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HEALTH SYSTEMS ASSESSMENT FOR CÔTE D'IVOIRE

ACCELERATING REFORMS TOWARD UNIVERSAL HEALTH COVERAGE

DISCUSSION PAPER **MAY 2020**

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WORLD BANK GROUP
Health, Nutrition & Population

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Health, Nutrition, and Population (HNP) Discussion Paper

Health Systems Assessment for Côte d'Ivoire: *Accelerating Reforms toward Universal Health Coverage*

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Abstract: Following years of political instability, Côte d'Ivoire has recorded a rapid growth rate over the past seven years and entrenched its status as a lower-middle-income country. However, the country's epidemiological profile remains comparable to that of low-income countries, and health outcomes are among the poorest in the region and globally. Furthermore, given its lower-middle-income status, domestic resource mobilization and improving fiscal space are becoming increasingly important considerations as several donors start to scale down their assistance. To address this situation, the government has committed to undertaking various reforms in the health sector. The aim of this Health Financing System Assessment (HFSA) is to guide policy discussions through assessment of the current context for implementation of the national health sector reform agenda, transitioning from donor assistance and resource mobilization, and to identify opportunities and options on the path toward universal health coverage (UHC). This HFSA discusses the macro-fiscal context in Côte d'Ivoire, reviews the health outcomes based on most recently available data, analyzes the government and health financing landscape, and assesses the issues related to transitioning from external assistance for immunization. Based on the analysis, the HFSA concludes with specific policy recommendations for Côte d'Ivoire to reach universal health coverage.

Keywords: health financing, service delivery, governance, revenue-raising, pooling, purchasing, health sector reforms, health system, immunization

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TABLE OF CONTENTS

LIST OF FIGURES AND TABLES

List of Figures

List of Tables

ACRONYMS

ACT	Artemisinin-based combination therapy
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal care
ARV	Antiretroviral (therapy)
BCG	Bacille Calmette Guerin vaccine
CFA/CFAF	West African CFA franc
CHU	Centre hospitalier universitaire (teaching/referral hospital)
CHW	Community health worker
CIP	Costed Implementation Plan
CIV	Côte d'Ivoire
CMU	Couverture Maladie Universelle (Universal health coverage)
CNAM	Caisse Nationale d'Assurance Maladie de Côte d'Ivoire (National Health Insurance Agency)
CNS	Comptes Nationaux de la Santé (National Health Accounts)
CSR	Centre de santé rurale (rural health center)
CSU	Centre de santé urbaine (urban health center)
CVD	Cardiovascular disease
DAF	Direction des Affaires Financières (Directorate of Financing [Ministry of Health])
DALY	Disability-adjusted life year
DGS	Direction Generale de Santé (Directorate General of Health Services)
DHIS	District Health Information System
DHS	Demographic and Health Survey
DTP3	Diphtheria-tetanus-pertussis immunization
DVDMT	District Vaccine Data Management Tool
ECOWAS	Economic Community of West African States
ENV	Enquête sur le Niveau de Vie des Ménages (Living Standards Measurement Survey)
EPI	Expanded Programme on Immunization
ESPC	Etablissements Sanitaires de Premier Contact (Primary Health Care Centers)
CFA	West African CFA franc
FP	Family planning
GAVI	Global Alliance for Vaccines and Immunization
GDP	Gross domestic product
GFF	Global Financing Facility
GSK	GlaxoSmithKline
HAQ	Healthcare Access and Quality Index
HCI	Human Capital Index
HDI	Human Development Index
HFSA	Health Financing System Assessment
HIV	Human Immunodeficiency Virus

HKI	Helen Keller International
HMIS	Health Management Information System
HPV	Human papilloma virus
HSS	Health Systems Strengthening
IDA	International Development Association
IHME	Institute for Health Metrics and Evaluation
IHSC	Integrated Health Supply Chain
IMF	International Monetary Fund
IPT	Intermittent Preventive Treatment (for malaria)
JRF	Joint Reporting Form
LMIC	Lower-middle-income country
LSMS	Living Standards Measurement Survey
MDR	Multidrug resistant (tuberculosis)
MICS	Multiple Indicator Cluster Survey
MIS	Malaria Indicators Survey
MDG	Millennium Development Goals
MMR	Maternal Mortality Rate
MSHP	Ministère de la Santé et de l'Hygiène Public (Ministry of Health and Public Hygiene)
cMYP	Costed Multiyear Plan
NCD	Noncommunicable disease
NHA	National Health Accounts
NPSP	Nouvelle Pharmacie de la Santé Publique (Central Medical Stores Trust for Côte d'Ivoire)
OI	Opportunistic infection
OMS	Organisation Mondiale de la Santé (World Health Organization)
EmONC	Emergency Obstetric and Neonatal Care
OOP	Out-of-pocket (spending)
ORS	Oral rehydration salt
PBB	Program-based budgeting
PBF	Performance-based financing
PCV	Pneumococcal conjugate vaccine
PEPFAR	President's Emergency Plan for AIDS Relief
PEV	Programme Elargi de Vaccination (Expanded Programme for Immunization)
PMTCT	Prevention of mother to child transmission (for HIV)
PNDS	Plan National de Developpement Sanitaire (National Health Sector Strategic Plan)
PNSCA	Plan National Stratégique de la Chaine d'Approvisionnement en Produits Pharmaceutiques (National Supply Chain and Drugs Plan)
PPP	Public private partnership
RASS	Rapport Annuel sur la Situation Sanitaire (Annual Health Sector Report)
ROTATEQ	Rotavirus vaccine
SARA	Service Available and Readiness Assessment

SIGFIP	Système Intégré de Gestion des Finances Publiques / Integrated Financial Management System
SONU	Soins Obstétricaux et Néonataux d'Urgence (Emergency Obstetric and Neonatal Care)
TA	Technical assistance
TB	Tuberculosis
TFR	Total fertility rate
UHC	Universal health coverage
UK	United Kingdom
UN	United Nations
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
US$	US dollars
VAA	Yellow fever vaccine
VAT	Value-added tax; tetanus vaccine
VPD	Vaccine-preventable disease
WHO	World Health Organization
WUENIC	WHO and UNICEF estimates of national immunization coverage

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EXECUTIVE SUMMARY

BACKGROUND

Following years of political instability, Côte d'Ivoire (CIV) has recorded a rapid growth rate during the past seven years and entrenched its status as a lower-middle-income country (LMIC). However, the country's epidemiological profile remains comparable to low-income countries, and health outcomes are among the poorest in the region and globally. Furthermore, given the economic transition, domestic resource mobilization and improving fiscal space are becoming increasingly important considerations as several donors start to scale down their assistance. To address this situation, the government has committed to undertaking various reforms in the health sector. The aim of this document is to guide policy discussions through assessment of the current context for implementation of the national health sector reform agenda, transitioning from donor assistance to domestic resource mobilization, and to identify opportunities and options on the path toward universal health coverage (UHC).

METHODS

The analysis is based primarily on desk reviews and analyses of available data (both quantitative and qualitative) as well as nonstructured interviews with key informants. The document is informed by a detailed review of the literature pertaining to Côte d'Ivoire's health sector and of national strategies and policies pertaining to health financing, governance, and disease control programs. Quantitative data are from the most recent available national and international databases, including from the government's own administrative systems in 2018 and the most recently completed National Health Accounts from 2016. Interviews with key stakeholders, conducted across all directorates of the Ministry of Health, other relevant ministries, donor partners, the private sector, and civil society provide insights to understand the data and trends obtained. The assessment uses the Health Financing System Assessment protocol tool, which was also implemented in other settings.

RESULTS

Health and UHC Outcomes

Communicable, maternal, neonatal, and nutritional diseases are the leading causes of disability and death in Côte d'Ivoire, representing 63 percent of the disease burden, down from 72 percent in 1990. HIV, TB, and malaria, combined, continue to constitute a significant burden of disease, constituting over 24 percent of annual deaths. Côte d'Ivoire's rising urbanization and the increase in unhealthy lifestyles has also led to a rise in the burden of noncommunicable diseases, resulting in a dual burden of disease taxing an already fragile health system. In 2016, one in every ten children in CIV died before the age of five (96 deaths per 1,000 live births), and over a fifth of children were stunted (22 percent). The CIV's maternal mortality ratio of 645 deaths per 100,000 live

births[1] is among the highest in the world and has been stagnant over the past two decades. Côte d'Ivoire lags behind regional countries, sub-Saharan African country averages, and low-income-country averages in terms of access to the most essential treatment and prevention services as well as to key UHC indicators. Some examples are the contraceptive prevalence rate of 18 percent and skilled birth attendance of 59 percent, which are among the lowest in West African countries.

Health System Capacity, Utilization, and Quality

The country has a three-tiered health service delivery system, each providing a different set of services; however, there is a mismatch between norms and practice, as well as between needs and capacity for infrastructure and human resources for health. The inequalities are larger for doctors, as the majority are concentrated in the urban areas of Abidjan. Beyond access and utilization, health facilities in Côte d'Ivoire also suffer from insufficient material inputs to provide high-quality health care. Outpatient utilization rates have been increasing slightly, from 43 percent in 2015 to 48 percent in 2017, but remain low. Drugs and supply chains are characterized by inefficiencies and stock-outs, and although the role of the private sector is significant, the government does not have a high level of control over the production and distribution of medication. Another inefficiency associated with supply chains is the presence of parallel supply chains, each with their own administration, management, and warehousing budgets. There is low availability and use of data for decision-making, and the health information system is weak and fragmented. As a result of the low levels of inputs, the quality of care in Côte d'Ivoire is very low. The country has the 187th lowest quality of care over 195 countries, as ranked in terms of prevalence of amenable mortality (mortality that could have been prevented in the presence of effective care). In addition, CIV has the highest prevalence of amenable mortality in sub-Saharan Africa, and its rate of 128 deaths attributable to low-quality health care per 100,000 is higher than most West African countries, including poorer countries such as Liberia.

Health System Governance

The health system in Côte d'Ivoire is organized pyramidally, with three levels and two dimensions. In terms of management, at the tertiary/central level, the key actors are the Cabinet of the Minister and central-level directorates, and the main service providers are tertiary hospitals. At the secondary/regional level, there are 20 regional health offices, and the main service providers are regional hospitals. At the primary/district level, there are 83 district offices charged with implementing health policies. There are over 4,000 public and private health facilities across all levels of the health pyramid. In addition, traditional medicine still constitutes a significant portion of the delivery of care. Although the private sector plays a significant role in the provision of care in Côte d'Ivoire, governance structures overseeing the provision of private care are not well-defined or well-regulated.

1. Modeled estimates (WDI). National estimate (from 2012 DHS) is 614 deaths per 100,000 live births

Health Financing

Current health spending in Côte d'Ivoire in 2016 was at 950 billion CFAF (about US$1.66 billion). As per capita spending, this is about $70 in current US dollars, a decline from 2015, due largely to reductions in externally financed spending. Households were the largest source of financing with 48 percent, followed by the government (25 percent), external (15 percent), and private (12 percent) sources. Most out-of-pocket (OOP) spending went to private pharmacies; most public spending to administration and salaries; most external spending to preventive care; and most pooled private spending to primary care at the outpatient level. Côte d'Ivoire does not spend significantly less than other lower-middle-income countries, but its mix of financing is suboptimal and does not maximize health benefits. Only 21 percent of the health spending in Côte d'Ivoire is through public pools, which is significantly lower than the sub-Saharan African and LMIC average. The largest share of spending takes place at the hospital level (25 percent), followed by pharmacies and other medical retailers (23 percent), and outpatient primary care services (19 percent). For preventive care, 78 percent of all spending was financed by external sources, with the remaining financed by the government. The government has financed only 9 percent of all primary care expenditure, with the majority split between households and private financing sources; overall, there are low levels of spending in the primary care level. There is considerable inequality between Abidjan, which has the highest amount of per capita resources available, and districts in the periphery. Notably, more rural districts in the west and the north have fewer available resources compared to those in the center and south. The allocation of resources does not necessarily correspond to the disease burden, which creates inequities and inefficiencies. In addition to low levels of public spending, almost 85 percent of donor spending in Côte d'Ivoire is not channeled through the government, leading to fragmentation and even more limited fiscal capacity. The main financing schemes overseen by the government include a free services scheme (*gratuité*), which faces considerable challenges. To rectify these challenges, the government is in the process of launching health insurance, and scaling up performance-based financing (PBF). In addition, a recent national investment case seeks to strengthen the health system and to coordinate health sector investments.

Immunization Assessment

Immunization was the fifth-largest disease program in 2016 in Côte d'Ivoire, representing 5 percent of government spending, and was one of the most donor-dependent disease programs. Given its lower-middle-income status and recent sustained economic growth, Côte d'Ivoire is in a preparatory transition phase with Gavi. Starting in 2020, the country will enter the accelerated transition phase, and in 2025, it is expected to start fully financing its own immunization program. Côte d'Ivoire has the fourth-largest share of Gavi funding as a share of public health expenditure, at 10 percent. About 30 percent of under-five mortality is from vaccine-preventable diseases (VPDs), most of which result from lower respiratory infections and diarrheal diseases.

Côte d'Ivoire has adopted all of WHO's new immunization recommendations and introduced many new vaccines since 2017: notably, rotavirus in March 2017, measles-

rubella in January 2018, and meningitis A in August 2018. Compared to other countries in the region, Côte d'Ivoire has one of the lowest full immunization rates; the rate declined by 10 percentage points from 2011–12 to 2016, due to the impact of political instability. Besides gender, inequalities persist across region and socioeconomic status, with girls, those living in rural areas, those with uneducated mothers, and those in the poorest quintile having the lowest immunization rates. Although availability of immunization services was high, readiness indicators were lower, especially for cold chain indicators.

Compared to some of its peers, girls, Côte d'Ivoire has the lowest spending per surviving infant and one of the lowest external financing levels. Between 2011 and 2015, the government financed 30 percent of all immunization program spending, with Gavi financing 54 percent. The bulk of commodity spending is on these new vaccines, and government's share of commodity spending is projected to go up from 19 to 23 percent by 2020, with vaccine needs going up from $25 million to $40 million. Gavi, the largest funding source for the immunization program, has disbursed over $150 million in Côte d'Ivoire since 2001. The support has mostly been for direct vaccine purchases and is expected to flatline and decline in the next five years as part of the transition process.

Recommendations

Cross-Cutting Recommendations

1. Significant reforms are needed across revenue-raising, pooling, and purchasing in the health sector, coupled with investments and policy changes in the health system, to improve quality and outcomes in the Ivorian health system.
2. In terms of revenue-raising, there is a need to increase the share of health in the government budget, as well as to focus on a holistic approach to raise revenues, which would strengthen the health system. There is a need to make a stronger investment case and to increase public spending levels,
3. To improve financial risk protection and lower out-of-pocket spending, it is essential to increase the size of the risk pools, as well as to reduce fragmentation of donor flows. The newly launched universal health coverage (Couverture Maladie Universelle, CMU) is a right step in ensuring that the entire population belongs in the same risk pool, but take-up should be as high as possible. On the external financing side, to ensure efficiency and sustainability, it is crucial for most external funding to flow through government systems, and to integrate disease programs on the government budget across all health-financing functions. As CMU is launched and scaled up, its financial sustainability must be ensured through a prioritized benefits package, rational rate-setting and negotiations, as well as by ensuring that the National Health Insurance Agency (Caisse Nationale d'Assurance Maladie de Côte d'Ivoire, CNAM) can receive contributions from the government and external financing partners to deliver on its core mandate. Finally, it is crucial to ensure that a broad base of the population enrolls in CNAM, to reduce adverse selection and maximize social

protection. To ensure the poor and vulnerable can seek the health services they need, cash transfers and other support mechanisms can be undertaken.

4. Performance-based financing, selective contracting, and defining the benefits package are powerful strategic purchasing tools to improve the efficiency and quality of health spending. Not only could a more efficient purchasing system assist in making a stronger investment case to the Directorate of Budget and increase the visibility of the performance of the health sector, it would also help align different incentives that providers are receiving, enabling maximization of quantity and quality within the existing performance frontier of a facility. The expansion of health insurance coupled with strategic purchasing is a prime opportunity to harmonize disease programs within a single, effectively defined benefits package, and to pay providers for progress toward specific targets.
5. Increased investments are necessary in different building blocks of the health system, particularly within the primary care level, to ensure equitable and high-quality care.
6. There is a need to determine smart and cost-effective interventions, focusing on harmonization and integration of existing supply chain and information systems, financing last mile distribution of commodities, moving away from a disease-specific supply chain towards an integrated community-based model, and redistributing the health workforce to areas with the largest gaps.
7. There is a need to increase accountability and governance mechanisms at all levels of the health system. Accountability mechanisms must be designed from the bottom up: for example, facility managers and district health offices should have the power to hire and fire, and district health offices should have greater oversight over health facilities. In terms of procurement, it is important to increase accountability and oversight mechanisms at the district level and devolve more procurement authority to districts at the same time, such that they are able to procure key inputs. At the national level, the capacity of the Directorate General of Health Services (Direction Generale de Santé, DGS) has to be strengthened to coordinate and integrate different disease programs, and public financial management capacity of all directorates should likewise be strengthened.

<u>Immunization-specific Recommendations</u>

1. To increase the adequacy of immunization financing, it is essential to advocate for increased primary health financing and to ensure specific financing for immunization commodities. Efforts to ensure adequate and sustainable financing for immunization rely on the government's ability to raise more money for health and to ensure that funding is used to prioritize the primary health care system, where the immunization program is dependent on the system. As the Ministry of Health witnesses multiple concurrent transitions from external funding and shifts toward an integrated health system, it needs to move from a siloed approach to revenue-raising to a more horizontal one. To do this, the government should

identify ways to increase fiscal space for health, not just for immunization but also for the broader health sector, through leveraging conducive macroeconomic conditions, prioritizing health within the government budget, and exploring innovative domestic financing mechanisms.

2. In addition to adequacy, the predictability of immunization financing should also be addressed. The government should explore ways to increase predictability of health system financing, including immunization, by identifying new and long-term domestic funding flows, as well as prioritizing and substantiating resource needs outlined in the costed multiyear plans—which currently significantly overestimate potential resource needs.
3. Finally, accountability and preparedness measures would have to be in place to ensure a smooth transition from donor funding**.** The immunization program's success depends on strong accountability and preparedness measures. From the public financial management side, the Health Financing System Assessment (HFSA) core protocol outlines significant challenges with budget formulation, execution, and monitoring: as the Expanded Programme on Immunization (EPI) is integrated into government funds, the systematic challenges will also impact the program. Similarly, there are issues with preparedness against epidemics as evidenced by stock-outs: any future transition strategy should explore ways to increase pandemic preparedness through supporting delivery to the last kilometer, which is the level where stock-outs still persist. Accountability mechanisms must exist to ensure that funds reach the front line, and that mechanisms are introduced to improve the quality and availability of services to combat issues such as absenteeism and wastage.

PART I: BACKGROUND AND OBJECTIVES

Key Messages

1. This Health Financing System Assessment (HFSA) analyzes all available data on the health sector to synthesize issues relating to financial and institutional arrangements in the health system.
2. The document assesses the current context for the implementation of the national health sector reform agenda, against the backdrop of a health financing transition, including increased resource mobilization.
3. The analysis makes the case for increased spending in the health sector through strengthened and efficient institutions.
4. The assessment uses the HFSA protocol, which has been implemented in other countries.

1. **This Health Financing System Assessment (HFSA) analyzes available data on the health sector to synthesize issues relating to the financial and institutional arrangements in the health system**. Following years of political instability, Côte d'Ivoire (CIV) has started to record a rapid growth rate, and entrenched its status as a lower-middle-income country (LMIC). However, its health outcomes remain among the worst in the region and in the world, even compared to countries with significantly lower income levels. In this context, this HFSA evaluates current constraints and opportunities for reaching universal health coverage (UHC), to guide policy discussions on resource mobilization and health financing transitions, as well as reforms concerning health insurance, strategic purchasing, and governance. The analysis is based on the most recent available quantitative data from government budgets, National Health Accounts (2011–2015), a Service Availability and Readiness Assessment (SARA) survey from 2016, a Multiple Indicator Cluster Survey (MICS) from 2016, Health Management Information System (HMIS) data from 2017, as well as data from international databases such as World Bank World Development Indicators, UN population projections, and Institute for Health Metrics and Evaluation (IHME) disease burden and global health financing data. The document is also informed by the literature pertaining to CIV's health sector and national strategies and policies pertaining to health financing, governance, and priority infectious disease control programs. Finally, the analysis is based on interviews with key stakeholders across the Budget Directorate and other directorates of the Ministry of Health, which were used as insights.

2. **The document assesses the current context for the implementation of the national health sector reform agenda, transitioning from donor assistance and resource mobilization.** As Côte d'Ivoire moves toward universal health coverage and seeks to improve the coverage and quality of services, the government will need to increase the size of its risk pools. Additionally, given the country's lower-middle-income status, development assistance is likely to decline in the future, given that GDP per capita is a criterion for eligibility for partners such as Gavi. Even though some partners do not have plans for transition in the medium term (e.g., Global Fund), there is an increasing need for domestic financing, given the post-conflict setting and anticipated declines in funding, as well as the shifts in bilateral sources of support. In this context, domestic resource mobilization and improving fiscal space become important considerations; the report addresses these challenges by assessing the immunization program within the context of the health system. In the last two years, the government of Côte d'Ivoire has finalized a set of new documents to guide the health sector's vision through 2020, including a National Health Sector Strategic

Plan (Plan National de Developpement Sanitaire, PNDS), a national quality of care policy and improvement strategy, a hospital decentralization strategy, and a national performance-based financing (PBF) strategy. These strategies are to be implemented in the context of a limited financial capacity: government spending as a share of total public spending has been at 5 percent over the past few years, and while external spending has steadily been rising, there will be changes to donor assistance levels and modalities, given Côte d'Ivoire's economic growth and disease burden, and solidified LMIC status (e.g., the pretransition process with Gavi has already started). Given its economic growth and political stability, now is an opportune time for Côte d'Ivoire to move away from donor dependence toward consolidated health financing arrangements.

3. **The analysis makes the case for increased spending in the health sector through strengthened institutions.** The analysis finds that Côte d'Ivoire currently has enough fiscal space to devote more resources to health, given its economic growth, although the government would need to undertake public financial management reform and tax reform to ensure that this fiscal space is sustainable. The rest of the document is organized as follows: Section 2 discusses the overall macro-fiscal context in Côte d'Ivoire; Section 3 presents key health and universal health coverage outcomes; Section 4 presents the data on health system capacity, utilization, and quality; Section 5 discusses health system governance; Section 6 analyzes the health financing system through revenue-raising, pooling, and purchasing for government, out-of-pocket (OOP), and external financing; and Section 7 covers immunization assessment; and Section 8 presents recommendations to address the challenges faced with each of these areas.

4. **The assessment uses the Health Financing System Assessment protocol, which has been implemented in other countries**. The goal of this protocol is to understand constraints and opportunities related to the macroeconomic and fiscal context, public financial management, health policy, demographics and population health outcomes, effective and equitable health service coverage, equitable financial protection, efficiency, health system organization, health financing organization, resource mobilization, purchasing, physical resources, human resources, and medicines. It also utilizes the deep-dive immunization module. It should be noted that this study is limited by existing data, as the Ivorian health sector suffers from significant data limitations. For example, the National Health Sector Strategic Plan (PNDS) and disease-specific strategic plans (i.e., Immunization Costed Multiyear Plan [cMYP]) are from two years ago and were written with assumptions dating back to that time, and not necessarily with a rigorous prioritization process. There are also issues with the quality of administrative Health Management Information System (HMIS) data due to low reporting rates and unreliable denominator and population figures. The most recent OOP spending survey and facility survey are from 2015, and facility surveys do not include detailed information on processes of care.

PART II: COUNTRY CONTEXT

KEY MESSAGES

- With a population of 24.3 million in 2017, Côte d'Ivoire has about 60 ethnic groups and nearly 70 languages.
- The country's post-conflict context posits unique challenges, but also presents opportunities.
- The Ivorian economy has been growing rapidly since the end of the civil war, but this growth has not translated into poverty reduction.
- Economic activity remains concentrated in Abidjan, and the benefits of development are poorly shared.
- The Ivorian economy is strongly dependent on the production and export of primary agricultural products—particularly cocoa, but also coffee, bananas, and tobacco—which posits macroeconomic risks.
- The budget deficit reached 4.2 percent of GDP in 2017, and the deficit in the external current account reached 2.1 percent of GDP. Further, the debt-to-GDP ratio of 50 percent presents a sustainability risk.
- Government revenues and expenditures have been steadily increasing, but remain below regional and lower-middle-income country averages.
- The institutional capacity of the Ivorian government is a potential bottleneck for the implementation of health sector reform.
- While Côte d'Ivoire currently has a limited fiscal space, it has the potential to increase government spending, particularly for social sectors.
- Within the existing fiscal space, health is not prioritized, and has remained at about 5 percent of general government spending, below the Abuja Declaration target of 15 percent. Health spending has grown slower than other public sector spending. While the macroeconomic landscape looks stable and the government has prioritized social sector spending, this prioritization has not been matched with improved revenue-raising, and debt servicing is crowding out public spending.

CONTEXT

1. **With a population of 24.3 million in 2017, Côte d'Ivoire has about 60 ethnic groups and nearly 70 languages.** CIV has a young population with a large number of dependents: one Ivorian out of two is under 20 years old, and nearly two out of three Ivorians are under 25; women of childbearing age represent 24 percent of the population, whereas children under five years of age comprise 16 percent; 55 percent of the population live in urban areas. The non-national population is estimated at around 25 percent of the total. Independent since August 1960, Côte d'Ivoire experienced a long period of instability between 2002 and 2011, marked by two civil wars in 2002–07 and in 2010–11, which not only cost the lives of thousands of people but considerably slowed down the country's economic development. In 2011, GDP shrank by 4 percent.

2. **The postconflict context posits unique challenges, but also presents opportunities.** The conflict has exacerbated the challenges witnessed by the health system in terms of equity and access. Historically, the Ivorian health system has had a concentration of services in urban areas with a focus on curative care, with especially the northern region lagging behind. During the conflict, funding for the health sector from external sources was predominantly for disease programs and for the short term, thereby not contributing to health

system strengthening.[2] In this period, the Ministry of Health continued to suffer from a lack of financial and political empowerment. During the conflict of 2010–11, many aspects of the supply chain were destroyed, almost all hospitals were closed due to looting and occupation, and 800,000 people were internally displaced, with more than 70 percent of the population lacking access to health services.[3] Following the conflict, the government attempted to strengthen both the supply and the demand side. On the supply side, the government rehabilitated hospitals and health centers damaged by the conflict, although this process has been hampered by a limited budget. On the demand side, the government introduced *gratuité* (free services) to increase utilization and to reduce the impact of out-of-pocket expenditure, although this program's scale and scope have contracted due to financial constraints, as discussed below. With post-conflict stability and economic growth, there is an opportunity to work toward strengthening the health system to move from emergency to sustainability, and there remains a greater need for broader health sector reform across financing, service delivery, human resources, health information systems, supply chains, and governance.

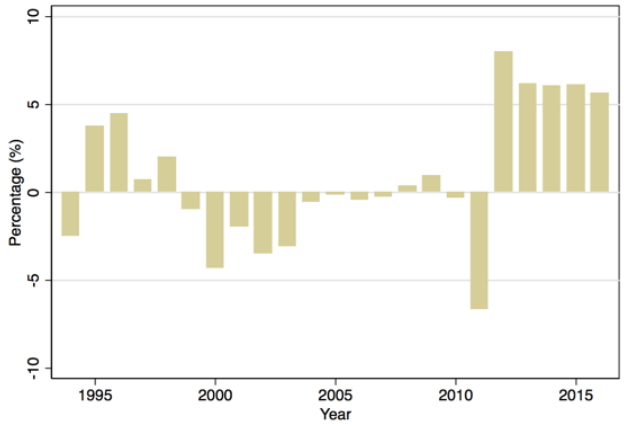
3. **The Ivorian economy has been growing rapidly since 2011, although this growth has not translated into poverty reduction.** After 10 years of economic stagnation accompanying civil unrest, economic growth picked up in 2011, and GDP has increased at more than 7 percent annually since. With a GDP per capita of US$1,552 in 2016, Côte d'Ivoire is the second-largest economy in West Africa and has been classified as a lower-middle-income economy since 2007 (Figure 1). Since 2012, the country ranks among the top 10 countries with the highest growth rate in the world (average estimated at 9.1 percent over the period 2012–16). GDP per capita has grown at a lower rate but has been going up steadily since 2011. Over the past decade, CIV has had one of the highest GDP growth rates in the region, but it has also had high volatility (Table 1). Inflation and exchange rates have been stable, with an inflation rate of around 1 percent for most of the past decade (Figure 1). Of its total population, 57 percent lives below $3.10/day; 28 percent lives below $1.90/day; and 46 percent lives below the national poverty line (Figure 2). From 2008 to 2015, urban poverty declined from 63 to 57 percent, but rural poverty went up from 38 to 43 percent.

2. Gaber and Patel 2013

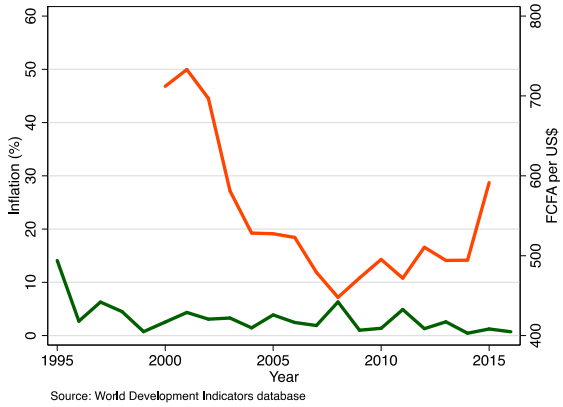
3. WHO 2011

Figure 1. GDP Growth, Inflation Rates, and Exchange Rates in Côte d'Ivoire, 1993–2016

GDP Growth

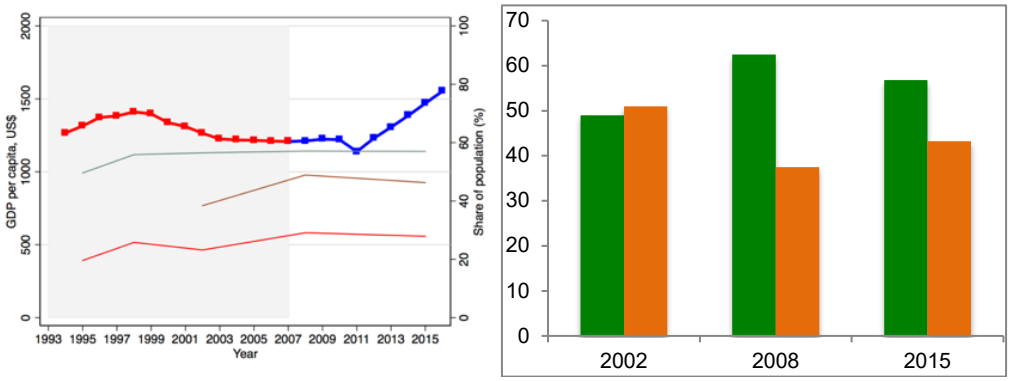


Inflation Rate (left axis) and Exchange Rate (right axis)



Source: World Bank World Development Indicators 2019.

Figure 2. GDP per Capita Growth and Poverty Rates, Distribution and Trends



Source: World Bank World Development Indicators 2019.

Note: Left graph: Red/blue line: Côte d'Ivoire's income per capita, red during low-income period and blue during lower-middle-income period; Green/top line: Poverty at $3.20/day; Crimson/middle line: Poverty at national poverty line; Red/bottom line: Poverty at $1.90/day.
Right graph: Green bar: Urban poverty; Orange bar: Rural poverty.

Table 1. GDP and GDP per Capita Growth in Select West African Economies, 2008-2018

	GDP growth (%)		GDP per capita growth (%)	
Country name	**Mean**	**Standard deviation**	**Mean**	**Standard deviation**
Benin	4.08	1.88	1.21	1.83
Burkina Faso	5.40	1.41	2.30	1.37
Cameroon	4.35	1.20	1.58	1.20
Côte d'Ivoire	**5.44**	**4.90**	**2.94**	**4.69**
Ghana	7.11	3.45	4.56	3.30
Guinea	4.01	2.34	1.67	2.27
Liberia	4.73	3.96	1.59	3.61
Mali	4.26	2.39	1.13	2.30
Niger	5.91	3.85	1.94	3.71
Nigeria	4.77	2.84	2.02	2.75
Senegal	4.13	1.64	1.16	1.59
	GDP growth (%)		**GDP per capita growth (%)**	
Country name	**Mean**	**Standard deviation**	**Mean**	**Standard deviation**
Sierra Leone	5.17	11.20	2.78	10.92
LMIC	4.14	4.10	2.56	4.00
Sub-Saharan Africa	4.20	5.16	1.64	5.04

Source: World Bank World Development Indicators 2019.
Note: LMIC = Lower-middle-income country.

4. **Economic activity remains concentrated in Abidjan, and the benefits of development are poorly shared.** The proportion of the total population living below the national poverty line was 46.3 percent in 2015 in urban areas and 56.8 percent for rural areas. The Human Development Index (HDI) ranks the country 171 out of 187 countries. The World Bank's recently released Human Capital Index (HCI) ranks Côte d'Ivoire 149 out of 156 countries.[4] This ranking means that a child born in Côte d'Ivoire today will be 35 percent as productive when she grows up as she could be if she enjoyed complete education and full health. The literacy rate of people over 15 is estimated at 45 percent, with 53 percent for men and 36 percent for women. Côte d'Ivoire is among the 35 countries described as "fragile" by the World Bank in 2016.

5. **The Ivorian economy is strongly dependent on the production and export of primary agricultural products—particularly cocoa, but also coffee, bananas, and tobacco—which posits macroeconomic risks.** It also is a net exporter of oil. Robust prices for agricultural exports contributed to strong growth and government revenues until 2016, but the price of the dominant export, cocoa, fell in 2017, causing fiscal and macroeconomic problems. Overall, the employment rate has stayed stable between 60 to 65 percent in the past decade; according to the most recent data, 48 percent of the employed population works in agriculture, 46 percent in services, and 6 percent in industry. The services sector also made up 46 percent of the GDP in 2016, with industry following at 31 percent and

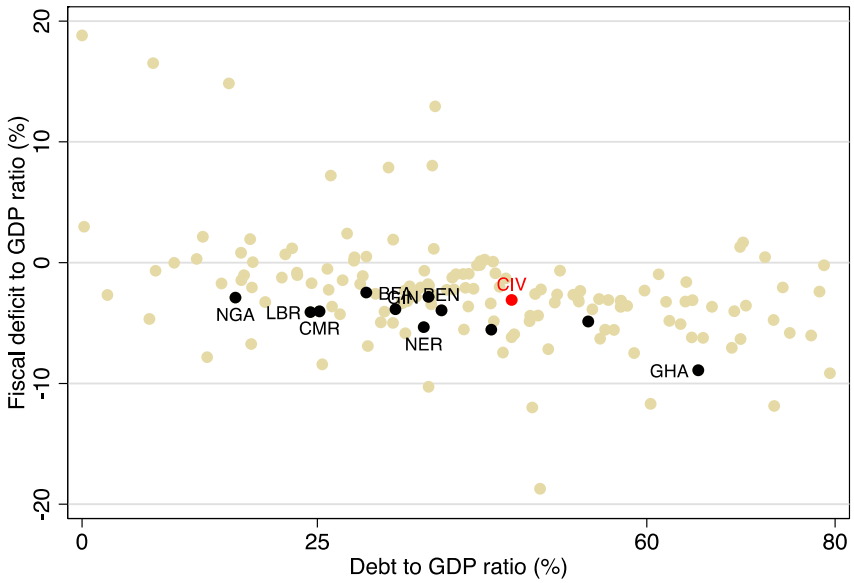
4. http://databank.worldbank.org/data/download/hci/HCI_2pager_CIV.pdf.

agriculture at 23 percent. In 2017, 28 percent of the GDP came from raw materials; 25 percent from manufacturing (primarily oil refining, construction, and agro-food); and 47 percent from services—primarily from mobile phones, financial services, and transportation. For example, in 2017, the price of cocoa went down, which contributed to a budget deficit at 4.8 percent of the GDP, when combined with an increase in the wages of the civil service and the army.

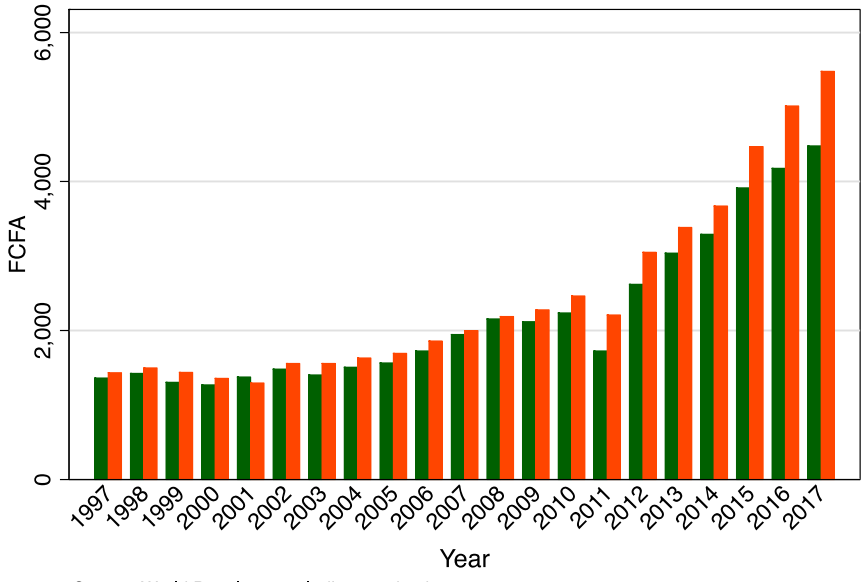
6. **The budget deficit reached 4.8 percent of GDP in 2017; the deficit in the external current account reached 2.1 percent of GDP. Further, the debt-to-GDP ratio of 50 percent presents a sustainability risk.** The government's debt-to-GDP ratio of approximately 50 percent—which is higher than that of most countries in the region—posits a financial risk, combined with the high budget deficit (Figure 3). The debt is primarily accrued by Asian financial markets and donors, as well as Eurobonds; in March 2018, the Ivorian government issued 1.7 billion euros in Eurobonds, which is the largest Eurobond issue to date by an African country. If the efforts to increase government revenues as a share of GDP are successful, this will also provide more capacity to spend on social sectors such as health. In this context, Côte d'Ivoire must increase both its attractiveness to investors by reducing its tax burden, and its public spending.

Figure 3. Fiscal Deficit-to-GDP Ratio and Debt-to-GDP Ratio of Côte d'Ivoire and Regional Economies, 2017 (top); Government Revenues and Expenditures in Côte d'Ivoire, 1997–2017 (bottom)

Fiscal Deficit-to-GDP Ratio and Debt-to-GDP Ratio of Côte d'Ivoire and Regional Economies



Government Revenues and Expenditures in Côte d'Ivoire



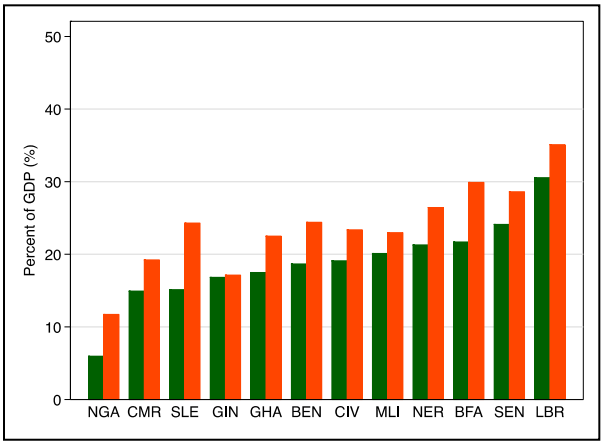
Source: World Bank World Development Indicators 2019.
Note: Data are in 2015 constant local currency units; BEN = Benin; CIV = Côte d'Ivoire; CMR = Cameroon; GIN = Guinea; GHA = Ghana; LBR = Liberia; NER = Niger; NGA = Nigeria.

7. **Government revenues and expenditures have been steadily increasing, but remain below regional and lower-middle-income country averages.** Despite economic growth, the government's capacity to raise and spend tax revenue remains limited and has not kept up with GDP growth. Government revenue is at 19 percent of GDP (tax-to-GDP ratio is lower at 15 percent), and government expenditure is at 23 percent of GDP, lower than the sub-Saharan African and lower-middle-income averages (Figure 4). It should also be noted that Côte d'Ivoire's tax-to-GDP rate is close to that of other developing countries in the region, but still posits a risk for the improvement of fiscal space moving forward. Overall tax revenue collection has increased with an average rate of 12 percent every year, due largely to a strong economic postconflict recovery, despite a drop in the corporate tax rate from 35 to 25 percent. A recent fiscal space analysis by the United Nations Children's Fund (UNICEF) offers various recommendations, such as widening the tax base, improving the efficiency of administration, rationalizing tax legislation through reducing exemptions, and increasing tax revenues by modifying tax rates. The informal sector accounts for 35 percent of Côte d'Ivoire's economy—which is close to the Economic Community of West African States (ECOWAS) average. According to another study, Côte d'Ivoire has lost 6 percent of GDP annually to illicit financial flows,[5] which necessitates an institutional response. Finally, there are ways to increase the efficiency of the existing tax burden by streamlining the different taxes imposed on individuals and corporations, which can potentially increase adherence rates. This implies that Côte d'Ivoire may need to look at innovative ways to increase fiscal space for health, for example, through taxing natural resources instead of taxing labor in a narrow tax base environment.

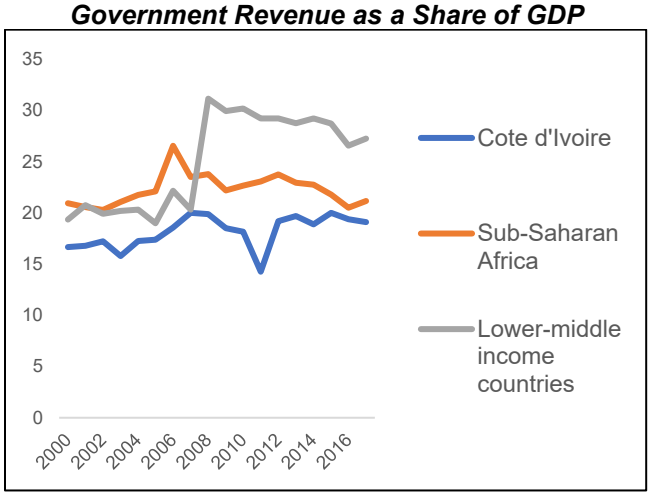
5. Global Financial Integrity, Average Annual Illicit Financial Outflows by Country, 2004–2013.

Figure 4. Revenues and Expenditures as a Share of GDP in Côte d'Ivoire and Regional Economies; Government Revenue as a Share of GDP; Government Expenditure as a Share of GDP

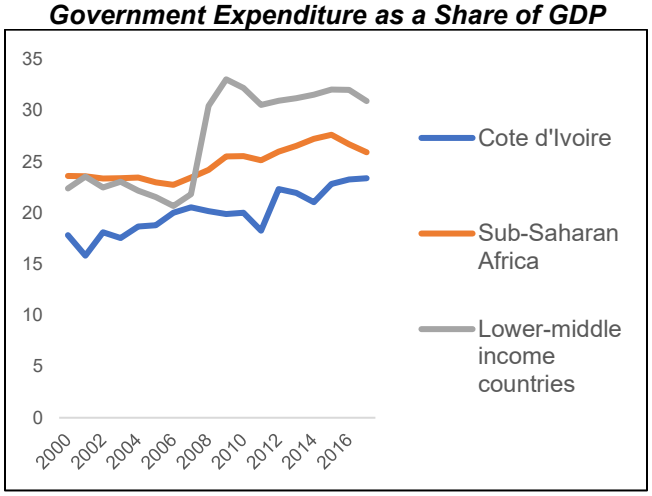
Revenues (green) and Expenditures (orange) as a Share of GDP in Côte d'Ivoire and Regional Economies



Government Revenue as a Share of GDP



Government Expenditure as a Share of GDP



Source: World Bank World Development Indicators 2019.
Note: NGA = Nigeria; CMR = Cameroon; SLE = Sierra Leone; GIN = Guinea; GHA = Ghana; BEN = Benin; CIV = Côte d'Ivoire; MLI = Mali; NER = Niger; BFA = Burkina Faso; SEN = Senegal; LBR = Liberia.

8. **The institutional capacity of the Ivorian government is a potential bottleneck for the implementation of health sector reform.** According to the Worldwide Governance Indicators, Côte d'Ivoire is between the 10th and 40th lowest percentile for each of the dimensions (e.g., 12th percentile for political stability, 22th percentile for government effectiveness, 30th percentile for rule of law, 37th percentile for control of corruption, and 38th percentile for voice and accountability and regulatory quality).[6]

9. **While Côte d'Ivoire currently has a limited fiscal space, it has the potential to increase government spending in social sectors.** The macroeconomic outlook remains positive, with IMF predicting growth at similar rates through 2020, with continued low inflation. In 2017, the largest share of taxes came from import/export taxes; income taxes constituted only 14 percent of overall tax revenue. An overreliance on indirect taxes posits equity and efficiency risks—almost 70 percent of the taxes are indirect, including the ones on imports and exports (Table 2).

Table 2. Breakdown of Direct Government Revenues, 2015–2018

(*Billions, CFAF*)

	2015		2016		2017		2018 (E*)	
	Amount	**%**	**Amount**	**%**	**Amount**	**%**	**Amount**	**%**
Direct taxes	**763.8**	**28.2**	**683.5**	**24.5**	**909.7**	**29.5**	**1,032.7**	**31.7**
Taxes on profits	322.3	11.9	279.8	10.0	393.8	12.8	435.8	13.4
Taxes on income and wages	354.4	13.1	403.7	14.5	430.6	13.9	491.9	15.1
Indirect taxes	**593.9**	**21.9**	**689.4**	**24.7**	**734.6**	**23.8**	**725.6**	**22.3**
VAT	270.8	10.0	304.2	10.9	347.0	11.2	413.5	12.7

6. http://info.worldbank.org/governance/wgi/#home.

Beverage/tobacco taxes	33.0	1.2	29.8	1.1	35.2	1.1	43.8	1.3
Cocoa/coffee levy	86.2	3.2	128.5	4.6	80.7	2.6	13.3	0.4
Import/export taxes	**952.5**	**35.2**	**1,011.8**	**36.3**	**988.3**	**32.0**	**1,089.1**	**33.5**
Other	**395.8**	**14.6**	**401.8**	**14.4**	**454.9**	**14.7**	**405.6**	**12.5**
Total	**2,706.0**	**99.9**	**2,786.5**	**99.9**	**3,087.5**	**100.0**	**3,253.1**	**100.0**

Source: Government of Côte d'Ivoire Budget Directorate 2018.
Note: VAT = Value-added tax.
*Estimated.

10. **Within the existing government budget, health is not prioritized, and has remained at about 5 percent of general government spending, below the Abuja Declaration target of 15 percent.** About 23 percent of the government's annual budget goes to servicing debt, and health receives less than education and infrastructure. An analysis of public expenditures from 2014 to 2018 shows that about 34 percent of all expenditures are pro-poor, with the health sector being the second most pro-poor sector in absolute terms, after education. Health spending has grown more slowly than other public sector spending. It should also be noted that a portion of infrastructure spending is allocated to the health sector (Table 3), as the government has been spending a significant amount of money on postconflict reconstruction.

11. **While the macroeconomic landscape looks stable, and the government has prioritized social sector spending, this prioritization has not been matched with improved revenue-raising, and debt servicing is crowding out public spending.** The macroeconomic landscape looks stable, according to an IMF report from June 2018, and the medium-term growth outlook remains optimistic despite domestic shocks including declines in cocoa prices. The economy is expected to grow at a rate of about 7 percent into 2022.[7] The government has committed to increasing the budget for social spending; however, there remains a need for additional revenue mobilization and prioritization of public expenditure.[8] The debt-to-GDP ratio of over 30 percent,[9] however, posits a significant constraint on the potential to improve fiscal space, and 23 percent of government expenditures are already allocated toward debt payments (Table 3).

7. "Côte d'Ivoire: Staff Report for 2018 Article IV Consultation," June 2018. https://www.imf.org/en/Publications/CR/Issues/2018/06/25/Cote-d-Ivoire-Staff-Report-for-the-2018-Article-IV-Consultation-and-Third-Reviews-Under-the-46008.

8. Ibid.

9. Ibid.

Table 3. Government Expenditures, 2016–2018

(*Billions, CFAF*)

	2016		2017		2018	
	Expenditure	**%**	**Expenditure**	**%**	**Budget**	**%**
Public debt	**1,259.9**	**22**	**1,418.8**	**23.14**	**1,547.28**	**22.90**
Operating and investment expenditures	**3,919.0**	**70**	**4,170.3**	**68.03**	**4,570.8**	**67.65**
Education	856.0	15.23	831.6	13.57	927.66	13.73
Ministry of State (Budget)	438.3	7.80	394.3	6.43	414.59	6.14
Health	**307.8**	**5.48**	**337.6**	**5.51**	**353.78**	**5.24**
Defense	278.2	4.95	329.1	5.37	337.81	5.00
Infrastructure	239.4	4.26	405.1	6.61	766.31	11.34
Labor and social protection	26.1	0.47	31.8	0.52	38.48	0.57
Other	1,773.1	32	1,840.9	30.03	1,732.20	25.64
Special treasury accounts	**441.6**	**8**	**541.3**	**8.83**	**638.15**	**9.45**
Total government budget	**5,620.5**	**100**	**6,130.4**	**100**	**6,756.26**	**100**

Source: Government of Côte d'Ivoire Budget Directorate 2018.

PART III: HEALTH AND UNIVERSAL HEALTH CARE OUTCOMES

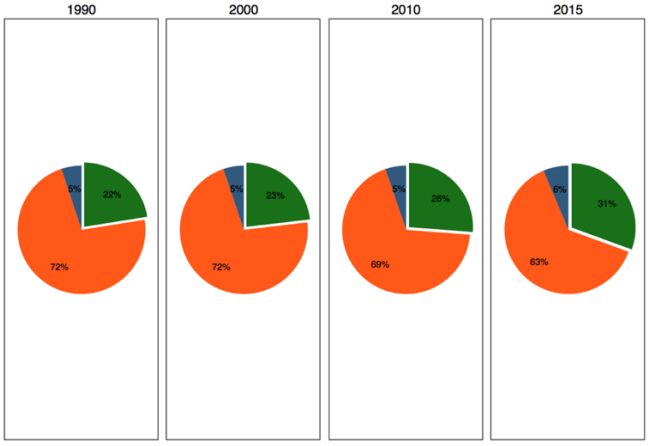
KEY MESSAGES

- Despite its lower-middle-income status, Côte d'Ivoire's epidemiological profile remains comparable to low-income countries, and health outcomes are among the poorest in the region and globally.
- Côte d'Ivoire did not achieve any health-related Millennium Development Goals (MDGs), nor any of the health targets set out in the National Health Development Plan.
- Côte d'Ivoire also lags behind peer countries for access to key universal health coverage (UHC) indicators.
- Infectious diseases impose a significant burden of disease, with malaria as the biggest burden of disease in the country; HIV prevalence, one of the highest in the region; and TB, the leading cause of death among those with HIV.
- Noncommunicable diseases (NCDs) have rapidly increased in the past decade, and Côte d'Ivoire is facing a converging threat of communicable and noncommunicable diseases.
- Côte d'Ivoire's maternal mortality ratio (MMR) of 645 deaths per 100,000 live births is among the highest in the world, and has been stagnant over the past two decades.
- Maternal health indicators vary significantly across socioeconomic characteristics.
- Côte d'Ivoire is also among the nine Francophone West African countries that committed to Family Planning 2020 (FP2020) to accelerate progress in the use of family planning services, but coverage rates remain low due to limited funding.
- In 2016, one in every ten children in CIV died before the age of five (96 deaths per 1,000 live births), and a third of children were stunted (30 percent).
- Without a rapid fertility transition, Côte d'Ivoire will miss its opportunity for accelerated economic growth.

HEALTH OUTCOMES

1. **Despite its lower-middle-income status, Côte d'Ivoire's epidemiological profile remains comparable to low-income countries, and health outcomes are among the poorest in the region and globally.** Communicable, maternal, neonatal, and nutritional diseases are the leading causes of disability and death in Côte d'Ivoire, representing 63 percent of the disease burden, down from 72 percent in 1990. Côte d'Ivoire's rising urbanization and the introduction of unhealthy lifestyles has also led to a rise in the burden of noncommunicable diseases, resulting in a dual burden of disease taxing an already fragile health system (Figure 5). Neonatal disorders, HIV/AIDS, and lower respiratory infections are the top three causes of death according to the IHME disease burden data from 2017, and neonatal disorders, malaria, and HIV/AIDS were the top three causes of disability-adjusted life years (DALYs) in 2017.

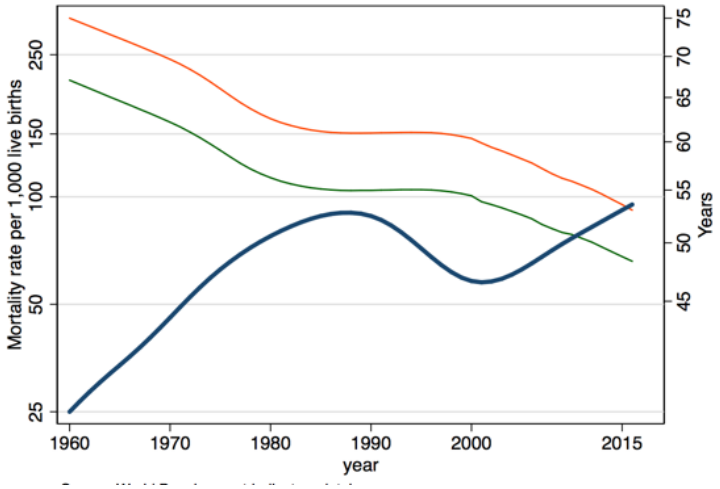
Figure 5. Evolution of Disease Burden, 1990–2015 and Causes of Death between 2006–2016



Source: Institute for Health Metrics and Evaluation 2019.
Note: Orange: Communicable disease; Green = Noncommunicable disease; Blue = Injuries.

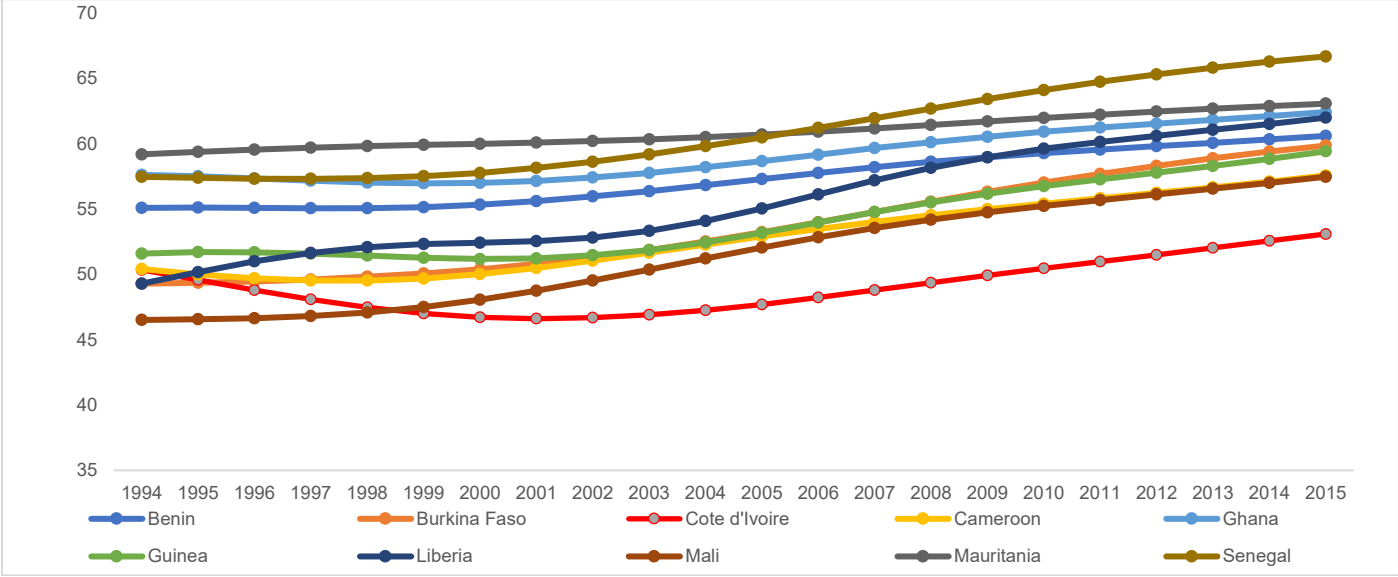
2. **Côte d'Ivoire did not achieve any of the health-related Millennium Development Goals (MDGs), nor any of the health targets set out in the National Health Development Plan.** While life expectancy has been increasing, it still remains the lowest in West Africa, at 55 years. Similarly, infant and under-five mortality rates have been declining, but remain high at almost 100/1,000 for under-five mortality. It is significantly below average for life expectancy, and above average for maternal mortality and infant mortality, compared to other LMICs and West African countries (Figures 6, 7, and 8).

Figure 6. Mortality Rate and Life Expectancy, 1960–2015



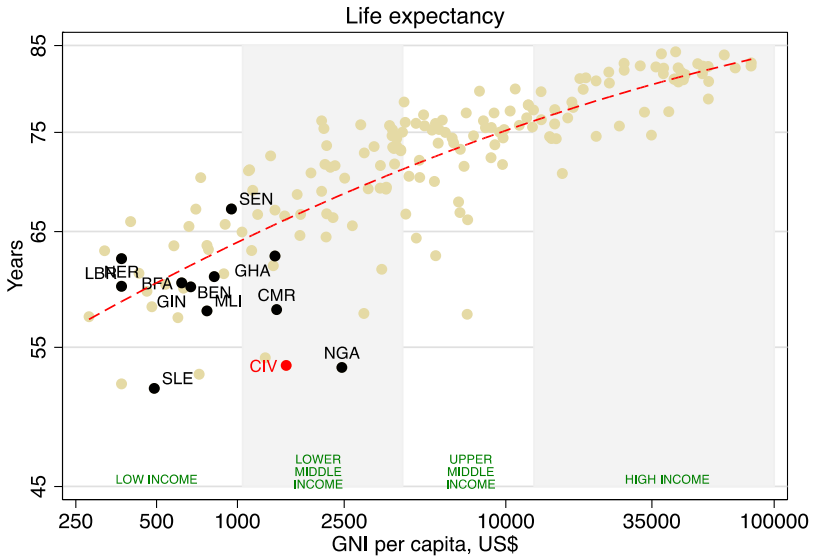
Source: World Bank World Development Indicators 2019.
Note: Y-scales logged.

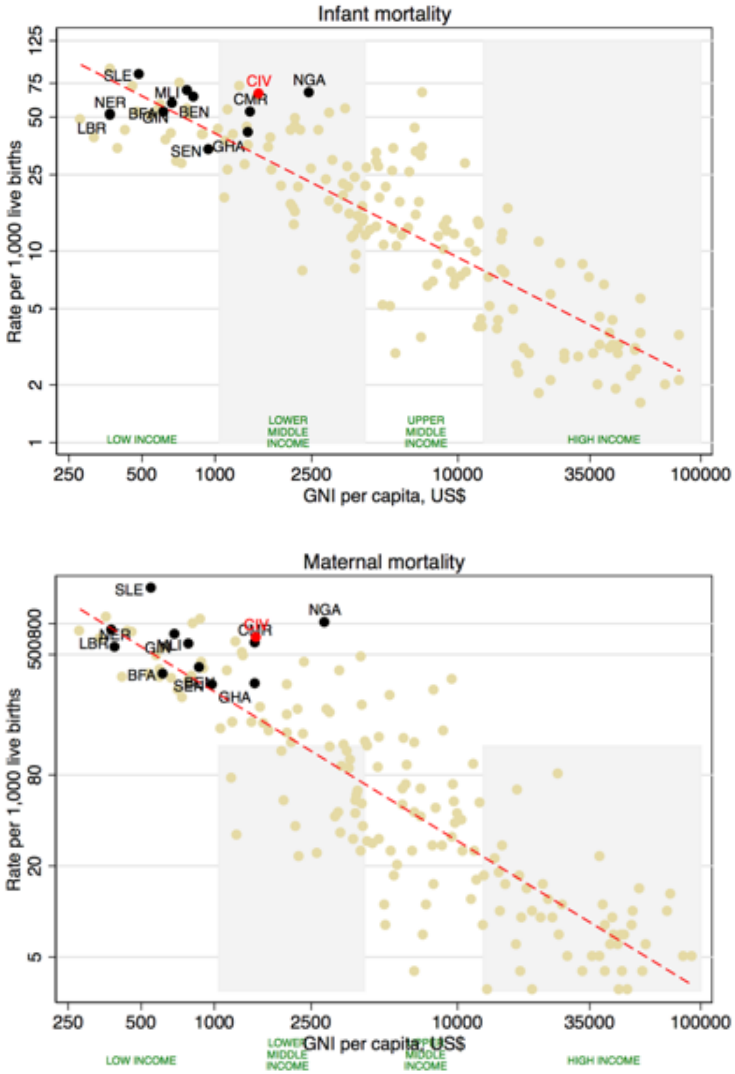
Figure 7. Life Expectancy Trends in Côte d'Ivoire and Other West African Countries, 1994–2016



Source: World Bank World Development Indicators 2019.

Figure 8. Life Expectancy, Maternal Mortality, and Infant Mortality relative to Income, 2016





Source: World Bank World Development Indicators 2019.
Note: Red line: Under-five mortality; Green line: Infant mortality; Blue line: Life expectancy; GNI = Gross National Income; BEN = Benin; BFA = Burkina Faso; CIV = Côte d'Ivoire; CMR = Cameroon; GHA = Ghana; GIN = Guinea; LBR = Liberia; MLI = Mali; NER = Niger; NGA = Nigeria; SEN = Senegal; SLE =; Sierra Leone.

DISEASE BURDEN

3. **Infectious diseases impose a significant burden of disease.** Table 4 demonstrates that even though the disease burden has been transitioning toward more noncommunicable diseases, the majority of the drivers of the disease burden remain to be communicable disease–related conditions, such as neonatal disorders, HIV, lower respiratory infections, and malaria. HIV, TB, and malaria continue to constitute a significant burden of disease, combined constituting over 24 percent of annual deaths. Côte d'Ivoire has the second-highest HIV prevalence in West Africa, at 3.7 percent according to the Demographic and Health Survey (DHS) 2011–2012, concentrated among key populations, adolescents, and children. National antiretroviral (ARV) therapy coverage has gone up to 41 percent in 2016, and significant increases in coverage of prevention of mother to child transmission (for HIV)

(PMTCT) were also recorded, with 61 percent of pregnant women receiving an HIV test during a prenatal visit, and knowing their status,[10] although coverage rates remain low. Most people with TB live in Abidjan, and the national incidence rate is 153 per 100,000.[11] Although TB deaths decreased by 11 percent from 2005 to 2016 and the success rate is 82 percent, further improvements are needed to detect new TB cases.[12] Among health facilities treating people living with HIV and AIDS, the number of total cases was 21,307, while the treatment coverage rate was 58 percent.[13] Multidrug-resistant tuberculosis (MDR-TB) is also a threat: however, with support from the Global Fund, the proportion of people in need of treatment has increased. Malaria was an even more significant threat, with over 1 million confirmed pediatric malaria cases among 4 million children under five (280 per 1,000 incidence), and a total of 4 million malaria cases across all age groups in 2017 (160 per 1,000 incidence). To reduce the malaria burden, the government, together with global health partners, has been investing in vector control, malaria prevention for pregnant women, and case management. The government spends a small portion of its budget on infectious disease control: malaria control only received 3 percent of the government budget, as development partners currently provide the majority of this funding. As a result of this underspending, the funding gap for malaria is expected to grow to 43 percent in 2020, despite commitments from World Health Organization (WHO), United States Agency for International Development (USAID), UNICEF, and the Global Fund. For the three diseases, funding is predominantly from external sources, but Côte d'Ivoire's lower-middle-income status indicates that this assistance could be projected to flatline or reduce, in which case the government will have to substantially improve its own financing to make up the shortfall in potential declines in development assistance.

Table 4. Share of Disability-Adjusted Life Years and Deaths for Most Prevalent Conditions, 2017

Conditions	DALYs, 2017 (%)	Deaths, 2017 (%)	Total deaths, 2017 (%)
Neonatal disorders	14.40	10.74	19,879
HIV/AIDS	8.49	10.16	18,819
Lower respiratory infections	7.90	9.00	16,655
Malaria	8.83	8.77	16,251
Ischemic heart disease	2.37	6.36	11,766
Diarrheal diseases	6.82	6.15	11,384
Stroke	2.11	4.89	9,042
Tuberculosis	2.77	4.55	8,412
Congenital birth defects	4.10	2.98	5,507
Road injuries	1.66	1.96	3,631
Cirrhosis and other chronic liver diseases	1.06	1.90	3,511
Meningitis	1.91	1.83	3,386
Chronic kidney disease	0.99	1.53	2,834
Diabetes mellitus	1.19	1.53	2,827

10. http://www.unaids.org/en/regionscountries/countries/ctedivoire.

11. WHO. "Tuberculosis Country Profile: Côte d'Ivoire." http://www.who.int/tb/country/data/profiles/en/.

12. IHME, 2015

13. WHO. "Tuberculosis Country Profile." http://www.who.int/tb/country/data/profiles/en/.

Maternal disorders	1.22	1.42	2,631
All others	34.19	26.23	49,270

Source: Institute for Health Metrics and Evaluation 2018.
Note: Communicable diseases shaded in orange; noncommunicable diseases and Injuries shaded in blue.

4. **Noncommunicable diseases (NCDs) have been increasing rapidly in the past decade, and Côte d'Ivoire is facing a converging threat of communicable and noncommunicable diseases.** In 2000, NCDs accounted for 23 percent of all premature deaths; by 2016, they accounted for 37 percent. The main NCDs contributing to the disease burden in Côte d'Ivoire are cardiovascular diseases, chronic respiratory diseases, cancers, and diabetes. The increase in NCD mortality is due to lifestyle changes—a higher propensity for physical inactivity, alcoholism, smoking—and an increase in known risk factors such as high blood pressure and diabetes. A WHO STEPwise Approach to Surveillance (STEPS) survey from 2015 shows that the prevalence of physical inactivity in Côte d'Ivoire was 42 percent, one of the highest in the world. The prevalence of hypertension was at 22 percent, diabetes was at 5 percent, and obesity was at 9 percent.[14] According to the WHO, almost 14,000 lives could be saved through 2025 if all WHO "best buys" (recommended interventions) are implemented, but progress has been limited. NCDs are currently not covered within any benefits package, and as a result, over 90 percent of NCD expenditures are financed by households, as discussed in the financing section below. Finally, due to data limitations, it is not possible to get up-to-date statistics on treatment cascades across NCDs: for example, there are currently no national data on the proportion of those with hypertension who have it controlled.

5. **Côte d'Ivoire also lags behind peer countries for access to key universal health coverage indicators.** Côte d'Ivoire lags behind regional countries, sub-Saharan African country averages, and low-income country averages in terms of access to the most essential treatment and prevention services as measured by the Universal Health Coverage Index (Table 5). Côte d'Ivoire is below the lower-middle-income country average for all indicators except for ARV coverage. Notably, the contraceptive prevalence (family planning) rate is at 18 percent, and skilled birth attendance is at 59 percent, among the lowest among West African countries.

14. WHO NCD Country Profiles 2018.

Table 5. Universal Health Care Index Indicators for West African Countries, 2016

(***All units in percentages***)

	Treatment		Prevention				
	ARV	TB	Family planning	Skilled birth attendance	DTP3	Water	Sanitation
Benin	57	55	18	77	82	78	20
Burkina Faso	60	47	26	66	91	82	20
Côte d'Ivoire	**41**	**49**	**18**	**59**	**85**	**82**	**22**
Cameroon	37	45	34	65	85	76	46
Ghana	34	28	31	71	93	89	15
Guinea	35	46	6	45	57	77	20
Liberia	19	32	20	61	79	76	17
Mali	35	52	16	49	68	77	25
Niger	32	44	17	40	67	58	11
Nigeria	30	18	20	35	49	69	29
Senegal	52	55	25	53	93	79	48
Sierra Leone	26	47	17	60	84	63	13
Lower-middle-income average	38	56	49	79	86	83	60
Sub-Saharan African average	45	44	31	64	79	73	35

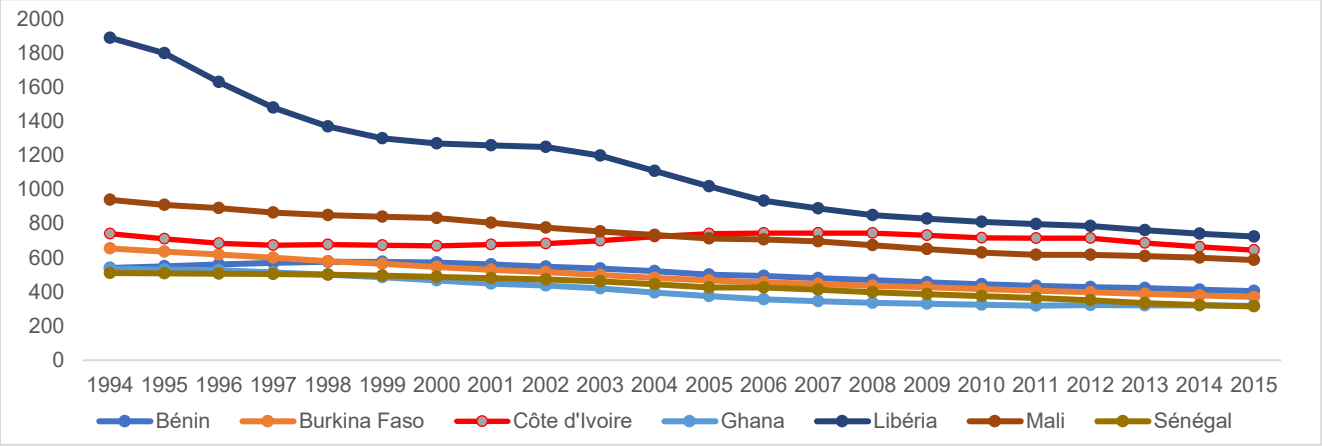
Source: World Bank World Development Indicators 2019.
Note: ARV = Antiretroviral (therapy); DTP3 = Diphtheria-tetanus-pertussis.

6. **Côte d'Ivoire's maternal mortality ratio of 645 deaths per 100,000 live births is among the highest in the world, and has been stagnant over the past two decades**. Côte d'Ivoire lags significantly behind regional countries, including those that are significantly poorer, such as Liberia, and it has a MMR that is almost twice that of Senegal (Figure 9). Côte d'Ivoire ranks 173 out of 179 countries on the Mother's Index,[15] lagging behind countries like Chad, Benin, and the Republic of Congo. Maternal deaths in Côte d'Ivoire are driven by preventable and treatable complications. The leading causes of maternal mortality include hemorrhage (25 percent), hypertension (16 percent), sepsis (10 percent), and abortion (10 percent). Teenage pregnancy accounts for 14.8 percent of maternal deaths and has a prevalence rate of 30 percent. A significant share (80 percent) maternal deaths occur due to direct medical causes (hemorrhage, obstructed labor, high blood pressure), reflecting a lack of coverage and poor quality of obstetric care in the prevention and management of complications during pregnancy, childbirth, and postpartum. For example, in 2016, only 51.0 percent of women completed four antenatal care visits (ANC4) during pregnancy, 73.6 percent of women delivered in the presence of skilled birth attendants, and 83.1 percent of

15. State of the World's Mothers. 2015. Save the Children. Indicators of the 2013 Mother's Index include (a) lifetime risk of maternal death, (b) under-five mortality rate, (c) expected years of formal education, (d) gross national income per capita, and (e) participation of women in national government.

women were seen by a health care professional during the postnatal period.[16] Even though these figures are high, especially compared to other sub-Saharan African countries, there are significant problems with the quality of this care, which is documented in the next section: specifically, problems with receiving all recommended procedures during antenatal care visits, the availability of blood transfusion and life-saving drugs, as well as poor availability of caesarian section deliveries. There is regional variation in coverage rates for ANC as well as for skilled delivery, but some rates at the regional level are not reliable, given challenges with the right denominator (Figure 10). In most districts, there is a drop-off between first ANC visit and delivering at the health facility, as well as between the first ANC visit and completing all four recommended visits, indicating the inability of the health system to retain women within the health system once they seek care. According to administrative data, Abidjan's urban areas have the lowest ANC visit percentages. There are currently strategies, such as the Emergency Obstetric and Neonatal Care (EmONC) strategy, to improve the availability, accessibility, utilization, and quality of services, although EmONC coverage remains very low. Finally, it should be noted that postnatal care visits are significantly lower than both the average ANC4 coverage rate of 30 percent and the national average skilled delivery attendance rate of 88 percent, indicating that women do not come back for these visits, which posits a significant risk, given the complications that can emerge in the postpartum period.

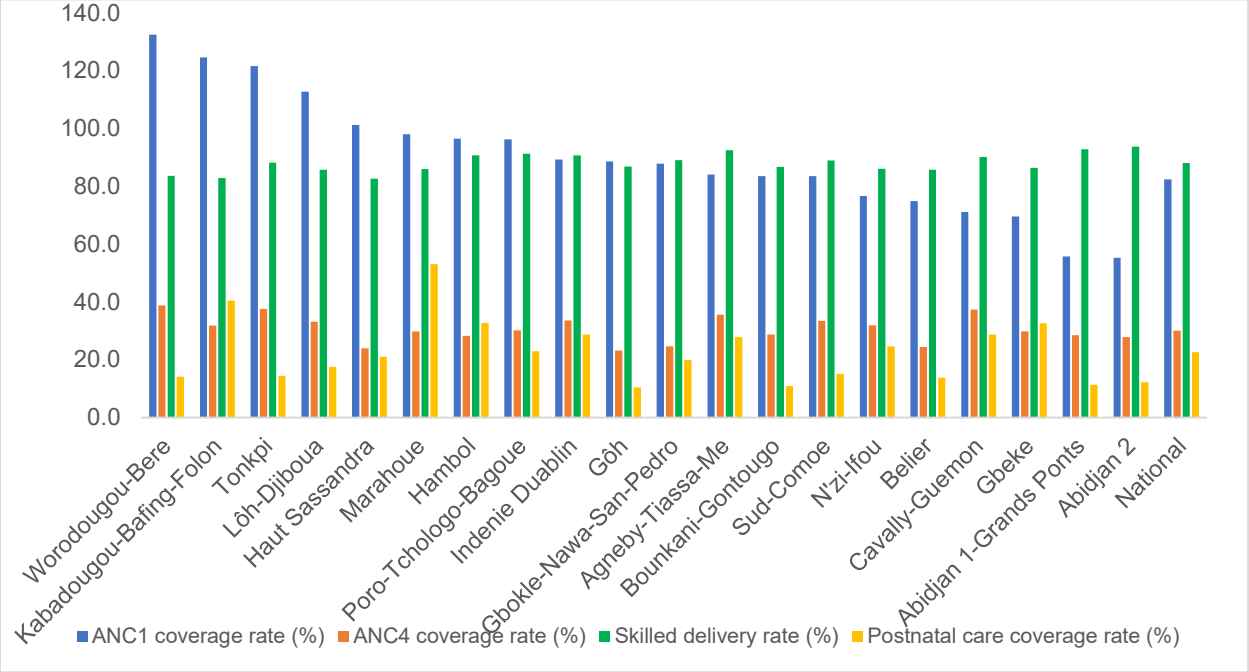
Figure 9. Maternal Mortality in Côte d'Ivoire and Regional Countries, 1994–2015



Source: World Bank World Development Indicators 2019.
Note: MMR over 100,000.

16. MICS 2016. Administrative data presented are higher than MICS survey data.

Figure 10. National Administrative Data on Antenatal Care, Skilled Birth Attendance, and Postpartum Visits



Source: RASS 2017.
Note: ANC = Antenatal care.

SERVICE UTILIZATION

7. **Maternal health indicators vary significantly across socioeconomic characteristics.** According to a recent MICS survey, 77 percent of women, or 66 percent of the poorest women, had all three procedures recommended in an ANC visit (blood pressure, urine sample, and blood sample taken) (Table 6). In the richest quintile, 95 percent of women give birth with the assistance of qualified health personnel, compared to 49 percent of women in the poorest quintile.[17] In the poorest quintile, 75 percent of women indicated that lack of money was a major impediment to maternity care, compared to 55 percent of women in the richest quintile.[18] Low quality of care is discussed in more detail in the next section.

Table 6. Coverage of Antenatal Care Visit Subcomponents across Socioeconomic Characteristics

	Women seeking ANC care who had the following procedures (%)			
Socioeconomic characteristics	**Blood pressure**	**Urine sample**	**Blood sample**	**All 3 elements**
Overall	**91**	**81.4**	**85.3**	**76.5**

17. MICS 2016.

18. DHS 2012 (MICS 2016 does not collect detailed data on maternal mortality indicators).

Place of residence				
Urban	96.3	90.0	90.3	84.6
Rural	87.4	75.6	82.0	71.0
Mother's educational level				
None	88.4	79.7	83.6	75.3
Primary school	93.2	83.3	86.4	77.5
Secondary or higher	96.8	84.3	89.8	79.1
Economic well-being index				
Poorest	81.8	70.6	77.4	65.9
Poor	90.4	77.5	83.5	73.5
Medium	93.5	82.9	88.4	78.1
Rich	96.9	92.6	89.7	85.0
Richest	96.6	89.5	92.0	86.3

Source: MICS 2016.

8. **Côte d'Ivoire is also among the nine Francophone West African countries that committed to Family Planning 2020 (FP2020) to accelerate progress in the use of family planning services, but coverage rates remain low due to limited funding and supply-side constraints.** With the support of FP2020 core partners—USAID, the Bill and Melinda Gates Foundation, United Nations Population Fund (UNFPA), the French Ministry of Foreign Affairs, UKaid, and the William and Flora Hewlett Foundation, the government's goal is to increase the contraceptive prevalence rate to 30 percent. The resource requirements needed to fund the government's Costed Implementation Plan (CIP) is $71 million for 2015–20;[19] the government's financial commitment for the last three years of the plan is approximately $2.7 million, but it will need additional resources to implement its budgeted activities.

9. **In 2016, one in every ten children in CIV died before the age of five (96 deaths per 1,000 live births), and over a fifth of children were stunted (22 percent).** The MICS 2016 demonstrates that even though Côte d'Ivoire has generated significant progress in improving child health in the past decade, there is still considerable room for improvement. Neonatal mortality was at 33/1,000 and infant mortality was at 60/1,000. According to MICS 2016, 22 percent of all infants were stunted (defined as having a height-for-age ratio 2 standard deviations below the WHO Child Growth Standards median), and 7 percent of all infants were severely stunted.[20] Further, 13 percent of all infants were wasted (defined as having a weight-for-age ratio 2 standard deviations below the median), and 3 percent were severely wasted (defined as having a weight-for-age ratio 3 standard deviations below the median). It must also be noted that as Table 7 shows, averages at the country level mask large regional disparities, with significantly worse indicators in the northern and western regions of the country. Regional disparities in child mortality are the same regardless of the indicator, with mortality being significantly higher in the northern, western, and central parts of the country. Child mortality is also higher in rural than in urban areas. The gap in mortality rates

19. Plan d'Action National Budgetise de Planification Familiale 2015–2020. Ministere de la Santé Publique et de l'Hygiene (MSPH)

20. Defined as having a height-for-age ratio 3 standard deviations below the WHO Child Growth Standards median.

between rural and urban areas increases with age, and all mortality rates are higher in rural areas for less educated mothers and for poorest quintiles.

Table 7. Neonatal, Post-neonatal, Infant, and Under-Five Mortality (/1,000) by Socioeconomic Characteristics and Region

Socioeconomic characteristics	Neonatal mortality	Post-neonatal mortality	Infant mortality	Under-5 mortality
Overall	**33**	**27**	**60**	**96**
Place of residence				
Urban	34	16	50	78
Rural	33	34	67	108
Mother's educational level				
None	37	33	70	111
Primary school	28	20	48	73
Secondary or higher	27	11	39	67
Economic well-being index				
Poorest	40	43	83	120
Poor	29	25	54	93
Medium	32	23	55	106
Rich	31	25	56	83
Richest	33	6	39	61

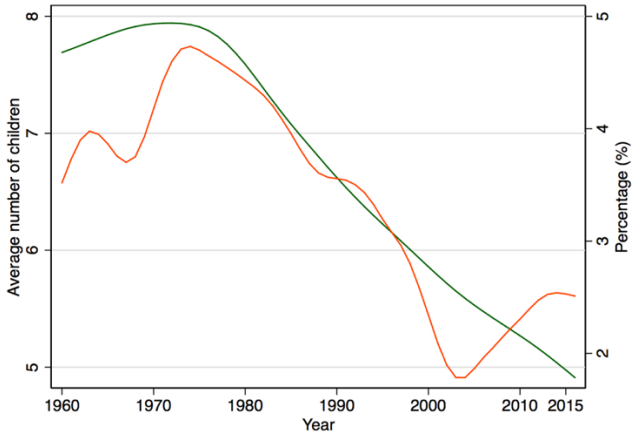
Regions	Neonatal mortality	Post-neonatal mortality	Infant mortality	1-5 mortality	Under-5 mortality
Centre	17	27	44	30	73
Centre-Est	40	28	68	25	91
Centre-Nord	26	25	51	38	87
Centre-Ouest	41	25	66	55	117
Nord	53	38	91	38	125
Nord-Est	30	36	66	51	114
Nord-Ouest	41	31	73	49	118
Ouest	33	36	68	43	108
South (excl. Abidjan)	30	27	57	41	96
Sud-Ouest	24	31	55	27	80
Abidjan	30	10	41	24	64

Source: MICS 2016.

DEMOGRAPHICS

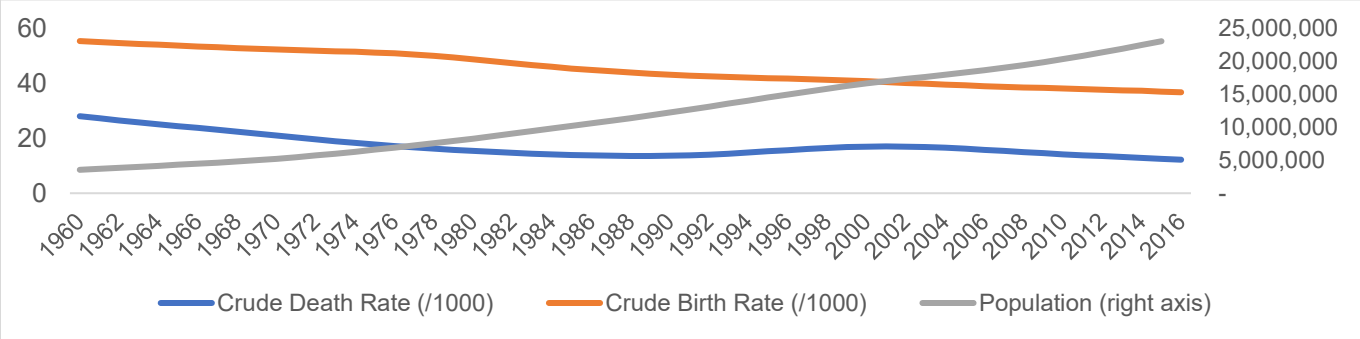
10. **Without a rapid fertility transition, Côte d'Ivoire will miss its opportunity for accelerated economic growth**. The total fertility rate (TFR) has declined since 1990 but remains high (from almost 8.0 children per women in 1970 to 4.6 in 2016; see Figure 11). Use of modern contraception is low (18 percent in 2016), which limits further declines in fertility rate. The persistently high fertility rate has contributed to CIV's high annual population growth rate of 2.6 percent; high worker to dependent ratio of 1.25, which is less than half of that in emerging economies; and slow progress toward a demographic dividend. Côte d'Ivoire's future economic growth and transformation into an emerging economy will depend largely on its ability to implement the necessary policies to benefit from the demographic dividend. The high fertility rate, coupled with a slow decline in the adult mortality rate, means that Côte d'Ivoire will face an age structure that is heavily skewed toward young dependents. Further, as the crude birth rate exceeds the crude death rate, Côte d'Ivoire will also experience rapid population growth. The high dependency ratio of 83 could decline to 48 by 2050 if Côte d'Ivoire experiences a rapid fertility decline. Minimizing the dependency ratio, or maximizing the ratio of working age population to dependents, will lead to a higher demographic dividend. Figures 12 and 13 demonstrate these trends, where dependency ratios have been going down.

Figure 11. Total Fertility Rate (left axis, green line) and Population Growth (right axis, red line) in Côte d'Ivoire, 1960–2016



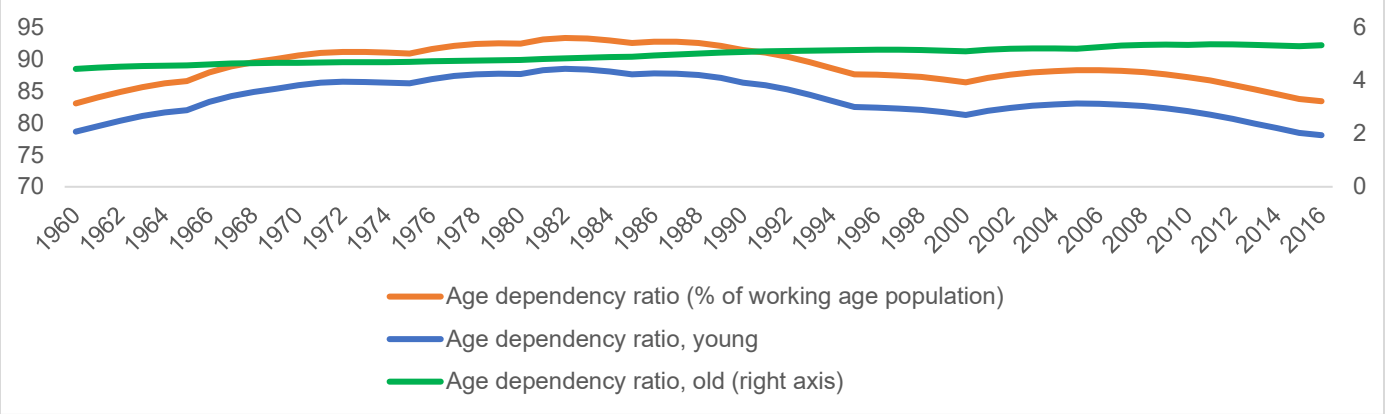
Source: World Development Indicators, 2019

Figure 12. Crude Birth and Death Rates and Population Trends in Côte d'Ivoire, 1960–2016



Source: UN Population Projections.

Figure 13. Dependency Ratio Trends in Côte d'Ivoire, 1960–2016



Source: UN Population Projections.

PART IV: HEALTH SYSTEM CAPACITY, UTILIZATION, AND QUALITY

KEY MESSAGES

- The events of 2002 to 2011 affected the health sector significantly and, despite relative stability and strong economic growth since 2012, the recovery of the health system has been slow.
- Accessibility poses a major barrier to service utilization.
- Côte d'Ivoire has a three-tiered health service delivery system, each providing a different set of services, but there is a mismatch between norms and practice, as well as between needs and capacity.
- Outpatient utilization rates have been increasing slightly, from 43 percent in 2015 to 48 percent in 2017, but remain low.
- Outpatient utilization is mostly at the primary care level, and most regions are within national norms in terms of catchment population.
- There is variation across utilization by income quintiles, with the richest predominantly using private providers and the poorest seeking care predominantly at traditional healers, community health workers, and public health centers.
- In addition to a weak primary health system, Côte d'Ivoire has no integrated community health system but is in the process of launching and scaling up its community health infrastructure.
- Similar to its infrastructure constraints, Côte d'Ivoire also faces constraints with the level and distribution of its human resources for health capacity.
- Beyond access and utilization, health facilities in Côte d'Ivoire also suffer from an insufficient availability of technical inputs to provide high-quality health care.
- Drugs and supply chains are characterized by inefficiencies and stock-outs, and although the role of the private sector is significant, the government does not have a sufficient level of control over the production and distribution of medications. There are also issues with parallel supply chains.
- There is low availability and use of data for decision-making, and the health information system is weak and fragmented.
- As a result of these low levels of inputs, the quality of care in Côte d'Ivoire is very low.
- A significant portion of the Ivorian population's expectations from the health system are not met.
- In 2016–17, a national quality policy and a quality strategy covering 2017 through 2021 were finalized as the first documents to guide the national quality improvement response.

INFRASTRUCTURE AND HUMAN RESOURCES FOR HEALTH

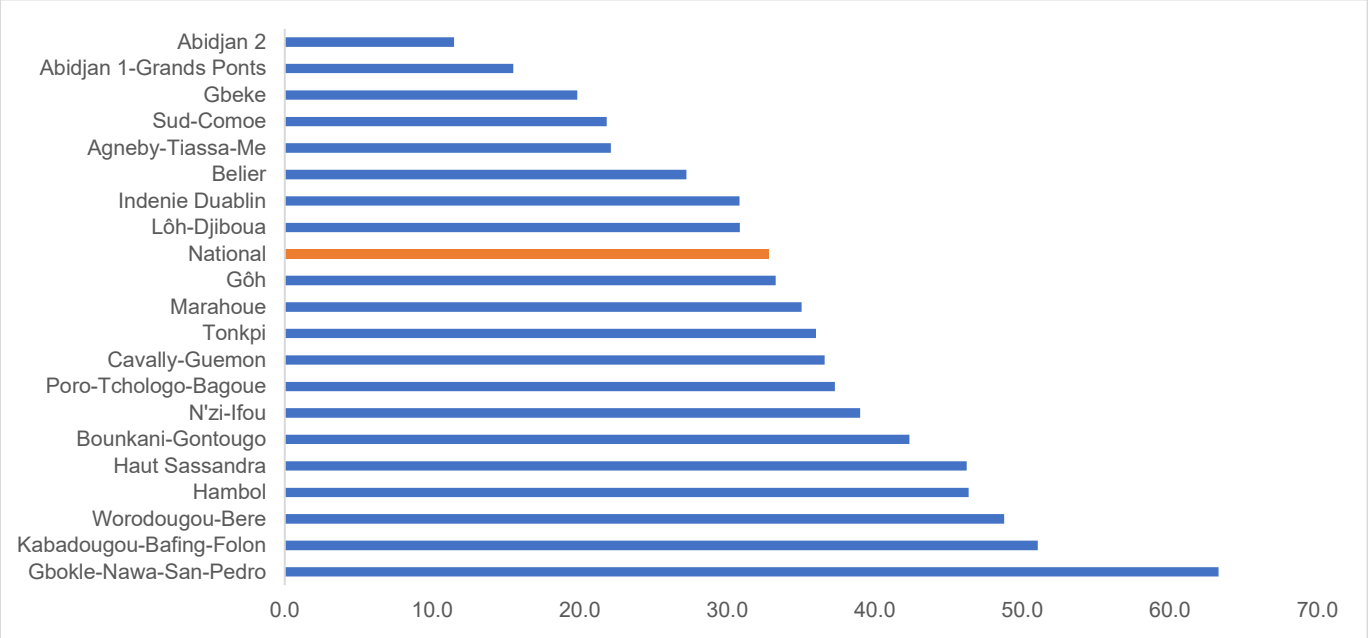
1. **The events of 2002–11 affected the health sector significantly and, despite relative stability and strong economic growth since 2011, the recovery of the health system has been slow**. The main factors contributing to a weak health system include (i) lack of infrastructure and adequately distributed human resources to meet the growing needs of the population; (ii) paucity of skilled and motivated personnel, leading to the provision of poor quality services; (iii) serious shortfalls in supplies, medications, and equipment; (iv) concentration of resources in Abidjan and other big cities; (v) limited physical access to health facilities in certain geographical areas and systematic underfunding of primary care

facilities, which shifts the burden of health care costs to households, as discussed in detail in the financing section; (vi) limited ownership and participation of beneficiary communities; and (vii) limited collaboration with the private sector.

2. **Accessibility poses a major barrier to service utilization.** Long distances from the nearest facility and weak referral systems pose a barrier to accessing health care, with 33 percent of the country's population living outside a five-kilometer radius from a health facility, and an average of 0.22 ambulances per health facility, although with wide variation across the country (See Figures 14 and 15). In two regions, over half the population is outside a five-kilometer radius, highlighting significant problems with access.

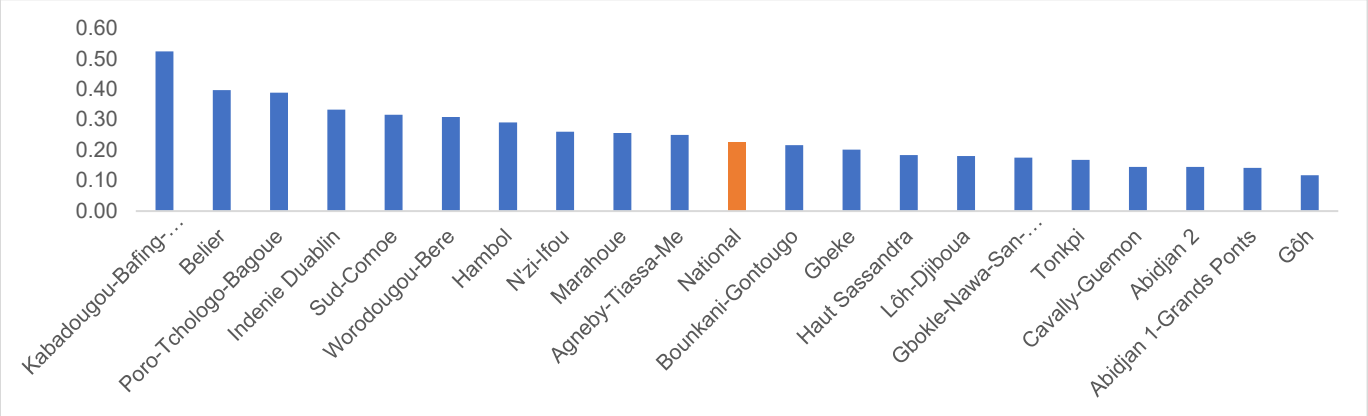
3. **Côte d'Ivoire has a three-tiered health service delivery system, with each tier providing a different set of services; however, there is a mismatch between norms and practice, as well as between needs and capacity.** The primary level of the Ivorian health system consists of an urban health center (Centre de santé urbaine, CSU) and a rural health center (Centre de santé rurale, CSR). Although CSU and CSR both constitute the primary care level, they differ significantly in the services they provide. In addition, the CSU and CSR designation does not always correspond with the geography: for example, certain urban health centers can be in rural areas, and vice versa. Rural health centers consist of one maternity and one dispensary wing, and usually have one to two nurses and one to two midwives, and they offer the most basic maternal and child health interventions as well as basic outpatient treatment for infectious disease. In contrast, urban health centers can be significantly larger, have more than five nurses and midwives each, at least one generalist physician, and offer everything that rural health centers offer as well as more laboratory tests and diagnoses, and basic surgery and noncommunicable disease interventions. The secondary level consists of regional hospitals that offer every service offered at an urban health center, as well as treatments for more complications. In reality, many of the district hospitals were recently upgraded from urban health centers and do not have the equipment or staffing levels that are required with a secondary level facility. Finally, the tertiary level offers specialized care for conditions that are not treated at primary and secondary levels.

Figure 14. Percentage of Population Living Outside a Five-Kilometer Radius of a Health Facility



Source: RASS 2017.

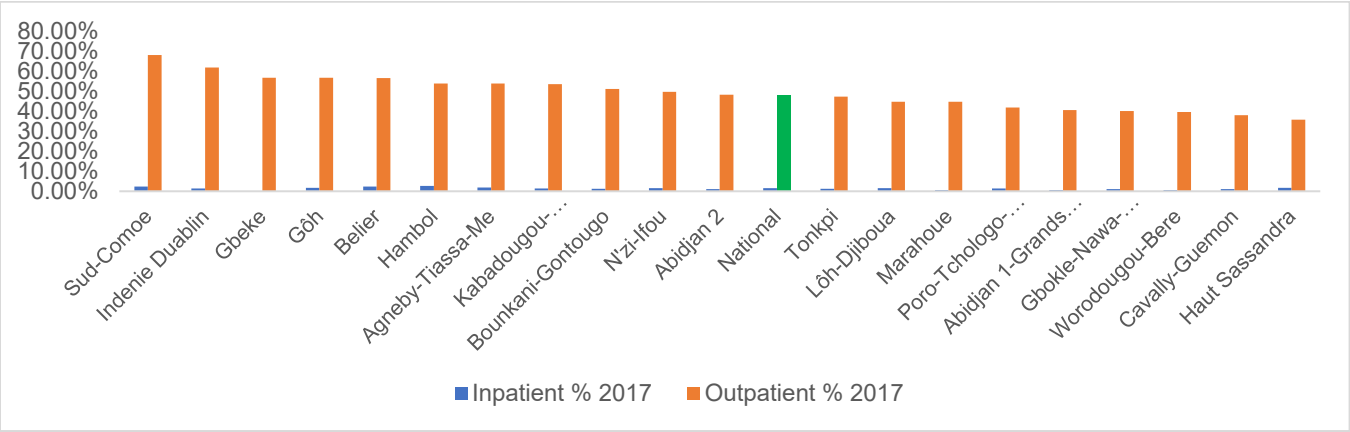
Figure 15. Regional Variation in Number of Ambulances per Health Facility



Source: RASS 2017.

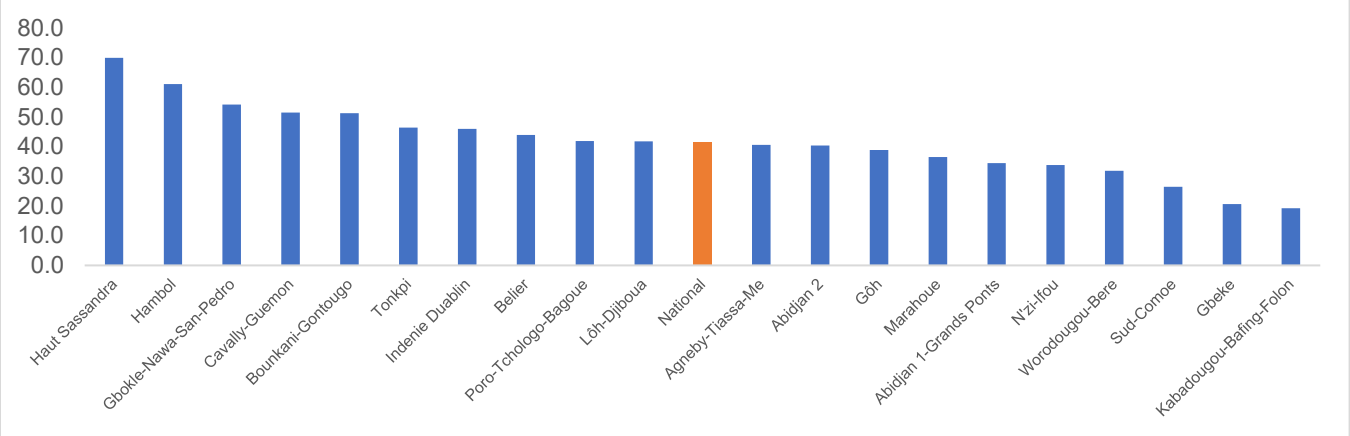
4. **Outpatient utilization rates have been increasing slightly, from 43 percent in 2015 to 48 percent in 2017, but remain low.** Use of outpatient services has increased across all regions, but varies substantially by region, from 68 percent in Sud-Comoe to 36 percent in Haut-Sassandra. National inpatient utilization is at 1.56 percent, with less variation across districts. Nationally, 42 percent of inpatient beds were occupied, with 70 percent in Haut-Sassandra and 19 percent in Kabadougou, highlighting significant differences across regions (Figure 17).

Figure 16. Regional Variation in Outpatient and Inpatient Utilization



Source: RASS 2017.

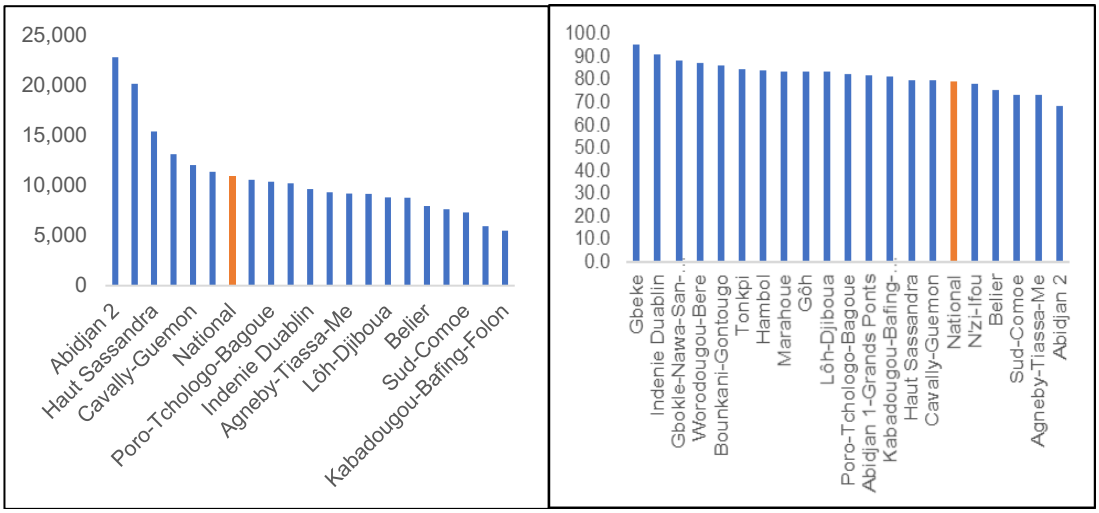
Figure 17. Regional Variation in Inpatient Bed Occupancy Rates



Source: RASS 2017.

5. **Outpatient utilization is mostly at the primary care level, and most regions are within national norms in terms of catchment population.** Overall, the national average of 10,911 catchment area population per primary health care center (Etablissement Sanitaires de Premier Contact, ESPC) is slightly above the national norms of 10,000, but there is a significant variation between regions, with Abidjan being twice above the national average (Figure 18). Eleven out of the twenty regions have a catchment population below national norms, indicating that construction of new centers might not be a priority in these regions. Of all outpatient visits, 79 percent take place at the primary care level across the country, although this is lower in the urban region of Abidjan (68 percent), where bypassing is more common.

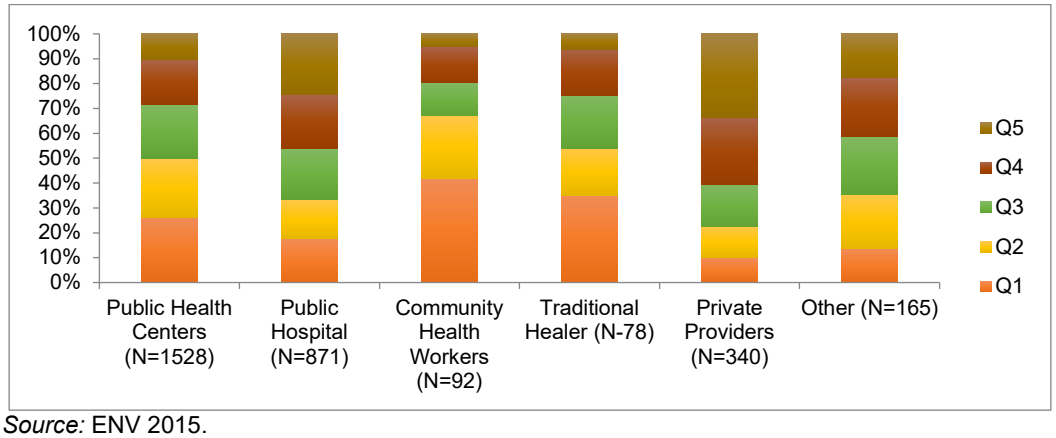
Figure 18. Population per Primary Care Center (left) and Percentage of Total Outpatient Visits at the Primary Care Level (right)



Source: RASS 2017.

6. **There is variation across utilization by income quintiles, with the richest predominantly using private providers and the poorest seeking care predominantly through traditional healers, community health workers, and public health centers.** Less than 20 percent of total visits to private providers are made by those in the poorest two quintiles, whereas half of all public facility visits are by the same quintiles. Similarly, those in the poorest quintiles are also much more likely to use community health workers or traditional healers (Figure 19).

Figure 19. Utilization of Health Facilities by Facility Type, across Income



Source: ENV 2015.

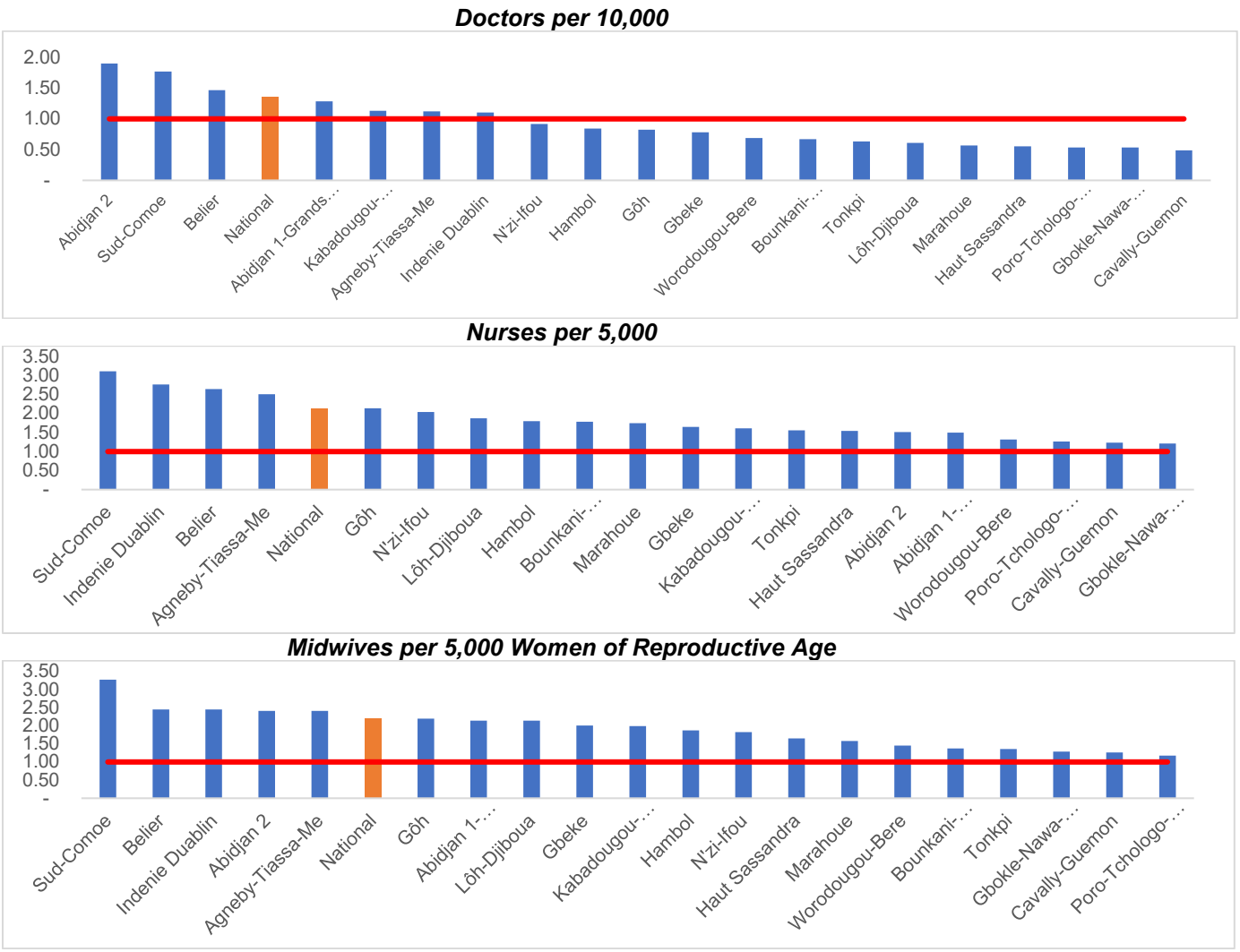
7. **In addition to a weak primary health system, Côte d'Ivoire has no integrated community health system infrastructure but is in the process of launching and scaling one up.** According to the 2017–2021 Community Health Strategy, community health workers (CHWs) are slated to deliver high-impact interventions to reduce morbidity

and mortality in children age 0 to 5 years, as well as in pregnant women, focusing on promotional, preventive, and curative services. For promotional services, they would cover essential family practices, nutrition actions, hygiene, sanitation, drinking water use and sanitary waste management, family planning services, blood donation promotion, and healthy behavior promotion. For preventive services, CHWs would support essential family practices and nutrition interventions, and hygiene interventions and active screening of chronic diseases, such as hypertension, diabetes, and HIV, at the community level. For curative services, CHW would be able to provide integrated management of newborn and childhood diseases at the community level (e.g., simple malaria, respiratory infections, and diarrhea), as well as monitoring and management of tuberculosis treatment at the community level. Finally, CHWs would also be able to provide disease surveillance at the community level through an early warning system for epidemics. CHWs would be based in health centers (either urban or rural) and report there for their activities. The CHW strategy (2017–21) seeks to obtain financing to scale up coverage of CHW, as well as to regulate, motivate, compensate, train, and monitor CHWs. Currently, the strategy is not implemented, and as such, there are a multitude of actors implementing their own community health worker programs; the scale-up and expansion of the strategy would help mitigate this challenge. Moving forward, CHWs would need to be integrated into the service delivery system, with health insurance and strategic purchasing schemes. The planned operationalization of the community health worker strategy will mitigate these gaps.

8. **Similar to its infrastructure constraints, Côte d'Ivoire also has issues with the level and distribution of its human resources for health capacity.** Although Côte d'Ivoire satisfies WHO norms for the availability of human resources at a high level, there are issues with distribution of generalists, with significant concentration in urban areas. All regions surpass the norms for midwives and nurses per capita, although there are significant inequalities (Figure 20). The inequalities are larger for doctors (generalists), as the majority are concentrated in urban areas of Abidjan, and most regions are below WHO norms. There is a new national human resources for health strategy, which seeks to improve the training output of key cadres: for example, the number of nurses graduating is projected to go up from 1,000 to 2,000, and the number of midwives graduating is projected to go up from 560 to 1,500, with the construction of three new training facilities and the expansion of existing facilities. Human resources for health in the country are not directly managed by the Ministry of Health but by the Civil Service Directorate, and health districts and facilities do not have hiring or firing authority, which limits the responsiveness to potential quality challenges at the facility level.

Figure 20. Distribution of Key Human Resources for Health Cadres

(Red lines: WHO norms)



Source: RASS 2017.

PHYSICAL INPUTS AND QUALITY OF CARE

9. **Beyond access and utilization, health facilities in Côte d'Ivoire also suffer from insufficient availability of material inputs to provide high-quality health care.** According to a 2017 study, 45 percent of primary and secondary facilities are without electricity, 35 percent without water, and 32 percent without water and electricity. The most comprehensive source of available data on the availability of inputs at the facility level are from the 2015 Service Availability and Readiness Assessment (SARA) survey, which highlights the limited availability of inputs. The assessment calculated the average operational capacity at all levels of health facilities to be 57 percent, ranging from 81 percent for infection-prevention standards, 28 percent for essential medicines, and 47 percent for diagnostic elements (WHO 2015). Only 22 percent facilities had all the required items for infection prevention, including syringes, disinfectants, and other infection-prevention equipment; only 4 percent of facilities had all the equipment necessary for diagnostics.

Tertiary hospitals had the highest operational capacity (91 percent), compared with 55 percent for primary care facilities. The issue of insufficient inputs is present for almost every programmatic area (Table 8), both in terms of physical as well as human resources. The readiness to provide services was also measured with a set of indicators across five domains: basic amenities, basic equipment, standard precautions for infection prevention, laboratory tests, and essential medicines. Across the country, the general service readiness was only 57 percent.

Primary health care facilities had a lower general service readiness compared to health care facilities at the secondary level of care (56 percent versus 70 percent). The tertiary level of care had the higher general service readiness at 82 percent. The private health facilities had a higher service readiness index at 63 percent. Only 22 percent of facilities had all the required items for infection prevention, and the main structural challenges identified were availability of blood transfusion (only 5 percent at primary care level), interruptions in supply chains leading to stock-outs, and the need for improvements in data and management capacity. Table 9 further details operational readiness across disease programs.

Table 8. Health Facility Readiness in Côte d'Ivoire, Selected Indicators

Category	% of facilities
Improved sanitary facilities	76.87
Private consultation room	82.28
Improved water source	75.52
Communication equipment	34.94
Emergency transport	51.61
Energy source	60.57
Computer + internet / email	18.19
Establishments with all elements	5.05
Average score, essential amenities	**57.14**
General service availability operational capability index	**57.16**
Mean score of standard precautions	**80.89**
Average score, diagnostic ability	**46.73**
Average score, essential drugs	**28.02**

Source: WHO 2015.

Table 9. Disease-Specific Availability and Readiness of Services

Family planning	Although 82 percent of facilities offer family planning services, only 14 percent have all the 7 set of tracer indicators. Health centers located in 4 out of the 20 health department regions do not offer any. Among private health facilities, 22 percent have all the set of tracer indicators, compared to 13 percent in the public health sector. Most commonly offered are progestin-only injectables (71 percent) and progestin-only contraceptive pills (59 percent). Implants are less common (47 percent). A higher share of staffed are trained on family planning compared to other services (56 percent). Average readiness score across indicators is 66 percent, with injectables available 89 percent of the time.
Antenatal Care	ANC is offered in almost all health facilities (90 percent), but with much lower readiness: only 45 percent of staff were trained for ANC; 36 percent had directives available at the facility; commodities were available for the most part; 12 percent had hemoglobin test and 36 percent had protein urea test.
Maternal health, deliveries	Although 85 percent of facilities offer deliveries, no health facilities have all the 21 set of tracer indicators for basic obstetric care, and availability of treatment for delivery-related complications is much more limited. Among facilities, 41 percent offer kangaroo mother care, 33 percent have treatment for sepsis, and 21 percent have neonatal resuscitation. Only 62 percent of health facilities monitor and manage labor using a partograph; whereas 25 percent of health facilities offer parenteral administration of anticonvulsants and 73 percent offer parenteral administration of antibiotics. Overall, there is 70 percent average availability of obstetric care and 31 percent average availability of neonatal care. Readiness is lower: 42 percent of staff are trained in essential delivery care, 95 percent have checklists, but 37 percent have guidelines for delivery; average score of readiness is 59 percent. Of total facilities, 55 percent have emergency transportation, and 34 percent have staff trained in newborn resuscitation. C-sections and blood transfusions are offered in all tertiary facilities, at 60 percent of secondary hospitals, and at no primary health centers. While 95 percent of these facilities have health workers trained in surgery, only 54 percent were trained according to the latest national obstetric guidelines. Overall, there is 60 percent readiness for complicated obstetric services (higher than basic), but these services are offered in a significantly lower number of facilities.

Immunization	Immunization services are available at all health centers and 86% of all facilities. Among personnel, 74% were trained on latest EPI guidelines, and 69% had EPI guidelines available. Among facilities, 72% had an adequate temperature for the refrigerators, and 39% had a mechanism to monitor the temperature of the refrigerator. Overall readiness was 82%. Vaccines were available 80–87% of the time, and stock-outs happened 7–15% of the time in the last 3 months. Only 14% of all health facilities have all 14 set of tracer indicators. The least available tracers were thermometers, standard protocols, and adequate refrigerator temperature.
Child health	Among facilities, 96% offer preventive/curative services; almost all offer malaria/pneumonia treatment; 85% offer malnutrition treatment/consultation; 53% offer vitamin A; and 63% offer child growth monitoring. Overall readiness score for child health is 53%, with low training rates for personnel (42%) and lack of availability of some key commodities such as zinc and vitamin A, as well as low rates of growth monitoring. No facility has the full set of tracer indicators.
Adolescent health services	There was 95% availability for all adolescent health services, with HIV counseling and treatment (67%) and ARV treatment (41%). Readiness is even lower, with 17% of health workers trained in providing specific services. Only 4 percent of all health facilities have the set of tracer indicators.
Malaria	Almost all facilities (99%) offer diagnostic services and treatment for malaria; 91% have a rapid diagnostic test; 87% can diagnose based on clinical symptoms; 58% are trained in providing IPT for pregnant women; 25% have microscopy for malaria. Among health workers, 78% were trained for malaria, 58% for IPT, 60% on malaria diagnosis and treatment guidelines. Overall malaria diagnostic capacity was 90%, and first-line antimalarial availability was 87%; average readiness score was 77%.
TB	Among facilities, 17% offer TB care; there is overall low availability of both treatment and diagnosis (14% have diagnosis available, only 4% have radiography or culture test available). Only 14% at the primary level offer TB-related services, as opposed to 55% of secondary and 61% of tertiary facilities. Of the facilities that offer these services, readiness is approximately 50% across all key indicators (staff trained on TB services, availability of guidelines). MDR-TB treatment is significantly less available, with only 26% of providers trained to provide these services.

HIV	Across all facilities, 76% offer HIV testing and counseling—86% of tertiary and 75% of primary. Among staff, 71% are trained on HIV testing and counseling, and 68% have directives. HIV care and support availability is low—48% of facilities offer these services, 44% offer treatment against OIs, and 28% offer nutritional support. Of the facilities that offer care and support, readiness is high, with 85% having guidelines, and commodity availability surpassing 80%. Among facilities, 47% offer ARV, primarily at the CHU level (80% as opposed to 44% at the primary care level). In these facilities, ARV availability is high (92%), and staff is trained for the most part (88%), although lab capacity is low (39% CD4 or viral load evaluation). PMTCT is offered at 68% of facilities, mostly at the tertiary level. About 70% of staff is trained in PMTCT, and have guidelines, but few are trained in nutrition. Among facilities, 75% have prophylactic ARV.
NCDs and basic surgery	Among facilities, 44% have diagnostic capacity for CVD, 36% for chronic respiratory illness, 33% for diabetes, and 10% for cervical cancer. Availability of these services is concentrated at the tertiary and secondary levels. Readiness levels are low, with 37% of staff trained for diabetes, 25% having availability, and less than 10% having insulin or metformin. Of all facilities, 78% offer basic surgery but very low training levels (23% of personnel trained). Only 5% of facilities offer blood transfusion, and only half of these facilities have the necessary inputs/a third have refrigeration. All hospitals offer comprehensive surgery services, but availability varies, with only 32% of facilities having all the necessary inputs. Readiness is usually high, with every facility having an anesthesiologist and surgeon, and availability score is approximately 88%. Advanced diagnostics capacity is low at 41%.

Source: SARA 2015.
Note: EPI = Expanded Programme on Immunization; ARV = Antiretroviral (therapy); IPT = Intermittent Preventive Treatment (for malaria); MDR-TB = Multidrug resistant (tuberculosis); OIs = Opportunistic infections; CHU = Centre hospitalier universitaire (teaching/referral hospital); CD4 = White cells, essential part of the human immune system; PMTCT = Prevention of mother to child transmission (for HIV); CVD = Cardiovascular disease.

10. **Drugs and supply chains are characterized by inefficiencies and stock-outs, and although the role of the private sector is significant, the government does not have a high level of control over the production and distribution of medication.** Côte d'Ivoire has a strong governance structure overseeing the drugs and supply chains in the country**,** and according to legislation, public primary care facilities have to procure all their drugs, and public hospitals have to procure at least 70 percent of their drugs from the public sector, with the exclusion of commodities directly supplied by development partners. The public pharmacy is called NPSP (La Nouvelle Pharmacie de la Santé Publique) and is tasked with procuring, storing, and distributing medications to all public facilities. The essential medicines list prioritizes generic drugs, and selection criteria are based on safety, therapeutic value, and prices, but this list has not been updated recently even though it is

mandated to be updated every two years. Pharmaceutical needs are forecasted based on data on morbidity, service utilization, consumption, and demographics, and an annual forecast and quantification is done to measure needs. Quantification is done centrally and separately for each of the disease programs, and there is a push system for HIV, TB, and malaria but not for other commodities. In reality, as will be discussed in Section 6, an overwhelming majority of pharmaceutical spending is by households at the point of care or pharmacy level, given frequent stock-outs and weak social protection. Given this, the private sector plays a large role in every step of the drugs and supply chains, with four wholesale distributors, eight factories producing about 6 percent of the pharmaceutical market, and 1,100 private pharmacies. Although drugs are available in the private sector, their high price makes it difficult for the population to procure them when there is a problem: even the price of generics at the private sector was seven times higher than international norms. Similarly, in the absence of generics, patients have to buy brand-name drugs, which are 18 times more expensive than the international reference price. There is an overreliance on the private market, given that only 32 percent of essential drugs have been available in the public sector as opposed to 57 percent in the private sector. The same study points out the very low availability of both brand names and generic drugs in the health sector, as seen in Table 10. In 2013, the six tracer drugs (iron+folate, ORS+Zinc, delivery kits, antibiotics, and Artemisinin-based combination therapy [ACTs]) over the three months preceding the survey were stocked out for 59 days overall, including up to 79 days in tertiary hospitals.

Table 10. Availability of Selected Essential Medications across Health Facilities

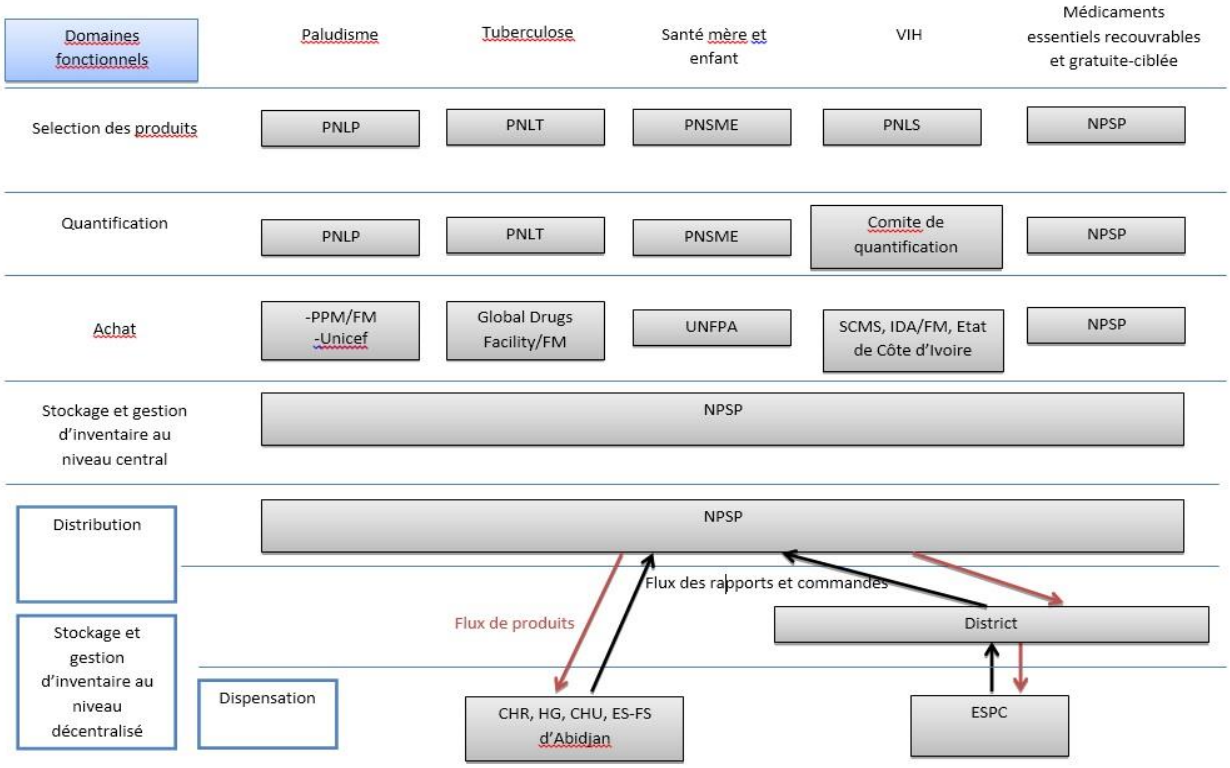
Category	**Average** (%)
Average score	45
Ampicillin powder for injection	38
ORS sachets	73
Gentamicin injection	50
Amoxicillin syrup / suspension	78
Paracetamol syrup / suspension	55
Vitamin A capsules	24
Procainebenzylpenicillin powder for injection	12
Zinc sulphate	31
Ceftriaxone powder for injection	74
Rectal or injectable forms of artesunate	14
Morphine granule, injectable or tablet	1

Source: SARA 2015.
Note: ORS = Oral rehydration salt

11. **Another inefficiency associated with supply chains is the presence of parallel supply chains, each with their own administration, management, and warehousing budgets, and none finances delivery to the health facility level.** This fragmentation shows itself in the issues faced with the procurement system: facilities can only procure from the open market when NPSP is stocked out, and given the frequency of these stock-outs, they have been forced to do so. Even when the drug is available, facilities have to go to a regional warehouse to obtain it using their own mechanisms; last mile delivery faces significant financing constraints, which lead to further disruptions in the supply of medications. As shown in Figure 21, the financing and implementation of supply chains are fragmented in Côte d'Ivoire. Each disease program has its own quantification, purchase, and management

structures, which results in difficulties in coordinating investments as well as tackling problems on irrational drug use, illicit drugs, and lack of price regulation; essential medicine-related processes are executed in parallel. Strengthening governance, developing a policy for price regulation, increasing investments in local drug production, and financing last mile distribution are all potential ways to mitigate this problem.

Figure 21. Supply Chains in Côte d'Ivoire across Disease Programs and Functional Areas



Source: USAID 2018.
Note: PNLP = Programme National de Lutte contre le Paludisme (National Malaria Control Program); PNLT = Programme National de Lutte contre la Tuberculose (National Tuberculosis Control Program); PNSME = Programme National de Santé de la Mère et de l'Enfant (National Program for Maternal and Child Health); PNLS = Programme National de Lutte contre le Sida (National Program against AIDS); NPSP = La Nouvelle Pharmacie de la Santé Publique (Central Medical Stores Trust for Côte d'Ivoire); PPM/FM = Pharmacists/Pharmaceutical Preparers and Managers/Financial Management; UNFPA = United Nations Population Fund; SCMS = Supply Chain Management System; IDA/FM = International Development Association/Financial Management; CHR = , HG = ; CHU = Centre hospitalier universitaire (Teaching/referral hospital) ; ESPC = Etablissements sanitaires de premier contact (Primary health care centers).

12. **There is low availability and use of data for decision-making, and the health information system is weak and fragmented.** In 2013, the Ivorian government adopted and rolled out the District Health Information System 2 (DHIS2) platform, which is used in several other countries in the region; it is now rolled out in every hospital and district. Primary care facilities enter data using a paper-based form, which they send to the district by the 15th of the following month. The data then flow from the district to the national level. Although completion rates are usually high, there can be issues with data quality and integrity. A contributing factor to this challenge is the multitude of indicators: in 2015, facilities had to report on 402 indicators, including 287 for HIV. The system suffers from inadequate coordination, insufficient availability of staff dedicated to supporting the

information system at the peripheral level, lack of computer equipment, nonintegration of health data from hospitals, overreliance on separate disease control programs, disruption of health information management tools, lack of a formal framework for feedback from the central to the decentralized levels, and lack of real-time data analysis for decision-making. There is currently a National Health Sector Strategic Plan that highlights ways to integrate the different data collection modules, as well as to increase the availability of inputs for the management of information systems. Various financing sources, such as Gavi and the Global Fund, have also scaled up their efforts in incorporating the disease-specific modules into the national DHIS2 platform.

13. **As a result of these low levels of inputs, the quality of care in Côte d'Ivoire is very low.** According to IHME's Healthcare Access and Quality (HAQ) index, Côte d'Ivoire has the 187th lowest quality of care over 195 countries, as ranked in terms of the prevalence of amenable mortality, that is, deaths that should not be occurring in the presence of effective care.[21] Another recent study ranks Côte d'Ivoire as one of the countries with the highest prevalence of amenable mortality in sub-Saharan Africa; specifically, in 2015, there were 51,029 excess deaths amenable to health care, 29,117 of which were due to poor quality of care and 21,912 to nonutilization. Côte d'Ivoire's rate of 128 amenable deaths per 100,000 is higher than for most West African countries, including poorer countries such as Liberia.[22]

14. **A significant portion of the Ivorian population's expectations from the health system are not met.** Among respondents, 32 percent think that health is one of the most important problems to be regulated and solved by the government, and in 2017, 58 percent indicated that they thought health services were good or mostly good, up from 51 percent in 2013; those who were not satisfied are at 39 percent, down from 47 percent in 2013. Dissatisfaction with health services is higher in rural areas (43 percent dissatisfied) than in urban areas (36 percent), and is also higher among poorer people (46 percent) versus the non-poor (15 percent). The population has a mixed opinion in terms of whether access to health care has improved or not: 41 percent indicated it has remained the same, 36 percent indicated it has gotten better, and 23 percent indicated it has gotten worse. Most of those who indicated a worsening of health services are from poorer and rural populations, which highlights equity risks. 66 percent of the population has experienced at least one stock-out of medicines in the past year, with 53 percent having experienced multiple stock-outs; 87 percent of the poorest and 76 percent of the rural population have experienced multiple stock-outs, indicating that this is a concentrated problem. 56 percent of people did not visit any health facility in the past year, and 39 percent have indicated that it is difficult to access medical care (46 percent of urban, and 32 percent of rural respondents; 47 percent of poorest respondents). The study also looks at waiting times, indicating that 45 percent of the population received care after a short delay, 29 percent after a long delay, and only 25 percent got care immediately.[23]

15. **In 2016–17, a national quality policy and a quality strategy covering 2017 through 2021 were finalized as the first documents to guide the national quality improvement response**. The strategies target the entirety of the health system, although there is a more apparent focus on quality of care at the hospital level. The main problems with quality of

21. Barber et al, 2017

22. Kruk et al, 2018

23. Afrobarometer 2017

care that the strategy seeks to fix are lack of a governance structure to ensure high quality of care; lack of an institutional framework, including accountability mechanisms; lack of adherence to protocols and limited implementation of evidence-based guidelines; issues with level and distribution of human resources and infrastructure; availability of drugs and blood products; misalignment of financial flows at the facility level and a disintegrated health information system. The strategy, through 17 components, seeks to strengthen governance, management, collaboratives across districts, improving the training of health workers, promoting a culture of measuring processes and outcomes related to quality improvement, implementing the Rapid Learning Cycle to execute the strategy in a dynamic way. Implementation of this strategy together with other quality improvement initiatives is expected to incentivize a shift from focusing predominantly on input-based quality to a more holistic approach of quality. The strategy would be implemented by a steering committee at the central level, which would coordinate quality improvement efforts at the regional and district levels. At the facility level, quality collaboratives are expected to implement changes, and the lessons are expected to be shared and exchanged at the district level. However, as of now, key aspects of this strategy, including accreditation and contracting, are still not executed.

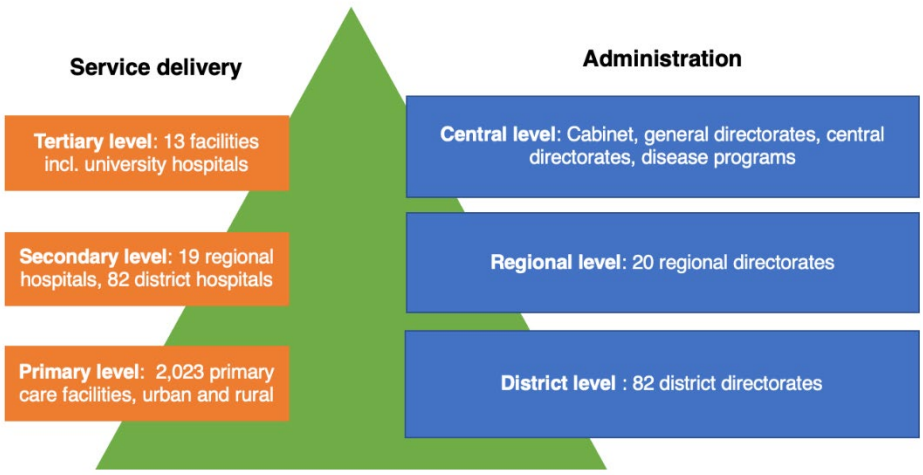
PART V: HEALTH SYSTEM GOVERNANCE

Key Messages

- The health system in Côte d'Ivoire is organized in a pyramidal way, with three levels and two dimensions.
- Although the private sector plays a significant role in the provision of care in Côte d'Ivoire, governance structures overseeing the provision of private care are not well-defined or well-regulated.
- Similarly, external financing sources are outside the ministry's formal governance structure, although they provide a significant level of services.
- At the ministry level, the Inspector General is in charge of administrative and financial controls, as well as internal audits and diffusing legislation.
- The main lever for the government in ensuring good governance is the annual budgeting process.
- The execution of the approved budget is overseen by the Finance Directorate of the Ministry of Health, and is audited by the comptroller.

1. **The health system in Côte d'Ivoire is organized in a pyramidal way, with three levels and two dimensions.** In terms of management, at the tertiary/central level, the key actors are the Cabinet of the Minister and central level directorates, and the main service providers are tertiary hospitals. At the secondary/regional level, there are 20 regional health offices, and the main service providers are regional hospitals. At the primary/district level, there are 83 district offices that are charged with implementing the health policies. There are over 4,000 public and private health facilities across all levels of the health pyramid. In addition, traditional medicine still constitutes a significant portion of the delivery of care. Figure 22 demonstrates the overall governance structure.

Figure 22. Governance Structure of the Ivorian Health System



Source: PNDS 2016, updated with stakeholder interviews

2. **Although the private sector plays a significant role in the provision of care in Côte d'Ivoire, governance structures overseeing the provision of private care are not well-defined or well-regulated.** The private health sector follows the three-tier pyramid structure of the public health system. Private paramedical and medical centers operated by nurses or providers are the first point of care. The secondary level consists of specialist medical offices and centers, including medical imageries and diagnostic laboratories. Finally, polyclinics and hospitals providing consultations and hospitalizations offer a range of specialized care, such as general surgery and obstetrics and gynecology among other specialties, are found at the third level of the pyramid. As indicated in other sections, the private sector constitutes a large sector of visits and service utilization, particularly for the wealthiest quintiles. Given the lack of official contracting and accreditation arrangements between the private and public sectors, data for the level and distribution of health providers or infrastructure in the private sector are not available. To rectify this, the government is seeking to organize and increase the private sector's involvement in the health system, through mechanisms such as public-private partnerships (PPPs).

3. **Similarly, external financing sources are outside the ministry's formal governance structure, although they provide a significant level of services.** Although there are sectorwide taskforces and governance mechanisms for the government to engage with partners, a significant share of donor financing remains outside the government's budget.

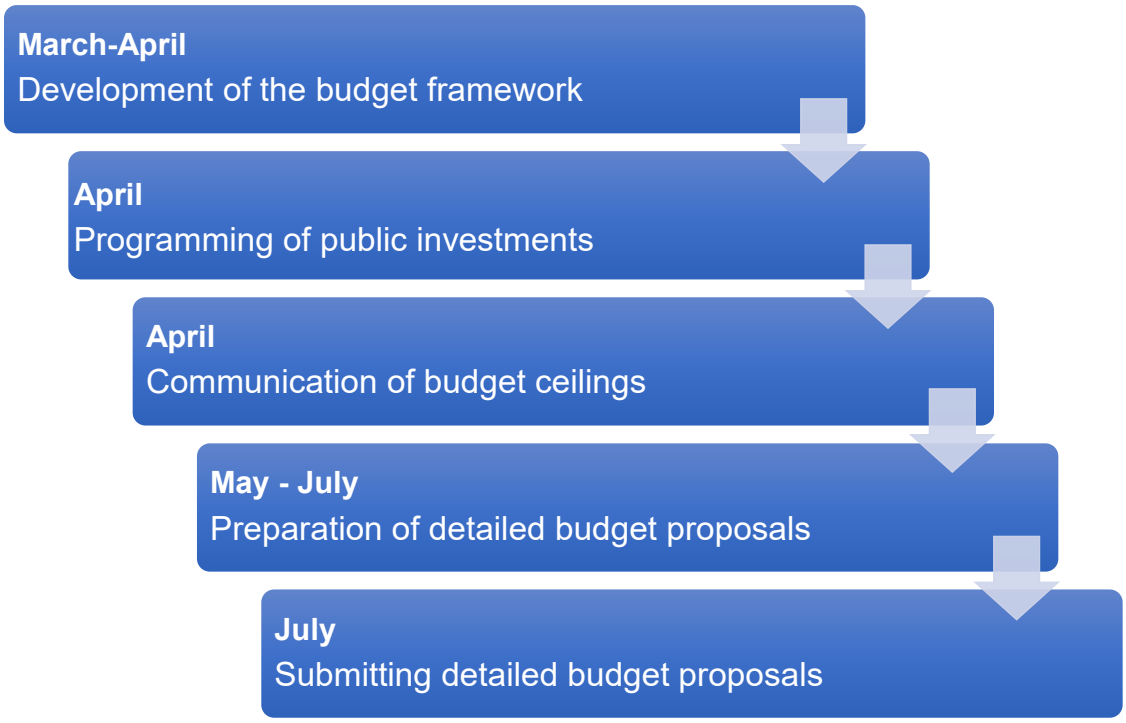
4. **At the ministry level, the Inspector General is in charge of administrative and financial controls, as well as internal audits and diffusing legislation.** The sector is governed by various high-level strategies and guidelines, and although policies and directorates are all well-defined and in place, this does not always translate into strong implementation. The Inspector General's Office is tasked with ensuring that all payments are made by an authorized person, corresponding to prices approved by the ministry and entered into the system in the right way. The budget is implemented through the Integrated Financial Management System (Système Intégré de Gestion des Finances Publiques, SIGFIP), where every transaction is entered and cross-checked for accuracy.

5. **The main lever for the government in ensuring good governance is the annual budgeting process.** The government's fiscal year coincides with the calendar year, and a budget must be finalized and approved by the Parliament by the beginning of the calendar year. Allocation of funds takes place in two stages: first, the preparation of the budget; and second, the drafting of finance laws. The budget is prepared according to the steps in Figure 23. First, budget envelopes are determined by the Directorate of Budget[24] on an annual level—based on a set of factors that are not publicly available, including but not limited to a particular ministry's performance with budget execution in the past. After this envelope is communicated, the Ministry of Health prepares its own budget, receiving and consolidating budgets from each of the individual programs (called the "budget conference"). The budget conference is attended by the Directorate of Financial Affairs and the Directorate of Human Resources. During the budget conference, the Ministry of Health and the Directorate of Budget exchange and discuss allocations as these pertain to other allocations made in the budget conference as well. During this process, the Directorate of Budget can intervene in the government's budget and adjust the amounts allocated to individual activities, as well as change the overall budget envelope of the ministry. After this arbitration, the budget is finalized and sent to the Council of Ministers, ultimately to be approved by the Parliament

24. In Côte d'Ivoire, the Directorate of Budget is the equivalent of the Ministry of Finance.

and the president. The preparation process faces various challenges: first, the priorities defined in the medium-term financing framework are not necessarily financed by the annual ministry budget, due to the lack of connection between the fiscal framework and expenditure planning; second, there is no estimate of the financing needs for the implementation of programs selected over the period; and third, due to the input-based budget format, there is no clear link between approved budgets and sector priorities. Another problem with the process is the lack of availability of staff to support budgeting processes at the health facility level. The main actors in the budget formulation process include the Directorate of Financing (Direction des affaires financières [DAF]) at the Ministry of Finance, which collects data from decentralized entities and the regional/national budgeting conferences, where the budget allocation is decided. Lack of an integrated planning system, as well as weak alignment between budgets and operational plans, are two significant problems with the budgeting process identified as part of a WHO review.

Figure 23. Annual Ministry of Health Budget Preparation Calendar



Source: Stakeholder interviews

6. **The execution of the approved budget is overseen by the DAF of the Ministry of Health, and is audited by the comptroller.** The budget utilization process begins with the notification of technical units that are charged with executing the budget (hospitals, districts, and regions). Technical units first send an invoice to the credit administrator, who sends a payment request to the DAF, who reviews the request and sends it to the financial comptroller, who rejects or accepts the demand based on the availability of funds and the budget execution rate. These transactions are all entered into the Integrated Financial Management System (SIGFIP). However, despite the implementation of this tool, certain weaknesses remain in the budget execution process: first, SIGFIP traces expenditure operations without providing information on the effectiveness of the execution of the committed budget, or on the adequacy between the amounts allocated and the priorities; second, it does not offer a way to diagnose corruption; third, it leads to delays in execution; and finally, due to delays with allocation of funds from the state, there are issues with paying providers on time, leading to delays in procurement as well as increased unit costs as providers charge higher amounts due to unpredictable payments. A system at the Treasury level also tracks disbursements from the Treasury. It should be noted that health centers do not keep their own budgets, and the Ministry of Health does not have its own budget execution system; these are all overseen at the Treasury level. This overly centralized process leads to inefficiencies and delays with the budget execution process. Table 11 demonstrates salient problems with the budgeting process based on key informant interviews.

Table 11. Key Budget Formulation and Execution Bottlenecks in the Health Sector

Area	Key budget formulation problems	Key budget execution problems	Key decentralization problems
Governance	• Budgets based on historical allocation • Lack of alignment between sectoral plans and operational budgets (i.e., between the PNDS and annual plans) • Low satisfaction of demands from health facilities • **Lack of linkages between budget categories and funding priorities** • **Lack of definition of planning and budgeting processes**	• Delays in budget implementation • Multiplicity of partners' management units not allowing for harmonization of procedures and alignment with national procedures • No control of enforcement procedures (commitment, scheduling) • Budget ceilings take into account the evolution of the country's revenues (vs. expenditures)	• Decentralization laws exist but are not implemented • District health plan development not aligned with the PNDS • Issues in communicating budget amounts to districts • Decentralized entity budget structures are different compared to MSHP budget structure • Complex funding flows, with facilities having to transfer a certain part (65%) of their budgets to central government and districts, and districts having to transfer about 30% of their budgets back to the Ministry of Health
Human resources	• Lack of technical capacity on budgeting and planning processes	• No control of enforcement processes (commitment, scheduling)	• Manuals available, but lack of technical capacity
Information systems	• Lack of rollout of information management systems (SIGFIP) at 90% of cost centers	• Lack of rollout of information management systems (SIGFIP) at 90% of cost centers (information sent manually from these cost centers, with budgets and expenditures approved centrally)	• Low capacity for follow-ups
Providers	• Insufficient public procurement capacity for construction, equipment, rehabilitation, and supply • Delays in payment of contractors • Data not used for purchases (“passive input purchases”); lack of data from the ground in an overly centralized system, leading to increased and unpredictable costs		

Source: Key informant interviews.
Note: PNDS = National Health Sector Strategic Plan; MSHP = Ministry of Health and Public Hygiene; SIGFIP = Integrated Financial Management System.

PART VI: HEALTH FINANCING

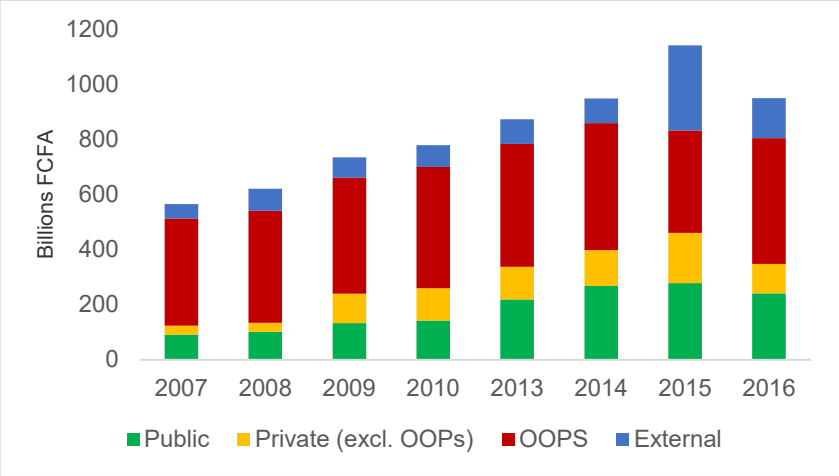
KEY MESSAGES

- Total public health spending in Côte d'Ivoire in 2016 was at 950 billion CFAF, or about US$1.66 billion, with out-of-pocket spending from households being the most significant financing source since 2007.
- In 2016, most out-of-pocket spending went to private pharmacies; most public spending went to administration and salaries; most external spending went to preventive care; and most pooled, private spending went to primary care at the outpatient level.
- The largest share of spending takes place at the hospital level (25 percent), followed by pharmacies and other medical retailers (23 percent), and outpatient primary care services (19 percent).
- There is considerable inequality between Abidjan, which has the highest amount of per capita resources available, and districts in the periphery.
- The government of Côte d'Ivoire spends less on health than almost every country in the region, and is below the West African averages, which themselves are below sub-Saharan African averages.
- In addition to low levels of public spending, most donor spending in Côte d'Ivoire is also not channeled through the government, leading to an even more limited fiscal capacity, prohibiting the government's ability to plan effectively and ensure predictability.
- The main financing schemes overseen by the government include a free services scheme (*gratuité*), and direct transfers to facilities for their operating costs. There are problems with the adequacy and efficiency of these transfers.
- In addition to the problems imposed by the dysfunction of the gratuité scheme, the primary care level receives a very small share of public expenditures, especially compared to its utilization and disease burden.
- External health financing levels have been going up in the past few years and have peaked in 2014 and 2015 due to increased postconflict aid, but have gone down to their pre-2013 average of 15 percent in 2015, particularly as funding declined from the Global Fund due to fluctuations in disbursements.
- Most external financing takes place at the primary level for the control of infectious disease; 70 percent of all donor funding is allocated to HIV and malaria.
- This overreliance on donor funds, in particular for disease control programs, posits a significant threat in the sustainability of health financing moving forward.
- Out-of-pocket payments in 2016 were the single largest financing source in the health system.
- Most out-of-pocket spending goes to pharmacies and hospitals.
- Compared to other countries, the population of Côte d'Ivoire is at an elevated risk of impoverishment due to out-of-pocket spending.
- To remedy the high burden of out-of-pocket spending, there is a need to increase the size of prepaid risk pools and ensure that health insurance assures financial risk protection.
- Increasing efficiencies is one of the most important measures the Ivorian government can undertake to expand its fiscal space.
- Weak financial management, an overreliance on disease-specific funds, low absorption rate of investments, inadequate use of data for decision making, and suboptimal budget planning and execution processes are some main drivers of inefficiencies in the Ivorian health sector, in the absence of sustainable health financing arrangements.

OVERALL HEALTH FINANCING

1. **Current health spending in Côte d'Ivoire in 2016 was at 950 billion CFAF, or about US$1.66 billion, with out-of-pocket spending the most significant financing source since 2007.** This comes to a per capita spending of about $70 in current US dollars, a decline from 2015, due largely to reductions in externally financed spending. This level of $70 per capita has been more or less constant over the past decade. Current health spending from 2015 to 2016 declined by 17 percent, with government's health spending[25] declining by 10 percent, private (pooled) health spending declining by 17 percent, external financing declining by 53 percent, and OOP spending increasing by 5 percent. In 2016, households were the largest source of financing in the health sector, and given the lack of prepaid risk pools, almost all this spending took place at the point of care. Figure 24 demonstrates overall health spending and spending trends.

Figure 24. Current Health Spending in Côte d'Ivoire, 2007–2016



Source: NHA 2016.
Note: OOPs = Out-of-pocket spending.

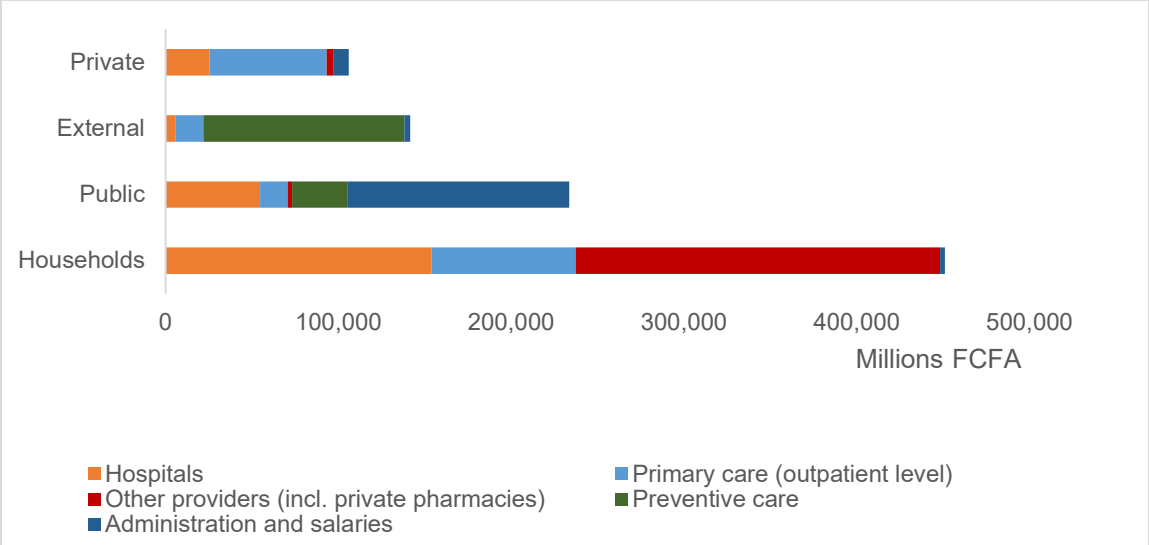
2. **In 2016, most out-of-pocket spending went to private pharmacies; most public spending to administration and salaries, leaving little room for operational budgets; most external spending went to preventive care; and most pooled, private spending went to primary care at the outpatient level (Figure 25).** Households financed 48 percent of current health spending, followed by the government (25 percent), external sources (15 percent), and private sources (12 percent).[26] Notably, households spent more at the hospital level than they did at the primary care level. As discussed in the next section, according to official regulations, patients pay for visits and for medications at the point of care for all services except for those that are in the gratuité package (maternal and child health, malaria, and emergencies). Patients continue to spend considerable amounts on drugs and

25. Throughout this report, public/ government's health financing is used to refer to financing that is directly funded by the government (i.e., from the government's Treasury), and as such, excludes funds from development partners, which are almost entirely outside the government's budget.

26. Throughout the document, "private" pertains to private spending that is not made at the point of care by patients (i.e., "other private" such as private labs and health facilities).

other health commodities due to stock-outs, as well as for visits for services such as NCDs and other conditions that are not covered.

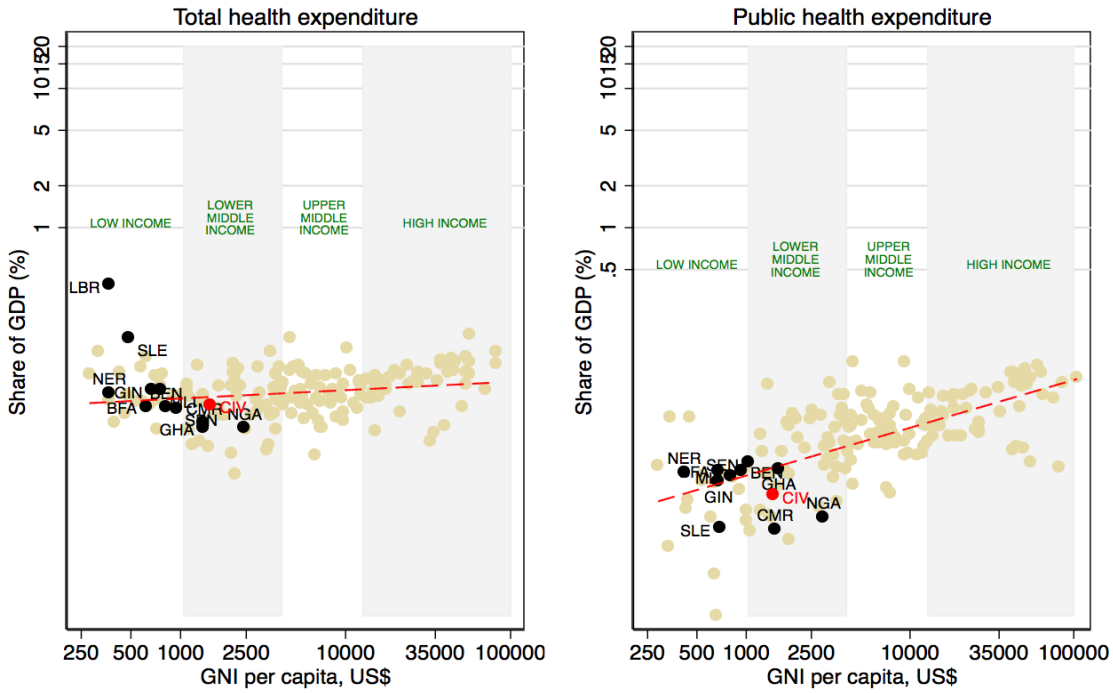
Figure 25. Breakdown of Spending Levels by Funding Source



Source: NHA 2016.

3. **At a global level, Côte d'Ivoire does not spend significantly less than other lower-middle-income countries, but its mix of financing is suboptimal and does not maximize health benefits**. According to latest cross-country comparison data from 2015, Côte d'Ivoire spends below the lower-middle-income average of $132 (current) per capita and sub-Saharan African average of $112 per capita, but compared to its regional peers, it is on the higher end. As Figure 26 shows, Côte d'Ivoire's public health spending levels are significantly below the lower-middle-income average, and also lower than that of most countries in the region, as a percentage of its GDP. Notably, only 21 percent of health spending in Côte d'Ivoire is pooled through public pools, which is significantly lower than the sub-Saharan African and LMIC average (Table 12). The launch and expansion of the National Health Insurance Agency (CNAM) would be able to increase this percentage, and reduce the very high OOP spending rates.

Figure 26. Current Health Expenditure and Public Health Expenditure in Côte d'Ivoire compared to Other Countries, 2015
(*As a Share of GDP*)



Source: World Bank World Development Indicators 2019.
Note: Both *y*- and *x*-axes logged; GNI = Gross natiional income; BEN = Benin; BFA = Burkina Faso; CIV = Côte d'Ivoire; CMR = Cameroon; GHA = Ghana; GIN = Guinea; LBR = Liberia; NER = Niger; NGA = Nigeria; SEN = Senegal; SLE = Sierra Leone.

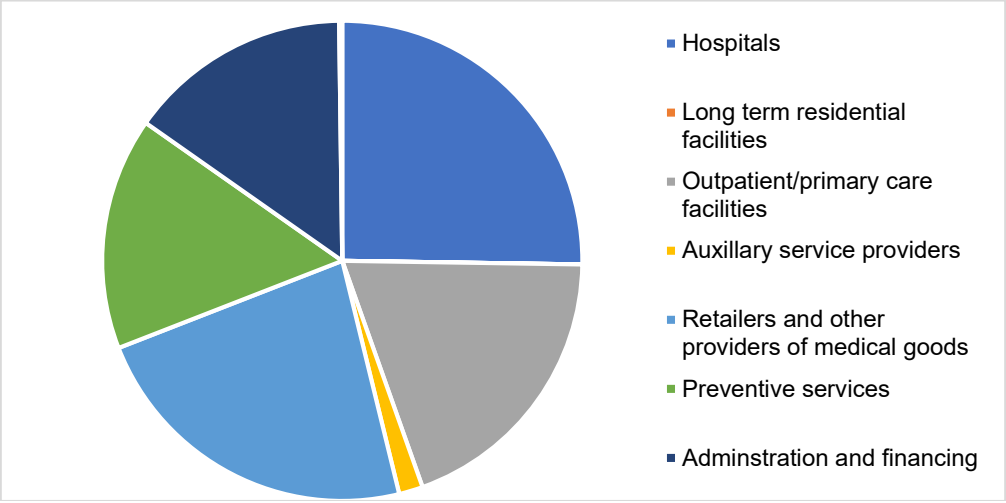
Table 12. Current Health Expenditure per Capita and Breakdown of Health Expenditure across Categories, 2015

Country	Government (%)	External (%)	Out-of-pocket (%)	Pooled (%)	Current health expenditure per capita (US$)
Benin	20.14	34.23	40.50	38.69	31.29
Burkina Faso	28.24	29.56	36.11	52.95	33.44
Côte d'Ivoire	**21.83**	**26.34**	**36.02**	**21.26**	**75.45**
Cameroon	14.46	7.90	69.74	18.93	63.63
Ghana	34.95	25.57	36.11	52.23	79.59
Guinea	17.15	24.89	54.49	38.90	25.13
Liberia	7.41	70.93	19.64	33.46	69.29
Mali	16.55	36.37	46.31	26.75	42.30
Niger	21.02	25.76	52.27	35.28	25.72
Nigeria	16.49	9.92	72.08	19.32	97.52
Senegal	31.75	11.71	44.18	42.63	36.08
Sierra Leone	8.96	52.63	38.24	12.79	106.69
Lower-middle-income	43.78	12.02	39.84	50.37	132.07
Sub-Saharan Africa	32.92	24.12	35.65	42.58	111.60

Source: World Bank World Development Indicators 2019.

4. **The largest share of spending takes place at the hospital level (25 percent), followed by pharmacies and other medical retailers (23 percent), and outpatient primary care services (19 percent).** The source of spending differs across levels of care, but the outsized role of OOP spending is apparent across all levels. In 2016, 64 percent of all spending at the hospital level, 45 percent of all spending at the primary care level, and notably, 97 percent of all drug and medical supply spending was financed by households, indicating the low level of financial risk protection. In terms of preventive care, 78 percent of all spending was financed by external sources, with the remaining financed by the government. The government has financed only 9 percent of all primary care expenditure,[27] with the majority split between households and private financing sources (Figure 28). This suggests that much of the disease burden can be addressed at the primary level, even as less than a fifth of all expenditures take place at that level.

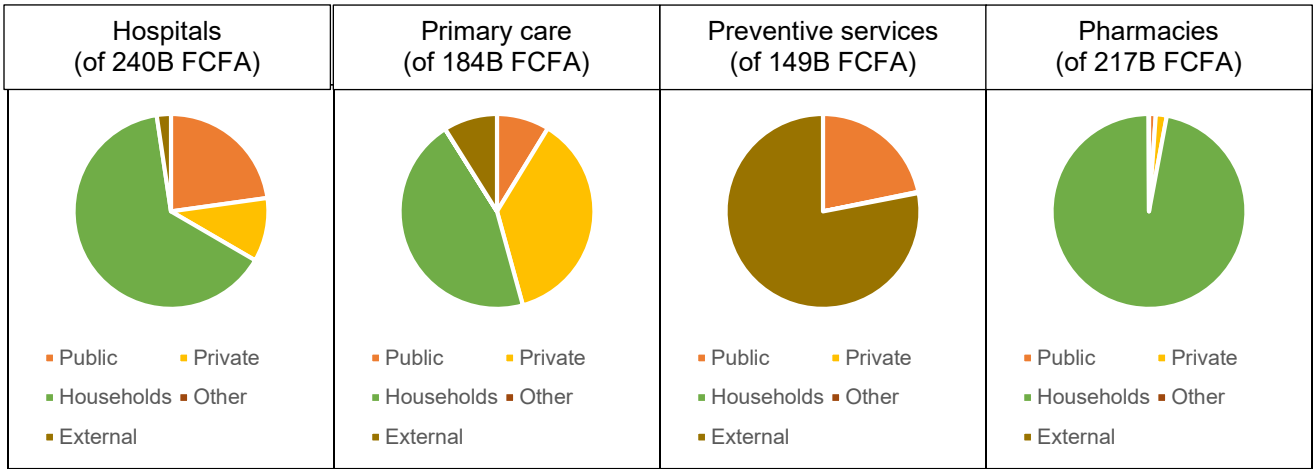
Figure 27. Distribution of Current Health Spending by Levels of Care in Côte d'Ivoire, 2016



Source: NHA 2016.

27. Primary care expenditure is defined differently on the government's own budget data (as discussed under paragraph 11) and on the NHA: the government's own budget includes preventive care within primary care expenditures.

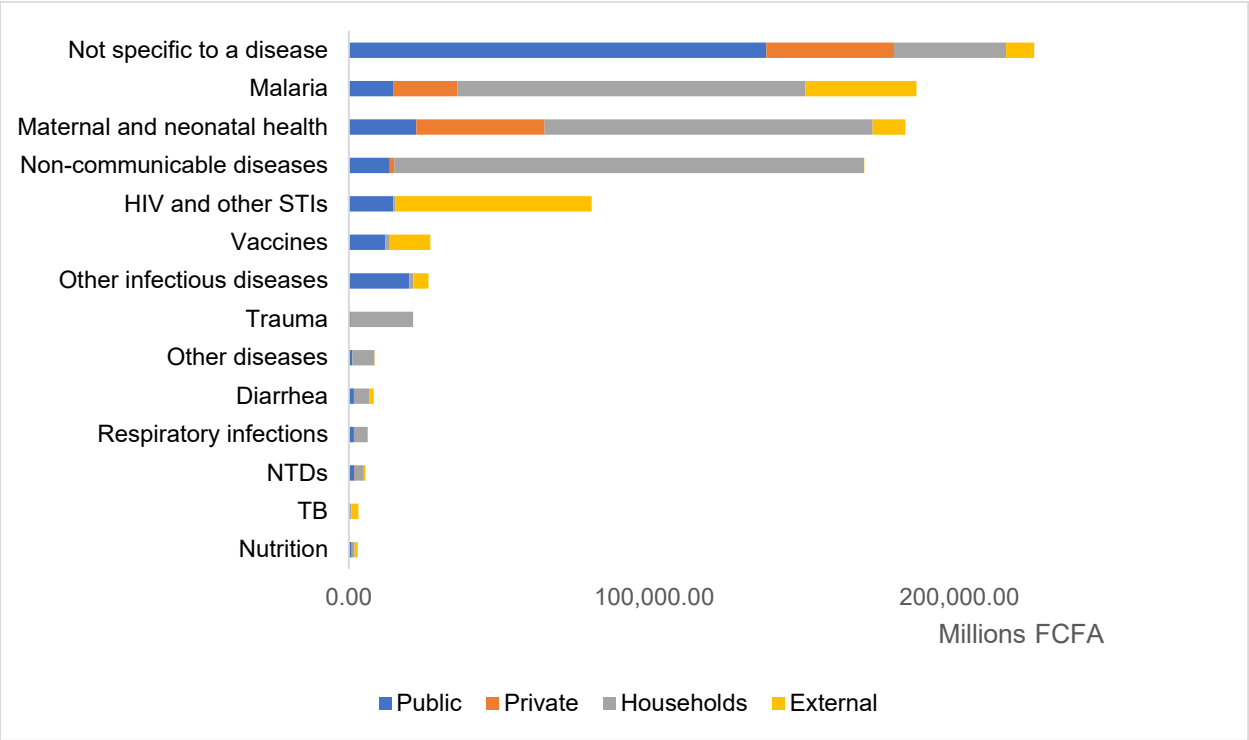
Figure 28. Distribution of Financing Sources by Level of Care in Côte d'Ivoire, 2016



Source: NHA 2016.
Note: B = Billions.

5. **Most health spending is not allocated to a specific condition, but of that which is, malaria, maternal health, and noncommunicable diseases constitute the largest spending areas.** As Figure 29 demonstrates, 20 percent of all health spending in 2016 went to malaria, with 19 percent on maternal health and 18 percent on NCDs. This is broadly aligned with the burden of disease at a very high level, although diarrhea and respiratory infections have received significantly less than their burden of disease. As discussed in the following sections, most disease-specific funding, except for HIV and TB, was funded by households.

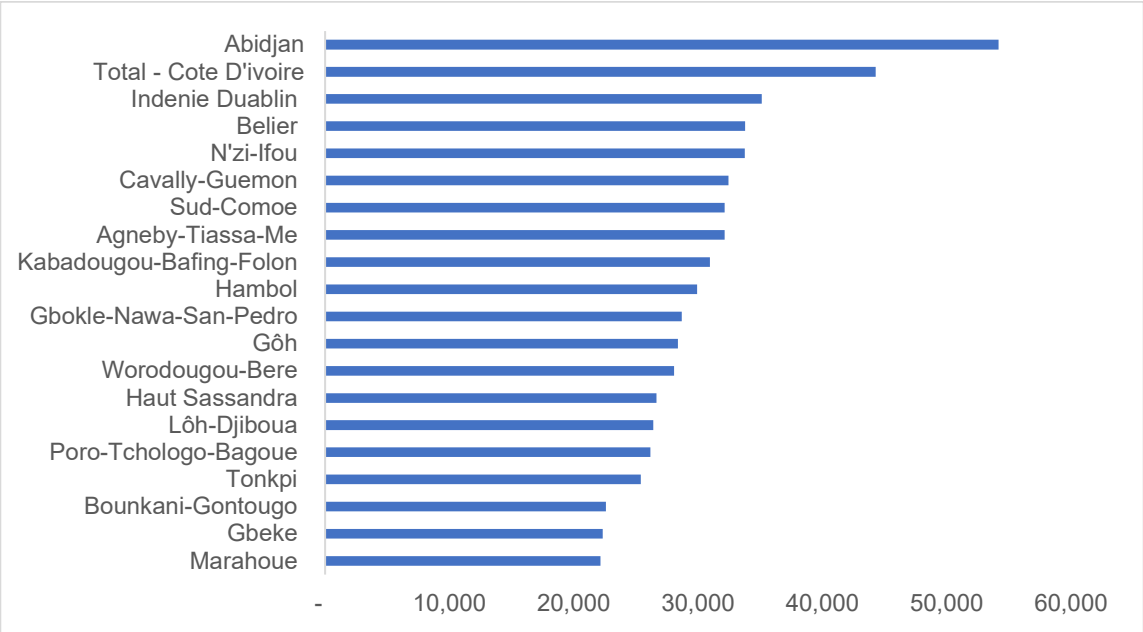
Figure 29. Distribution of Expenditures by Disease in Côte d'Ivoire, 2016



Source: NHA 2016.
Note: HIV = Human immunodeficiency virus; STIs = Sexually transmitted infections; NTDs = Neglected tropical diseases; TB = Tuberculosis.

6. **There is considerable inequality between Abidjan, which has the highest amount of per capita resources available, and districts in the periphery.** Notably, more rural districts in the west and the north have fewer resources available compared to those in the center and south (Figure 30). The allocation of resources does not necessarily correspond to the disease burden, which creates inequities and inefficiencies. The incomplete implementation of the decentralization strategy is a bottleneck in rationalizing and improving resource allocation flows across decentralized entities.

Figure 30. Per Capita Current Health Spending across Regions in Côte d'Ivoire, 2016

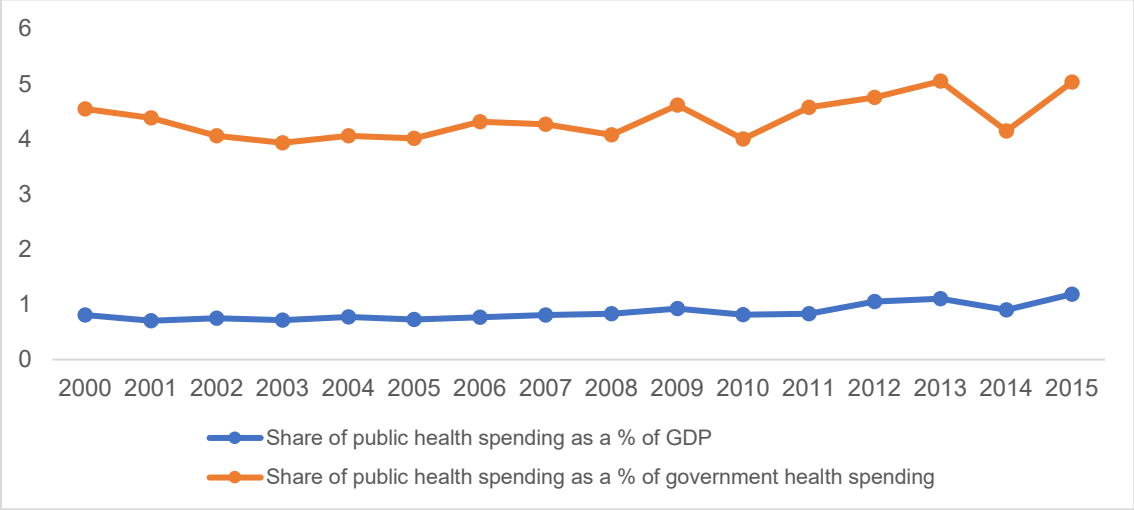


Source: NHA 2016.

GOVERNMENT HEALTH FINANCING

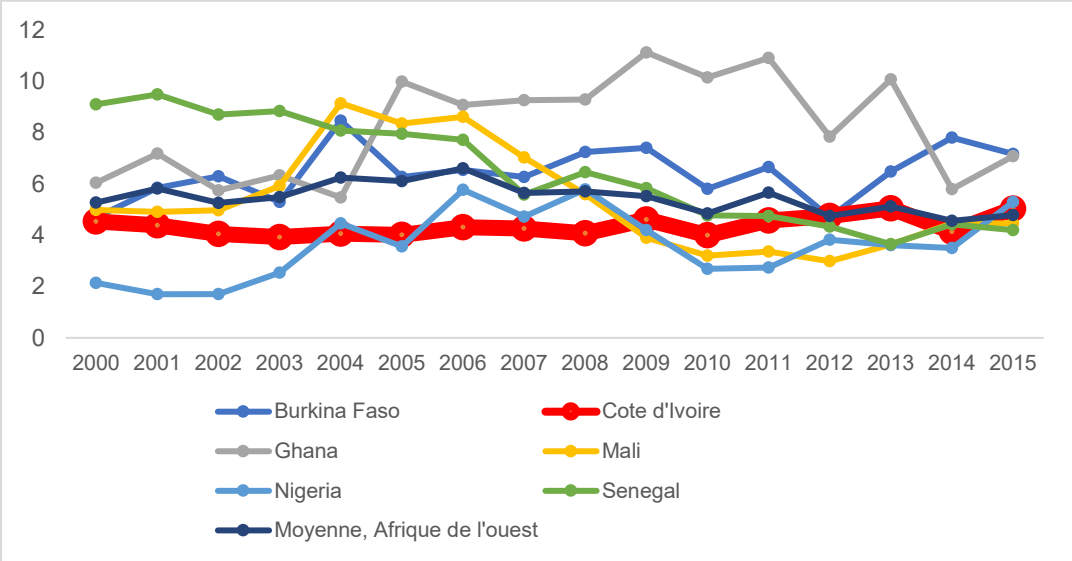
7. **The government of Côte d'Ivoire spends less on health than almost every country in the region, and is below West African averages, which themselves are below sub-Saharan African averages.** With about 5 percent of its national budget and about 1 percent of its GDP going to public health spending, which has remained more or less constant over time (Figure 31), Côte d'Ivoire spends significantly below other LMICs. This indicates that even though the economy has been growing rapidly over the past few years, there has been no corresponding increase in the priority accorded to the health sector. Compared to countries in the region, Côte d'Ivoire is about average, and while other countries' spending has fluctuated at certain points to rise above 5 percent, Côte d'Ivoire has remained constant.

Figure 31. Government Health Expenditure as a Share of GDP, Government Health Spending as a Share of Total Government Expenditure in Côte d'Ivoire, 2000–2015



Source: World Bank World Development Indicators 2019.

Figure 32. Government Health Spending as a Percentage of National Budget, Selected Countries



Source: World Bank World Development Indicators 2019.

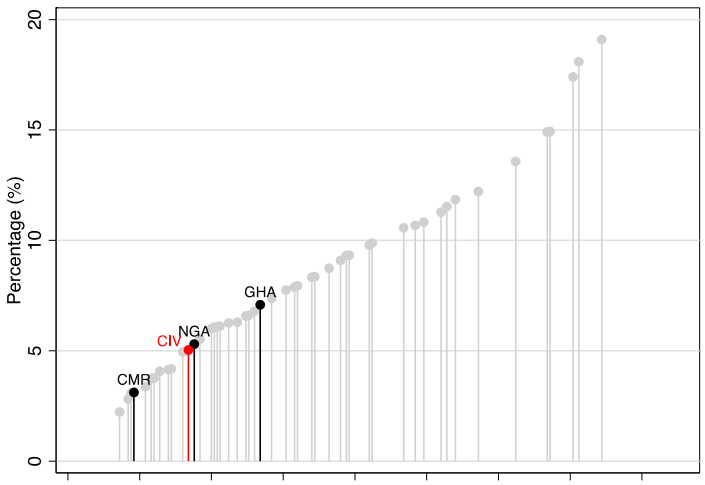
8. **In addition to low levels of public spending, most donor spending in Côte d'Ivoire is also not channeled through the government, leading to fragmentation and even more limited fiscal capacity, prohibiting the government's ability to plan effectively and ensure predictability.** Almost 85 percent of external financing goes through donors' own systems, which limits the sustainability of funds and puts Côte d'Ivoire in further transition risk in terms of managing donor resources when donor support declines (Table 13 and Figure 33).

Table 13. Public Health Spending Metrics across Côte d'Ivoire and Selected Countries

Country	Share of external funding channeled through government (%)	Domestic public health expenditure as a share of total government expenditure (%)	Domestic public health expenditure as share of GDP (%)
Benin	54.19	3.37	0.80
Burkina Faso	83.57	7.17	1.54
Côte d'Ivoire	**15.83**	**5.04**	**1.19**
Cameroon	56.60	3.11	0.74
Ghana	66.01	7.08	2.06
Guinea	87.39	2.73	0.78
Liberia	36.73	2.68	1.13
Mali	28.07	4.46	0.96
Niger	55.36	4.59	1.51
Nigeria	27.85	5.30	0.59
Senegal	92.88	4.20	1.26
Sierra Leone	7.27	7.86	1.64
Lower-middle-income	54.63	8.16	2.52
Sub-Saharan Africa	50.69	7.06	1.93

Source: World Bank World Development Indicators 2019.

Figure 33. Health Spending as a Share of Public Health Spending, Lower-Middle-Income Countries



Source: World Bank World Development Indicators 2019.
Note: CIV = Côte d'Ivoire; CMR = Cameroon; GHA = Ghana; NGA = Nigeria.

9. **The government's health budget and expenditures have increased from 2013 to 2017 with varying budget execution rates, but declined in 2018.** The Ivorian government's health budget is divided into two categories: operating, which covers salaries, procurement of drugs and other medical supplies, and facility operating costs; and investment, which

covers infrastructure for health facilities, notably construction and rehabilitation. It should be noted that the recent increase in government budget was mostly due to increases in salaries—with a rise in hiring over the past five years, which brought Côte d'Ivoire to international norms for the level of its health professionals (although, as discussed in the prior section, there are issues with the distribution of this workforce). The investment budget, in particular, has increased since the end of the civil war to allow for the construction and rehabilitation of new facilities, although significant gaps remain, and the execution of this budget is lower than of salary or investment budgets. The government's budget execution rate has been going up from a low of 84 percent in 2014, to 90 percent in 2017; however, due to delays addressed under the governance section, interruptions in services occur despite the relatively high budget execution rate. The government's health budget declined by about 6 percent CFAF 370 billion to CFAF 348 billion from 2017 to 2018, despite an overall increase in the government's budget. In the past three years, the government budget's high-level allocation has not changed significantly. Salaries have consistently taken up about 40 percent of the government's budget, but jumped to almost 50 percent due to an overall decrease in the government budget as well as increases in hiring. In 2018, the investment budget dropped more significantly than the operating budget, given the overall decline in the health budget and the fairly constant share of salaries and other administrative costs as a share of the budget (Figure 34): 55 percent of the total ministry expenditure goes to administration and salaries, 23 percent to hospital operating costs,14 percent to preventive care, and 7 percent to primary care at the outpatient level, indicating that hospitals at the secondary and tertiary levels receive more resources than the primary level (Figure 35). It should also be noted that other ministries, such as the Interior Ministry, the Defense Ministry, and the Social Protection Ministry, also devote resources to the health sector, although significantly less than the Ministry of Health. In 2017, these ministries spent a total 16 billion CFAF, compared to 337 billion CFAF spent by the Ministry of Health.

Figure 34. Government Budget Execution Rate across Operating and Investment

Figure 34 Government budget execution rate across operating and investment categories, 2013-2017; government budget, 2018

Categories, 2013–2017; Government Budget, 2018

Source: Government of Côte d'Ivoire, SIGFIP Budget Execution Data 2018.

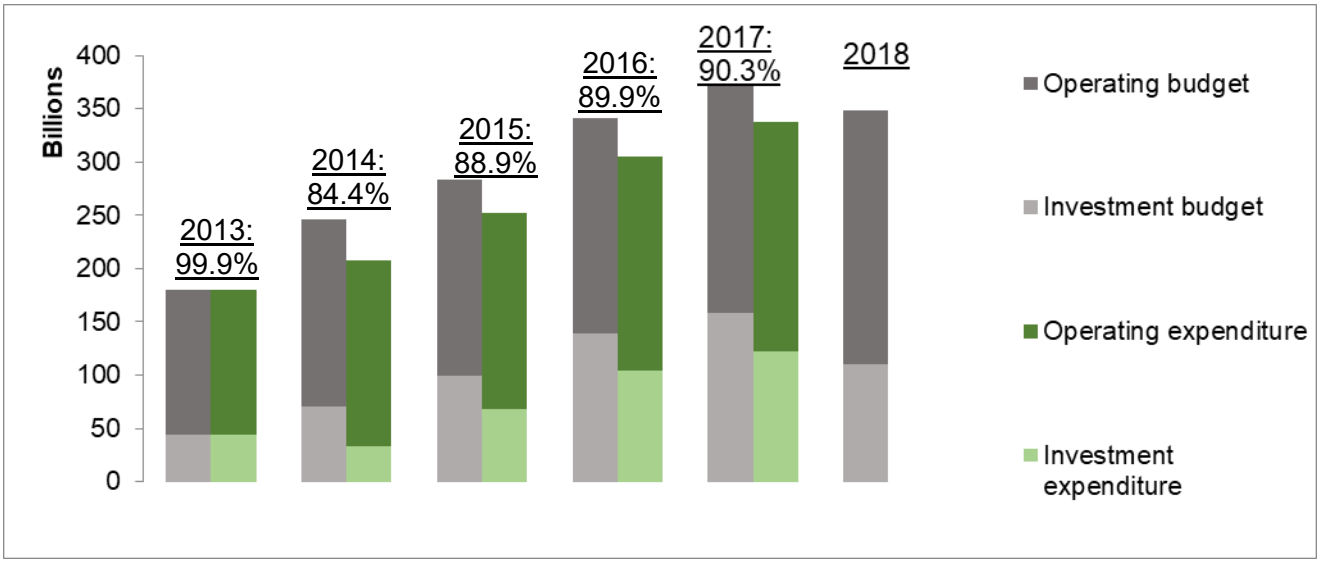
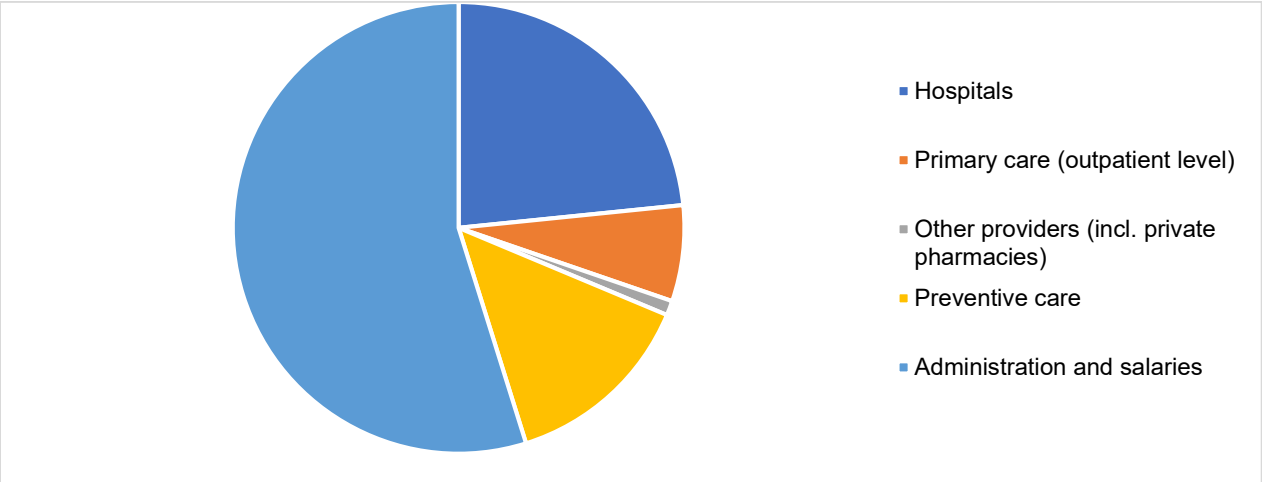


Figure 35. Functional Breakdown of the Ministry of Health Expenditures, 2016



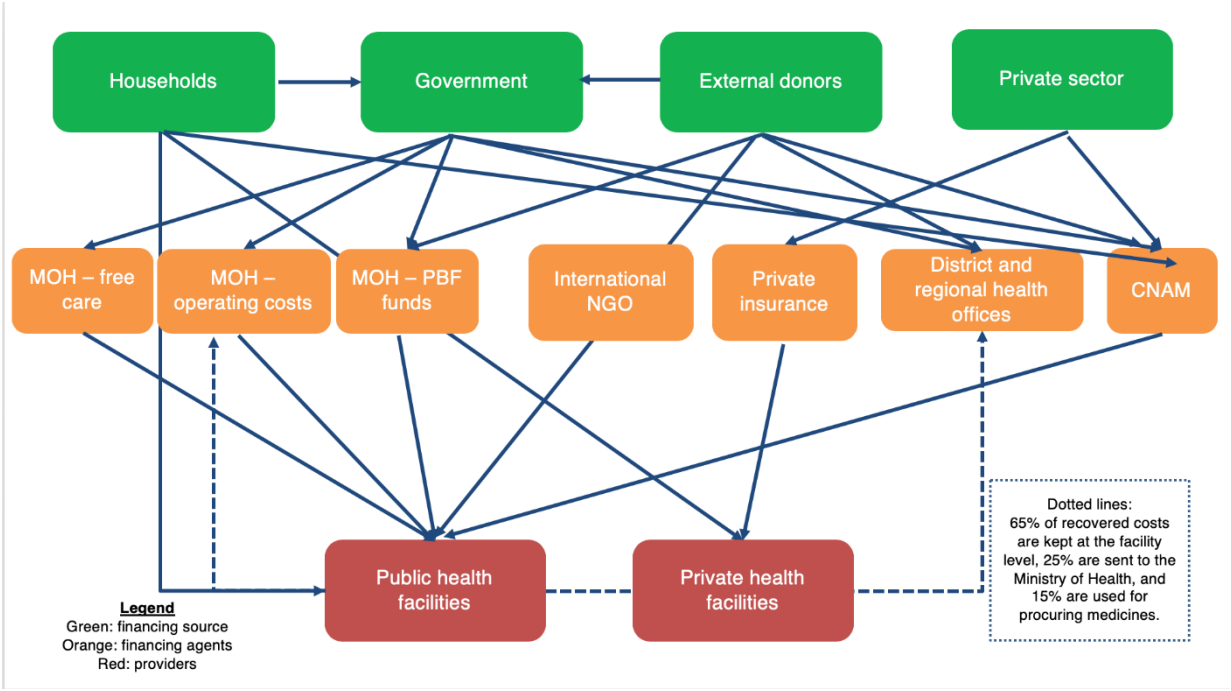
Source: NHA 2016.

10. **The main financing schemes overseen by the government include a free services scheme (gratuité), and direct transfers to facilities for their operating costs. There are problems with the adequacy and efficiency of these transfers.** In 2012, the government introduced a free services scheme, or gratuité, to reduce OOP spending associated with priority health conditions, primarily for malaria and maternal and child health. Currently, for pregnant women, antenatal consultations, malaria, delivery at facilities, caesarian sections, provision of inputs for deliveries, inpatient care for deliveries, antenatal care, and two ultrasounds are covered free of charge. For children under five, all outpatient visits, drugs for the treatment of infections including malaria, as well as complimentary health visits are free. Finally, for the general population, treatment of malaria, emergencies and all relevant diagnostic procedures, including medications, are covered free of charge. For all other services, patients pay a fee at the point of care and pay separately for medications, a portion of which is retained at the health facility and another portion remitted to the central and district governments (Figure 36). For gratuité services, the government reimburses facilities based on the receipts they submit for cases they have treated and inputs they have purchased. In reality, as seen by the very high levels of OOP spending for all conditions, the free services scheme does not work as effectively as it should. An organizational audit of the scheme in 2017 showed that while the system exists on paper, in practice there are many challenges with timely reimbursements. Facilities receive their funds only at the end of the year, and the amount they receive is usually less than the amount they have submitted for reimbursement. As a result, only 46 percent of providers expressed satisfaction with the scheme, and indicated that the service is implemented better for maternal and child health than for emergencies for the general population. If the gratuité were to be fully implemented, it would cost about 20 billion CFAF a year, which is more than the entire available budget for primary care facilities.

    The main issues identified in the organizational audit were delays in reimbursements and salaries and operating budgets of facilities; lack of coordination mechanisms; weak

institutional framework; frequent stock-outs of drugs and other inputs reaching 86 percent in the three months preceding the study; degradation of medical equipment given low rehabilitation budgets; demotivation and strikes due to delays and stock-outs; inability of the government to pay its providers, leading to lack of confidence of suppliers—which in turn do not sell inputs to the government in arrears. The report also indicated that due to the gratuité program degrading quality of care in health facilities, bypassing has become more common, which decreases utilization at the primary care level and increases congestion in the secondary and tertiary levels. In the course of the next few years, the government is expected to take on performance-based financing subsidies, and integrate different services under a single benefits package, which has the potential to address challenges experienced with the gratuité program.

Figure 36. Current Flow of Funds in the Ivorian Health System



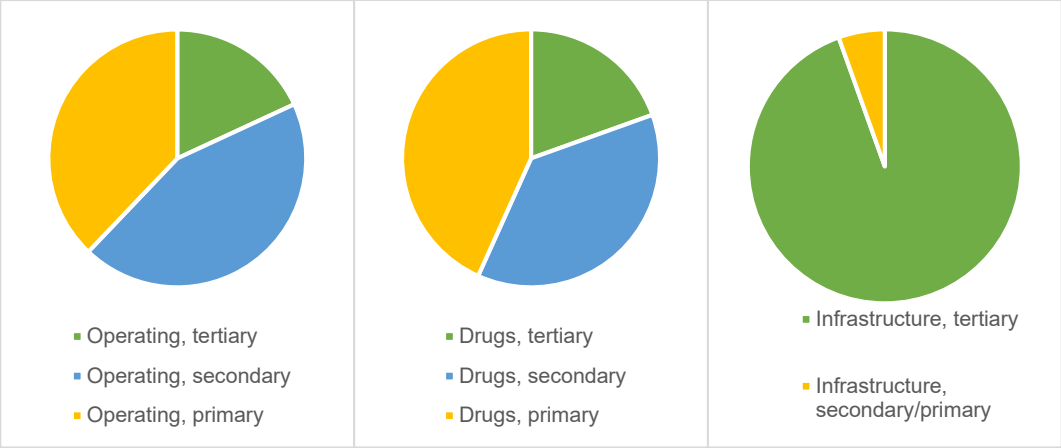
Source: Key informant interviews, 2019
Note: MOH = Ministry of Health; PBF = Performance-based financing; NGO = Nongovernmental organization; CNAM = National Health Insurance Agency.

11. **Another issue, beside the problems created by the dysfunction of the gratuités scheme, is that the primary care level receives a very small share of public expenditures, especially compared to utilization and disease burden.** According to the government's documents and classification, 98 billion CFAF of the 380 billion CFAF health spending (26 percent) was targeted toward primary health care in 2017, and 88 billion CFAF of the 356 billion CFAF health spending (25 percent) was targeted toward primary health care in 2018.[28] This includes the allocation of salaries across levels of care, as well as all operating costs. In 2017, excluding salaries, 38 percent of all public facility operating spending, 43 percent of all public drug spending, and less than 5 percent of all public infrastructure spending took place at the primary care level, which is in contrast to the fact

28. http://www.caidp.ci/uploads/1e0587bedd0bbfef8afece6e04eb4f78.pdf.

that 79 percent of outpatient visits took place in the primary care level. This indicates that in a given year, on average, slightly less than $6,000 was available to an average primary health care facility for its operating costs, leading to significant funding gaps. According to WHO data, 74 percent of all health expenditure went toward primary care in 2015, whereas only 29 percent of total government expenditure went to primary health care. This is because most donor funding is classified as taking place at the primary level (e.g., commodities for HIV, TB, and malaria), and most OOP spending takes place at the pharmacy level, which is also classified as primary care. The breakdown remained at similar levels from 2017 to 2018, although the budget envelope shrank (e.g., down from 11 billion CFAF available to 9 billion CFAF; see Figure 37). The scarcity of resources is exacerbated by the lack of inputs for these services, as discussed in the previous section on free services.

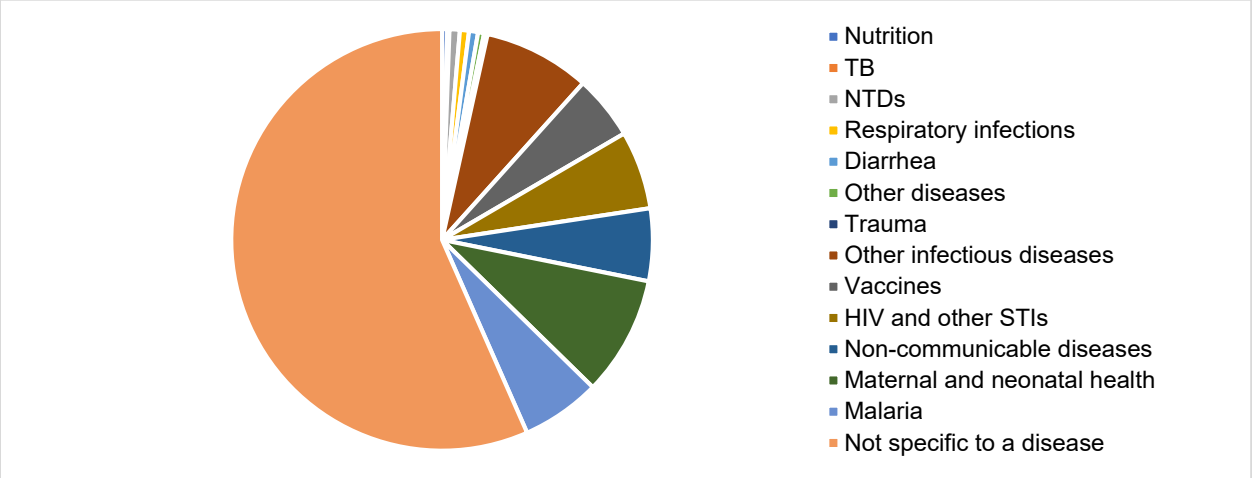
Figure 37. Breakdown of Government Spending on Health Facility Operations, Drugs, and Infrastructure, 2017



Source: Government of Côte d'Ivoire, Ministry of Health Detailed Budget 2017.
Note: Health Facility Operating Spending = 14 billion CFAF total; Drug spending = 19 billion CFAF total; Infrastructure spending = 5 billion CFAF total.

12. **Most public spending is cross-cutting and is not related to a specific disease. Maternal health and malaria and other infectious diseases are the three largest areas of spending for the government.** Of total government spending, 57 percent was not associated with a particular disease, 9 percent was for maternal health, 6 percent each for malaria and NCDs, 6 percent for HIV, and 5 percent for vaccines (Figure 38).

Figure 38. Distribution of Government Health Spending across Disease Areas, 2016



Source: NHA 2016.
Note: TB = Tuberculosis; NTDs = Neglected tropical diseases; HIV = Human immunodeficiency virus; STIs = Sexually transmitted infections.

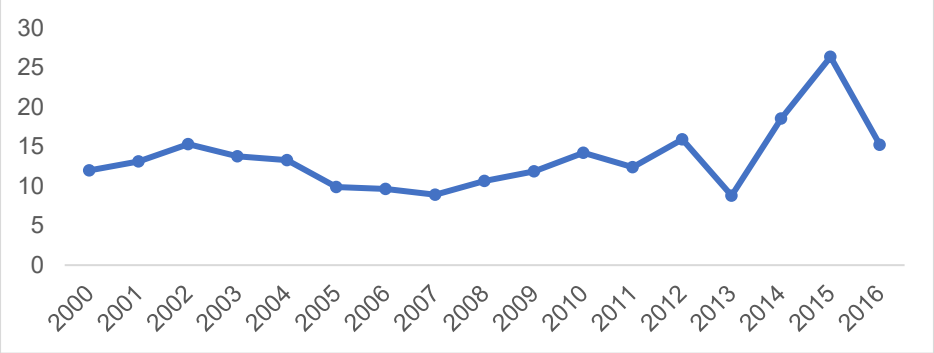
13. **As it moves toward sustainability, there is a need for the government to increase and coordinate its health spending.** In the past five years, health spending has grown significantly slower than public spending: for every 1.00 CFAF increase in total government spending, health spending increased by 0.88 CFAF, indicating a rather inelastic relationship between public spending and public health spending. To accelerate the growth of health spending, in 2012, the government published a health financing strategy, which identified the following mechanisms for raising more revenue in the health sector, but the strategy's operationalization has been weak, with none of the measures having been implemented. In addition, the recently completed national investment case is expected to be another lever for alignment and sustainability, with development partners and the government harmonizing around a single investment plan to improve maternal, newborn, and child health outcomes, and to strengthen the health system. The strategy sought to mobilize additional resources for the sector by increasing the share of health in the government budget from 5 to 10 percent, increasing dialogue with the Ministry of Finance, promoting broader advocacy with other social sectors, and developing innovative financing mechanisms such as earmarked consumption taxes for health. It also sought to improve the allocation of resources across regions and districts. Although the low priority given to health is a function of the perceived inefficiency of the current spending in the sector—for instance, the issues with gratuité discussed in the earlier section—Côte d'Ivoire will not be able to reach universal health coverage without more public, pooled spending, which would in turn reduce reliance on OOP expenditure and external financing.

External Health Financing

14. **External health financing levels have been going up in the past few years and peaked in 2014 and 2015 due to an increase in postconflict aid, but have gone down to their pre-2013 average of 15 percent of current health expenditure in 2016, particularly as a result of funding declines from the Global Fund due to fluctuations in disbursements.** The share of external financing had increased significantly since 2013, having peaked at 26

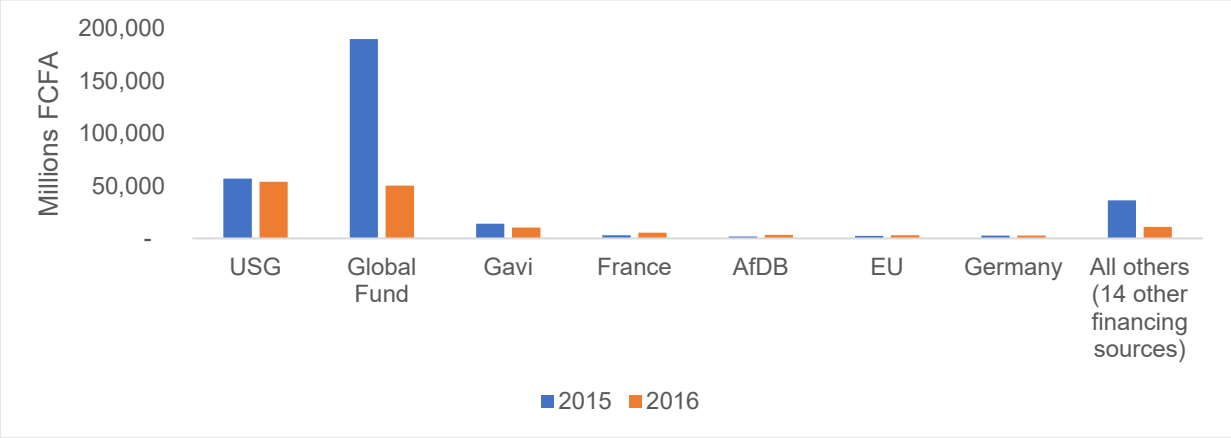
percent of current health expenditure and then gone down to 15 percent of current health expenditure in 2016. From 2015 to 2016, total donor expenditures declined by almost 50 percent from 309 billion CFAF to 145 billion CFAF, mainly driven by a decline of Global Fund grants from 2015 to 2016 (Figures 39 and 40).[29] As highlighted in the previous section, most of these funds are outside the government's budget and are governed by individual disease programs—which posits a risk in the health sector.

Figure 39. External Health Financing as a Share of Current Health Expenditure, 2000–2016



Source: World Bank World Development Indicators 2019.

Figure 40. Changes in External Financing by Largest Financing Source, 2015–2016



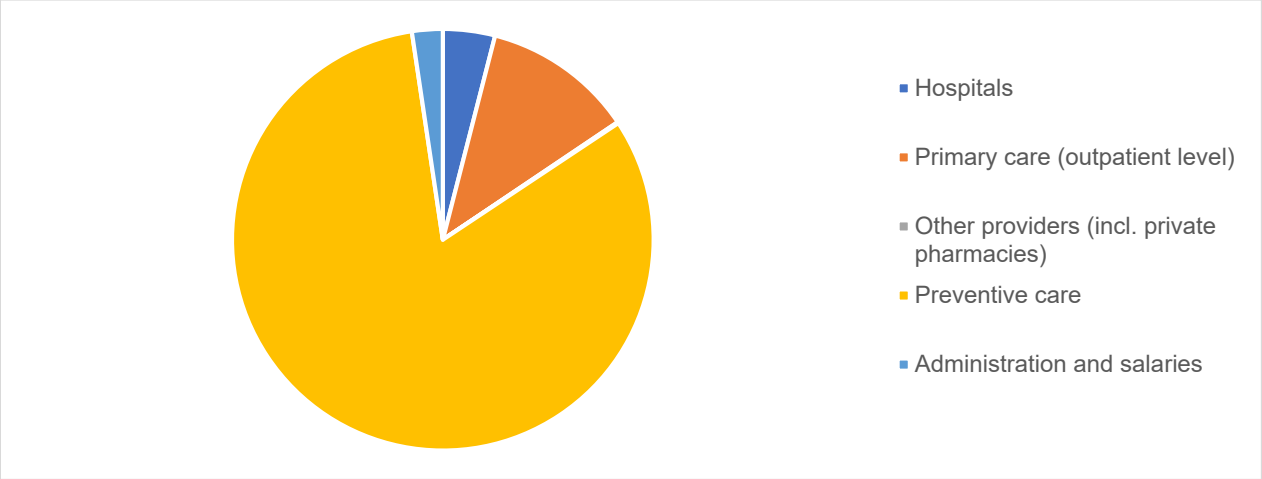
Source: NHA 2016.
Note: USG = US government; AfDB = African Development Bank; EU = European Union.

15. **Most external financing takes place at the primary level for the control of infectious disease; 70 percent of all donor funding is allocated to HIV and malaria (Figure 41).** Only 6 percent of donor funds go to nondisease-specific health systems strengthening—

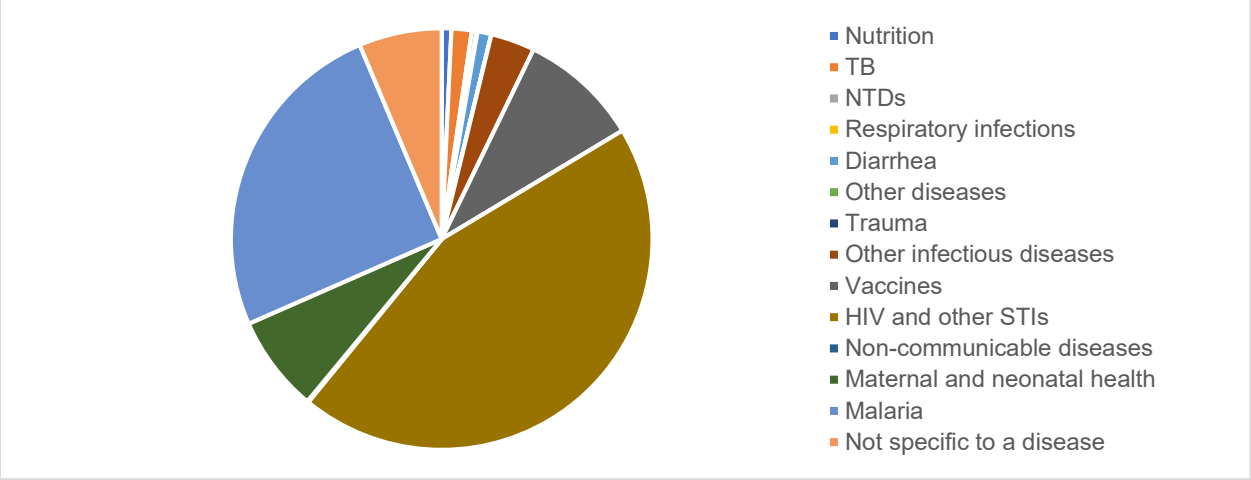
29. Discussions with the government regarding these changes in financing flows have pointed to the fact that some of these flows are more from fluctuations in disbursements as opposed to impending cuts in funding; Côte d'Ivoire remains a priority country for Global Fund financing.

which posits a risk for the sustainability of the disease-specific investment donors are financing. As seen in Figure 41, certain diseases are more donor-dependent than others: the most donor-dependent diseases are HIV (81 percent of all spending from donors), TB (73 percent), and vaccines (50 percent). For diarrhea, malaria, and other infectious diseases, 20 percent of all spending is funded by donors.

Figure 41. Classification of External Financing across Levels of Care and Disease Categories



Source: NHA 2016.



Source: NHA 2016.
Note: TB = Tuberculosis; NTDs = Neglected tropical diseases; HIV = Human immunodeficiency virus; STIs= Sexually transmitted infections.

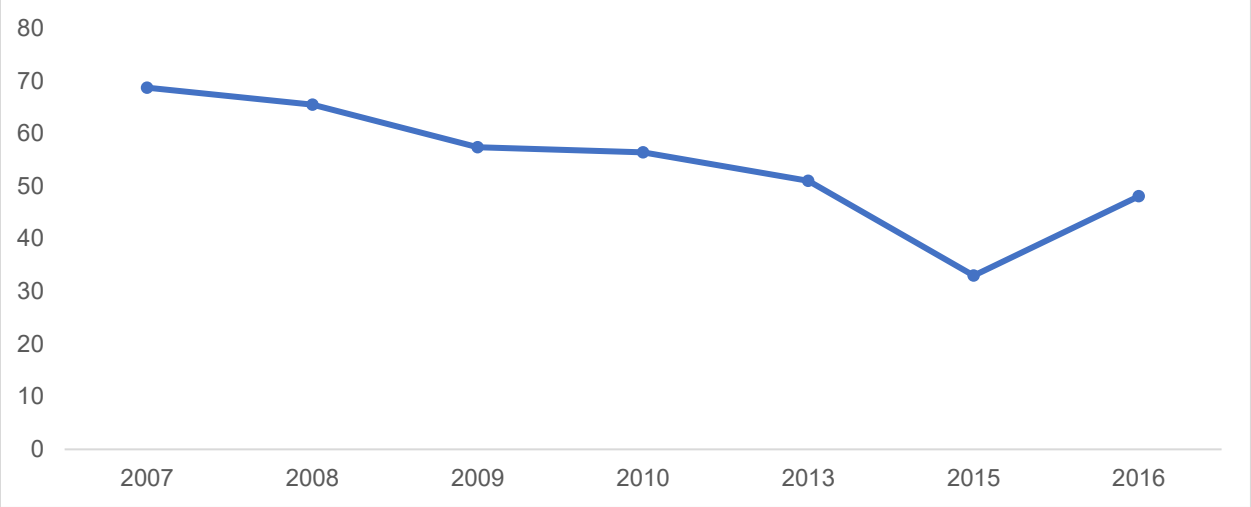
16. **This heavy reliance on donor funds, in particular for priority disease programs, posits a significant threat to the sustainability of health financing moving forward: given changes in its income status, Côte d'Ivoire will have to complement external spending with public financing.** A recent study by the Center for Global Development

assesses the impact of upcoming donor transitions across the world and finds that Côte d'Ivoire is at the top of the list of countries that face a moderate fiscal risk from global health transitions, with upcoming simultaneous Gavi and International Development Association (IDA) transitions.[30] The same study estimates that 2021–25 is the highest risk period, as this is when the Gavi transition is expected to accelerate. The fiscal burden of the transition is to be at 10 percent of general government health expenditure based on the burden of the Gavi transition,[31] although no data is available on the upcoming IDA transition's burden. Given Côte d'Ivoire's classification as a fragile country, it is unclear when this transition would take place. Other than Gavi and IDA, there are no other transitions at this point; however, given the high share of disease programs financed by external sources, the country remains at significant risk for upcoming transitions by Global Fund and the President's Emergency Plan for AIDS Relief (PEPFAR). Further, given its LMIC status, Côte d'Ivoire is expected to contribute a larger share of its public health budget on HIV, TB, and malaria, given the Global Fund's eligibility policy, indicating that even though it will receive external assistance, it would have to increase its own contribution by a significant amount.

OUT-OF-POCKET SPENDING

17. **Out-of-pocket payments in 2016 were the single-largest financing source in the health system**. OOP fell from 66 percent in 2008 to 33 percent in 2015, but then rose again to 48 percent in 2016. The recent increase is associated with low public spending and the insufficient capacity to channel economic growth into prepaid pooled funds.

Figure 42. Out-of-Pocket Spending as a Share of Current Health Spending, 2007–2016



Source: NHA 2007–2016.

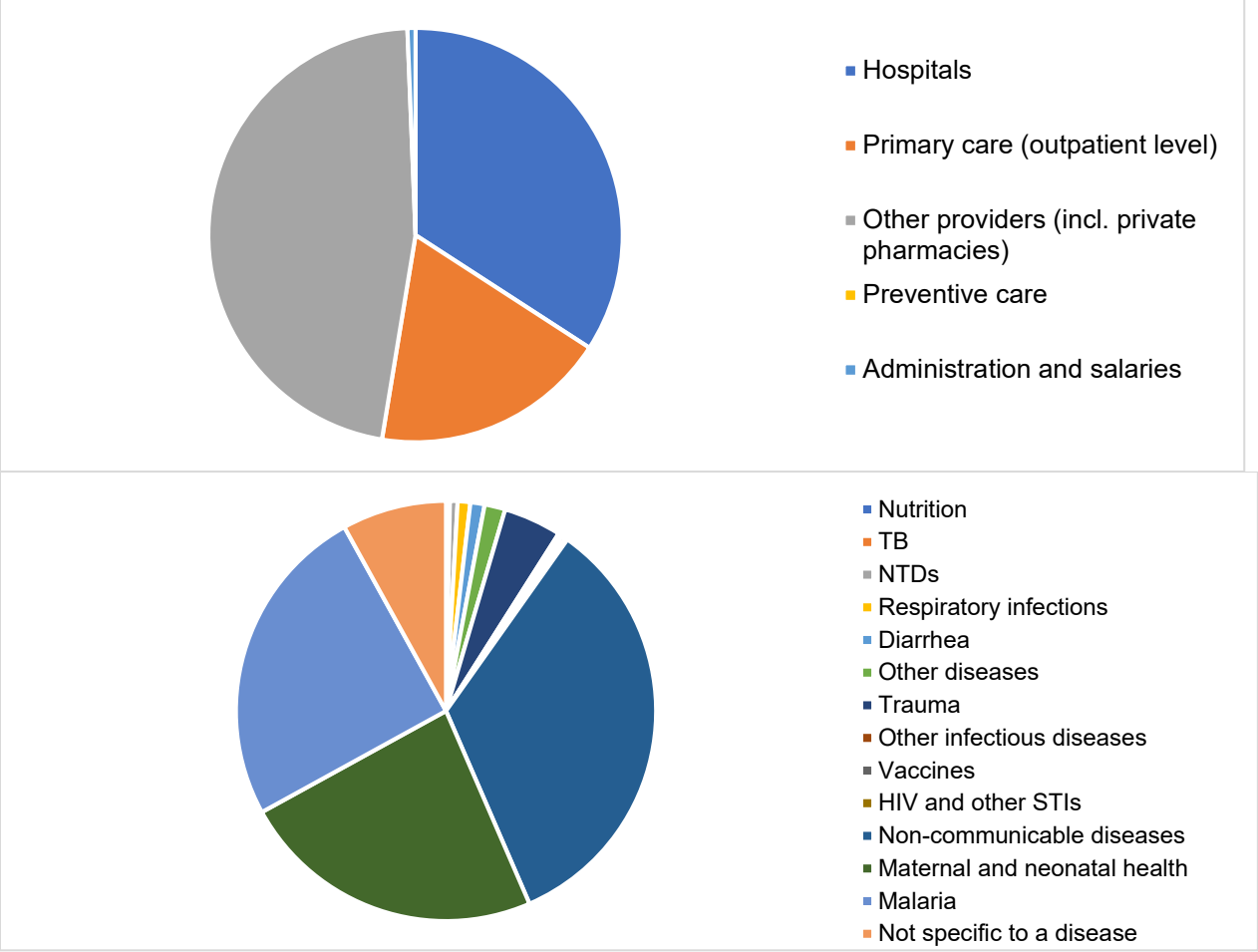
18. **Most out-of-pocket spending goes to pharmacies and hospitals**. In 2016, 47 percent of all household spending on health took place at pharmacies to either purchase medications

30. Silverman, 2018

31. The final section on immunization transition provides a detailed discussion on the issues related to the Gavi transition.

not covered under the gratuité scheme, or to purchase medications that would have been covered under the scheme but were stocked out. The stock-outs can be seen in the distribution of OOP spending by disease program: 25 percent of household financing went to malaria, which is covered under the scheme, and 34 percent went to NDCs, which are not covered under any scheme, highlighting the risk associated with the shift in the disease burden (Figure 43).

Figure 43. Classification of Out-of-Pocket Spending across Levels of Care and Disease Categories



Source: NHA 2016.
Note: TB = Tuberculosis; NTDs = Neglected tropical diseases; HIV = Human immunodeficiency virus; STIs = Sexually transmitted infections.

19. **Compared to other countries, the population of Côte d'Ivoire is at an elevated risk of impoverishment due to out-of-pocket spending**. Across different metrics, it is evident that the elevated level of OOP spending translates into poorer financial outcomes for the broader population. In 2015, 17 percent of the population was pushed further into poverty due to OOP spending (Table 14); specifically, 18 percent of the poorest quintile, 15 percent of the second-poorest quintile, and 6 percent of the richest quintile incurred health spending that was at or above 10 percent of their annual income (table 15). The figure is lower at impoverishing spending at 40 percent threshold (9 percent of poorest). Compared to some

other sub-Saharan African countries, Ivorians are at a higher risk of catastrophic health expenditure, and 74 percent of this risk is driven by spending on medications (Table 15). Analysis using the Living Standards Measurement Survey (LSMS) shows that having an elderly member in the household made households 1.6 times more likely to incur catastrophic health expenditures, given chronic illnesses. Those living in urban areas were less likely to incur catastrophic health expenditures.

Table 14. Out-of-Pocket Spending across Sub-Saharan African Countries, 2016

Country	**OOP<25% total household consumption (%)**	**Neither pushed nor further pushed into poverty (%)**
Burkina Faso	99	41
Côte d'Ivoire	**96**	**83**
Cameroon	97	87
Ghana	100	80
Guinea	99	78
Mali	100	69
Niger	100	59
Nigeria	100	83
Senegal	100	66
Sierra Leone	98	42
Lower-middle-income average	98	90
Sub-Saharan African average	99	72

Source: World Bank World Development Indicators 2019.

Table 15. Catastrophic and Impoverishing Spending across Income Quintiles and Spending Categories in Selected Countries and Côte d'Ivoire, 2015[32]

Catastrophic payments (10% threshold)					
Country	**Q1** (%)	**Q2** (%)	**Q3** (%)	**Q4** (%)	**Q5** (%)
Côte d'Ivoire	17.93	14.69	11.25	9.02	6.27
Guinea	10.13	7.56	6.30	5.10	5.75
Kenya	6.97	5.51	4.34	6.95	5.38
Liberia	37.28	29.06	21.50	13.38	10.85
Senegal	14.36	5.08	5.15	7.21	2.44
Tanzania	19.35	10.16	8.15	7.42	6.88
Catastrophic payments (40% threshold)					

32. Analysis of most recent household surveys; Côte d'Ivoire from 2015. Q1 is the poorest income quintile and Q5 is the richest income quintile.

Country	**Q1** (%)	**Q2** (%)	**Q3** (%)	**Q4** (%)	**Q5** (%)
Côte d'Ivoire	8.54	3.73	1.62	1.83	0.53
Guinea	20.81	16.47	13.40	7.29	3.91
Kenya	4.76	4.20	2.55	2.85	1.98
Liberia	24.91	24.76	16.02	6.61	3.91
Senegal	27.24	15.85	11.02	6.43	1.58
Tanzania	15.58	9.83	7.28	4.81	3.45

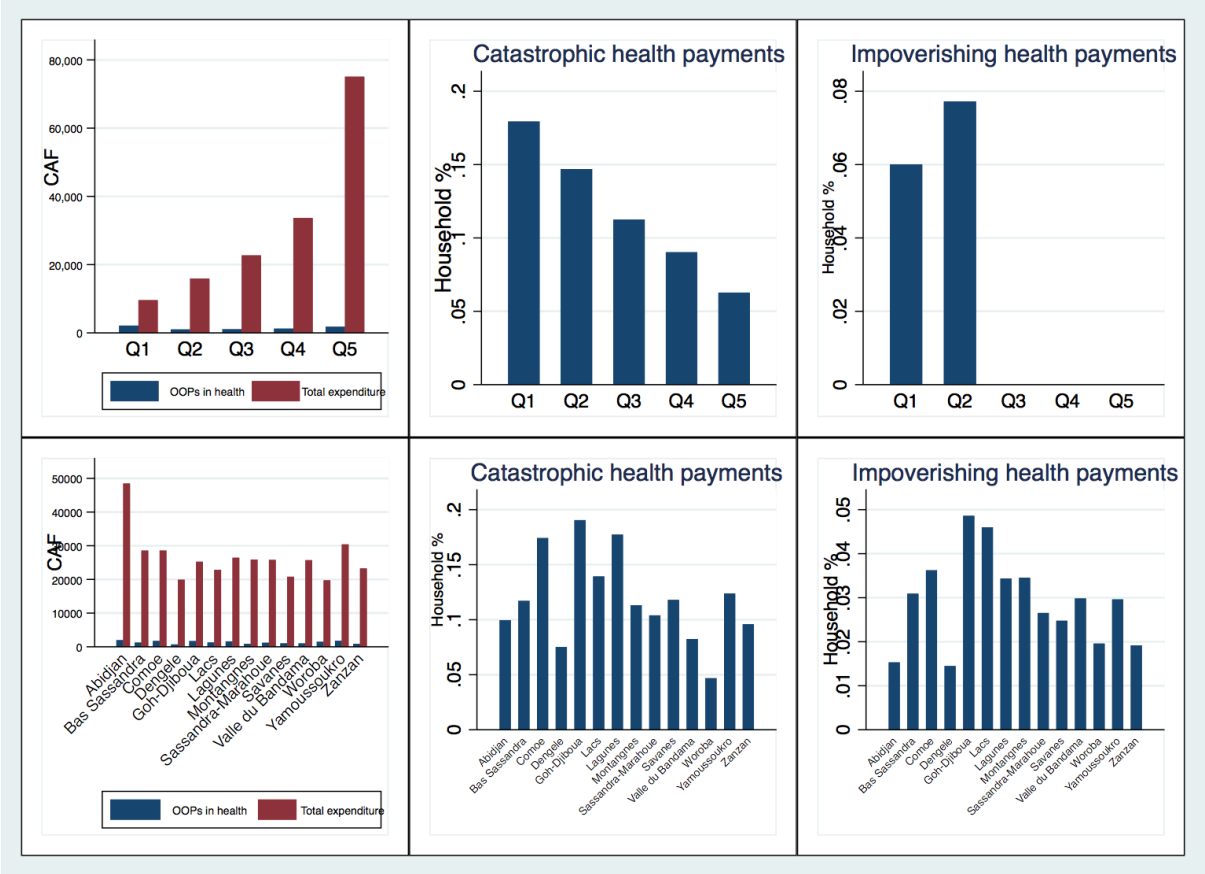
	Impoverished at $1.90/day poverty line	**Impoverished at $3.10/day poverty line**

Country	**Q1** (%)	**Q2** (%)	**Q1** (%)	**Q2** (%)	**Q3** (%)
Côte d'Ivoire	6.01	7.72	1.84	2.11	9.08
Guinea	0.78	11.61	0.19	0.04	1.05
Kenya	1.78	5.02	1.01	0.57	6.47
Liberia	10.35	21.62	4.24	2.86	11.18
Senegal	0.01	8.31	0.01	0.00	0.15
Tanzania	1.95	11.69	1.09	0.62	1.33

Country	**Catastrophic expenditure due to outpatient visits** (%)	**Catastrophic expenditure due to inpatient visits** (%)	**Catastrophic expenditure due to drug spending** (%)	**Catastrophic expenditure due to other spending** (%)
Côte d'Ivoire	6.27	6.77	74.02	12.94
Guinea	24.46	26.94	1.11	47.49
Kenya	94.18	4.78	1.03	—
Liberia	68.96	6.45	24.60	—
Senegal	69.07	7.03	21.99	1.91
Tanzania	0.20	10.47	68.78	20.55

Source: Aggregation of household surveys; Côte d'Ivoire data from ENV 2015.
Note: — = Not available.

Figure 44. Distribution of Catastrophic and Impoverishing Health Payments across Districts and Quintiles



Source: ENV 2015.
Note: OOP = Out-of-pocket.

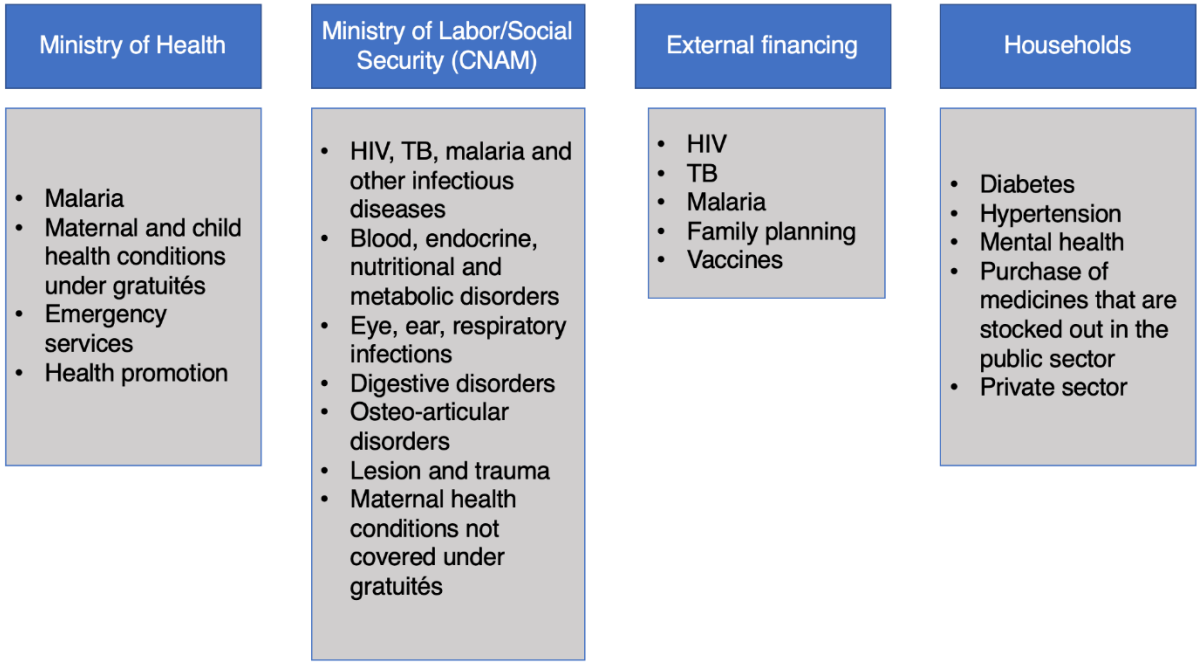
20. **To remedy the high burden of out-of-pocket spending, CIV needs to increase the size of prepaid risk pools and ensure that health insurance assures financial risk protection.** Given the need to address OOP and improve the efficiency of health sector outcomes, the government launched a universal health coverage scheme (Couverture Maladie Universelle, CMU) in 2011, to improve prepaid health insurance coverage. The National Health Insurance Agency (CNAM) has been set up to gradually take on the role of purchaser for an essential package of services, starting with the formal sector for compulsory targeting and covering the poor and the most vulnerable through subsidizing benefits. Individuals who are not in either of these categories (i.e., the middle class employed in the informal sector) would be able to purchase coverage, paying 1,000 CFAF/month, once the program fully launches. CNAM would be run by the Ministry of Employment and Social Security—which posits a risk in terms of fragmentation in governance if not managed well; currently, different financing sources cover different interventions, and households are still at risk for considerable expenses due to paying for commodities when they are stocked out, as well as for NCDs. Evidence from other countries shows that designing a fragmented system on top of an existing fragmented system can

lead to inefficiencies, as well as suboptimal resource allocation. Although it is encouraging that there will be a single risk pool—the CNAM—which would act as the purchaser, more work needs to be done to specify provider payment, contracting, and accreditation to assure a high quality of care. For health insurance to be successful in increasing access and reducing OOP payments, it is crucial that the benefit package is designed to maximize cost-effectiveness, equity, and financial risk protection as well as reduce duplications across different sources. Finally, voluntary enrollment for those in the informal sector has the potential to jeopardize financial sustainability through introducing adverse selection.

21. **The government has introduced a performance-based financing (PBF) pilot, which has been associated with increases in quality and quantity of services, and is currently being scaled up.** Through this pilot, the World Bank has been paying health facilities and districts directly based on a predefined set of indicators pertaining to the quantity (e.g., number of deliveries or outpatient visits) as well as quality (e.g., physical conditions of health facilities or existence of management structures). PBF is a form of strategic purchasing, where health facilities are paid on the basis of quantity and quality of services provided, and the government is currently scaling this up nationally and financing a more significant portion of it.

22. **It is essential to ensure that insurance is introduced in a sustainable way, balancing the premium costs as well as payments to providers for the costs of interventions.** Analytical work is underway to ensure that the insurance scheme is sustainable, as well as various institutional arrangements focusing on defining the benefits package and provider payment modalities. As it is, the program would rely on monthly contributions from individuals of CFAF 1,000 per month. The costs of delivering the services in the benefits package (Figure 45) are estimated at an average annual cost of CFAF 14,550 or CFAF 1,215 per month. With this administrative cost, it is estimated that the total cost of services would be at CFAF 153 billion; if the premium levels remain, the gap would reach CFAF 337 billion in 2028. As such, to ensure that the premiums can be collected in a sustainable way, the monthly contribution per person would have to be increased to CFAF 1,460. Other ways to close this gap would be to prioritize the benefits package, or ensure that the government and other external funding partners contribute directly to CNAM. Risks associated with insurance design and rollout would still remain, such as collecting premiums from the informal sector and ensuring insurance is mandatory.

Figure 45. Risk Pools and Benefit Packages in Côte d'Ivoire according to Current Legislation

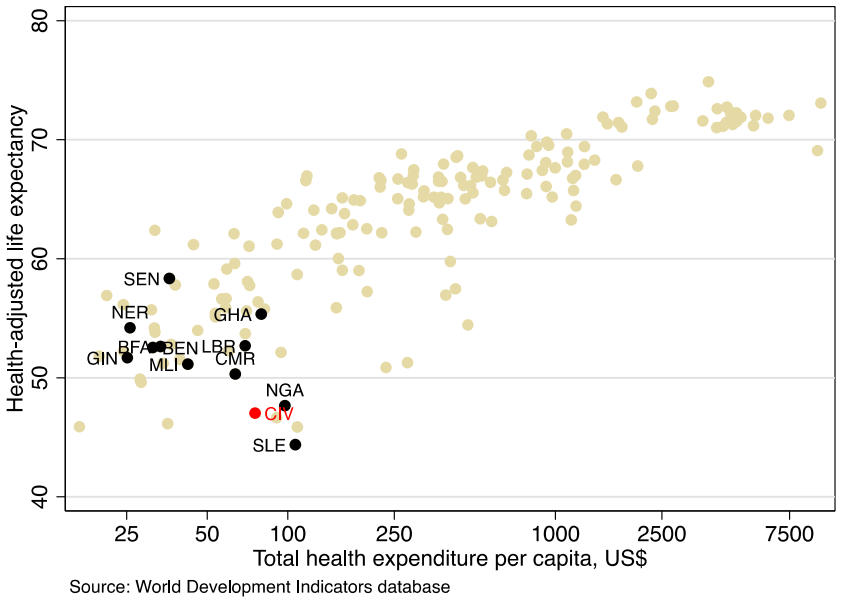


Source: Review of strategic documents from disease programs and CNAM.
Note: HIV = Human immunodeficiency virus; TB = Tuberculosis.

EFFICIENCY

23. **Improving efficiencies is one of the most important measures the Ivorian government can undertake to increase its fiscal space.** A recent study looking at ways to increase fiscal space in Côte d'Ivoire identified improvements in efficiency and economic growth as ways to increase fiscal space and reduce the burden on households as OOP health spending. The study finds that Côte d'Ivoire is close to its maximum capacity of health spending, given its current fiscal capacity and governance, as well as the needs of other sectors; as such, a more effective way to improve fiscal space would not be additional funding but increasing efficiencies. In terms of allocative efficiency, the study finds that health indicators have not responded to changes in financing; in addition, increased household spending on health has not led to improved health outcomes. To a large extent, the study also finds that compared to other countries, Côte d'Ivoire could have obtained the same level of health with half the total spending, indicating challenges with the use of funds (Figure 46).

Figure 46. Health-adjusted Life Expectancy and Current Health Expenditure per Capita in Côte d'Ivoire and Selected Countries



Source: World Bank World Development Indicators 2019.

Note: BEN = Benin; BFA = Burkina Faso; CIV = Côte d'Ivoire; CMR = Cameroon; GHA = Ghana; GIN = Guinea; LBR = Liberia; MLI = Mali; NER = Niger; NGA = Nigeria; SEN = Senegal; SLE = Sierra Leone.

24. **High out-of-pocket spending is a significant driver of inefficiencies across the Ivorian health system.** First and foremost, an overreliance on OOP spending is both inequitable and inefficient; inequitable as access becomes connected to the ability to pay; and inefficient as it leads to delay in care-seeking, and prevents the use of monopsony power connected with pooled financing—constraining the redistributive capacity of financing and supplier-induced demand, given the overreliance on payments at the point of care due to the fee-for-service modalities.

25. **In addition to out-of-pocket spending as a significant driver of inefficiencies in the health sector, there are various other inefficiencies such as weak financial management, an overreliance on external funds, low absorption rate of investments, lack of using data for decision making, and suboptimal budget planning and execution processes.** A WHO study recommends that instead of raising additional resources, the government should improve public financial management systems, improve the allocation of physical and human resources, strengthen governance, and improve accountability mechanisms. For example, allocating funding based on performance, strengthening data systems to improve decision-making; reducing leakages of funds with effective accountability mechanisms, and increasing the use of data for decision-making and for donors, to coordinate their investments and reduce duplications. Another study from UNICEF identifies various other inefficiencies with health sector spending, such as lack of accreditation systems, which implies funding to facilities without a provision of quality;

frequent stock-outs due to parallel supply chains; mismatch between defined norms and practice in terms of the level of care provided at the health facility level, and lack of data-based decision-making, which results in allocative efficiencies between different facility types (UNICEF 2017). All in all, moving forward, it is crucial that the Ivorian health sector emphasizes increasing both the available resource envelope and the efficiency of current public spending.

PART VII: IMMUNIZATION ASSESSMENT

KEY MESSAGES

- Given its lower-middle-income status and recent sustained economic growth, Côte d'Ivoire is in a preparatory transition phase with Gavi.
- This analysis is based on data that have been collected in missions through 2019, focused on both qualitative interviews with Expanded Program on Immunization (EPI) staff as well as quantitative data.
- Currently, about 7 percent of the population (about 1.6 million) is under one year, and 16 percent (about 4 million) is under five; the rate of growth of this population will continue declining.
- About 30 percent of under-five mortality is from vaccine-preventable diseases, most of which result from lower respiratory infections and diarrheal diseases.
- Côte d'Ivoire has adopted all of WHO's new vaccine recommendations, and has introduced many new vaccines since 2017, notably, rotavirus in March 2017, measles-rubella in January 2018, and meningitis A in August 2018.
- Most of the external funding for immunization currently flows outside of the Ivorian Expanded Program on Immunization, due to issues with the government's fiscal management capacity.
- Côte d'Ivoire is around the sub-Saharan Africa average for DTP3 and below average for measles coverage, with minimal improvement over the past decade
- According to the 2016 Multiple Indicator Cluster Survey (MICS), although 78 percent of children between 12 and 23 months received the BCG vaccine, only 40 percent were fully immunized.
- Compared to other countries in the region, Côte d'Ivoire has one of the lowest full immunization rates, at just 40 percent, and the rate declined from 2011–12 to 2016.
- There is significant inequality by gender, region, and socioeconomic status, with girls, those living in rural areas, those with uneducated mothers, and those in the poorest quintile having the lowest immunization rates.
- In 2015, 88 percent of all primary care facilities and 95 percent of all public facilities offered immunization services, with varying frequency across districts and facility types.
- Although they have declined, stock-outs of different vaccines have persisted in the past few years and posit a challenge for equitable coverage.
- Compared to some of its peers, Côte d'Ivoire has the lowest spending per surviving infant and one of the lowest external financing levels.
- Between 2011 and 2015, the government financed 30 percent of all immunization program spending, with Gavi financing 54 percent of the program.
- In the last five years, the government increased its contribution to immunization, and Gavi remained the largest funder.
- The bulk of immunization spending is on new vaccines, and government's share of commodity spending is projected to go up from 19 to 23 percent by 2020, with vaccine needs going up from $25 million to $40 million.
- Immunization program needs are projected to go up from $53 million in 2016 to $77 million in 2020, driven largely by new immunizations and associated supplementary activities.
- On average, less than 2 percent of public health spending, excluding salaries, has been on immunization in the last five years, with fluctuating budget execution rates.
- Gavi, the largest funding source for the immunization program, has disbursed over $150 million in Côte d'Ivoire since 2001.

- Projected immunization resource needs currently make up over 10 percent of public health spending and are estimated to remain at that level.
- This analysis points to the significant financial risk that transition from Gavi posits; there is a need to develop a transition strategy to address the challenges.

1. **A complementary analysis was conducted to assess the performance of the Ivorian immunization program and its financing, positioning it within the broader health system context, given the upcoming transition from Gavi assistance.** The goal of the HFSA immunization assessment was to assess strengths and threats to immunization financing and delivery; analyze the barriers to performance, sustainability, predictability and adequacy of immunization financing, and suggest ways to overcome these barriers. The goal of this work is to ultimately inform focus on the right approaches during transition. This work has also been communicated with key stakeholders as a separate deliverable.

2. **This analysis is based on data that have been collected in missions through 2019, focused on both qualitative interviews with EPI staff and quantitative data.** Qualitative data were collected across the domains of program funding, planning and budgeting, financial management, politics and broader context, service delivery, human resources for health, and procurement and information systems. Quantitative data included the WHO/UNICEF Joint Reporting Form (JRF) data's administrative coverage estimates, UN population projections, IHME global burden of disease data, DHS/MICS data, World Bank World Development Indicators, WHO SARA, government budgets and National Health Accounts, Gavi funding data and reports, and Expanded Programme for Immunization (Programme elargi de vaccination, PEV) operational plans and multiyear plans from 2011 through 2020.

IMMUNIZATION PROGRAM CONTEXT

3. **In Côte d'Ivoire, immunization is delivered at the primary level, and overall service utilization is mostly at the primary care level; most regions are within national norms in terms of catchment population.**

4. **Immunization was the fifth-largest disease program in 2016, and one of the most donor-dependent disease programs.** During this phase, many new vaccines were introduced thanks to the support of Gavi, and coverage rates have increased including for new vaccines. However, given the described country context, there is a need to improve the focus on the sustainability of the immunization response.

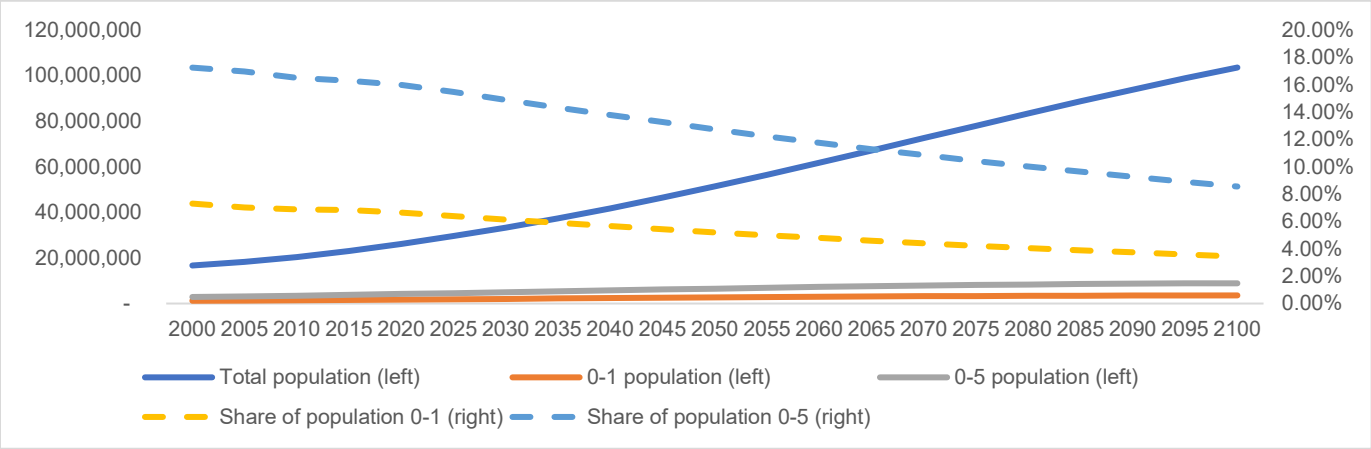
5. **In 2016, the government spent 12 billion CFAF, or 5 percent of its budget, on immunization.** Immunization was the fifth-largest source of disease-specific spending, following maternal health, malaria, NCDs, and HIV.

6. **Given its lower-middle-income country status and recent sustained economic growth, Côte d'Ivoire is in a preparatory transition phase with Gavi**. This is the final phase of support before entering the final period of Gavi support. According to Gavi's transition guidelines, starting in 2020, the country will enter the posttransition phase, and in 2025, Côte d'Ivoire will start fully financing its own immunization program. This will introduce the need to build the sustainability of the immunization response. During this phase, Côte d'Ivoire is expected to progressively increase its own financing every year until 2025. The

transition will be a significant one for Gavi and for Côte d'Ivoire. In terms of the projected impact of the transition, Côte d'Ivoire is one of the highest for impact compared to other Gavi countries, as measured by the share of Gavi spending as a percentage of total government health expenditure, which is a proxy for the magnitude of the risk/impact of the transition. Côte d'Ivoire has the fourth-largest share of Gavi funding as a share of public health expenditure, at 10 percent—only lower than Eritrea, São Tomé and Principe, and Benin, and significantly higher than countries like Nigeria, Tanzania, Kenya, and Ghana.[33] Given this, as well as the current limited fiscal capacity of the public health system, discussed in the earlier section, it is crucial to identify strengths and threats to immunization financing and delivery; assessing the barriers to performance, sustainability, predictability, and adequacy of immunization financing; placing the immunization program within the broader context of the financing and service delivery; and suggesting ways to overcome these barriers.

7. **Currently, about 7 percent of the population (about 1.6 million) is under one year, and 16 percent (about 4 million) is under five; the rate of growth of this population will continue to decline.** This indicates that as the population continues growing, the government will need to serve more people and spend more money every year just to maintain coverage. Figure 48 shows these demographic transitions.

Figure 47. Target Population of Côte d'Ivoire's Expanded Programme on Immunization



Source: UN Population Projections 2018.

8. **About 30 percent of under-five mortality is from vaccine-preventable diseases (VPDs); most of which result from lower respiratory infections and diarrheal diseases**. The share of deaths due to VPD has gone down from 37 percent in 1990 to 30 percent in 2016 (Table 16). The introduction and scale-up of rotavirus and pneumococcal vaccines is expected to reduce the number of deaths due to lower respiratory infections and diarrheal diseases.

Table 16. Deaths from Vaccine Preventable Diseases, 1990–2016

Deaths	1990	1995	2000	2005	2010	2016
Lower respiratory infections	9,205	9,539	9,478	8,137	7,390	8,015

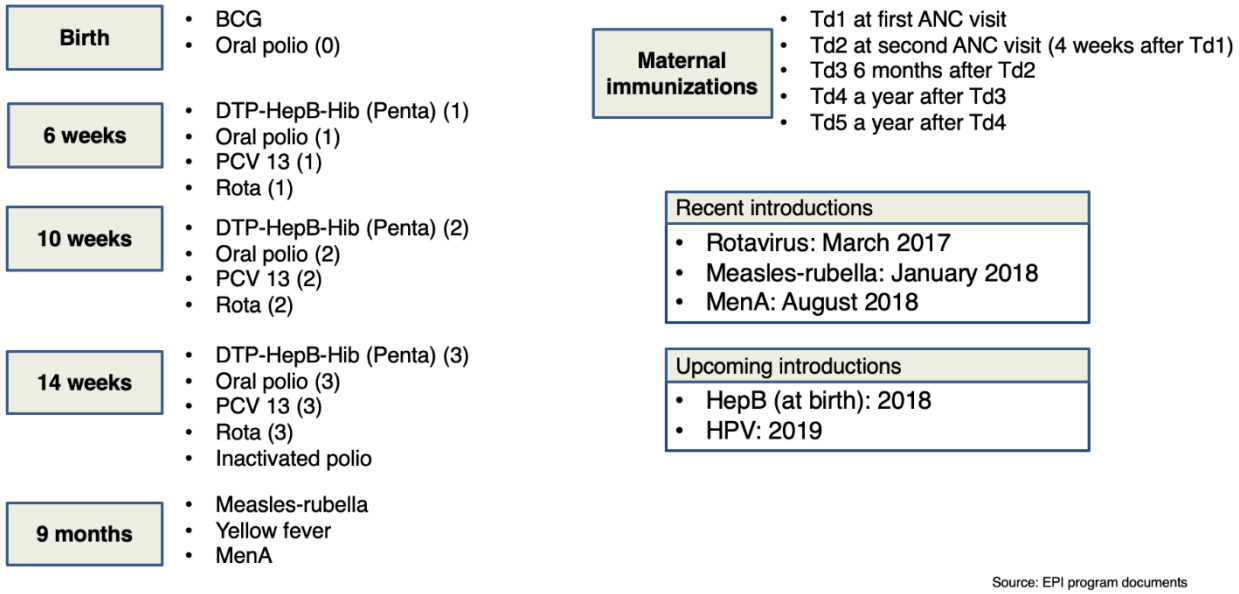
33. Silverman, 2018

Diarrheal diseases	7,343	8,120	8,938	9,894	9,722	9,916
Measles	5,460	5,899	4,823	2,644	521	262
Tetanus	916	893	430	275	187	122
Meningococcal meningitis	862	847	883	808	751	759
Whooping cough	608	606	560	471	465	502
Other meningitis	429	422	415	365	374	595
H influenzae type B meningitis	245	241	236	208	205	268
Tuberculosis	146	209	229	177	150	179
Encephalitis	75	85	86	73	76	110
Typhoid fever	56	41	32	30	32	51
Acute hepatitis B	21	19	17	13	13	15
Otitis media	0	0	0	0	0	0
Total VPD mortality	25,368	26,921	26,127	23,093	19,884	20,794
Total U-5 mortality	69,036	74,367	78,021	78,875	75,213	68,573
Share VPD/Total	0.37	0.36	0.33	0.29	0.26	0.30

Source: Institute for Health Metrics and Evaluation 2018.
Note: VPD = Vaccine-preventable disease; U-5 = Under-five.

9. **Côte d'Ivoire has adopted all of WHO's new immunization recommendations, and has introduced many new vaccines since 2017, notably, rotavirus in March 2017, measles-rubella in January 2018, and meningitis A (MenA) in August 2018.** Hepatitis B at birth is set to be introduced later this year, and human papillomavirus (HPV) is set to be introduced next year. Compared to other countries in the region, Côte d'Ivoire is at the same level or ahead of its peers: for example, Burkina Faso, Benin, and Liberia currently have no plans to introduce the HPV vaccine, and Mali has no plans to introduce HPV or rotavirus vaccines. As Figure 49 shows, Côte d'Ivoire has introduced rotavirus, measles-rubella, and MenA vaccines recently, and is also in the process of introducing Hep B and HPV vaccines. The unit costs for the new vaccines are higher, which posits a sustainability risk. New vaccines are also more susceptible to risks with production and supply challenges, such as what has happened with the rotavirus vaccine in 2018. These supply challenges at the global level threaten the sustainability of the immunization response in Côte d'Ivoire.

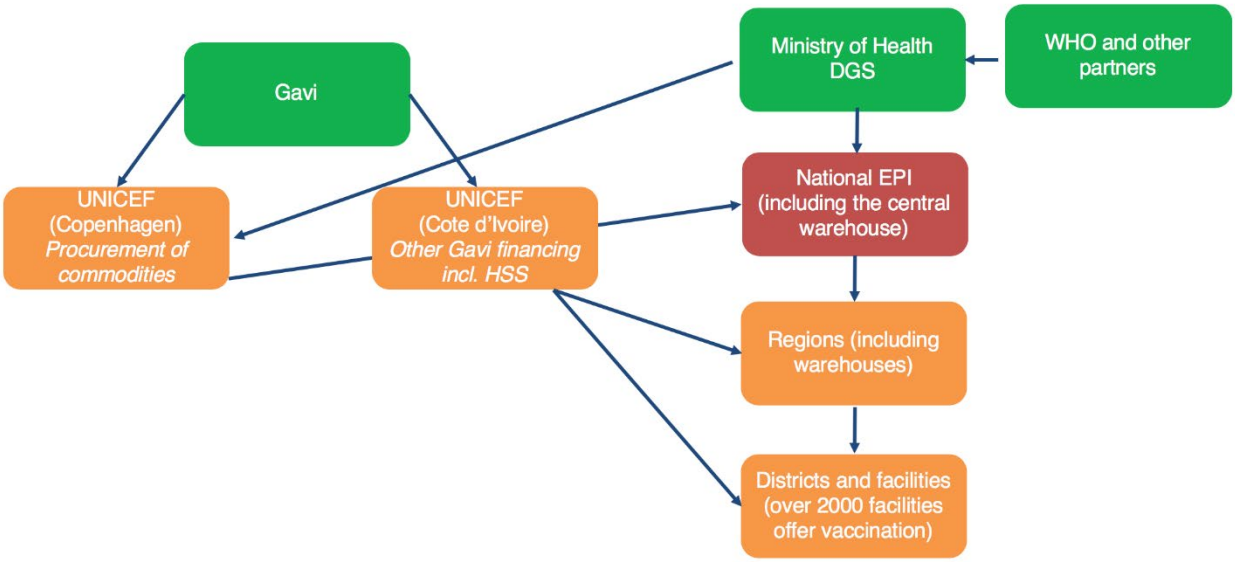
Figure 48. Immunization Schedule, Côte d'Ivoire



Sources: EPI program documents and key informant interviews.
Note: BCG = Bacillus Calmette–Guérin (vaccine against tuberculosis); DTP = diptheria, tetanus, and pertussis; Hep B = Hepatitis B; PCV = Pneumococcal conjugate vaccine; MenA = Meningitis A; ANC = Antenatal care; Td1–5 =Tetanus toxoid vaccination

10. **Most of the external funding for immunization currently flows outside of the Ivorian Expanded Program on Immunization, due to issues with the government's fiscal management capacity.** The Expanded Program on Immunization (EPI) coordinates the national immunization response, and the government's funds flow through EPI. EPI is under the Ministry of Health's Directorate General of Health Services (DGS), together with all the other disease programs; however, in practice, there is minimal coordination between these different programs. Notably, every program executes its own surveillance, monitoring, and evaluation processes. Similarly, disease programs do not coordinate for their supervision visits, or for monitoring and evaluation missions; additionally, all funding flows outside of the ministry's budget. The largest external funder, Gavi, channeled its funds through the Ministry of Health, but due to issues with the execution of the Health Systems Strengthening (HSS) grant during the past few years, in 2016, it started channeling these funds through UNICEF's Côte d'Ivoire office, which manages and implements HSS projects. For the procurement of vaccines, Gavi funds go directly to UNICEF in Copenhagen. The Ministry of Health also purchases its vaccines from UNICEF in Copenhagen and is in charge of the distribution of vaccines to the regional stores. Almost every one of the over 2,000 public health facilities in Côte d'Ivoire offers immunization services, and they all have to obtain vaccines from the regional warehouses using their own vehicles and funds. This posits a challenge for certain districts, which might not have the resources to pay for the last mile distribution of these drugs. Figure 50 demonstrates these organizational flows.

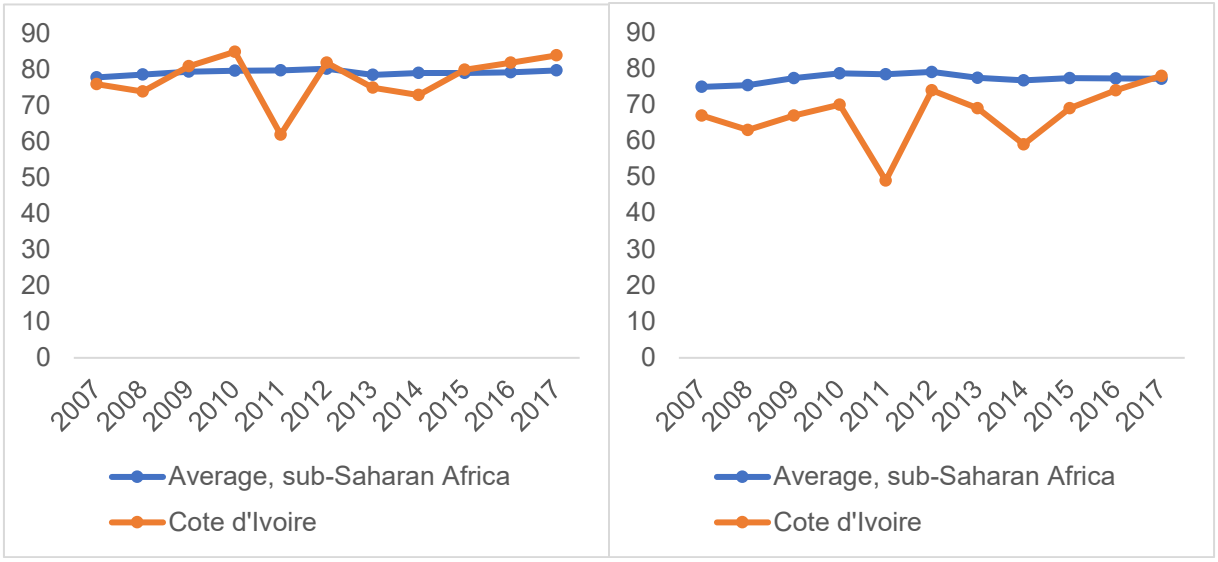
Figure 49. Organizational and Financial Flows of Côte d'Ivoire's Immunization Program



Sources: EPI program documents and key informant interviews.
Note: HSS = Health Systems Strengthening; DGS = Directorate General of Health Services; WHO = World Health Organization; EPI = Expanded Program on Immunization.

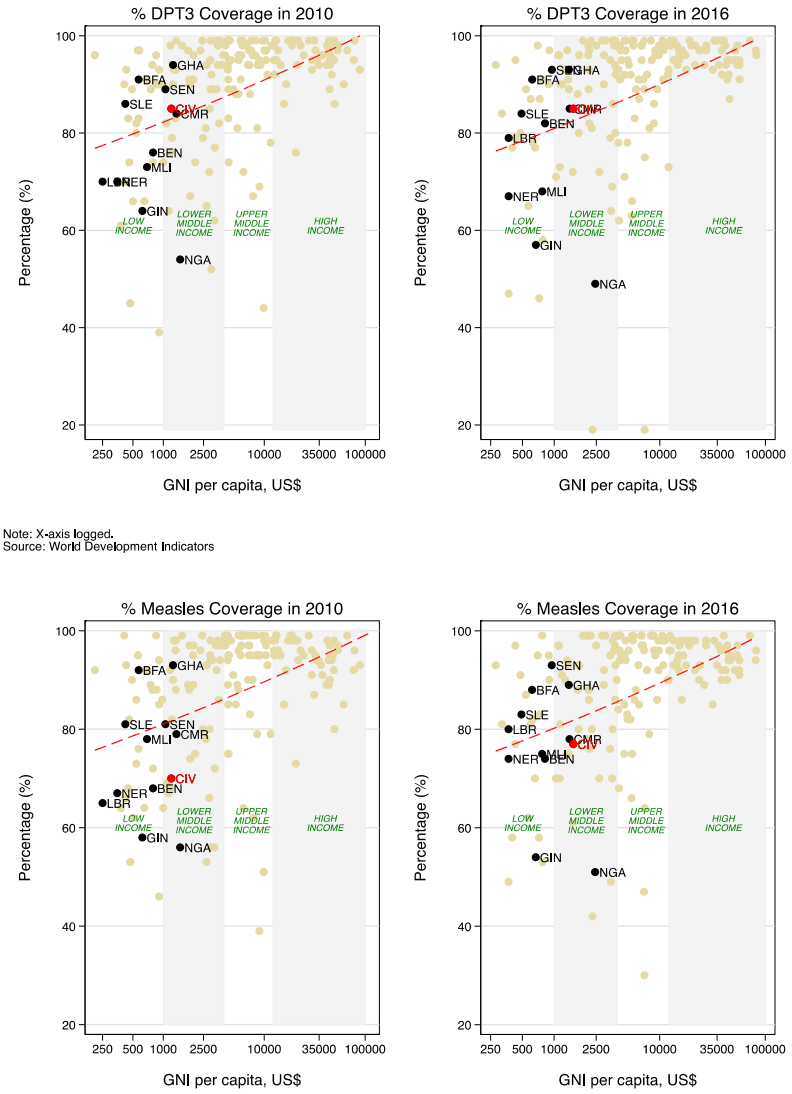
11. **Côte d'Ivoire is around the sub-Saharan Africa average for DTP3 and below average for measles coverage, with minimal improvement over the past decade** (Figure 51). Compared to other countries in the region, Côte d'Ivoire has one of the lowest measles coverage rates and performs worse than many other LMICs. The rates have developed slower than in other countries between 2010 and 2016 for both DTP and measles (Figure 52).

Figure 50. DTP3 (left) and Measles (right) Immunization Rates, Côte d'Ivoire and Sub-Saharan Africa



Source: WUENIC 2019.

Figure 51. DTP3 and Measles Coverage Rates in All Countries, 2010–2016



Source: World Bank World Development Indicators 2019.
Note: X-axis logged; GNI = Gross national income; BEN = Benin; BFA = Burkina Faso; CIV = Côte d'Ivoire; CMR = Cameroon; GHA = Ghana; GIN = Guinea; LBR = Liberia; MLI = Mali; NER = Niger; NGA = Nigeria; SEN = Senegal; SLE = Sierra Leone.

12. **According to the 2016 Multiple Indicator Cluster Survey (MICS), although 78 percent of children between 12 to 23 months received the BCG vaccine, only 40 percent were fully immunized.** The coverage for BCG was at 78 percent, and for pneumococcal was at 63 percent. Notably, there was a drop between Penta1 coverage (82 percent) and Penta3 coverage (68 percent). Similarly, the decrease between PCV1 and PCV3 was from 63 to 49 percent. Due to these drops, the full immunization rates were at 40 percent. Increasing outreach and investing in community health workers would be a potential way of reducing these drop-out rates and increasing full immunization rates (Table 17).

Table 17. Immunization Rates for Côte d'Ivoire from MICS Survey

Vaccine	12–23 months immunized (%)
BCG	78.3
Polio at birth	53.0
Polio 1st dose	79.2
Polio 2nd dose	73.1
Polio 3rd dose	62.6
Hep B at birth	28.1
Penta 1st dose	82.3
Penta 2nd dose	74.7
Penta 3rd dose	67.9
PCV13 1st dose	63.1
PCV13 2nd dose	55.3
PCV13 3rd dose	48.8
ROTATEQ 1st dose	17.0
ROTATEQ 2nd dose	16.6
ROTATEQ 3rd dose	16.3
Yellow fever	53.9
Measles	56.2
Fully immunized	**40.3**
No immunizations	11.9

Source: MICS 2016.
Note: ROTATEQ = Rotavirus vaccine; PCV13 = Pneumococcal conjugate vaccine; BCG = Bacillus Calmette–Guérin.

13. **Compared to other countries in the region, Côte d'Ivoire has one of the lowest full immunization rates, and the rate declined from 2011–12 to 2016.** Côte d'Ivoire's immunization rates are only higher than those of Nigeria, Mauritania, Guinea, and Mali, and are significantly lower than most other countries in the region. Notably, the rate dropped by 10 percentage points between the 2011 and 2012 DHS and 2016 MICS, which is attributable to the political crisis (Table 18). Another challenge faced with the immunization response is on the demand side: the program underutilizes community health workers, which leads to challenges in identifying children and ensuring they are fully immunized.

Table 18. Comparison of Demographic and Health Survey Immunization Rates across West African Countries for Most Recent Household Surveys

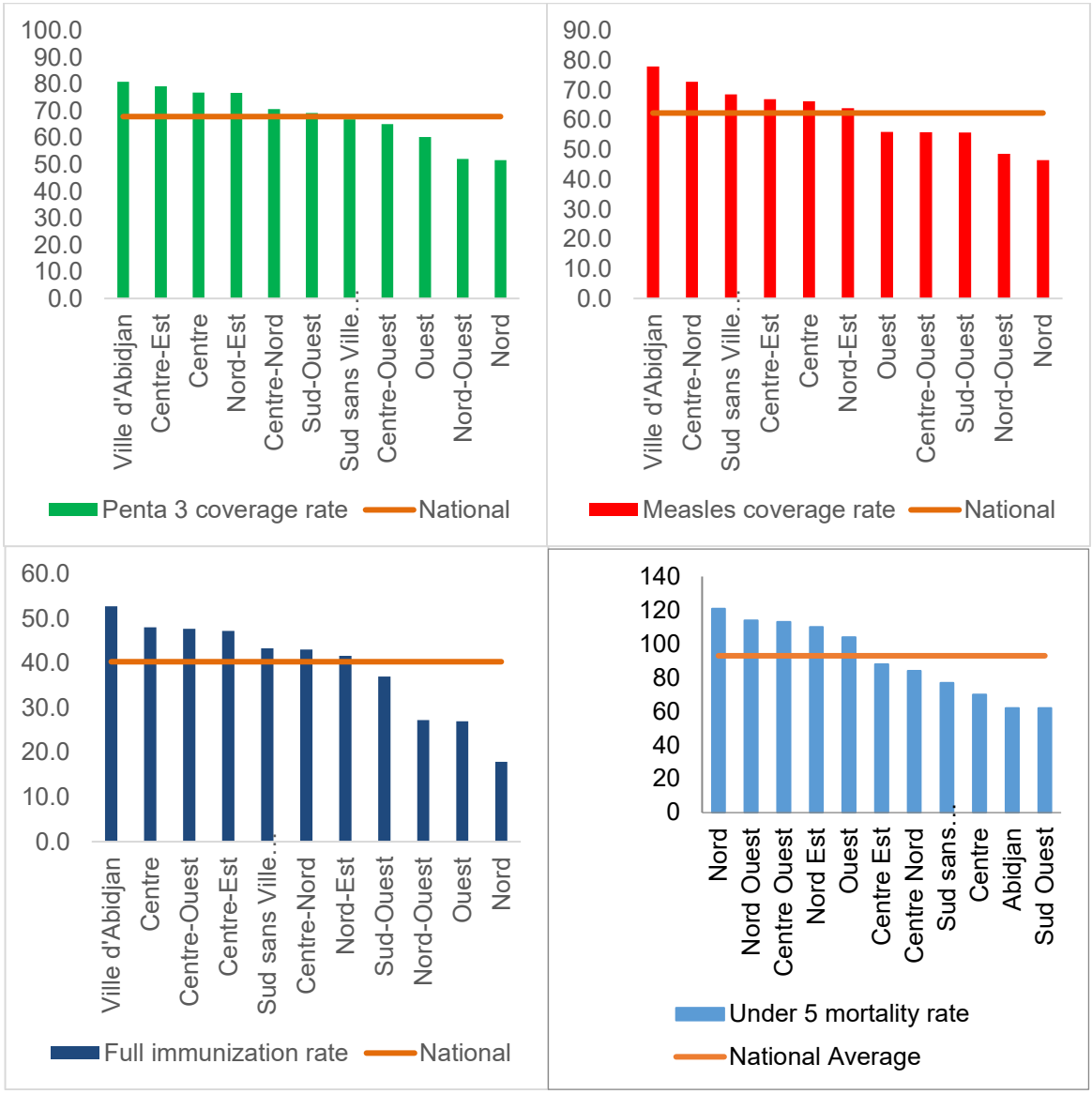
Country	12–23 months fully immunized (%)
Burkina Faso 2010 DHS	81.3
Ghana 2014 DHS	77.3
Gambia 2013 DHS	76
Senegal 2016 DHS	69.8

Sierra Leone 2013 DHS	68
Togo 2013–14 DHS	61.5
Niger 2012 DHS	52
Côte d'Ivoire 2011–12 DHS	**50.5**
Benin 2011–12 DHS	47.6
Liberia 2016 MIS	45.4
Côte d'Ivoire 2016 MICS	**40.3**
Mali 2012–13 DHS	38.9
Guinea 2012 DHS	36.5
Mauritania 2000–01 DHS	31.9
Nigeria 2013 DHS	25.3

Source: DHS STATcompiler.

14. **There is significant inequality between regions for under-five mortality rate and different immunizations.** For Penta 3, Abidjan has 81 percent coverage whereas the northern region had 52 percent coverage. For all other immunizations, Abidjan has the highest coverage rates, and the north has the lowest rates. In parallel, the north and northwest regions have the highest infant mortality rates, and Abidjan and the southwest regions have the lowest infant mortality rates. Figure 53 shows these variations across regions in the country.

Figure 52. Penta 3, Measles, Full Immunization Coverage Rates (Percentage) and Under-Five Mortality Rate (/1,000) across Regions



Source: MICS 2016.

15. **In addition to regional inequality, inequalities persist across gender and socioeconomic status, with girls, those living in rural areas, those with uneducated mothers, and those in the poorest quintile having the lowest immunization rates.** A total of 39 percent of girls, 46 percent of those living in rural areas, 32 percent of those whose mothers were not educated, and 30 percent of those in the poorest quintile were not fully immunized, compared to higher rates for those in urban areas (Table 19).

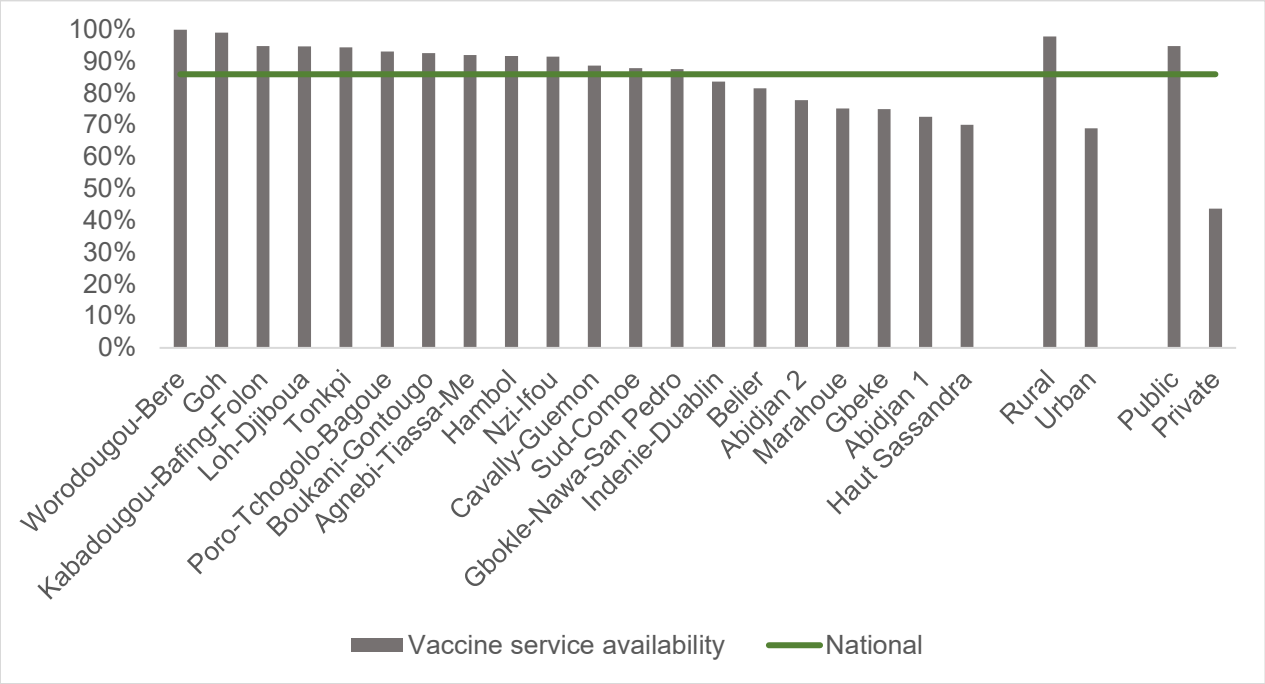
Table 19. Immunization Rates across Gender Location, Level of Education, and Index of Economic Well-Being

Source: MICS 2016.

Socio-demographic characteristics	12–23 month immunized for Penta3 (%)	12–23 months immunized for measles (%)	12–23 month immunized for BCG, Polio3, Penta3, and measles (fully immunized) (%)
Overall	67.9	62.3	40.3
Male	68.3	61.3	41.9
Female	67.5	63.3	38.6
Location			
Urban	73.2	71.6	47.0
Rural	64.4	56.0	35.8
Level of education of the mother			
No	60.2	55.1	31.7
Primary	75.5	66.6	48.8
Secondary and more	81.9	84.4	56.3
Index of economic well-being			
Poorest	55.6	47.7	30.4
Poor	68.4	58.8	34.3
Middle	62.7	57.2	36.3
Rich	78.4	74.8	50.8
Richest	85.6	84.1	62.5

16. **88 percent of all primary care facilities and 95 percent of all public facilities offered immunization services, with varying frequency across districts and facility types.** A lower share of urban and private facilities offers immunization services, although coverage rates in urban areas are larger. Although availability was high, readiness indicators were lower, especially for cold chain indicators: for example, about 28 percent of facilities did not have the proper temperature inside the refrigerator, and 60 percent of facilities did not have continuous temperature monitoring in the refrigerator. Only 14 percent of all health facilities had all 14 set of tracer indicators for immunization; the least available inputs were thermometers, EPI standard protocols, and adequate refrigerator temperature (Figure 54 and Table 20).

Figure 53. Vaccine Service Availability



Source: SARA 2015.

Table 20. Readiness of Facilities to Deliver Priority Immunization Services

Category	Primary (%)	Secondary (%)	Tertiary (%)
EPI guidelines available	69	66	69
EPI-trained staff	75	66	75
Vaccine holder + ice bags	98	92	98
Fridge	87	93	87
Sharps collector	98	98	98
Single-use syringes	89	82	89
Continuous temperature-monitoring device in the refrigerator	40	34	40
Proper temperature inside the refrigerator	72	75	72
Immunization cards	87	79	87
Official score sheets for immunization	98	98	98

Vaccine against measles	78	73	78
DTP-HiB + Hep B vaccine	87	87	87
Oral polio vaccine	79	75	79
BCG vaccine	79	82	79
Mean availability of tracer items	82	79	74

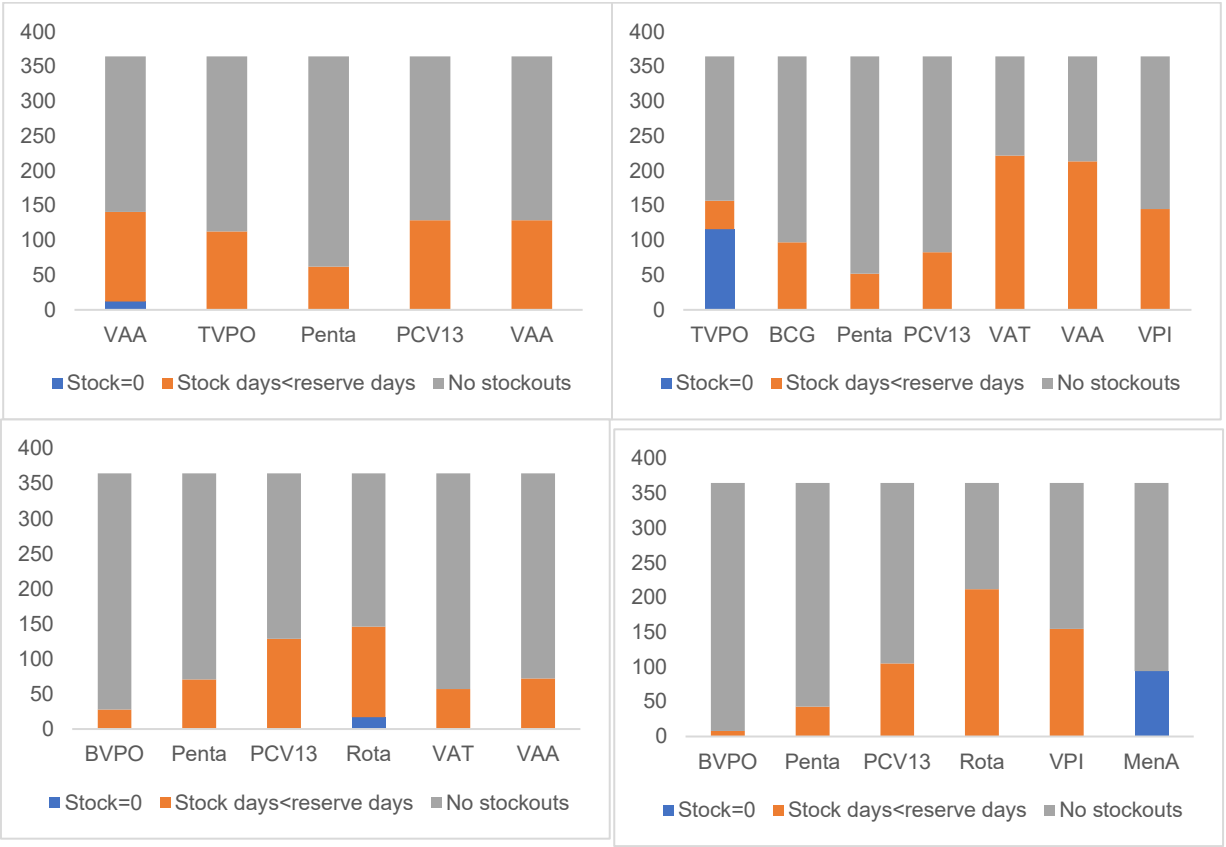
Source: SARA 2015.
Note: EPI = Expanded Program on Immunization; DTP-HiB = Diphtheria-tetanus-pertussis-Haemophilus B conjugate; Hep B = Hepatitis B; BCG = Bacillus Calmette–Guérin (vaccine against tuberculosis); DTP = diptheria, tetanus, and pertussis.

17. **Although they have declined, stock-outs of different vaccines have persisted in the past few years and posit a challenge for equitable coverage.** Overall, stock-outs have been improving since 2015, but different vaccines have been stocked out in different years. In 2015, almost all vaccines were stocked out for a considerable period of time (Figure 55); in 2018, other than MenA and Rota, most vaccines have not been stocked out for a prolonged period of time. Stock-outs at the national level are rare, except with the Rota vaccine; the challenge is to ensure that vaccines are delivered from the central to the district level, as well as from the district to the facility level. Stocks are monitored electronically at the district level, with paper-based forms from facilities, which are not fully integrated into the national Health Management Information System (HMIS). At the district level, stock-outs are significantly more common than at the national level, given interruptions in the distribution of vaccines to the last kilometer. According to national stock-out data, in 2017, Yellow fever vaccine (VAA) was stocked out in 54 districts for an average of 19 days, and rotavirus was stocked out in 33 districts for an average of 12 days. In 2018, the situation got worse for Rota, which was still stocked out in 33 districts but for an average of 20 days. In addition, in 2018, the injectable polio vaccine was stocked out in 46 districts for an average of 23 days.[34] In contrast, the stock situation of other vaccines, such as the oral polio vaccine and VAA, have improved since 2017, and the stock situation of penta has remained the same, with about 4 districts facing an average stock-out of 14 days. With the new Gavi HSS grant and potential upcoming investments, there is potential for the last mile distribution situation to be improved. Table 21, based on the 2015 SARA survey, shows that measles vaccines were stocked out in about 20 percent of facilities, and penta at 7 percent of facilities. Facility-level stock-outs are attributable to challenges with the last mile delivery in the country: as districts only have one vehicle for all health centers in their catchment populations, and as these vehicles are used not just for commodities but also for supervision and management, there is limited outreach capacity at this level.

34. 2018 stock-out data cover through the end of August.

Figure 54. Stock-outs of Vaccines at District Medical Stores, 2015–August 2018

(Top left: 2015, top right: 2016, bottom left: 2017, bottom right: 2018)



Source: DVDMT 2018 (Côte d'Ivoire EPI stock management system).
Note: VAA = Yellow fever vaccine; TVPO = Trivalent OPV ; Penta = Pentavalent (DTP-Hep B-Hib) vaccine; PCV13 = Pneumococcal conjugate vaccine; BCG = Bacillus Calmette–Guérin (vaccine against tuberculosis); VAT = Tetanus vaccine; VPI =Injectable polio vaccine ; BVPO = Bivalent oral polio vaccine ; MenA = Meningitis A.

Table 21. Stock-outs of Vaccines at Facilities, 2015

Vaccine	Available on survey day (%)	Stocked out at any point in the last 3 months (%)
Measles	77	19
Penta	87	7
Oral polio vaccine	79	16
BCG	79	11

Source: SARA 2015.
Note: Penta = Pentavalent (DTP-Hep B-Hib) vaccine; BCG = Bacillus Calmette–Guérin (vaccine against tuberculosis).
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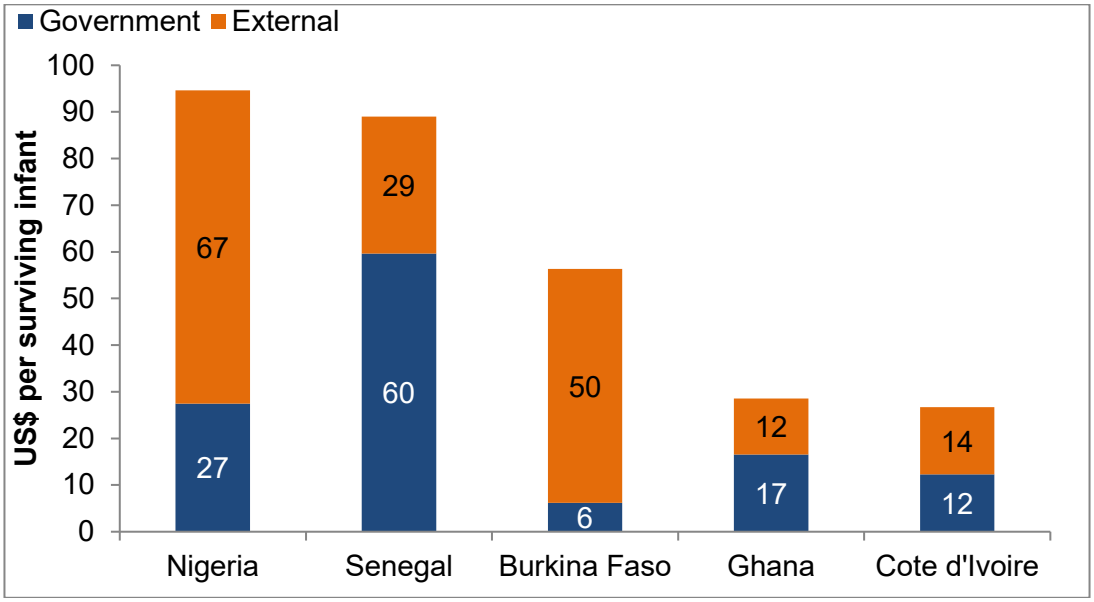
18. **Compared to some of its regional peers, Côte d'Ivoire has the lowest spending per surviving infant and one of the lowest external financing levels.** According to WHO/UNICEF Joint Reporting Form (JRF) data, Côte d'Ivoire spent $26 per capita on immunization for surviving infants in 2016, $12 of which was from the government and $14 from external sources. This was lower than comparable countries, both in terms of the amount spent by the government (e.g., $12 in Côte d'Ivoire versus $17 in Ghana, $27 in Nigeria, or $60 in poorer Senegal) as well as by donors (e.g., $50 in Burkina Faso) (Figure 56).

Figure 55. Immunization Expenditure per Surviving Infant, 2016



Source: WUENIC 2019.

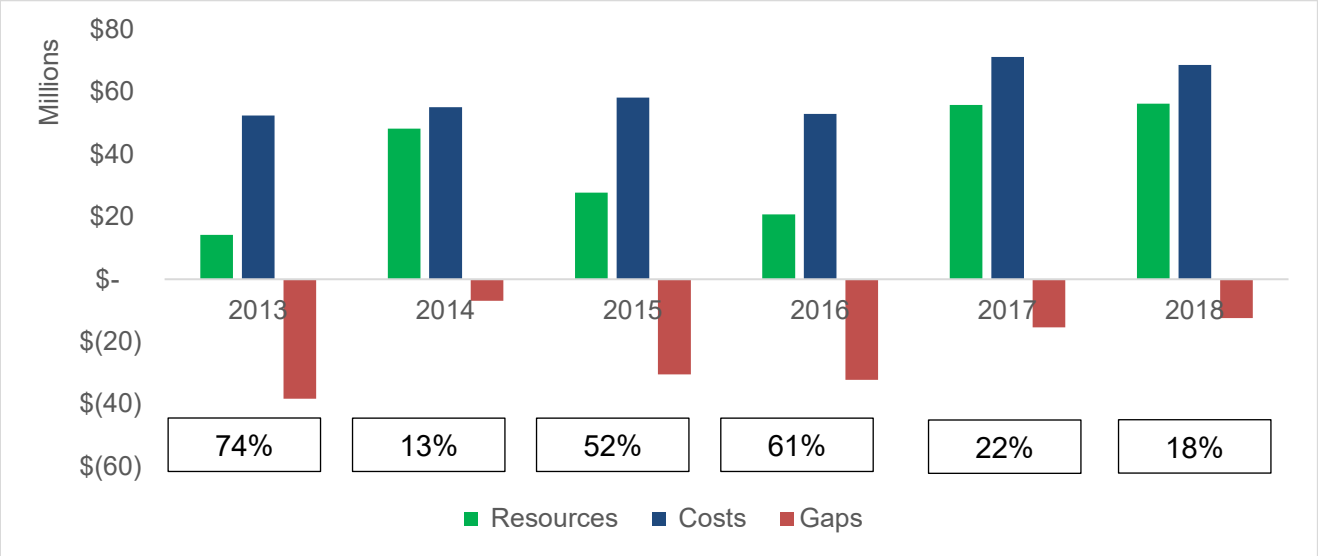
19. **Given the income level of Côte d'Ivoire, the main financier of the immunization program has been Gavi, but this is changing.** Between 2011 and 2015, the government financed 30 percent of all immunization program spending, with Gavi financing 54 percent. The main funding sources of EPI have not changed since 2011, with the government and Gavi combined constituting a majority of spending, and the rest being financed by WHO, UNICEF, Gavi, Hellen Keller International, Rotary International, and GlaxoSmithCline. The share of government's financing as a share of total immunization spending in this period has fluctuated from 22 percent in 2014 to 40 percent in 2012. Overall immunization spending more than doubled in this period, going up from 6 billion to 16 billion CFAF, mainly driven by the introduction of new vaccines (Tables 22 and 23). Most investments were targeted toward the immunization program, as opposed to the broader primary care system, which would also include investments to strengthen the health system in addition to investments to increase immunization coverage.

20. **The current cMYP still relies extensively on external support and projects a total funding gap of about 30 percent.** Comprehensive multiyear immunization plans (cMYPs) are the primary vehicles through which the government and partners plan for immunization investments. The Ivorian cMYP for 2016 to 2020 highlights a potential 31 percent gap (Table 23) for all immunization investments including commodities and service delivery, although

this gap has been less in practice: in 2016, the gap was at 61 percent, in 2017 it was at 22 percent, and in 2018 it was at 18 percent of budgeted costs (Figure 57). It should be noted that the current cMYP still has significant room for prioritization, and a resource-appropriate scenario could be developed to ensure that the needs remain within the possible resource envelope for the immunization program. The next cMYP should be able to rectify these, as well as to address risks related to transition, if it is to be an actionable document. Funding gaps are particularly pronounced for infrastructure and cold chain investments: as immunization funds are earmarked toward immunization-specific investments, the rest of the health system, which is supposed to deliver immunization, does not necessarily have the capacity to deliver it, especially when faced with a rapid scale-up of new vaccines.

Figure 56. Immunization Funding (Expenditures 2013–2017; Budget 2018), Costs (from Costed Multiyear Plan), and Gaps (in text box) in Côte d'Ivoire, 2013–2018

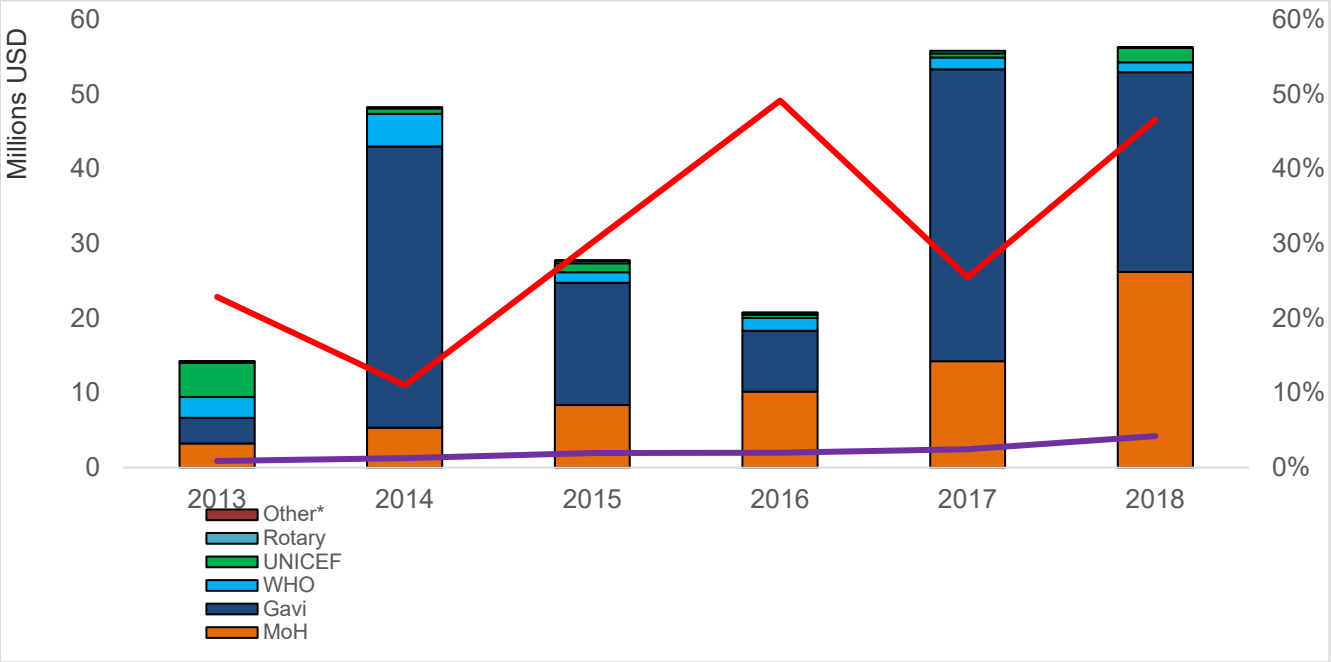
(*US$*)



Sources: Analysis based on Côte d'Ivoire EPI cMYP 2011–2015 and 2016–2020; government budgets.

21. **In the last five years, the government has increased its contribution to immunization, and Gavi has remained the largest funder.** In 2018, the government budgeted about 4 percent of the health budget on immunization, covering almost 50 percent of total immunization spending. The share of the government has increased from 23 percent in 2013 to 47 percent in 2018. Gavi has consistently remained the largest funder. The past five years have also been characterized by a fluctuation in spending, in particular from external donors: for instance, 2016 saw a local dip in immunization financing (Figure 58).

Figure 57. Immunization Program Financing Trends by Source, 2013–2018



Sources: Analysis based on Côte d'Ivoire EPI cMYP 2011–2015 and 2016–2020; government budgets.

Note: WHO = World Health Organization; MoH = Ministry of Health.

Table 22. Financing Flows into the Expanded Programme on Immunization, 2011–2015

CFAF	2011	2012	2013	2014	2015
Government	2,035,666,232	4,004,098,853	3,007,389,363	4,035,475,540	4,926,275,977
Partners	3,977,164,787	5,956,997,634	6,722,279,476	14,174,464,314	10,990,113,313
WHO	2,776,267,096	1,616,947,860	1,370,879,958	2,167,349,081	836,603,693
UNICEF	931,660,960	418,627,400	2,257,415,590	359,496,695	706,078,245
GAVI	2,754,374,000	3,745,196,500	5,254,699,500	11,383,666,000	9,213,500,000
HKI	—	—	—	43,289,840	12,931,375
ROTARY	291,129,827	176,225,874	96,700,018	194,611,698	221,000,000
GSK	—	—	—	26,051,000	—
Grand total	6,012,831,019	9,961,096,487	9,729,668,839	18,209,939,854	15,916,389,290
Share of government (%)	**34**	**40**	**31**	**22**	**31**

Sources: Analysis based on Côte d'Ivoire EPI cMYP 2011–2015 and 2016–2020; government budgets.
Note: WHO = World Health Organization; UNICEF = United Nations Children's Fund; GAVI = Global Alliance for Vaccines and Immunization; HKI = Helen Keller International; GSK = GlaxoSmithKline; — = Not available.

Table 23. Projected Gaps for the Course of the Costed Multiyear Plan, 2016–2020 (*US$*)

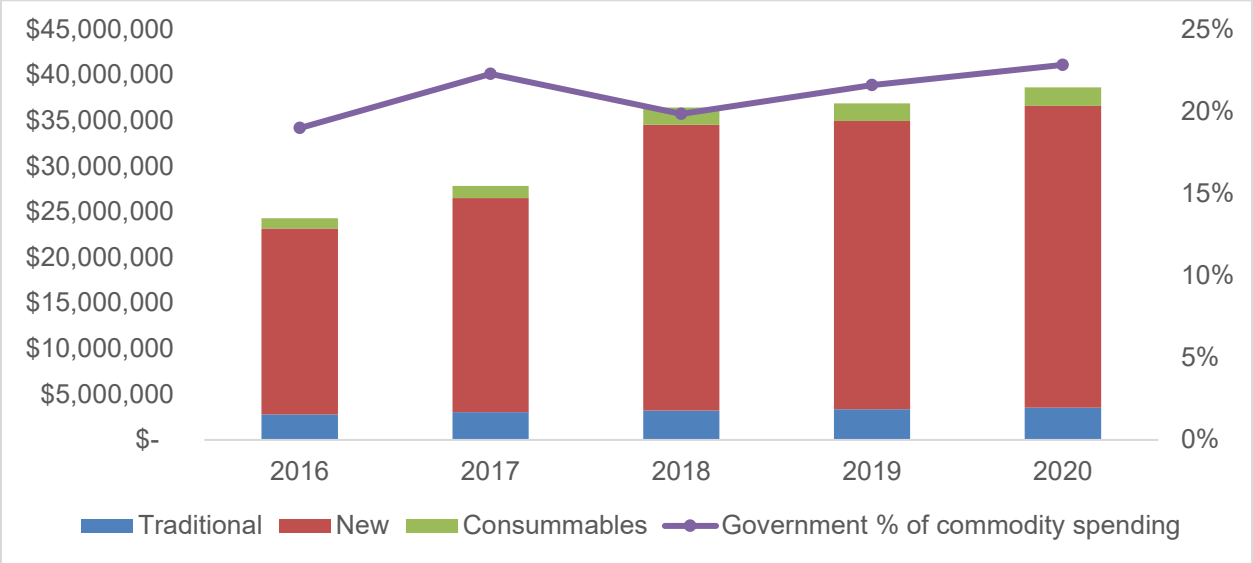
	2016	2017	2018	2019	2020	Total
Total funding need	**$52,977,993**	**$71,255,272**	**$68,654,576**	**$66,104,243**	**$76,901,501**	**$335,893,585**
Total secure financing	$35,660,418	$50,805,975	$52,230,825	$46,503,382	$47,913,005	$233,113,605
Government	$11,837,525	$15,546,028	$19,420,602	$15,759,343	$16,386,587	$78,950,085
Government cofinancing share for Gavi-supported vaccines	$1,252,926	$2,377,086	$3,259,355	$4,059,877	$4,961,586	$15,910,831
GAVI	$12,202,643	$17,450,310	$19,909,528	$17,563,272	$17,358,384	$84,484,137
WHO	$6,124,471	$11,021,494	$5,215,080	$5,057,146	$5,169,157	$32,587,348
UNICEF	$4,238,093	$4,339,654	$4,420,886	$4,005,063	$4,034,439	$21,038,135
AMP	—	$66,096	—	$55,885	—	$121,981
HKI	$4,760	$5,307	$5,374	$2,796	$2,852	$21,089
Funding gap	$17,317,575	$20,449,297	$16,423,751	$19,600,861	$28,988,496	$102,779,980
Gap as a % of total needs	**33**	**29**	**24**	**30**	**38**	**31**

Sources: Analysis based on Côte d'Ivoire EPI cMYP 2011-2015 and 2016-2020; government budgets.
Note: GAVI = Global Alliance for Vaccines and Immunization; WHO = World Health Organization; UNICEF = United Nations Children's Fund; AMP = ; HKI = Helen Keller International; GSK = GlaxoSmithKline; — = Not available.

22. The bulk of immunization spending is on new vaccines, and government's share of commodity spending is projected to go up from 19 to 23 percent of the total by 2020, with vaccine needs going up from $25 million to $40 million. As indicated earlier, Gavi support has enabled the government of Côte d'Ivoire to introduce several new vaccines, including pneumococcal, rotavirus, HPV, VAT, MenA, and Hep B. These vaccines make up over 85 percent of commodity spending of the EPI (Figure 59). Currently the government is already financing the majority of traditional vaccines (i.e., BCG, Penta, polio, yellow fever, and measles) through domestic resources, but given its current spending on health, it remains at risk to take over the additional financing needs for new vaccines in the near term.

Figure 58. Breakdown of Commodity Financing, 2016–2020[35]

(*US$*)

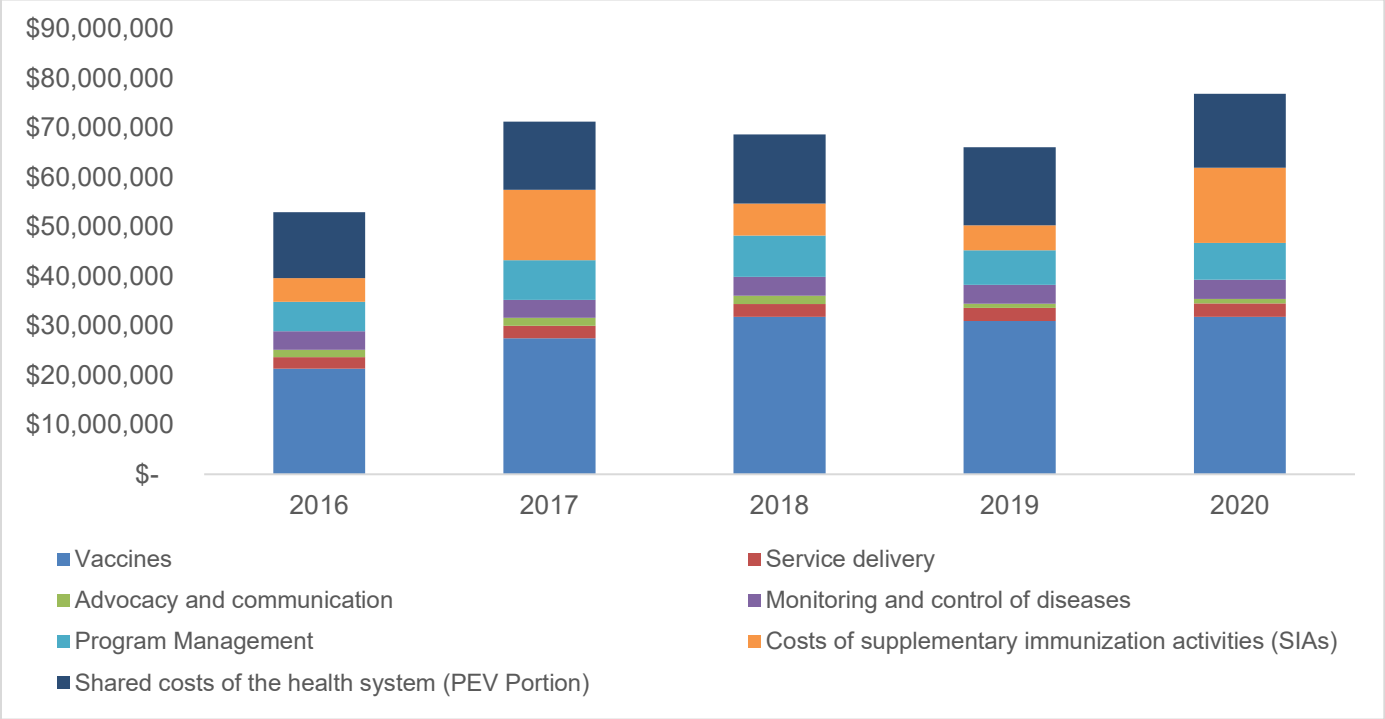


Sources: Analysis based on Côte d'Ivoire EPI cMYP 2011–2015 and 2016–2020; government budgets.

23. As overall spending needs on immunization lack certainty, due to the difficulty of estimating shared costs, there is likely to be a resource gap. Immunization program needs are projected to go up from $53 million in 2016 to $77 million in 2020, largely driven by vaccines and associated supplementary activities. About half the costs associated with the immunization program are related to the procurement of vaccines, the remaining are attributed to supplementary immunization activities, program management, disease surveillance, advocacy, service delivery, and attributable costs to the health system. It should again be noted that the cMYP was not prioritized and can be an overestimate of true needs, in particular in terms of costs that are attributable to the health system (Figure 60).

35. Author's analysis using EPI commodity data and budgets. Traditional vaccines include BCG, Penta, Polio, yellow fever, and measles. New vaccines include pneumo, rotavirus, HPV, VAT, MenA, and Hep B.

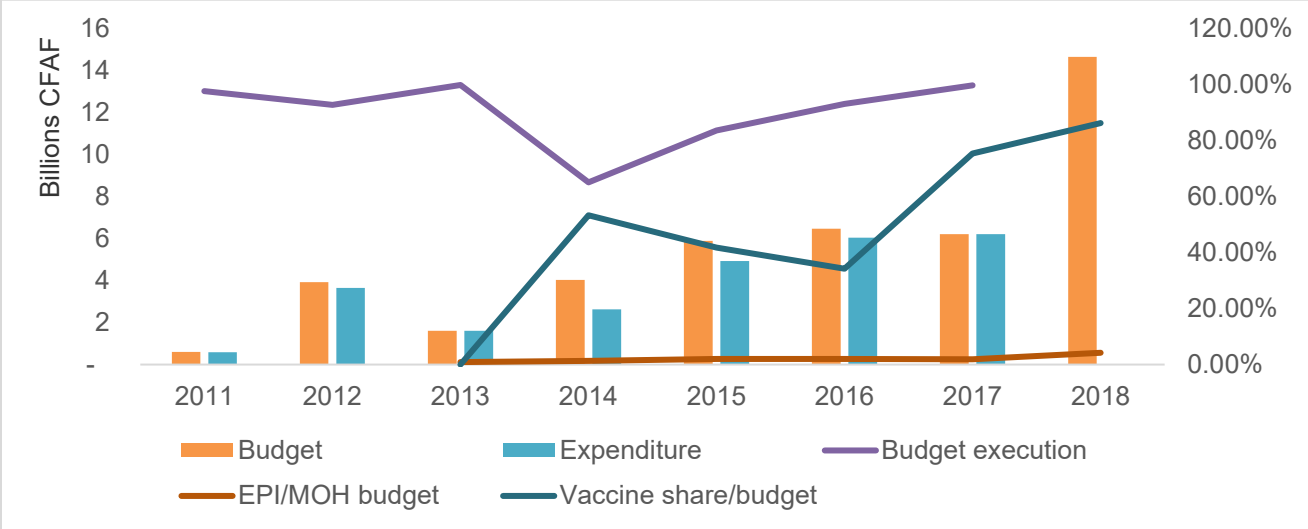
Figure 59. EPI Program Needs according to the Costed Multiyear Plan, 2016–2020



Sources: Analysis based on Côte d'Ivoire EPI cMYP 2011–2015 and 2016–2020; government budgets.
Note: PEV = Expanded Programme for Immunization.

24. **On average, less than 2 percent of public health spending, excluding salaries, has been spent on immunization in the last five years, with fluctuating budget execution rates**. An increasing share of government funding on immunization is spent on vaccine purchases, from 75 percent of all government immunization spending in 2016 to 86 percent in 2018. Government's spending on the immunization program has more than doubled from 2017 to 2018, bringing the share of immunization spending as a share of current health expenditure to 4 percent. This increase has been driven by the rise in vaccine purchases. Programmatic expenditures have remained the same or even declined, which posits a risk of having to absorb additional vaccine spending. EPI's budget execution rate has been above 90 percent, except for in 2014, which was at 65 percent (Figure 61).

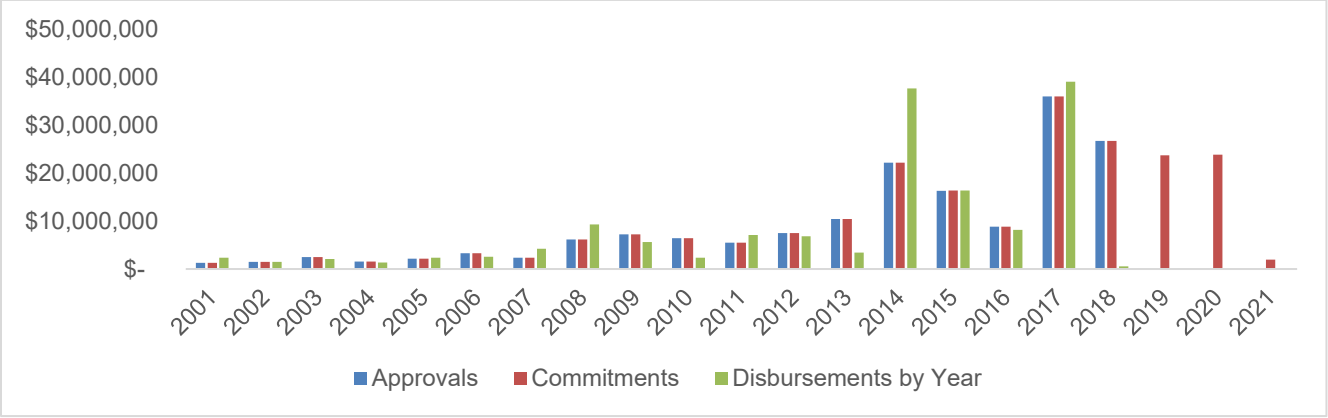
Figure 60. Government Budget and Expenditure on Immunization, 2011–2018

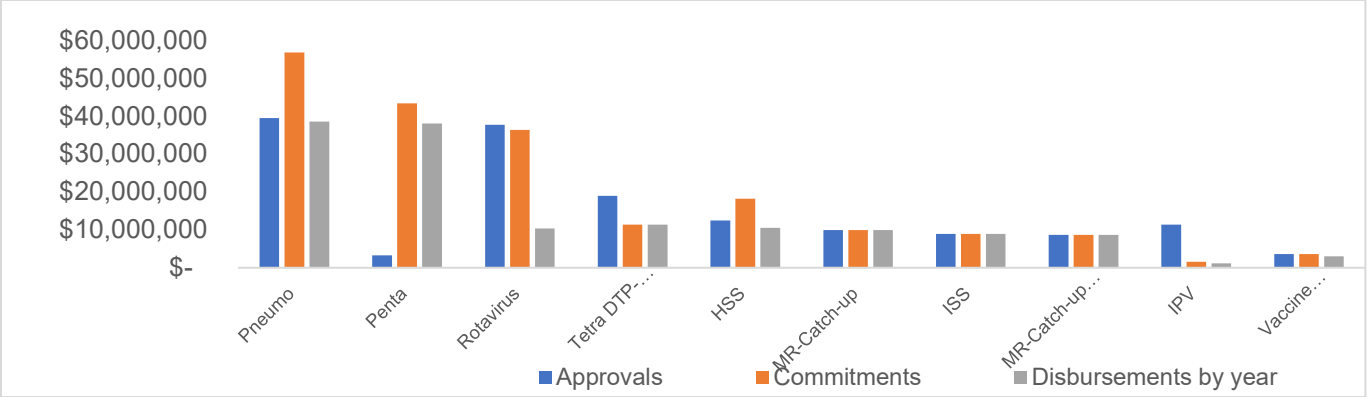


Sources: Analysis based on Côte d'Ivoire EPI cMYP 2011–2015 and 2016–2020; government budgets.
Note: EPI = Expanded Programme on Immunization; MOH = Ministry of Health.

25. **Gavi, the largest funding source for the immunization program, has disbursed over $150 million in Côte d'Ivoire since 2001.** The support has mostly been for direct vaccine purchases, and is expected to flatline and decline in the next five years as part of the transition process. Most of the support has been for vaccine purchases, notably for pneumo, penta, and rotavirus. There have been two Health Systems Strengthening (HSS) grants, which have supported program management, surveillance, and information systems (Figure 62).

Figure 61. Gavi Funding Flows to Côte d'Ivoire, 2001–2021, and Largest Gavi Grants

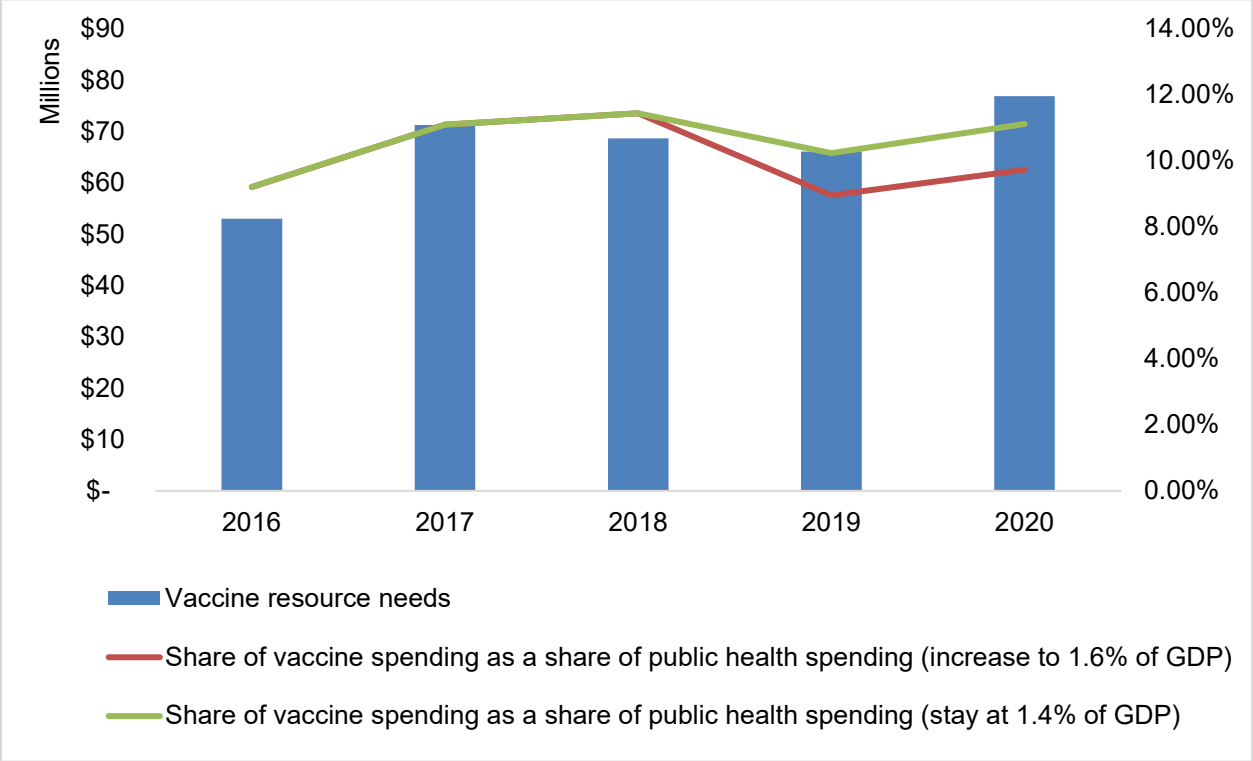




Source: Gavi Alliance Disbursements and commitments; https://www.gavi.org/results/disbursements/.
Note: Pneumo = Pneumococcal vaccine; Penta = Pentavalent (DTP-Hep B-Hib) vaccine; HSS = Health Systems Strengthening; ISS = Immunization Systems Strengthening; IPV = Inactivated polio vaccine.

26. **Projected immunization resource needs currently make up over 10 percent of public health spending and are estimated to remain at that level.** Figure 63 demonstrates that based on current GDP growth rates, current share of public health spending as a share of GDP, and current EPI costs, if the government were to finance the entire EPI response, it would take up over 11 percent of the health budget in 2020. Even if health expenditures were to increase to 1.6 percent of GDP—which is a share that has not been recorded in the past decade—immunization spending would be at 10 percent of all government health spending. Currently, immunization expenditures are at 4 percent of government health spending, so this would require more than doubling the current priority of immunizations. This demonstrates the risk of sustainability if Côte d'Ivoire is to transition from Gavi assistance: unless the government increased its health spending significantly, it will not be able to absorb the additional financing required by compensating for lost Gavi expenditures. The high unit cost of new vaccines and the high share of new vaccines as a proportion of total vaccine spending posit significant risks in terms of the government's ability to take on the additional immunization spending.

Figure 62. Immunization Resource Needs and Share of Government Budget Projected to Go to Immunization, 2016–2020



Sources: Analysis and projections based on Côte d'Ivoire EPI cMYP 2011–2015 and 2016–2020; government budgets.

27. **This analysis points to the significant financial risk that transition from Gavi posits, as well as to the need to develop a transition strategy to address the challenges highlighted in this analysis.** Currently, Côte d'Ivoire spends less on immunization per surviving infant than many other countries, and has correspondingly worse outcomes, highlighting the significant risk associated with the upcoming transition. The first necessary enabling factor for a successful transition is to ensure that EPI is well integrated into the health system, and that coordination at the Directorate General of Health Services (DGS) level is operationalized. As highlighted, EPI is not integrated with other programs for management, monitoring, and surveillance, although service delivery is integrated—this posits a significant risk for transition. While there is potential to integrate at the DGS level, as it oversees all disease programs, few activities with any level of integration have been accomplished thus far. The need to coordinate is even more important, given that transition is also impending for other disease programs such as HIV and malaria. This strengthening must correspond with more rigorous public financial management at the district level, so that DGS is capacitated to manage a high share of public investments.

PART VIII: RECOMMENDATIONS

CROSS-CUTTING RECOMMENDATIONS

1. **The overarching takeaway of this analysis is that there is a need for significant reform across revenue-raising, pooling, and purchasing in the health sector, coupled with investments and policy changes in the health system, to improve the quality and health outcomes in the Ivorian health system.** This section presents certain recommendations to do so.

2. **In terms of revenue-raising, there is a need to increase the share of health in the government budget, as well as to focus on an integrated approach to raise revenues which would strengthening the health system.** The 2012 health financing strategy presented various options to raise revenues, but it needs to be operationalized. There is a need to make a stronger investment case and to increase public spending levels, which are lower than in most comparable countries, both in absolute terms and relative to GDP. One potential way to raise additional resources for the health sector is the Global Financing Facility (GFF), a catalytic financing process in which government, civil society, private sector, and external partners define priorities to reduce maternal and infant mortality and use a common platform to budget, prioritize, and cost for these investments and raise funds to close the gaps. Under this mechanism, the GFF trust fund contributes a modest amount of financing, conditional on the government increasing its financing into key health sector priorities. The process is currently underway and is expected to contribute significantly to closing funding gaps in its priority areas. GFF is a 10-year planning process—a time span that enables it to ensure predictability of external funds, which is a crucial problem, as evidenced by the upcoming transition of Gavi from the immunization program. The GFF process should provide the blueprint for disease program financing integration at the central level not just for GFF priority areas but also for sectorwide planning.

3. **To improve financial risk protection and lower out-of-pocket spending, it is essential to increase the size of risk pools, and to reduce fragmentation of donor flows.** The newly launched CMU (universal health coverage) is a right step in ensuring that the entire population belongs in the same risk pool, but take-up should be as high as possible. On the external financing side, to ensure efficiency and sustainability, it is crucial for most external funding to flow through government systems, and to integrate disease programs in the government budget across all health financing functions. As CMU is launched and scaled up, its financial sustainability must be ensured through a prioritized benefits package, rational rate-setting, and negotiations, as well as by ensuring CNAM can receive contributions from the government and external financing partners to deliver on its core mandate. Finally, it is crucial to ensure that a broad base of the population enrolls in CNAM to reduce adverse selection and maximize social protection. To ensure the poor and vulnerable can seek the health services they need, cash transfers and other support mechanisms can be undertaken.

4. **Performance-based financing (PBF), selective contracting, and defining the benefits package are powerful strategic purchasing tools to improve the efficiency and quality of health spending.** Not only could a stronger

purchasing system help make a better investment case to the Directorate of Budget and increase visibility of health sector performance, it would also align the different incentives that providers are receiving, enabling the maximization of quantity and quality within the existing performance frontier of a facility. The current PBF pilot has increased quality and quantity in facilities where it is being implemented, and the government has planned to scale it up over the next decade to cover the entire country. Other than PBF, the government's current purchasing mechanisms are not based on any data and do not send clear signals to maximize quality: the gaps in implementation of the free services (gratuité) system are an example of bottlenecks the system faces through a multitude of unstandardized arrangements. Expansion of health insurance coupled with strategic purchasing is a prime opportunity to harmonize priority disease programs within a single, effectively defined benefits package, and pay providers for progress toward specific targets. Under this system, providers would be incentivized to deliver a specific level of quantity and quality of services, and all priority disease programs would be within one benefits package, which a single purchaser would use to reimburse providers.

5. **Increased investments are necessary in different building blocks of the health system, particularly at the primary care level, to ensure equitable and high-quality care.** As part of the GFF process, the government is currently working on defining its priority areas to strengthen supply chains, health information systems, integration of private sector, community health, human resources for health, and quality of primary care. Across each of these areas, there is a need to determine smart and cost-effective interventions, focusing on harmonization and integration of existing supply chain and information systems, financing last mile distribution of commodities, moving away from a disease-specific supply chain toward an integrated community health model, and redistributing the health workforce to areas with the largest gaps.

6. **There is a need to increase accountability and governance mechanisms at all levels of the health system.** Success of the upcoming health insurance and scale-up of strategic purchasing hinges on strong accountability and governance mechanisms. Accountability mechanisms must be designed from the bottom up: for example, facility managers and district health offices should have the power to hire and fire, and oversight of district health offices over health facilities should increase. Similarly, contracting of facilities within health insurance and strategic purchasing should be based on the performance of facilities, such that facilities that do not meet a minimum set of quality standards would not receive government subsidies or reimbursements. In terms of procurement, it is important to increase accountability and oversight mechanisms at the district level and, at the same time, devolve more procurement authority to districts, such that they can procure key inputs (e.g., essential medicines) to reduce the incidence of stock-outs. At the national level, the DGS's capacity must be strengthened to coordinate and integrate different disease programs, and the public financial management capacity of all directorates should be strengthened. There is a cross-cutting need for allocating investments based on need; an expanded information system would assist in moving toward evidence-based budgeting and decision-making, particularly for large-scale health systems investments such as infrastructure. Another cross-cutting need is to launch an integrated budgeting and planning process at the Planning Directorate, aligning

the budget with the integrated operational plan and launching a results-based management system. The government is moving toward scaling up program-based budgeting (PBB) by 2020, a budgeting reform that provides actors at all levels of the health system more autonomy and flexibility to achieve goals toward specific outcomes and outputs, as opposed to inputs. It is instrumental for this reform to be executed in parallel with broader autonomy and management reform in the health sector. Similarly, the budget formulation reform should be coupled with the budget execution reform, to ensure that facilities can manage their own budgets and allocate them based on need.

7. **The success of revenue-raising, pooling, and purchasing depends on increasing the allocative and technical efficiency of existing investments.** Some earlier proposed reforms, such as scaling up PBF and defining the benefits package, are also expected to increase the efficiency of investments in the health sector. In addition to these measures, there is a broader need for increasing efficiency through coordination between partners to reduce duplication. More studies are needed to identify the extent of duplication between different funding sources: a newly instituted resource mapping process collecting financing data from donors would assist in closing this evidence gap. There is also a need for more detailed studies on technical efficiency. In terms of allocative efficiency, the main issues remain with the mismatch of allocation between utilization and funding: primary care remains significantly underfunded by the government, so that households and external financing sources contribute to closing the gap. To rectify this, the government should increase its primary care investments and continue building up the community health system, to ensure that resources reach the last mile.

IMMUNIZATION-SPECIFIC RECOMMENDATIONS

8. **To increase the adequacy of immunization financing, it is essential to advocate for increased primary health financing in addition to ensuring specific financing for immunization commodities.** Efforts to ensure adequate and sustainable financing for immunization rely on the government's ability to raise more money for health and ensure that funding is used to prioritize the primary health care system, where the immunization program is dependent on the system. As the Ministry of Health is set to witness multiple concurrent transitions from external funding and move toward an integrated health system, it must move from a siloed approach to revenue-raising to a more horizontal one. To do this, the government should identify ways to increase fiscal space for health, not just for immunization but for the broader health sector, through leveraging conducive macroeconomic conditions, prioritizing health within the government budget, and exploring innovative domestic financing mechanisms.

9. **In addition to adequacy, the predictability of immunization financing should also be addressed.** The government should explore ways to increase the predictability of immunization financing through the identification of new and long-term domestic funding flows, as well as prioritize and substantiate resource needs outlined in the costed multiyear plans, which currently significantly overestimate potential resource needs. In light of the information presented in this analysis, EPI and its partners should finalize a transition strategy that is tailored toward the existing immunization delivery architecture. This strategy should consider not just overall funding levels, but also funding across different aspects of immunization (i.e., commodity spending versus noncommodity spending), to ensure that different aspects of the immunization program are not disrupted. Predictability is especially important from a health systems perspective, as funds targeted to strengthen the health care system are not flowing in a long-term and coordinated manner. The operationalization of the government's investment case, as part of the Global Financing Facility (GFF), would be able to assist in closing this gap.

10. **Increasing efficiency will ensure that the value for money of vaccine funds is maximized.** While there are no vaccine-specific efficiency studies, a health sector–wide study points to the fact that the Ivorian health system's organization is suboptimal, and that its outcomes would be the same if it spent 50 percent less. Similarly, the core Health Financing System Assessment report finds that Côte d'Ivoire performs significantly below the efficiency frontier, as measured by life expectancy and per capita health spending. This inefficiency is in part due to the oververticalization of the health system: there is currently low to no coordination of disease program funds at the DGS level, which leads to duplicative program activities and service delivery with regard to supervision and information systems. Coordination at this level should be an integral part of the transition strategy, and EPI should proactively be incorporated into the overall architecture of the health system. EPI and its partners should assess the technical efficiency of the immunization program for bottlenecks and inform future funding, including focusing on wastage. Another significant lever of integration will be at the level of the benefits package: currently, immunization is excluded

from the health insurance benefits package; it would need to be integrated fully into strategic purchasing arrangements. The government is considering scaling up strategic purchasing concurrently with the launch of health insurance, as part of which providers would be paid on a case-by-case basis for services they deliver, including immunization. At the service delivery level, the immunization program can also leverage community health workers and better motivate them to deliver immunization, as well as integrate delivery of immunization outreach with other programs targeting mothers and children. As the government scales up its community health strategy, the immunization program should be a key part of these efforts.

11. **Finally, preparedness and accountability measures would have to be in place to ensure a smooth transition from donor funding.** The immunization program's success depends on strong accountability and preparedness measures. From the public financial management side, the HFSA core protocol outlines significant challenges with budget formulation, execution, and monitoring: as EPI is integrated into government funds, these challenges will also impact the program and will need to be addressed by the vaccination program and its partners. Similarly, there are issues with preparedness against epidemics as evidenced by stock-outs; any future transition strategy should explore ways to increase pandemic preparedness by supporting delivery to the last kilometer, a level where stock-outs still persist. Accountability mechanisms must exist to ensure that funds reach the frontline and that mechanisms are introduced to improve the quality and availability of services to combat issues such as absenteeism or wastage.

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Following years of political instability, Côte d'Ivoire has recorded a rapid growth rate over the past seven years and entrenched its status as a lower-middle-income country. However, the country's epidemiological profile remains comparable to that of low-income countries, and health outcomes are among the poorest in the region and globally. Furthermore, given its lower-middle-income status, domestic resource mobilization and improving fiscal space are becoming increasingly important considerations as several donors start to scale down their assistance. To address this situation, the government has committed to undertaking various reforms in the health sector. The aim of this Health Financing System Assessment (HFSA) is to guide policy discussions through assessment of the current context for implementation of the national health sector reform agenda, transitioning from donor assistance and resource mobilization, and to identify opportunities and options on the path toward universal health coverage (UHC). This HFSA discusses the macro-fiscal context in Côte d'Ivoire, reviews the health outcomes based on most recently available data, analyzes the government and health financing landscape, and assesses the issues related to transitioning from external assistance for immunization. Based on the analysis, the HFSA concludes with specific policy recommendations for Côte d'Ivoire to reach universal health coverage.

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