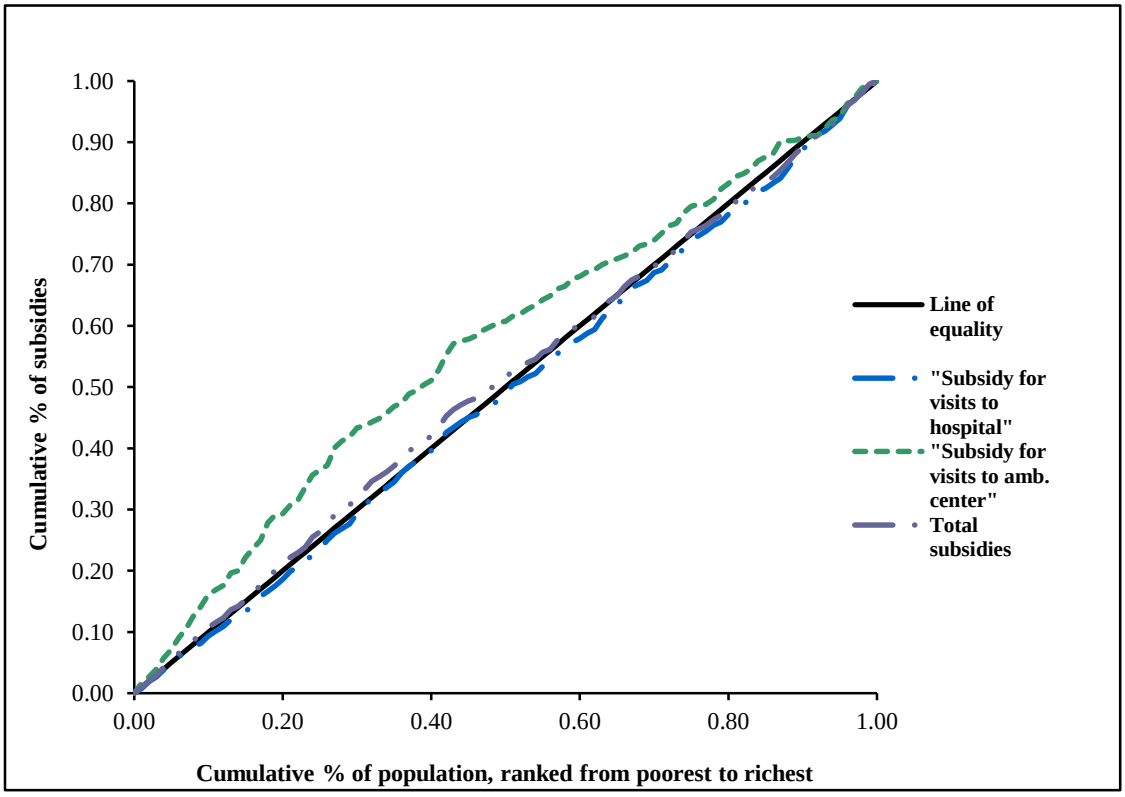
Public Spending and Equity

229. **In Congo, government spending on ambulatory care is pro-poor, while government spending on hospitals is slightly pro-rich.** A BIA using data from ECOM 2011 and from the NHA study (2010) allowed us to estimate the amount of government subsidy by visit to public providers, separately by hospital and ambulatory centers, assuming constant unit subsidies.

230. **Subsidies per visit are higher for hospitals than for ambulatory centers, as expected.** As seen before, hospitals receive more visits than ambulatory centers but in general ambulatory centers are more used by the poorest segments of the population. Table B.6 in Annex B shows the detailed breakdown of government spending by type of provider and income quintile.

231. **Considering total spending together gives a picture of a system that is not markedly pro-poor or pro-rich.** This can be seen by the total subsidies curve in Figure 2.42 that closely mirrors the equity line. To get a more accurate picture of government's spending by population segments, it would have been useful to have a breakdown of spending by inpatient and outpatient at the hospital level, because the costs associated with each can be quite different, but that was not possible due to data limitations.

Figure 2.42. Concentration Curves of Government Spending on Hospital and Ambulatory Care



Source: Authors' calculation based on ECOM 2011 and MSP 2013c.

232. **In conclusion, the limited resources (human, physical, and financial) available in Congo are not distributed evenly across the country, contributing to inequalities in access**

and outcomes across different populations. The excessive price of services seems to create a barrier for the poorest households and ones living in rural areas. The low utilization rates of beds in Base Hospitals and the limited use of services, in general, suggest efficiency problems in the system. However, there is some evidence of a positive relationship between public per capita spending and indicators of health system performance, such as the number of visits to public health facilities (as reported in the ECOM 2011 survey), the use of contraceptives and the percentage of women who received prenatal care and took antimalarial drugs during pregnancy. These indicators suggest that services are located where they are most needed. However, this positive relationship does not hold for all health outcomes. Government spending in health is not markedly pro-poor or pro-rich.

VI. Conclusions and Recommendations

Congo is showing positive trends in health status indicators, but important data gaps remain to be closed before a more detailed understanding can be gained of potential improvements as well as challenges to the sector.

233. **The latest EDSC 2011–12 revealed that key strategic health status indicators have improved in an important way in Congo.** Up until the release of that report, key health indicators such as the infant, child, and maternal mortality rates were much higher than expected in the SSA context for a country with such a high per capita income. Further, it was reported that these indicators were stagnant or deteriorating and that the prospects that Congo would reach the health MDGs were remote. In contrast, the latest estimates indicate that Congo has achieved impressive gains in health status. According to the EDSC 2011–12 report, the IMR now stands at 39 deaths per 1,000 live births, the CMR at 68 per 1,000, and the MMR at 429 deaths per 100,000 live births.

234. **EDSC 2011–12 also reports major improvements in knowledge and in access to some health services.** For example, knowledge about modern contraception improved and gaps in knowledge among socioeconomic groups narrowed in an important way between 2005 and 2011–12. Likewise, use of modern contraceptive methods went up by 80 percent overall but inequalities in access remained large—women in the richest income quintile were three times as likely to use modern contraception as women in the poorest income quintile. The coverage of prenatal care went up from an already high figure of 88 percent in 2005 to 93 percent in 2011–12; during the same period of time the rate of C-sections increased, from 3.2 percent to 5.8 percent, in part owing to a new government policy that promotes the provision of free C-sections. Child vaccination coverage went up as well, and there was a 50 percent increase in the treatment of child diarrhea with oral rehydration salts (ORS).

235. **There are discrepancies between the data reported in EDSC 2011–12 and in the newly released MSP Statistical Yearbook.** In 2013, the MSP produced its first Statistical Yearbook after more than 12 years. The document includes an inventory of public and private health care

facilities in the country, as well as detailed utilization statistics for a broad range of preventive and curative services, both in outpatient and inpatient facilities. This publication is in itself a great achievement. Yet, some of the figures reported in the Yearbook contradict some reported in the EDSC. For example, the Yearbook reports a considerably lower number of institutional deliveries than the EDSC, which indicates that institutional deliveries account for about 94 percent of all deliveries in Congo.

236. **In the same way, there are discrepancies between EDSC 2011–12 and the official data reported by the World Bank and other international agencies.**

- Since health status improvement is a central objective of any health system, it is indispensable that a new survey be conducted in the near future, to verify that the gains reported in the EDSC are maintained or furthered and also to confirm that results are coherent with EDSC 2011–12.
- Additionally, government and the development community should continue to support in a systematic way the initiative that led to the production of the 2012 Statistical Yearbook. That involves the strengthening of institutional capacities in health management information systems, both at the central and decentralized levels.

237. **Child and maternal health status improved nationally, according to EDSC 2011–12, but inequality in health status did not drop in all cases.** For example, inequality among socioeconomic groups in the CMR increased slightly over the seven-year period that elapsed since the previous survey, EDSC 2005. In the case of the IMR, in contrast, not only did this rate drop as a national average, but inequality among socioeconomic groups dropped as well.

- Achieving nationally better health status indicators in Congo is commendable, but policy makers in the country should pay more attention to the evolution of inequality in health status and should adopt policies that seek to bridge the gaps in health status between the poor and the nonpoor. For example, allocating a growing share of public financing to the poorest *départments* in the country might help achieve this goal.
- Likewise, defining a national policy to identify the poor and vulnerable, to exempt them from user fees in government health facilities might also help reduce inequities in access to basic health services and nutrition supplements as well as in overall health status. A policy of targeted public subsidies for the poor should also involve a mechanism to compensate public providers for the user-fee income forgone as a result of their adoption of waivers for the poor and vulnerable.

Increasing attention has been given to the health sector in the national budget; however public health spending remains low and reliance on household expenditure is very high.

238. **Real government health spending has increased since 2009 both in absolute terms and as a share of GDP.** In real terms, per capita government health spending in 2009 was XAF 28,563. Assuming that in 2012 and 2013 the MSP maintained the budget execution rate of 90 percent seen in 2011 (only budgets but not actual execution rates are known for the last two years), then real per capita government health spending would have increased to XAF 44,478 in 2012 and then fallen back to XAF 35,840 in 2013. As a share of actual GDP, government health spending was 1.7 percent in 2011, and it is estimated to have been 2.8 percent in 2012 and 2.1 percent in 2013. Government declared the year 2012 as the 'Year of Health' and, accordingly, it significantly expanded health spending.

239. **Still, in a regional perspective, in 2009 and 2010 Congo devoted a relatively low total amount of resources to the health sector.** As a share of GDP, total health financing was 2.0 percent in 2009 and 2.1 percent in 2010. Whereas Congo is among the 20 percent richest countries in SSA, its share of GDP spent on health is among the smallest in the region. The nine richest countries in SSA (which represent the top quintile out of 45 countries in the region) currently devote, on average, 6.9 percent of GDP to the health sector. That is more than three times Congo's figure in 2010.

- Further improving health status and financial protection in Congo's health sector necessarily calls for increased volumes of financing. This would be in line with the Abuja Declaration by which African Union members pledged to commit 15 percent of their budgets to health. For example, Rwanda, which is aggressively seeking to expand health coverage, devotes 10.8 percent of GDP to health and 57 percent of that amount comes from the government. Ghana, which is also actively promoting health coverage expansion, devotes 4.8 percent of GDP to health and the government contributes 56 percent of that amount.

240. **The allocation of health financing between the government and households reported through the NHA study for Congo in 2009 is not atypical for countries in SSA, although the authors' estimates suggest that households may be contributing a greater share than reported.** Among the top 20 richest countries in SSA, government financing represents 3.5 percent of GDP, or almost one-half of total financing. According to the NHA study, in 2009, government and household financing for health in Congo were about equally split, but in 2010, government financing went up in relative terms, to reach 57 percent of total health financing. Yet, estimates obtained by the authors using the latest ECOM data indicate that household health spending may have been largely underestimated in the NHA study and may in reality represent more than one-half of total health spending.

241. **The heavy reliance on household spending results in a large part from the fact that all public providers (aside from autonomous public hospitals) lack budget resources to**

purchase medicines and other medical supplies together with a total absence of government guidance regarding the setting of fees by public health providers. This means that user fees in public facilities may be imposed not only on medicines but also on other goods and services provided to patients. It also implies that user fees vary from one facility to another. All of this has resulted in a barrier of access for poorer households, particularly in the ability to buy medicines, which represents the largest share of household health spending.

242. **Starting in 2009, the Government of Congo announced the implementation of several programs that would offer free health care to all citizens, to boost access.** They included, for example, free malaria medicines and free C-sections. Yet, excessive centralization has been blamed for the limited impact of these programs. Health care inputs (such as medicines) acquired at the central level are typically routed to the departmental capital, but in the Departmental Health Directorate budgets, there is no line for the distribution of these goods. Consequently, the inputs reach only the sites near the department's capital. They benefit other, peripheral health facilities only when some staff happen to be in the capital town when the goods arrive. Solving these logistic problems is crucial to make sure government resources are being spent where they are most needed and the vulnerable populations that need free services the most can benefit from the programs.

243. **Expanding and rationalizing government health spending and moving toward universal health coverage may call for the explicit definition of a benefits package in Congo.** Government budget allocations to ambulatory health facilities, both dispensaries and CSIs, are a small share of their total budget. It is enough to cover the salaries of existing staff; however, it does not cover drugs and other medical supplies, and there is information that indicates that the number and type of health staff currently in place in these facilities are insufficient to deliver appropriate levels of quality services. Up until now the government has not formulated an explicit benefits package for the population, and therefore, financing for ambulatory and hospital facilities is not in accordance with explicit delivery targets. The Dutch NGO Cordaid has been engaged in a project in Congo that involved the definition, costing, and delivery of a benefits package, both at the ambulatory and hospital levels. Extending this package could be considered.

Progress and Challenges in the Government's Budgeting and Expenditure System in Health

244. **The formulation of the government's budget for the health sector was described as a highly centralized process by various health sector stakeholders consulted during the data-gathering phase of this PER.** The just completed NHA report concludes that, "A low level of stakeholders involvement in the programming of the government's health budget often leads to inconsistencies between the health system's funding needs (both in terms of the kinds and levels of resources) and the actual budget allocations" (page 2 of the report). The NHA report also criticizes a lack of coordination among various administrations (such as departmental authorities and community representatives) with regard to the planning of investment projects, resulting in a lack of financing for some investments and a double allocation of financing for others.

245. **The highly centralized management of public resources for health does not promote efficient spending by the recipients at the peripheral level (MSP2013b).** Decentralization in the health sector seems to be limited only by the ability of the DDSs) to fulfill their mission of supervising all health care institutions within their jurisdiction. Whereas DDSs formulate annual action plans, reportedly these are not taken into account at the central level during the budget preparation process. Additionally, DDSs are said to have no control whatsoever over the actual implementation of health activities in their jurisdiction. Only 3 percent of the health budget is managed at the departmental level by DDSs, while planning of spending is the responsibility of the prefecture (the local representative of the national government). Although reference hospitals operate within *départments*, the allocation and transfer of budgetary resources is entirely under central control.

246. **Moreover, government budget formulation for health lacks transparency and budget criteria are basic.** The main criterion for the formulation of the budget for specific providers and for *départments* seems to be the replication of the previous year's budget plus any small adjustments. Improving allocative efficiency of government health spending calls for, among other things, the simultaneous adoption of several improved budgeting criteria.

- National hospitals, all of which currently receive block grants from government, should be evaluated to determine the efficiency resulting from such grants and to make any necessary changes in this financing mechanism to improve efficiency.
- Also, to date, the government has not introduced innovation in provider payment methods, beyond the block grants to National Hospitals, whose efficiency remains to be determined. The experimental adoption of PBF in a few *départments* under the Health Sector Strengthening Project I and the planned national generalization of PBF under the Health Sector Strengthening Project II are expected to change, in a drastic way, the prevailing incentives among public providers. Despite implementation challenges, it is likely that this will result in higher output, better quality, and more equitable access.

247. **The historically low rate of execution of the government budgets is common to all sectors and not just health.** It has been a concern of the government for some time now and led to a government initiative aimed at improving budgetary and execution procedures, with the support of the IMF. However, problems still remain in procurement and disbursement. Since the adoption of the new public procurement code, a lack of procurement specialists, resistance of some stakeholders involved in the procurement process, and the adoption of a lengthy procedure to move from conception to a tender for public contracts have posed challenges.

Important challenges in system management remain.

248. **Government health spending for personal health services is mostly allocated to hospital services, either to National Hospitals or to Base Hospitals.** In 2010, nearly 40 percent of all government health spending went to pay for the public system's administrative costs, mostly at the central level. Just 10 percent of its health spending was allocated to ambulatory health facilities, while almost one-third of its executed budget went to public hospitals. It seems that the share of the government's budget allocated to health services at the CSI level is exceedingly low and signals a major problem of allocative inefficiency.

- Progressively expanding the share of public resources allocated to health dispensaries and health centers should be a public policy priority in Congo. It would allow CSIs to waive user fees for poor and vulnerable patients from user fees and would also serve to attract more qualified health staff to these facilities through higher salaries and the adoption of economic incentives. More public funding would also serve to subsidize an expanded set of basic medicines, a policy that government has started but which has met logistical problems owing to faulty implementation.

249. **The authors found limited information with which to judge efficiency in the provision of health services in the public sector.** A noteworthy finding, however, is the low rate of utilization of hospital beds around the country, except in Brazzaville. Hospital utilization rates were as low as 7 percent in one *département*, and in eight out of 11 *départments* they were below one-third. Considering that utilization was computed on the basis of functional hospital beds, these low rates of utilization reveal an important inefficiency in Congo's government health system.

250. Assessing the reasons behind low hospital occupancy rates is a research priority.

251. **Moreover, access to some services, such as curative ambulatory care, remains very low by regional standards.** For example, according to the MSP 2012 Statistical Yearbook, the average Congolese make 0.13 annual curative visits to a government provider. This is equivalent to one visit every seven years. This low figure is in stark contrast with the known high frequency of infectious illness episodes among children and adults in Congo. Yet, it is likely that this figure on its own paints a distorted picture. Because there is an active private health care delivery sector, it is likely that the visits that occur there would improve in a significant way this low indicator of accessibility to curative care.

252. **Low access to curative care may be the result of relatively high user fees, of user fees being charged to all patients in government facilities irrespective of their ability to pay, of poor quality of health services, and other problems in supply.** A study of quality of care in government ambulatory and inpatient facilities found that while most CSIs that were studied had basic medicines at the time of the visit, more than half had experienced inventory stock-outs in the 30 days preceding the survey. It also found that few facilities had treatment protocols and few health staff had been trained in the use of protocols (PDSS 2010). Improving access to health services in Congo calls for a strategy with interventions on several fronts.

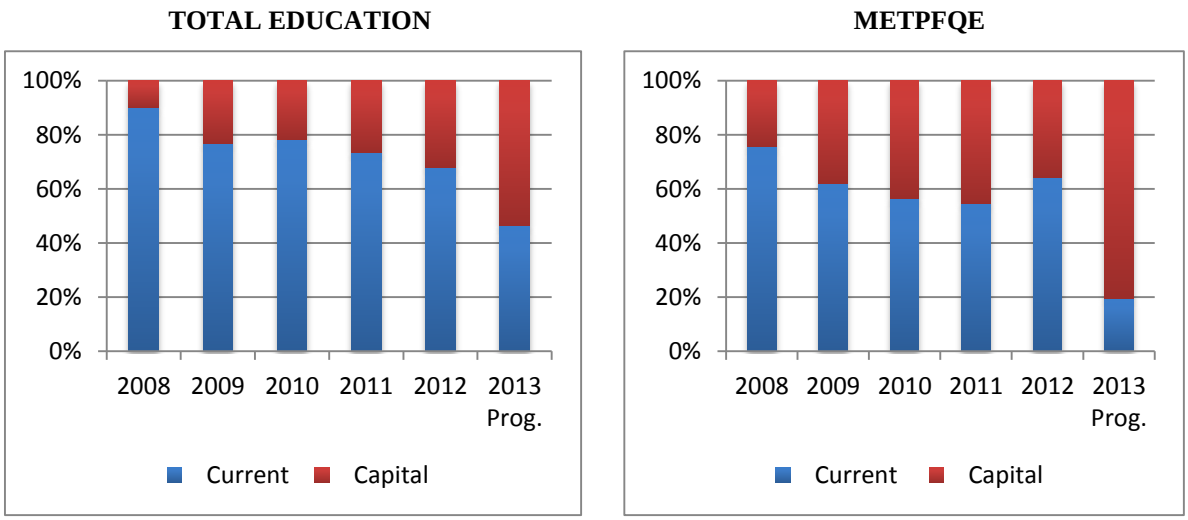
- One front includes actions aimed at improving the quality of health care in government health facilities, for example by making treatment protocols available to health staff and by training them in their use. The PBF approach, which will be scaled up nationally, has been shown to generate improvements in quality through its incentive structure that is focused not only on quantity of services delivered but also tracks and remunerates based on quality.
- Another front is a revision of the user fee policy for government providers. Outright abolition of fees is not recommended because it is likely to lead to overuse of services and greater access problems than in the current scenario, such as widespread stock-outs of drugs in facilities. However, government may want to regulate the fees to ensure that they are not abusive, that they are waived for the poor with provisions to compensate the provider accordingly, and that they are charged only for medicines and not for other services.
- Improving access also requires that qualified health staff be hired by government and be present in government facilities throughout the country. Currently there is a lack of doctors and nurses at CSIs, particularly in the more rural and remote locations. All countries face the challenge of endowing rural health facilities with appropriate staffing, and many countries have adopted a system of economic and other incentives to achieve this objective. Congo would benefit from learning about such approaches, to identify those that might work in the country.

Table 2.11. Summary of Issues and Recommendations

ISSUE	ACTION		OUTCOME
Increasing attention has been given to the health sector in the national budget; however health expenditure is still below the regional average given Congo's per capita income level.	**Increase health financing**		*Increased progress toward strategic health goals*
	Policy and/or Intervention	• Increase public financing for health. • Maintain and further increase the rate of budget execution through better procurement and disbursement procedures. • Introduce innovations in provider payment methods. • Increase alignment of financing with desired health outcomes. • Improve drug regulation and functioning of COMEG.	
Inequality in healthcare access and outcomes	**Focus on pro-poor policies that can compensate for the heavy reliance on out-of-pocket expenditure**		*Better health outcomes for the poorest segments of the Congolese population and those living in disadvantaged areas*
	Policy and/or Intervention	• Review implementation of ongoing programs that offer free health services. • Regulate the fees to ensure that they are not abusive, that they are waived for the poor, and that they are charged only for medicines and not for other services. • Define a specific benefits package for health providers.	
	Better distribution of human and physical resources throughout the country		
	Policy and/or Intervention	• Increase the share of the government budget that is allocated at the CSI level. • Increase financing to ambulatory health providers. • Allocate a growing share of public financing to the poorest *départments* in the country. • Ensure appropriate geographic distribution of health staff. • Implement measures to improve quality of services.	
Lack of reliable data and information on key aspects of the sector such as human resources	**Improve availability of quality data on health**		*More targeted and plan-based policy decisions*
	Policy and/or Intervention	• Conduct a new survey to verify that the gains reported in the EDSC 2011–12 are maintained or furthered. • Continue support to the initiative that led to the production of the 2012 Statistical Yearbook, including strengthening of institutional capacities in health management information systems, the training of staff involved in data collection and reporting, and the supply of computers and other equipment required to operate such systems. • Conduct specific studies assessing hospital occupancy, the reasons behind low occupancy rates, the feasibility of closing some beds, and human resources needs.	

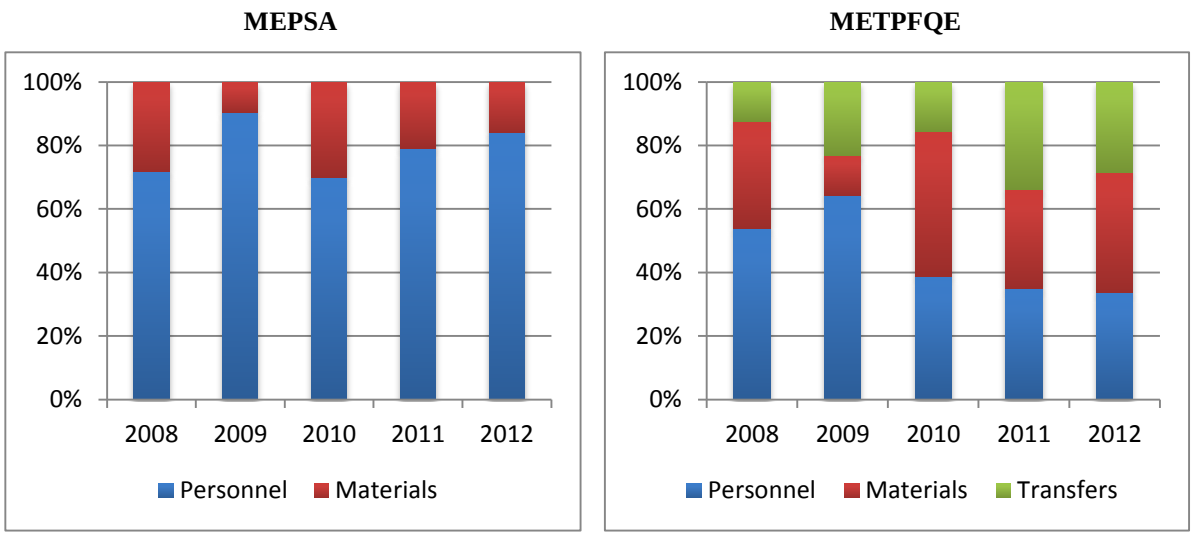
Annex A.1

Figure A.1. Share of Investment and Recurrent Expenditure in Total Education Expenditure and in METPFQE Expenditure (percentage)



Source: MEFPIPP Budget Execution and other financial data, 2008–2012.

Figure A.2. Composition of the Recurrent Expenditure



Source: MEFPIPP.

Table A.1. Distribution of Actual Public Current Expenditure by Education Levels (percentage of total)

	2008	2009	2010	2011	2012	2013 Prog.
MEPSA	62.3	63.3	63.3	59.7	57.3	57.0
Preprimary	0.6	0.8	0.6	0.7	0.7	n.a
Primary	40.0	37.2	36.2	32.2	32.0	n.a.
Secondary	19.1	19.1	19.8	19.1	19.4	n.a
Literacy	0.1	0.1	0.1	0.2	0.2	n.a.
Transversal to all education levels	2.3	6.1	6.6	7.6	5.0	n.a.
METPFQE	14.2	9.3	12.5	14.8	15.7	14.6
MES	23.5	27.4	24.2	25.4	27.0	28.4
TOTAL	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: MEFPIPP Budget Execution and other financial data, 2008–2012.

Table A.2. Distribution of Education Benefits

Primary Level

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	All Households
Education subsidy (XAF, millions)	264	173	96	53	21	607
% of education subsidy	43.5	28.5	15.8	8.8	3.5	100.0
Per capita education subsidy (FCFA)	37,263	24,422	13,519	7,523	3,004	85,732

Secondary Level

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	All Households
Education subsidy (XAF, millions)	117	99	82	58	33	389
% of education subsidy	30.1	25.4	21.2	14.9	8.5	100.0
Per capita education subsidy (XAF)	36,648	30,858	25,740	18,094	10,290	121,633

Technical and Professional

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	All households
Education subsidy (XAF, millions)	26	37	25	34	26	147
% of education subsidy	17.5	25.1	16.8	22.9	17.7	100.0
Per capita education subsidy (XAF)	74,073	106,004	71,277	96,817	75,029	423,089

Tertiary

	Quintile 1	Quintile 2	Quintile 3	Quintile 4	Quintile 5	All households
Education subsidy (XAF, millions)	8	23	32	30	47	139
% of education subsidy	5.7	16.4	23.0	21.3	33.6	100.0
Per capita education subsidy (XAF)	65,477	187,078	261,909	243,201	383,510	1,141,175

Source: MEFPIPP Budget Execution and other financial data, 2008–2012.

Table A.3. Education Budget Execution Rates (percentage)

	2008	2009	2010	2011	2012
BUDGET TOTAL					
Recurrent budget	**52.7**	**84.2**	**105.3**	**107.2**	**121.6**
Wages	99.5	100.9	95.5	97.7	100.0
Goods and Services + Common charges	107.3	90.7	112.3	125.1	188.7
Transfers	30.4	66.2	107.2	100.2	91.9
Investment	**104.7**	**95.2**	**88.4**	**107.3**	**76.6**
Equipment	n.a.	n.a.	n.a.	n.a.	n.a.
Studies	n.a.	n.a.	n.a.	n.a.	n.a.
Rehabilitation	n.a.	n.a.	n.a.	n.a.	n.a.
Construction	n.a.	n.a.	n.a.	n.a.	n.a.
EDUCATION TOTAL					
Recurrent budget	**104.9**	**81.8**	**101.7**	**97.2**	**100.9**
Wages	101.6	99.0	95.6	100.6	104.4
Goods and Services	107.4	30.9	116.6	80.6	87.9
Transfers	120.4	92.0	106.2	109.1	101.7
Investment	**39.0**	**70.8**	**98.2**	**91.6**	**83.4**
Equipment	40.5	61.8	51.6	n.a.	n.a.
Studies	53.0	47.0	73.0	n.a.	n.a.
Rehabilitation	81.5	24.6	n.a.	n.a.	n.a.
Construction (and Rehabilitation no METPFQE)	24.4	35.2	76.2	n.a.	n.a.
MEPSA					
Recurrent budget	**100.3**	**81.6**	**102.6**	**90.7**	**97.1**
Wages	**98.0**	**100.8**	96.8	95.1	104.6
Goods and Services	**107.7**	**29.2**	119.5	77.4	71.2
Transfers	**89.0**	**95.0**	98.2	80.6	66.2
Investment	**29.0**	**28.5**	**98.3**	**95.0**	**84.6**
Equipment	22.3	18.3	n.a.	n.a.	n.a.
Studies	57.0	n.a.	n.a.	n.a.	n.a.
Rehabilitation	n.a.	n.a.	n.a.	n.a.	n.a.
Construction	11.2	30.5	n.a.	n.a.	n.a.
METPFQE					
Recurrent budget	**124.8**	**60.6**	**92.8**	**104.1**	**107.3**
Wages	148.4	86.5	74.1	72.9	80.5
Goods and Services	109.5	19.4	114.7	91.7	143.4
Transfers	95.2	86.0	100.0	238.4	114.1
Investment	**87.7**	**53.1**	**98.2**	**79.1**	**72.7**
Equipment	71.6	82.3	64.4	n.a.	n.a.
Studies	83.3	76.4	37.1	n.a.	n.a.
Rehabilitation	n.a.	n.a.	n.a.	n.a.	n.a.
Construction and Rehabilitation	67.1	65.4	90.5	n.a.	n.a.
MES					
Recurrent budget	**107.5**	**93.5**	**104.5**	**111.7**	**106.1**
Wages	95.7	98.1	102.7	142.5	116.1
Goods and Services	100.6	69.0	100.0	78.9	77.9
Transfers	131.9	93.1	108.0	82.2	98.8
Investment	**21.4**	**45.2**	**97.9**	**114.3**	**99.4**
Equipment	16.7	39.8	3.2	n.a.	n.a.
Studies	n.a.	56.0	n.a.	n.a.	n.a.
Rehabilitation	81.5	24.6	n.a.	n.a.	n.a.
Construction	33.0	14.3	100.0	n.a.	n.a.

Sources: Plan National de Développement - Congo 2012–2016; Loi de Finances for each year, Annuaire statistique 2010–2011.

Table A.4. Education Sector Budget (XAF, millions)

	2008			2009			2010			2011			2012			2013		
	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total
Total Budget	1,184,580	450,000	**1,634,580**	596,161	514,450	**1,110,611**	591,000	674,257	**1,265,257**	634,443	1,010,612	**1,645,055**	**843,438**	**1,961,772**	**2,805,210**	**1,002,630**	**1,796,440**	**2,799,070**
MEPSA	60,008	18,977	**78,985**	63,351	20,883	**84,234**	65,314	16,689	**82,003**	75,127	19,935	**95,062**	79,170	52,420	**131,590**	95,807	80,707	**176,514**
METPQE	11,012	5,030	**16,042**	12,517	8,746	**21,263**	14,282	10,434	**24,716**	16,260	17,918	**34,178**	19,678	16,200	**35,878**	24,485	100,000	**124,485**
MES	21,131	3,160	**24,291**	23,922	5,100	**29,022**	24,533	2,962	**27,495**	25,943	6,869	**32,812**	34,177	6,856	**41,033**	47,685	11,750	**59,435**
Total Education	**92,152**	**27,167**	**119,319**	**99,790**	**34,729**	**134,519**	**104,129**	**30,085**	**134,214**	**117,329**	**44,722**	**162,051**	**133,025**	**75,476**	**208,501**	**167,977**	**192,457**	**360,434**

Sources: Plan National de Développement - Congo 2012–2016 - Livre 2;
Loi de Finances pour chaque année (planned) (LoiDeFinances_2008(2)_15Février) plus executed Budget 2010, 2011 and 2012;
Budget de l'État, exercice 2013 (Loi 41–2012 du 29.12.2012);
Data from Budget 2009–2013_Loi de finances, revised in April of 2012, for budget 2012; it replaces data from Loi de Finances for each year.

Table A.5. Education Sector Budget Execution (XAF, millions)

	2008			2009			2010			2011			2012			2013		
	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total
Total Budget	623,883	471,000	**1,094,883**	502,127	490,000	**992,127**	622,028	596,000	**1,218,028**	680,124	1,084,000	**1,764,124**	1,025,716	1,502,736	**2,528,452**	n.a.	n.a.	n.a.
MEPSA	60,210	5,501	**65,711**	51,671	17,643	**69,314**	67,036	16,398	**83,434**	68,115	18,931	**87,046**	76,863	44,365	**121,228**	n.a.	n.a.	n.a.
METPQE	13,741	4,410	**18,151**	7,583	4,647	**12,230**	13,254	10,241	**23,495**	16,932	14,182	**31,114**	21,115	11,781	**32,896**	n.a.	n.a.	n.a.
MES	22,717	676	**23,393**	22,368	2,307	**24,675**	25,633	2,900	**28,533**	28,984	7,851	**36,835**	36,278	6,812	**43,090**	n.a.	n.a.	n.a.
Total Education	**96,669**	**10,587**	**107,256**	**81,622**	**24,597**	**106,219**	**105,923**	**29,539**	**135,462**	**114,031**	**40,964**	**154,995**	**134,256**	**62,958**	**197,214**	**n.a.**	**n.a.**	**n.a.**

Sources: Plan National de Développement - Congo 2012–2016 - Livre 2;
Loi de Finances pour chaque année (planned) (LoiDeFinances_2008(2)_15Février) plus executed Budget 2010, 2011 and 2012;
IMF (2012), Republic of Congo: 2012 Article IV Consultation - Staff Report, p.20 (2011 - estimate; 2012 - projection);
MEPSA, Annuaire statistique 2010–2011.

Table A.6. Budget Execution Rates (current and investment per ministry) (%)

	2008			2009			2010			2011			2012			2013		
	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total
Total Budget	52.7	104.7	**67.0**	84.2	95.2	**89.3**	105.3	88.4	**96.3**	107.2	107.3	**107.2**	121.6	76.6	**90.1**	n.a.	n.a.	n.a.
MEPSA	100.3	29.0	**83.2**	81.6	84.5	**82.3**	102.6	98.3	**101.7**	90.7	95.0	**91.6**	97.1	84.6	**92.1**	n.a.	n.a.	n.a.
METPQE	124.8	87.7	**113.1**	60.6	53.1	**57.5**	92.8	98.2	**95.1**	104.1	79.1	**91.0**	107.3	72.7	**91.7**	n.a.	n.a.	n.a.
MES	107.5	21.4	**96.3**	93.5	45.2	**85.0**	104.5	97.9	**103.8**	111.7	114.3	**112.3**	106.1	99.4	**105.0**	n.a.	n.a.	n.a.
Total Education	**104.9**	**39.0**	**89.9**	**81.8**	**70.8**	**79.0**	**101.7**	**98.2**	**100.9**	**97.2**	**91.6**	**95.6**	**100.9**	**83.4**	**94.6**	**n.a.**	**n.a.**	**n.a.**

Sources: Plan National de Développement - Congo 2012–2016 - Livre 2;
Loi de Finances pour chaque année (planned) (LoiDeFinances_2008(2)_15Février) plus executed Budget 2010, 2011 and 2012;
Budget de l'État, exercice 2013 (Loi 41-2012 du 29.12.2012);
Data from Budget 2009–2013_Loi de finances, revised in April of 2012, for budget 2012; it replaces data from source Loi de Finance for each year;
IMF (2012), Republic of Congo: 2012 Article IV Consultation - Staff Report, p.20 (2011 - estimate; 2012 - projection);
MEPSA, Annuaire statistique 2010–2011.

Table A.7. Budget Execution Rates at Constant Prices (current and investment per ministry) (XAF, millions)

	2008			2009			2010			2011			2012		
	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total
Total Budget	581,252	438,816	**1,020,069**	444,273	433,543	**877,816**	524,159	502,226	**1,026,385**	565,616	901,493	**1,467,109**	799,006	1,170,592	**1,969,598**
Total Education	**90,064**	**9,864**	**99,927**	**72,218**	**21,763**	**93,981**	**89,258**	**24,891**	**114,149**	**94,832**	**34,067**	**128,899**	**104,582**	**49,043**	**153,625**
MEPSA	56,096	5,125	**61,221**	45,717	15,610	**61,328**	56,489	13,818	**70,307**	56,647	15,744	**72,390**	59,874	34,559	**94,433**
METPQE	12,802	4,109	**16,911**	6,709	4,112	**10,821**	11,169	8,630	**19,799**	14,081	11,794	**25,876**	16,448	9,177	**25,625**
MES	21,165	630	**21,795**	19,791	2,041	**21,832**	21,600	2,444	**24,044**	24,104	6,529	**30,633**	28,260	5,306	**33,566**

Sources: Plan National de Développement - Congo 2012–2016 - Livre 2;
Loi de Finances pour chaque année (planned) (LoiDeFinances_2008(2)_15Février) plus executed Budget 2010, 2011 and 2012;
IMF (2012), Republic of Congo: 2012 Article IV Consultation - Staff Report, p.20 (2011 - estimate; 2012 - projection);
MEPSA, Annuaire statistique 2010–2011.

Table A.8. Weight of Each Ministry in the Total Executed Expenditure (%)

	2008			2009			2010			2011			2012			2013 (prog.)		
	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total	Current	Invest-ment	Total
Total Budget	100.0	100.0	**100.0**	100.0	100.0	**100.0**	100.0	100.0	**100.0**	100.0	100.0	**100.0**	100.0	100.0	**100.0**	**100.0**	**100.0**	**100.0**
MEPSA	9.7	1.2	**6.0**	10.3	3.6	**7.0**	10.8	2.8	**6.8**	10.0	1.7	**4.9**	7.5	3.0	**4.8**	9.6	**4.5**	**6.3**
METPQE	2.2	0.9	**1.7**	1.5	0.9	**1.2**	2.1	1.7	**1.9**	2.5	1.3	**1.8**	2.1	0.8	**1.3**	2.4	**5.6**	**4.4**
MES	3.6	0.1	**2.1**	4.5	0.5	**2.5**	4.1	0.5	**2.3**	4.3	0.7	**2.1**	3.5	0.5	**1.7**	4.8	**0.7**	**2.1**
Total Education	**15.5**	**2.2**	**9.8**	**16.3**	**5.0**	**10.7**	**17.0**	**5.0**	**11.1**	**16.8**	**3.8**	**8.8**	**13.1**	**4.2**	**7.8**	**16.8**	**10.7**	**12.9**

Sources: Plan National de Développement - Congo 2012–2016 - Livre 2;
Loi de Finances for each year (planned) (LoiDeFinances_2008(2)_15Février) + executed Budget 2010, 2011, and 2012;
Ficheiro "REAL 2008_2009_2010_2011_2012";
IMF (2012), Republic of Congo: 2012 Article IV Consultation - Staff Report, p.20 (2011 - estimate; 2012 - projection);
Annuaire statistique 2010–2011.

Table A.9. Share of Each Ministry on the Total Executed Education Expenditure (%)

	2008			2009			2010			2011			2012			2013 (planned)		
	Current	Investment	Total	Current	Investment	Total	Current	Investment	Total	Current	Investment	Total	Current	Investment	Total	Current	Investment	Total
MEPSA	62.3	52.0	**61.3**	63.3	71.7	**65.3**	63.3	55.5	**61.6**	59.7	46.2	**56.2**	57.3	70.5	**61.5**	57.0	**41.9**	**49.0**
METPQE	14.2	41.7	**16.9**	9.3	18.9	**11.5**	12.5	34.7	**17.3**	14.8	34.6	**20.1**	15.7	18.7	**16.7**	14.6	52.0	**34.5**
MES	23.5	6.4	**21.8**	27.4	9.4	**23.2**	24.2	9.8	**21.1**	25.4	19.2	**23.8**	27.0	10.8	**21.8**	28.4	6.1	**16.5**
Total Education	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	***100.0***	*100.0*	*100.0*	***100.0***

Sources: Plan National de Développement - Congo 2012–2016 - Livre 2;
Loi de Finances for each year (planned) (LoiDeFinances_2008(2)_15Février) + executed Budget 2010, 2011, and 2012;
IMF (2012), Republic of Congo: 2012 Article IV Consultation - Staff Report, p.20 (2011 - estimate; 2012 - projection);
MEPSA, Annuaire statistique 2010–2011.

Table A.10. Execution Rates per Ministry and per Category (percentage)

	2008	2009	2010	2011	2012
BUDGET TOTAL					
Recurrent budget	**52.7**	**84.2**	**105.3**	**107.2**	**121.6**
Wages	99.5	100.9	95.5	97.7	100.0
Goods and Services + Common charges	107.3	90.7	112.3	125.1	188.7
Transfers	30.4	66.2	107.2	100.2	91.9
Investment	**104.7**	**95.2**	**88.4**	**107.3**	**76.6**
Equipment	n.a.	n.a.	n.a.	n.a.	n.a.
Studies	n.a.	n.a.	n.a.	n.a.	n.a.
Rehabilitation	n.a.	n.a.	n.a.	n.a.	n.a.
Construction	n.a.	n.a.	n.a.	n.a.	n.a.
EDUCATION TOTAL					
Recurrent budget	**104.9**	**81.8**	**101.7**	**97.2**	**100.9**
Wages	101.6	99.0	95.6	100.6	104.4
Goods and Services	107.4	30.9	116.6	80.6	87.9
Transfers	120.4	92.0	106.2	109.1	101.7
Investment	**39.0**	**70.8**	**98.2**	**91.6**	**83.4**
Equipment	40.5	61.8	51.6	n.a.	n.a.
Studies	53.0	47.0	73.0	n.a.	n.a.
Rehabilitation	81.5	24.6	n.a.	n.a.	n.a.
Construction (and Rehabilitation no METPFQE)	24.4	35.2	76.2	n.a.	n.a.
MEPSA					
Recurrent budget	**100.3**	**81.6**	**102.6**	**90.7**	**97.1**
Wages	98.0	100.8	96.8	95.1	104.6
Goods and Services	107.7	29.2	119.5	77.4	71.2
Transfers	89.0	95.0	98.2	80.6	66.2
Investment	**29.0**	**28.5**	**98.3**	**95.0**	**84.6**
Equipment	22.3	18.3	n.a.	n.a.	n.a.
Studies	57.0	n.a.	n.a.	n.a.	n.a.
Rehabilitation	n.a.	n.a.	n.a.	n.a.	n.a.
Construction	11.2	30.5	n.a.	n.a.	n.a.
METPFQE					
Recurrent budget	**124.8**	**60.6**	**92.8**	**104.1**	**107.3**
Wages	148.4	86.5	74.1	72.9	80.5
Goods and Services	109.5	19.4	114.7	91.7	143.4
Transfers	95.2	86.0	100.0	238.4	114.1
Investment	**87.7**	**53.1**	**98.2**	**79.1**	**72.7**
Equipment	71.6	82.3	64.4	n.a.	n.a.
Studies	83.3	76.4	37.1	n.a.	n.a.
Rehabilitation	n.a.	n.a.	n.a.	n.a.	n.a.
Construction and Rehabilitation	67.1	65.4	90.5	n.a.	n.a.
MES					
Recurrent budget	**107.5**	**93.5**	**104.5**	**111.7**	**106.1**
Wages	95.7	98.1	102.7	142.5	116.1
Goods and Services	100.6	69.0	100.0	78.9	77.9
Transfers	131.9	93.1	108.0	82.2	98.8
Investment	**21.4**	**45.2**	**97.9**	**114.3**	**99.4**
Equipment	16.7	39.8	3.2	n.a.	n.a.
Studies	n.a.	56.0	n.a.	n.a.	n.a.
Rehabilitation	81.5	24.6	n.a.	n.a.	n.a.
Construction	33.0	14.3	100.0	n.a.	n.a.

Sources: Plan National de Développement - Congo 2012–2016 - Livre 2;
Loi de Finances for each year and Annuaire statistique 2010–2011.

Table A.11. External Financial Support (US$)

	2008	2009	2010	2011	2012	2013
World Bank						
On-budget		19,000,000			15,000,000	10,000,000
Off-budget						
African Development Bank						
On-budget						23,348,716
Off-budget						
World Food Program						
On-budget	3,889,807		8,760,717		9,894,570	0
Off-budget						
UNICEF						
On-budget	1,721,493	2,861,061	2,449,429	1,104,445	5,037,000	
Off-budget						
UNESCO						
On-budget		482,330		411,053		249,252
Off-budget						
French cooperation (AFD)						
On-budget						7,871,484
Off-budget						
TOTAL	**5,611,300**	**22,343,391**	**11,210,146**	**1,515,498**	**29,931,570**	**33,597,968**
On-budget						
Off-budget						

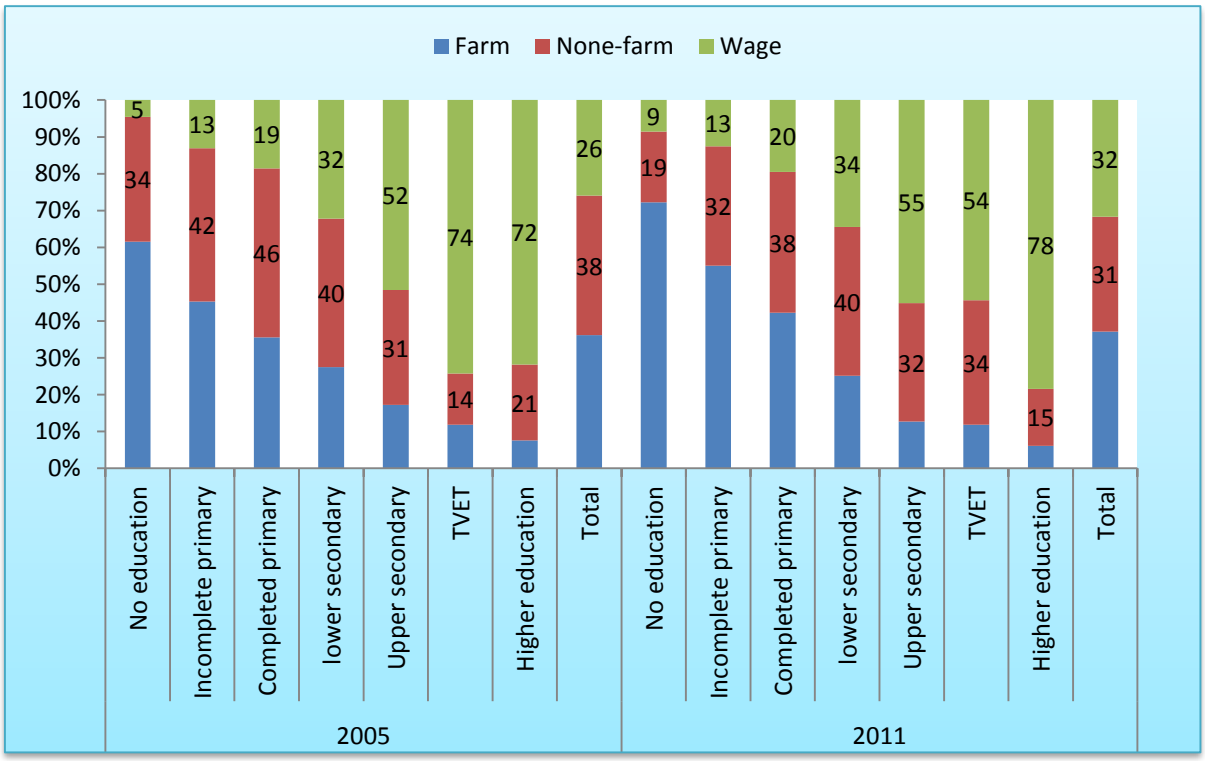
Note: 1. World Bank, US$19 million from 2004 to 2009 (support for PRAEBASE 1); US$15 million from 2009 to 2013 (support for PRAEBASE 2); and US$10 million from 2013 to 2018 (support for *Projet sur le Développement des compétences professionnelles pour l'employabilité* [project for the development of professional skills for employability]); PRAEBASE = *Projet d'Appui à l'Education de Base* (Basic Education Support Project).
2. African Development Bank, XAF 11,674,358,000 in support of the *Projet d'appui à la réinsertion socio-économique des groupes défavorisés* (project in support of the socioeconomic reintegration of underprivileged groups [PARSEGD]) from 2007 to 2013.
3. French cooperation (via AFD), €6 million to the *Projet d'appui à la refondation du système d'éducation et de formation* (project of support for the education and training system [PARSEF]) from 2007 to 2014.
4. For amounts in XAF, the exchange rate to dollars used here is US$1 = XAF 500 (for the African Development Bank) and €1 = XAF 655,957.
5. Certain funding is for one, two, or more years (cf. the different colors used for different cases)

Table A.12. Input Indicators by Level of Education (2011/2012)

	PTR	Teachers/ Administrative Staff	Pupils/Class
PRESCHOOL			
Private	25.9	2.6	32.0
Public	24.7	0.8	35.9
Total	25.1	1.1	34.5
PRIMARY			
Private	29.2	1.5	30.7
Public	59.6	1.5	58.0
Total	45.0	1.5	45.5
LOWER SECONDARY			
Private	10.9	2.5	20.8
Public	35.6	1.7	49.1
Total	20.1	2.1	33.5
UPPER SECONDARY			
Private	1.3	6.0	7.4
Public	8.5	3.3	25.4
Total	5.9	3.9	21.3

Source: MEPSA, Annuaire statistique, 2011/2012.

Figure A.3. Distribution of Sectoral Employment by Education Level, 2005–2011

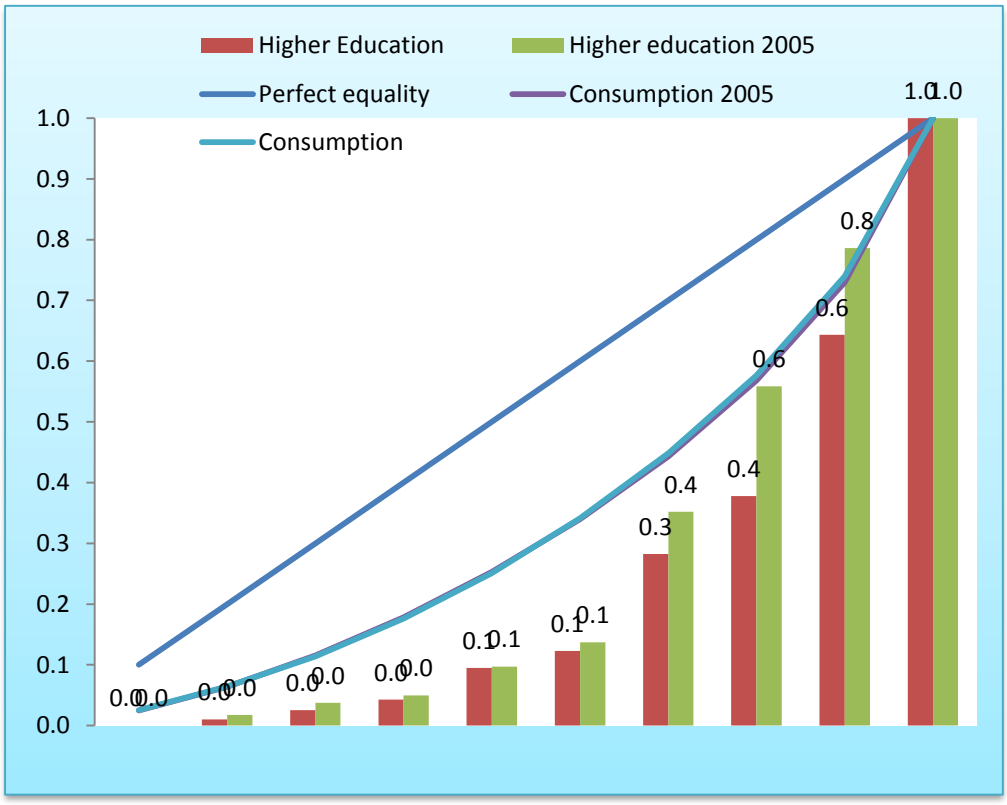


Source: Authors' computations using ECOM 2005 and ECOM 2011.

Table A.13. Logistic Regression of Determinant of Schooling

	2005		2011	
	Primary	**Secondary**	**Primary**	**Secondary**
Student				
Sex (female)	0.992	1.503	1.164	1.315
	(0.05)	(3.46)***	(1.38)	(2.64)***
Age in years	0.616	1.631	0.764	1.427
	(8.03)***	(17.10)***	(7.16)***	(12.74)***
Areas of Res. (Rural)	0.532	0.411	1.730	1.059
	(1.82)*	(3.53)***	(3.61)***	(0.49)
Consumption quintile (Ref. Poorest)				
Poor	0.662	0.704	0.879	0.740
	(1.83)*	(2.16)**	(0.84)	(2.00)**
Middle	0.836	0.558	0.551	0.693
	(0.70)	(3.79)***	(2.69)***	(1.85)*
Rich	0.604	0.499	0.854	0.363
	(2.03)**	(4.10)***	(0.65)	(4.55)***
Richest	0.277	0.401	0.286	0.213
	(4.14)***	(4.58)***	(3.14)***	(5.37)***
Head of household education (Ref. no education)				
Incomplete primary	0.876	0.997	0.860	0.935
	(0.54)	(0.01)	(0.78)	(0.35)
Completed primary	0.618	0.527	0.586	0.567
	(2.03)**	(4.27)***	(3.53)***	(3.72)***
Secondary plus	0.346	0.238	0.549	0.334
	(3.78)***	(7.43)***	(2.66)***	(6.01)***
Household background				
Head sex (female)	0.961	0.872	1.252	0.831
	(0.12)	(0.61)	(0.84)	(1.15)
Head marital status (married)	0.999	0.952	0.967	1.029
	(0.01)	(0.94)	(0.61)	(0.73)
Head age (in years)	0.993	0.989	0.996	0.986
	(1.04)	(2.17)**	(0.66)	(3.04)***
Household size	0.980	0.980	0.975	0.866
	(0.70)	(1.16)	(0.71)	(4.25)***
F	15.891	25.869	10.539	19.618
N	3,941	4,472	7,600	6,461

Figure A.4. Inequality of Higher Education Benefits Got Worse Between 2005 and 20011



Source: Authors' computation using ECOM 2005, ECOM 2011 and MEFPIPP; Loi de Finances.

Table A.14. Employment and Education Indicators of the Autochthone Population (2007)

Indicator	Autochthone Population	Whole Population of Congo
Primary and secondary enrollment rates (6–16 years)		
Male	24.7%	80.7%
Female	20.7%	79.3%
All	22.7%	80.0%
Gross primary enrollment rate		
Male	76.9%	117.0%
Female	59.0%	113.7%
All	67.9%	115.3%
Net primary enrollment rate (6–16 years)		
Male	47.8%	82.7%
Female	40.2%	80.0%
All	44.0%	81.3%
** Taux spécifique épuré de scolarisation au primaire (6–14 years)		
Male	26.0%	
Female	21.1%	
All	23.6%	70.0%
** Taux spécifique épuré de scolarisation au primaire (6–16 years)		
Male	19.4%	
Female	18.0%	
All	18.7%	61.1%
Gross participation rate		
Male	52.8%	
Female	46.4%	
All	49.5%	
**Taux spécifique d'activité		
Male	76.1%	
Female	64.7%	
All	70.1%	
Employment rate		
Male	91.8%	
Female	96.5%	
All	94.1%	

Source: CNSEE, Census of 2007.

Annex A.2

1. Data used in the preparation of the chapter and limitations of the analysis

For the preparation of the chapter, data were used from two household surveys, ECOM 2005 and 2011; the latest Congo DHS (2011); administrative data from the various ministries in charge of education (MEPSA, METPFQE, and MES) and data from the *Ministère de l'Economie, des Finances, du Plan, de l'Integration et du Portefeuille Publique*. Administrative data was very limited due to the existing limitations of the education information and management system in Congo. As such, it was not possible to carry out a detailed analysis of human resources, including looking at the percentage of *bénévoles* still in the system, and the teaching qualifications and distribution of teachers. The data did not allow for a detailed analysis on minorities either. Thus, the chapter relied significantly on the surveys' data to produce as much information as possible.

2. Methodologies used in the analysis

Grade Repetition and Dropout Costing Methodology.

The estimation of loss associated with grade repetition was based on (a) the direct cost of schooling, and (b) the discounted value of the forgone opportunity costs of expected earnings. The direct cost of schooling was generated using the total number of children who repeated a grade by frequency of repetition and was based on annual public and private unit costs per student. The discounted value of the forgone opportunity cost of expected earnings was estimated based on wage employment earnings, which took into account both the age of labor market entry and the associated unemployment rate.

The opportunity cost of children who dropped out of school was calculated using the number of dropouts by level of education alongside calculated public and private unit costs. Earnings of individuals were estimated by level of education and forgone income was computed by analyzing the earning difference between those completing levels of education and those who dropped out before completion. To account for cost differences of completing the level and dropping out, actual costs were estimated based on the average years of schooling by level for dropouts and the full cost of completion of the level.

Determinants of Out-of-School

In addition to descriptive statistics, multivariate logit regression analysis was used to explore how different factors affect different age groups. The logit regression model followed the standard form:

$$\Pr(Y = 1) = \frac{1}{1 + e^{-\eta}},$$

where $\eta = \alpha + \beta X + \varepsilon$

The dependent variable, Y, indicated out-of-school, with 1 being coded if the child was not in school; α is a constant term; X is a vector of relevant household and individual characteristics; and ε is the error term. The included individual characteristics were gender, orphan status (defined as 1 if the child lived in a household without either parent and 0 otherwise), and urban residence. The household level variables included were the consumption quintile, the education of the household head, the sex of the household head, an indicator variable for the household head not being married (coded 1 if the head was not married and 0 otherwise), household size, and the distance of the household to primary education. The results are presented as an odds ratio.

Benefit Incidence Analysis

Benefit incidence analysis (BIA) illustrates how public expenditure on services is distributed among population subgroups, using both the service provision costs and participation or usage rates of a specific service (Heltberg, Simler, and Tarp 2003). Benefit incidence studies are particularly useful in determining the extent to which public spending on social sectors—for the present chapter, education—benefits the poorest strata and therefore creates a well-targeted instrument for poverty reduction.[49] BIA can likewise analyze expenditure by different groups or regional locations, though this analysis requires greater disaggregation in spending data, which was not available for this analysis. This chapter has been therefore limited to the income group (denoted by expenditure quintile).

A BIA requires three elements: (a) household-level survey data which gathers information from which to construct a proper welfare indicator (that is, per capita household consumption expenditures, appropriately adjusted); (b) utilization of—or participation in—the public service of interest (enrollment in school); and (c) administrative or budget data that provides unit costs to the government for the provision of those same services (for example, the cost of one year of schooling per student). SLIHS 2011–12 is an adequate instrument with which to conduct a BIA as it gathers appropriate information on both enrollment figures and consumption measures for constructing accurate welfare indicators. Welfare, in this case, is measured by aggregate household consumption over the last 12 months, after incorporating food consumption, nonfood consumption, housing, and benefits derived from durable goods. The unit costs of education are derived from figures for public spending on education reported by the Ministry of Finance for Public Spending on Education. By

[49] The concept of BIA was originally pioneered by studies by Gillespie (1965) on Canada and extended to the developing countries context by Meerman (1979) on Columbia; and Seloswski (1979) on Malaysia; and in its modern stage by Need (1995); Selden and Wasylenko (1992;, Sahn and Yonger (1999) on Africa, and Demery (2000).

using government expenditure sources in addition to household expenditure on education, a more accurate unit cost can be calculated.

Individuals (or households) must first be ranked by their measure of welfare according to the household survey and then aggregated into population groups to compare how the subsidy itself is distributed across these groups. These groups are typically quintiles or deciles. This analysis uses expenditure quintiles, in which the first quintile holds the poorest 20 percent of the population and so on.

Next, using the data provided by the household survey, the total number of individuals who participated in or used the publicly provided service in question (those who were enrolled in school) must be identified. Each user (or household) must then be multiplied by the unit cost of service provision and finally, these beneficiaries are aggregated into their appropriate population groups (consumption quintiles). It is the distribution of this in-kind transfer to the population that constitutes a BIA. In the case of education, the BIA model at hand can be expressed as:

$$X_j \equiv \sum_{i=1}^{4} E_{ij} \frac{S_i}{E_i} \equiv \sum_{i=1}^{4} \frac{E_{ij}}{E_i} S_i \,,$$

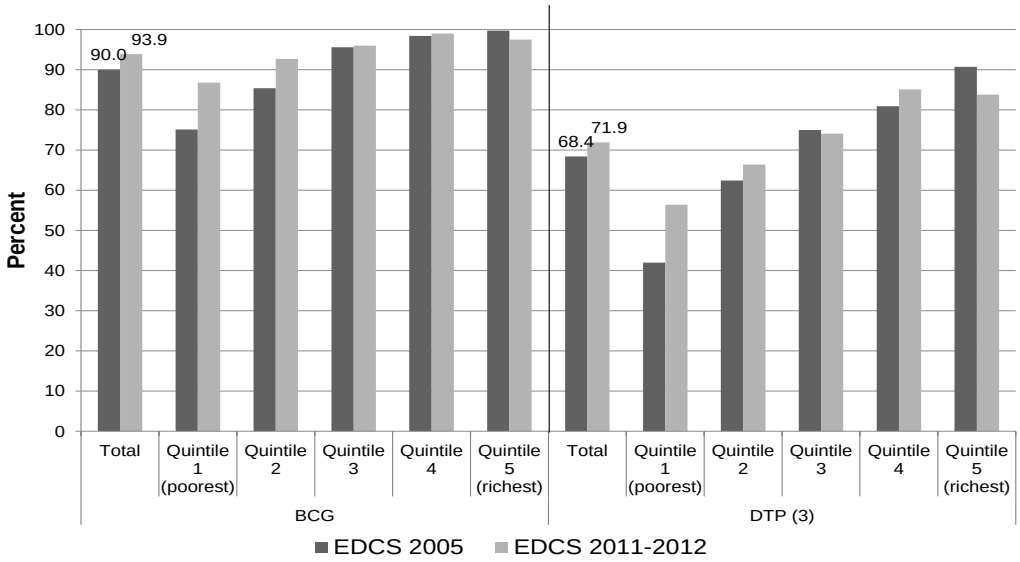
where X_j is the value of the total education subsidy imputed to consumption quintile j. E_{ij} represents the number of school enrollments of consumption quintile j at education level i and E_i the total number of enrollments (across all consumption quintiles) at that level. S_i is government spending on education level i and i (= 1,.., 4) denotes the level of education (primary, lower secondary, upper secondary, and tertiary). Note that S_i/E_i is the unit subsidy of providing a school place at level I (Demery 2000).

The resulting profile illustrates the distribution of public spending on education that is allocated to each welfare group (expenditure quintile), or the 'benefit incidence'. Concentration curves can then be plotted to show the cumulative distribution of these benefits across households and can be compared to the cumulative distribution of total consumption (what is typically referred to as the Lorenz curve). The Lorenz curve is a graphical interpretation of the cumulative distribution of income on the vertical axis against the cumulative distribution of population on the horizontal axis. The progressivity of spending is pro-poor if the poor receive more of the service's benefits than the non-poor, as well as a share greater than their share of the population; graphically, this line appears above the diagonal line—the line indicating that each quintile in the distribution is receiving the same share, in this case, 20 percent of spending. Pro-poor spending is an indication of the successful targeting of public service benefits toward poorer households (Heltberg, Simler, and Tarp 2003). 'Not-pro-poor but progressive' refers to a situation in which the non-poor receive more than the poor, but the poor still receive a share larger than their share of consumption; graphically, this line appears below the diagonal but above the Lorenz. 'Not-pro-poor and regressive' occurs if the non-poor receive more than the poor, and the share of the poor is less than their share of consumption; graphically, this line appears below the diagonal and below the Lorenz.

When determining enrollment as an element of BIA, its distribution can be interpreted in one of two ways: (a) net enrollment (the share of children of school-age groups attending the corresponding school level) or (b) gross enrollment (the ratio of all enrolled children regardless of their age to the number of age appropriate children for the school level in question). The differences in these two can add depth to further interpretations of the BIA, particularly in the case of Congo where overage and older children who are still enrolled in primary school contribute to differing enrollment rates.

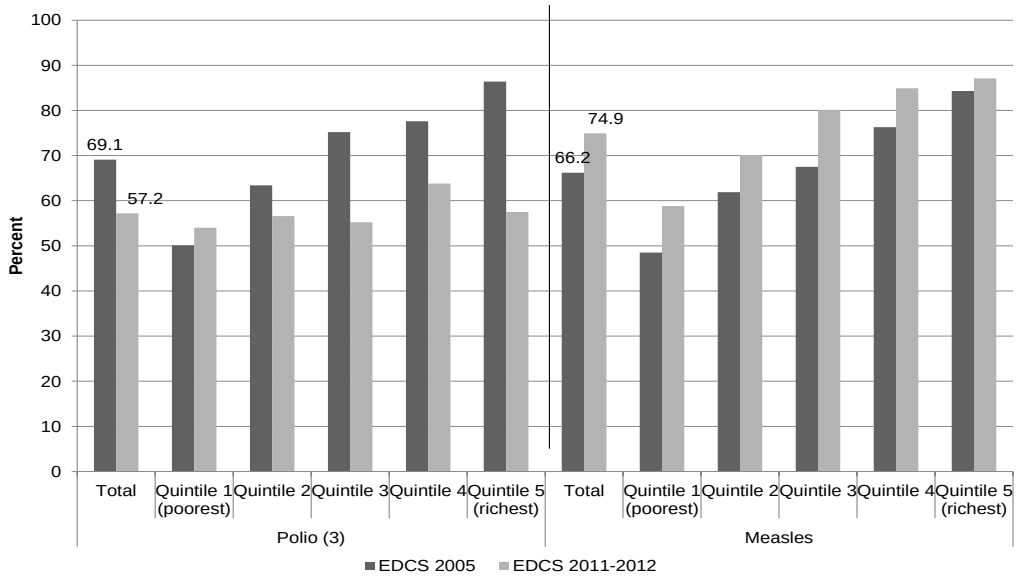
Annex B.1

Figure B.1. Child Vaccinations: BCG and DTP, 2005 and 2011–2012 (percentage)



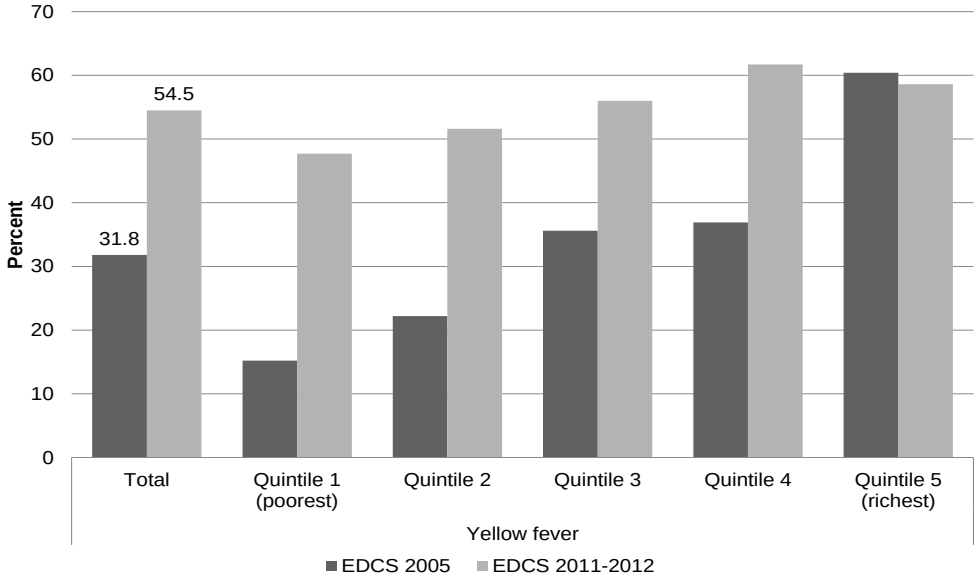
Source: Authors' calculations with data from EDSC 2005 and EDSC 2011–2012.

Figure B.2. Child Vaccinations: Polio and Measles, 2005 and 2011–2012 (percentage)



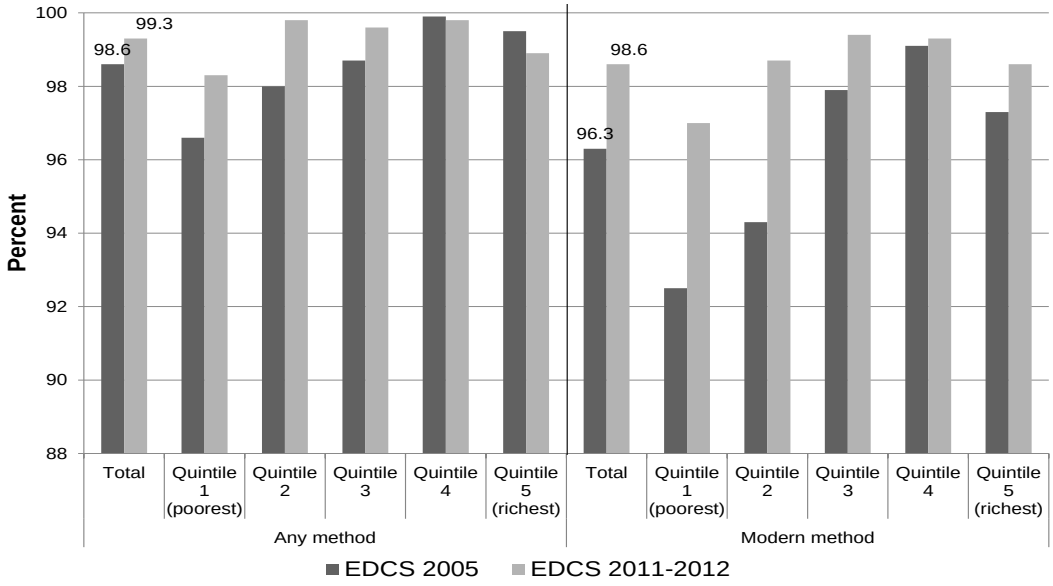
Source: Authors' calculations with data from EDSC 2005 and EDSC 2011–2012.

Figure B.3. Child Vaccinations: Yellow Fever, 2005 and 2011–2012 (percentage)



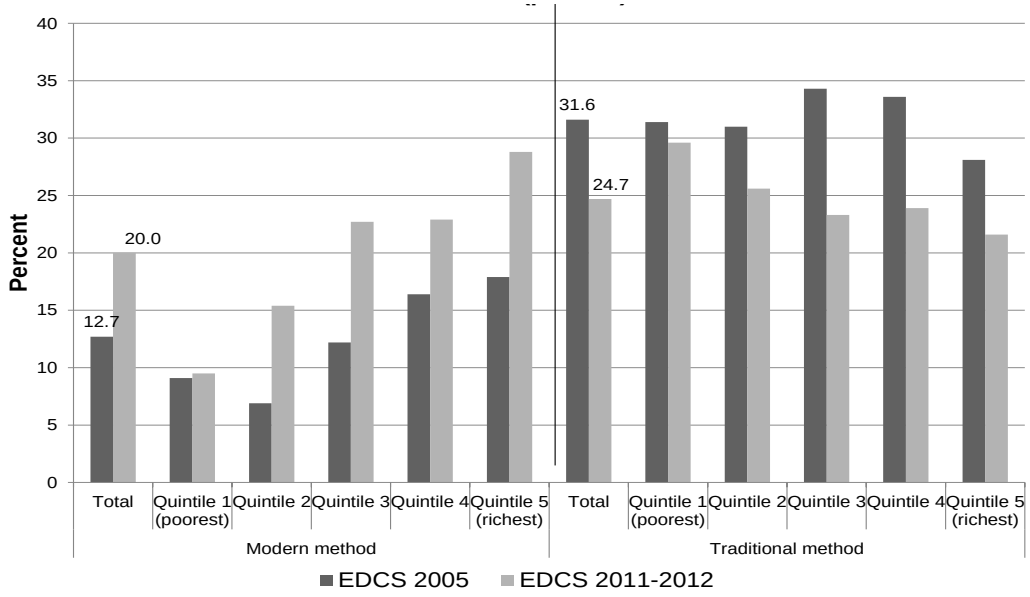
Source: Authors' calculations with data from EDSC 2005 and EDSC 2011–2012.

Figure B.4. Knowledge of Contraceptive Methods, Women Living with a Partner, 2005 and 2011–2012 (percentage)



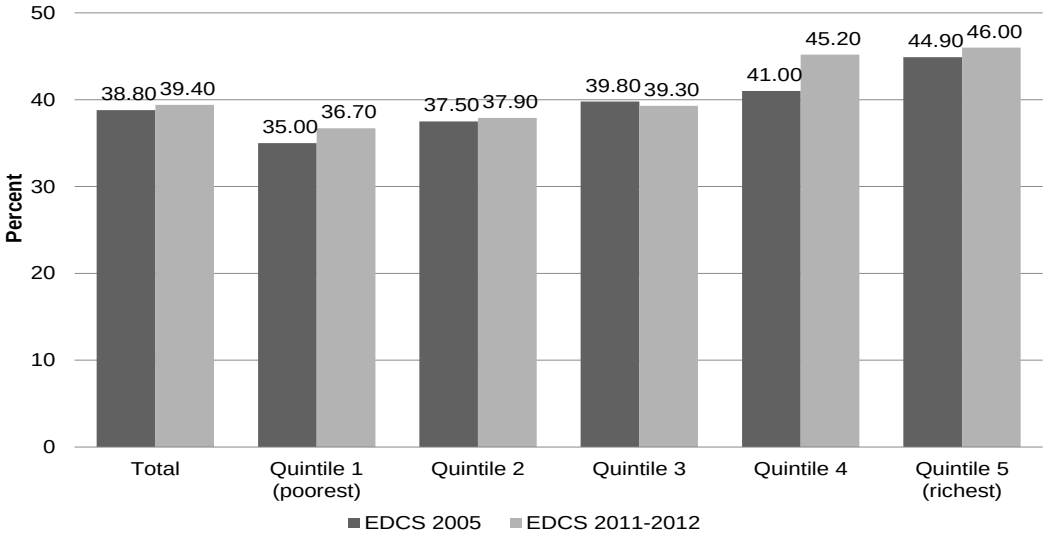
Source: Authors' calculations with data from EDSC 2005 and EDSC 2011–2012.

Figure B.5. Current Use of Contraception by Women Living with a Partner, 2005 and 2011–2012 (percentage)



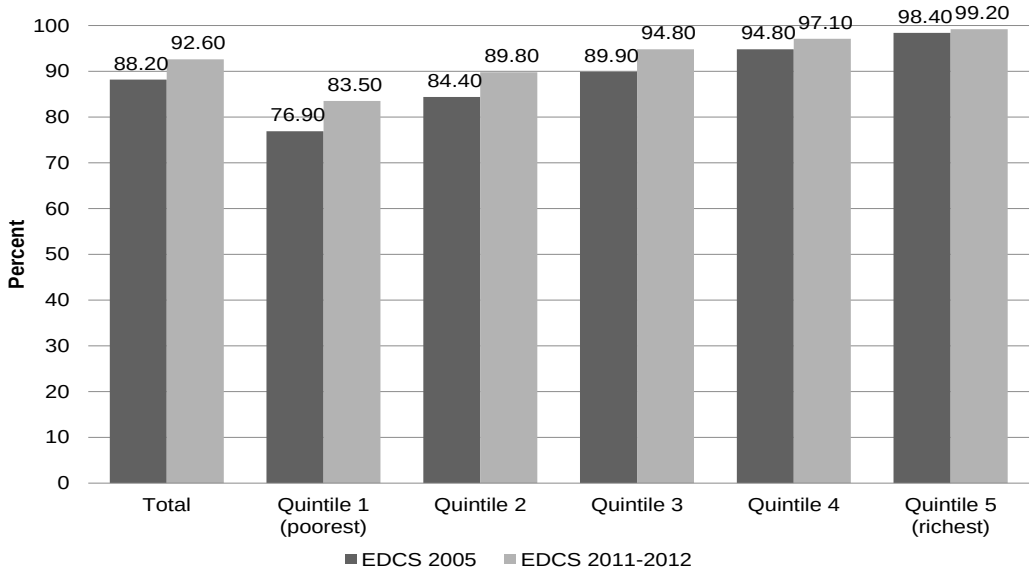
Source: Authors' calculations with data from EDSC 2005 and EDSC 2011–2012.

Figure B.6. Median Number of Months since the Previous Delivery, 2005 and 2011–2012 (percentage)



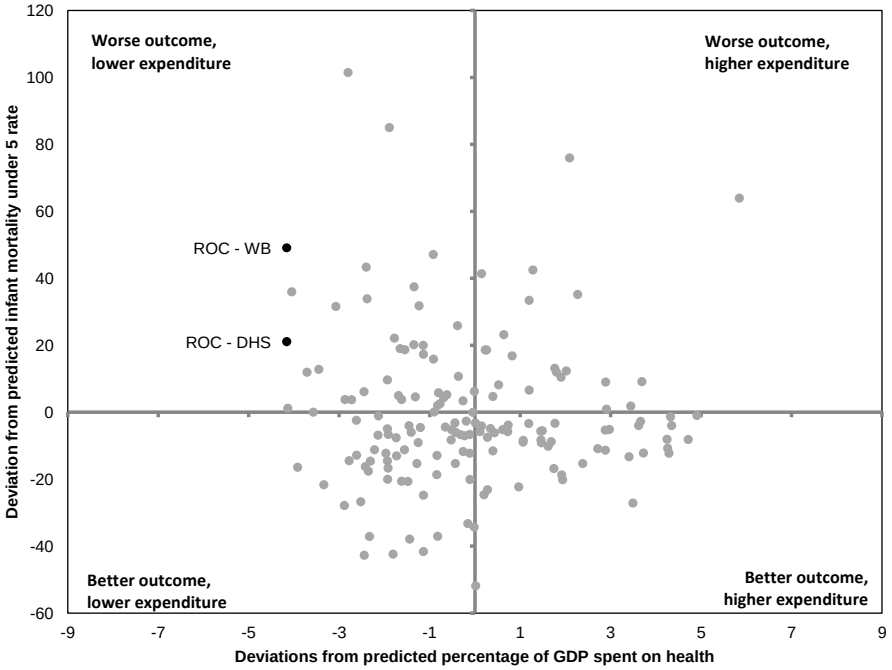
Source: Authors' calculations with data from EDSC 2005 and EDSC 2011–2012.

Figure B.7. Percentage of Pregnant Women who Received Prenatal care by Qualified Health Personnel, 2005 and 2011–2012 (percentage)



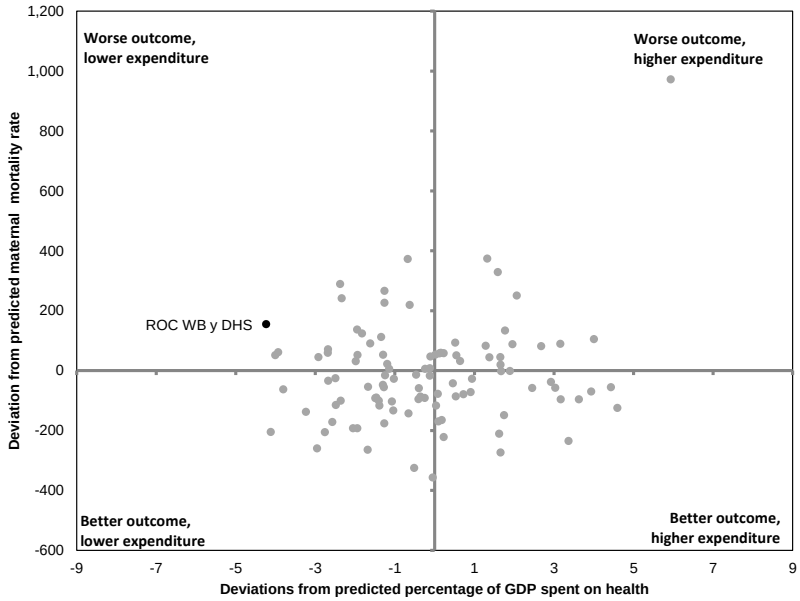
Source: Authors' calculations with data from EDSC 2005 and EDSC 2011–2012.

Figure B.8. CMR and Health Expenditure in Selected Countries: Deviations from Estimates Based on Per Capita Income (PPP-adjusted US$) and Schooling (literacy rate in percentage), 2012



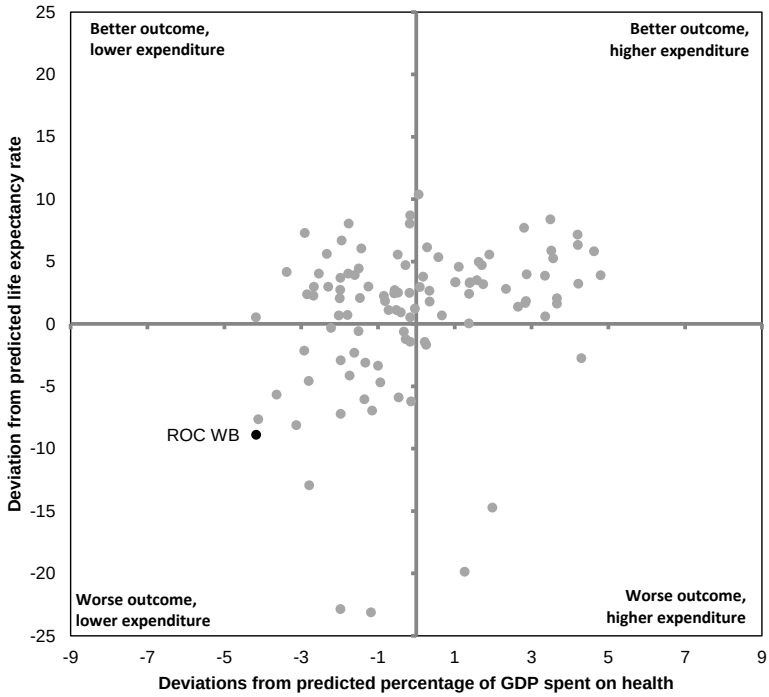
Source: Authors' calculations with data from the WBWDB.

Figure B.9. MMR and Health Expenditure in Selected Countries: Deviations from Estimates Based on Per Capita Income (PPP-adjusted US$) and Schooling (literacy rate in percentage, 2012



Source: Authors' calculations with data from the WBWDB.

Figure B.10. LEB and Health Expenditure in Selected Countries: Deviations from Estimates Based on Per Capita Income (PPP-adjusted US$) and Schooling (literacy rate in percentage), 2012



Source: Authors' calculations with data from WBWDB.

Table B.1. Incidence and Intensity of Catastrophic Health Payments

	Threshold Budget Share					
	5%	**10%**	**15%**	**25%**	**30%**	**40%**
Headcount (H)						
Lowest quintile	6.9	2.0	0.3	0.0	0.0	0.0
2	6.7	1.8	1.0	0.1	0.0	0.0
3	7.1	1.4	0.1	0.0	0.0	0.0
4	5.0	0.6	0.1	0.0	0.0	0.0
Highest quintile	6.3	0.2	0.0	0.0	0.0	0.0
Total	6.4	1.2	0.3	0.0	0.0	0.0
Mean positive overshoot (MPO)						
Quintile 2	4.4	5.6	4.1	17.2	33.3	23.3
Concentration index, C_E	−0.044	−0.304	−0.383	−0.451	−0.523	−0.521

Source: Authors' calculations based on ECOM 2011.

Table B.2. Number of Hospital Beds in Base Hospitals, by *Département*, 2012

Département	Number of Hospital Beds				
	Medicine	**Pediatrics**	**Surgery**	**Obstetrics and Gynecology**	**Total**
Kouilou[a]	0	0	0	0	0
Niari	15	26	24	19	84
Lékoumou	15	16	14	12	57
Bouenza	116	83	90	84	373
Pool	140	17	40	34	231
Plateaux	29	35	21	37	122
Cuvette	80	58	51	91	280
Cuvette-Ouest	48	41	35	41	165
Sangha	40	20	6	36	102
Likouala	65	60	65	63	253
Brazzaville	97	69	60	34	260
Pointe Noire	23	35	16	37	111
Country	**668**	**460**	**422**	**488**	**2,038**

Source: MSP 2013c.
Note: a. Kouilu has no Base Hospitals.

Table B.3. Number of Bed Days in Base Hospitals, by *Département*, 2012

Département	Total Number of Bed Days				
	Medicine	**Pediatrics**	**Surgery**	**Obstetrics and Gynecology**	**Total**
Kouilou					
Niari	3,229	4,329	5,297	3,771	16,626
Lékoumou	1,492	1,668	1,718	2,605	7,483
Bouenza	10,181	13,091	6,414	3,829	33,515
Pool	4,670	5,689	2,647	412	13,418
Plateaux	3,870	4,430	1,831	1,959	12,090
Cuvette	8,248	10,174	4,725	8,998	32,145
Cuvette-Ouest	3,333	2,616	2,530	1,350	9,829
Sangha	1,570	2,897	839	3,638	8,944
Likouala	1,483	3,434	1,336	589	6,842
Brazzaville	9,891	6,528	2,416	6,468	25,303
Pointe Noire	2,880	17,256	4,049	15,638	39,823
Country	**50,847**	**72,112**	**33,802**	**49,257**	**206,018**

Source: MSP 2013c.

Table B.4. Base Hospitals: Utilization Statistics, 2012

Department	Medicine				Pediatrics				Surgery				Obstetrics and Gynecology				Total			
	Hospitalizations	Bed days	Average length of stay	Discharges	Hospitalizations	Bed days	Average length of stay	Discharges	Hospitalizations	Bed days	Average length of stay	Discharges	Hospitalizations	Bed days	Average length of stay	Discharges	Hospitalizations	Bed days	Average length of stay	Discharges
Kouilou																		—	—	—
Niari	586	3,229	5.5	568	586	4,329	4.4	972	586	5,297	22.8	220	586	3,771	3.6	1,015	586	16,626	14	2,775
Lékoumou	492	1,492	3.0	—	1,197	1,668	1.4	—	284	1,718	6.0	—	337	2,605	7.7	—	2,310	7,483	12	—
Bouenza	1,986	10,181	5.1	1,906	4,193	13,091	3.1	3,430	1,090	6,414	5.9	991	1,254	3,829	3.1	1,116	8,523	33,515	11	6,452
Pool	832	4,670	5.6	687	1,103	5,689	5.2	717	866	2,647	3.1	787	120	412	3.4	120	2,921	13,418	14	1,524
Plateaux	819	3,870	4.7	884	1,051	4,430	4.2	1,594	280	1,831	6.5	304	622	1,959	3.1	932	1,953	12,090	12	3,410
Cuvette	2,132	8,248	3.9	1,651	3,121	10,174	3.3	2,196	1,012	4,725	4.7	1,337	4,264	8,998	2.1	2,488	10,529	32,145	9	6,335
Cuvette-Ouest	671	3,333	5.0	654	542	2,616	4.8	519	440	2,530	5.8	435	248	1,350	5.4	144	1,901	9,829	15	1,317
Sangha	265	1,570	5.9	242	890	2,897	3.3	868	92	839	9.1	90	1,220	3,638	3.0		2,467	8,944	12	1,110
Likouala	293	1,483	5.1	267	802	3,434	4.3	802	146	1,336	9.2	124	118	589	5.0		1,359	6,842	14	1,069
Brazzaville	2,123	9,891	4.7	1,279	2,021	6,528	3.2	1,514	492	2,416	4.9	279	1,184	6,468	5.5		5,820	25,303	13	2,793
Pointe Noire	612	2,880	4.7	604	3,733	17,256	4.6	3,698	525	4,049	7.7	501	4,441	15,638	3.5		9,311	39,823	13	4,302
Country	9,992	50,847	4.7	8,742	19,639	72,112	3.7	16,310	5,459	33,802	6.2	5,068	14,846	49,257	3.3	13,150	49,936	206,018	140	31,087

Source: MSP 2013c.

Table B.5. National Hospitals: Bed Utilization Statistics

National Hospital	Hospitalizations	Bed Days	Average Length of Stay	Beds	Bed Utilization Rate
A. Sice	13,467	18,946	1.4	n.a.	n.a.
Centre Hospitalier Universitaire (CHU)	29,638	169,839	5.7	723	64%
Owando	3,153	14,066	4.5	145	27%
Dolisie	7,877	28,210	3.6	n.a.	n.a.
HCA	7,734	n.a.	n.a.	300	n.a.
Loandjili	7,596	27,928	3.7	n.a.	n.a.
Total	69,465	258,989	3.7	1,168	61%

Source: MSP 2013c.
Note: n.a. = Not available.

Table B.6. Health Care Subsidies, Constant Unit Subsidy Assumption

	Subsidy for Visits to Hospital	Subsidy for Visits to Ambulatory Center	Total Subsidies
Mean subsidy			
Lowest quintile	5,826.81	2,465.76	8,292.57
2	6,599.38	1,836.75	8,436.13
3	5,722.01	1,429.01	7,151.02
4	6,375.09	1,279.64	7,654.73
Highest quintile	6,806.58	1,406.67	8,213.25
Total	6,266.23	1,683.55	7,949.77
Shares			
Lowest quintile	18.6	29.3	20.9
2	21.1	21.8	21.2
3	18.3	17.0	18.0
4	20.3	15.2	19.2
Highest quintile	21.8	16.7	20.7
Total	100.0	100.0	100.0
Share in the total subsidy	78.8	21.2	100.0
Concentration Index	0.0214	−0.1428	−0.0135

Source: Authors' calculation based on ECOM 2011 and MSP 2013c.

Annex B.2

1. Data used in the preparation of the chapter and limitations of the analysis

For the preparation of the chapter, data were used from two household surveys, ECOM 2005 and 2011; the two most recent Congo DHSs, known as EDSC 2005 and EDSC 2011–12; administrative data from the MSP and data from the *Ministère de l'Economie, des Finances, du Plan, de l'Integration et du Portefeuille Publique*. Administrative data was very limited due to the existing limitations of the health information and management system in Congo. As such, it was not possible to carry out a detailed analysis of human resources; budget items changed over time, which made analyzing trends in budget execution by budget item a challenging exercise, and departmental expenditure analyses were very limited. The data did not allow for a detailed analysis on minorities either. Thus, the chapter relied significantly on the surveys data to produce as much information as possible.

2. Methodologies used in the analysis

Catastrophic Payments for Health Care[50]

To assess the impact of the disruptive effect of health OOPS on household living standards, a popular approach has been to define medical spending as 'catastrophic' if it exceeds some fraction of household income or total expenditure in a given period, usually one year. The idea is that spending a large fraction of the household budget on health care must be at the expense of the consumption of other goods and services. This opportunity cost may be incurred in the short term if health care is financed by cutting back on current consumption or in the long term if it is financed through savings, the sale of assets, or credit.

The two key variables underlying the approach are total household out-of-pocket payments for health care and a measure of household resources. Income, expenditure, or consumption could be used for the latter. In this particular case, we have used aggregate household consumption and household out-of-pocket payments for health care obtained from SLIHS 2011–12. A potential problem is that this budget share may be low for poor households in low-income countries. The severity of the budget constraint means that most resources are absorbed by items essential to sustenance, such as food, leaving little to spend on health care. A partial solution is to define catastrophic payments not with respect to the health payments budget share but with respect to health payments as a share of expenditure net of spending on basic necessities. The latter has been referred to as 'nondiscretionary expenditure'. A common approach is to use household expenditure net of food spending as an indicator of living standards. In this report we show results for both total and nonfood expenditure.

[50] Follows the methods outlined in O'Donnell et al. (2008).

If we define T as OOP payments for health care, x as total household expenditure, and $f(x)$ as food expenditure, or nondiscretionary expenditure more generally, then a household is said to have incurred catastrophic payments if T/x, or $T/[x-f(x)]$, exceeds a specified threshold, z. The value of z represents the point at which the absorption of household resources by spending on health care is considered to impose a severe disruption to living standards. That is obviously a matter of judgment and it will depend on whether the denominator is total expenditure or nondiscretionary expenditure. Spending 10 percent of total expenditure on health care might be considered catastrophic but 10 percent of nondiscretionary expenditure probably would not. Thus, we present results considering different thresholds, from 5 to 10 percent of expenditure.

Benefit Incidence Analysis[51]

BIA illustrates how public expenditure on services is distributed among population subgroups, us both the service provision costs and participation or usage rates of a specific service (Heltberg, Simler, and Tarp 2003). As was discussed in Annex A.2 in the case of education spending, here benefit incidence studies are also particularly useful in determining the extent to which public spending on social sectors—for the present chapter, health—benefits the poorest strata and therefore creates a well-targeted instrument for poverty reduction.[52] BIA can likewise analyze expenditure by different groups or regional locations, though this analysis requires greater disaggregation in spending data, which was not available for this analysis. This chapter has been therefore limited to the income group (denoted by expenditure quintile).

BIA requires three elements: (a) household-level survey data which gathers information from which to construct a proper welfare indicator (that is, per capita household consumption expenditures, appropriately adjusted); (b) utilization of—or participation in—the public service of interest (visits to a certain type of health facility); and (c) administrative or budget data that provides unit costs to the government for the provision of those same services (for example, the total amount of government spending on each type of provider). SLIHS 2011–12 is an adequate instrument from which to conduct a BIA as it gathers appropriate information on both health facility use figures and consumption measures for constructing accurate welfare indicators. Welfare, in this case, is measured by aggregate household consumption over the previous 12 months, after incorporating food consumption, nonfood consumption, housing, and benefits derived from durable goods. The unit costs of health are derived from figures for public spending on health reported in the NHA study completed by the MSP in 2013. Because accounts are not sufficiently detailed to allow net public expenditure to be identified by region and facility, all units of a given service must be weighted by the same unit subsidy estimated; thus, this particular

[51] Follows the methods outlined in O'Donnell et al. (2008).

[52] The concept of BIA was originally pioneered by studies by Gillespie (1965) on Canada and extended to the developing countries context by Meerman (1979) on Columbia; and Seloswski (1979) on Malaysia; and in its modern stage by Need (1995); Selden and Wasylenko (1992;, Sahn and Yonger (1999) on Africa, and Demery (2000). [[AQ: These are not cited.]]

analysis assumes constant unit subsidies. Moreover, user fees were not considered since there are no official numbers for these.

Individuals (or households) must first be ranked by their measure of welfare according to the household survey and then aggregated into population groups to compare how the subsidy itself is distributed across these groups. These groups are typically quintiles or deciles. This analysis uses expenditure quintiles, in which the first quintile holds the poorest 20 percent of the population and so on.

Next, using the data provided in the household survey, the total number of individuals who participated in or used the publicly provided service in question (those who visited health providers during the year under analysis) must be identified. Each user (or household) is then multiplied by the unit cost of service provision and finally, these beneficiaries are aggregated into their appropriate population groups (consumption quintiles). It is the distribution of this in-kind transfer of the population that constitutes a BIA.

The resulting profile illustrates the distribution of public spending on education that is allocated to each welfare group (expenditure quintile), or the 'benefit incidence'. Concentration curves can then be plotted that show the cumulative distribution of these benefits across households. The progressivity of spending is pro-poor if the poor receive more of the service's benefits than the non-poor, as well as a share greater than their share of the population; graphically, this line appears above the diagonal line as this is the line indicating that each quintile in the distribution is receiving the same share, in this case, 20 percent of spending.

References

Cadre de dépenses de moyen terme (CDMT) central. 2009. Microsoft Excel file.

CNSEE (Centre National de la Statistique et des Études Économiques). 2005. *Congo Enquête Démographique et de Santé 2005*. Brazzaville: Centre National de la Statistique et des Études Économiques.

———. 2012. *Extrait du profil de la pauvreté au Congo en 2011*.

CNSEE, and ICF International. 2012. *Enquête Démographique et de Santé du Congo (EDSC-II) 2011–2012*. Brazzaville.

CONFEMEN/MEPSA. 2009. *Rapport PASEC Congo-Brazzaville 2009 - L'enseignement primaire au Congo: à la recherche de la qualité et de l'équité*.

Conseil des Ministres. 2012. "Compte-rendu du Conseil des Ministres du 23 juillet 2012."

Decree nr. 2010-41, 28 January 2010.

Décret nº 2009-233, du 14 Août 2009.

Décret 2008-886, 31 décembre 2008.

Government of Congo. 2010. *Rapport national des progres vers l'atteinte des Objectifs du millenaire pour le developpement*. Brazzaville.

IDA/IMF. 2012. "Staff Advisory Note on the GEPRSP 2012–2016."

IMF (International Monetary Fund). 2010a. *Status Report on the Implementation of the GEPRSP 2008–2011*.

———. 2010b. *Rapport sur la réforme de la chaîne de la dépense publique Congo Brazza*.

———. 2012. *Republic of Congo: 2012 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for the Republic of Congo*. IMF Country Report No. 12/283.

———. 2013a. "Aide Memoire Mission March 16."

———. 2013b. *Republic of Congo: 2013 Article IV Consultation*. IMF Country Report No. 13/282. Washington, DC: International Monetary Fund.

International Monetary Fund. 2013. *Republic of Congo: 2013 Article IV Consultation*.

Institut national de la statistique. 2013. *Indice harmonisé des prix a la consommation des ménages (IHPC, Base 100: 2005)*.

International Finance Corporation, and The World Bank. 2011. *Doing Business 2011. Making a Difference for Entrepreneurs*. Washington, DC.

Loi no 5-2011, 25 février 2011.

Loi 20/2012, 3 septembre 2012.

Loi 12/2009, 29 décembre 2009.

Loi de finances 2/2008, 15 février 2008.

Mathis, J. 2006. *Mesure de la Performance de la Gestion des Finances Publiques en République du Congo selon la Méthodologie PEFA*.

MEPSA (Ministère de l'Enseignement Primaire, Secondaire et Alphabétisation). 2008. *Le Développement de l'Éducation - Rapport National de la République du Congo*. Brazzaville.

———. 2009. *Stratégie Nationale d'Éducation des Populations Autochtones du Congo, PRAEBASE*.

———. 2010. *Stratégie sectorielle de l'éducation*.

Ministère de l'Économie, du Plan, de l'Aménagement du Territoire et de l'Intégration. 2012a. *Deuxième Enquête Congolaise Auprès des Ménages pour le Suivi et l'Évaluation de la Pauvreté (ECOM 2011), Rapport d'Analyse du Volet QUIBB.*

———. 2012b. *Deuxième Enquête Congolaise Auprès des Ménages pour le Suivi et l'Évaluation de la Pauvreté (ECOM 2011) - Extrait du Profil de la Pauvreté au Congo en 2011*.

———. 2010c. *Bilan de l'exécution en fin 2010 Du Plan d'Actions pour l'Amélioration de la gestion des Investissements Publics (PAAGIP) - 2009–2010 Et Proposition d'un second Plan d'Actions Pour l'Amélioration de la Gestion des Investissements Publics (PAAGIP II) – 2011–2013*.

Ministère de l'Enseignement Primaire, Secondaire, chargé de l'Alphabétisation. 2009. "Program Budget."

Ministère de l'Enseignement Technique, Professionnel, de la Formation Qualifiante et de l'Emploi. 2009. "Program Budget."

Ministère des Finances, du Budget et du Portefeuille Public. 2011. "Instruction d'application des dispositions fiscales de la loi n. 20 du 29 décembre 2010, portant loi de finances pour l'année 2012."

———. 2012. "Instruction d'application des dispositions fiscales de la loi n. 36 du 29 décembre 2011, portant loi de finances pour l'année 2011."

MSP (Ministère de la Santé et de la Population). 2013a. *Comptes Nationaux de la Santé 2009–2010 Rapport Final*. Brazzaville.

———. 2013b. *Comptes nationaux de la sante (CNS) 2009–2010 Version Finale*.

———. 2013c. "Annuaire des statistiques sanitaires du Congo 2012."

O'Donnell, O., E. van Doorslaer, A. Wagstaff, and M. Lindelow. 2008. *Analyzing Health Equity Using Household Survey Data: A Guide to Techniques and Their Implementation*. Washington DC: World Bank, 2008.

Oulai, D, and D. Farba. 2001. *La gratuité de l'éducation au Congo. Etat des lieux des frais liés à l'éducation, analyse des conséquences de la gratuité (Rapport Provisoire), UNICEF/UNESCO, 8 mai 2011*.

PDSS, P. d. D. d. S. D. S. 2010. *Etude Sur Les Etablissements Sanitaires Du Congo*.

Présidence de la République. 2008. "Lettre de cadrage budgétaire pour 2009."

———. 2009. "Lettre de cadrage budgétaire pour 2010."

Programme d'actions prioritaire et cadre de dépenses à moyen terme 2010–2012 (Université).

Republic of Congo. 2012. *National Development Plan 2012–2016 - Book 1*.

République du Congo. 2010a. *Rapport National des Progrès vers l'Atteinte des Objectifs du Millénaire pour le Développement, avril 2010*.

———. 2010b. *Le RGPH - 2007 en quelques chiffres*.

Results for Development Institute and Health Research for Action. 2011. *Étude sur le secteur privé de la santé en République du Congo*. Vol. I.

TOFE 1997–2012.

UNESCO/IBE. 2010. "World Data on Education - Congo, VII Edition 2010/11."

UNFPA. 2011. *Protection des populations autochtones de la République du Congo. La faible utilisation des services de santé de la reproduction menace leur existence*.

US Department of State. 2013. "Investment Climate Statement - Congo 2012."

van Doorslaer, E., O. O'Donnell, R. P. Rannan-Eliya, A. Somanathan, S. R. Adhikari, C. C. Garg, D. Harbianto, A. N. Herrin, M. N. Huq, S. Ibragimova, A. Karan, T.-J. Lee, G. M. Leung, J.-F. R. Lu, C. W. Ng, B. R. Pande, R. Racelis, S. Tao, K. Tin, K. Tisayaticom, L. Trisnantoro, C. Vasavid, and

Y. Zhao. 2007. “Catastrophic Payments for Health Care in Asia.” *Health Economics* 16: 1159–1184. doi:10.1002/hec.1209.

Wang, L. 2002. “Determinants of Child Mortality in Low-Income Countries: Empirical Findings from Demographic and Health Surveys.” *Health Policy* 65 (3): 277–299.

World Bank. 2006. “Preparing PERs for Human Development. Specific Guidance for Health.”

———. 2010a. *Country Partnership Strategy, 2010–2012*.

———. 2010b. *Revue des Dépenses Publiques 2004–2009, April 2010*.

———. 2010c. “Le système Éducatif Congolais - Diagnostic pour une revitalisation dans un contexte macroéconomique plus favorable.” Document de travail n. 183.

World Health Organization. 2010. *Congo. Factsheets of Health Statistics 2010*. World Health Organization.