SHOPS PLUS

Madagascar Private Health Sector Assessment

USAID
FROM THE AMERICAN PEOPLE

Recommended Citation: Brunner, Bettina, Katie Baczewski, Emily Mangone, Jeanna Holtz, Virginie Combet, Ignacio Estevez, and Ben Davis. *Madagascar Private Health Sector Assessment.* Rockville, MD: Sustaining Health Outcomes through the Private Sector Plus Project, Abt Associates Inc.

Cooperative Agreement: AID-OAA-A-15-00067

Submitted to: Azzah Al-Rashid, Operations Specialist, Office of Health, Population and Nutrition (HPN), USAID Madagascar.

About SHOPS Plus: Sustaining Health Outcomes through the Private Sector (SHOPS) Plus is USAID's flagship initiative in private sector health. The project seeks to harness the full potential of the private sector and catalyze public-private engagement to improve health outcomes in family planning, HIV/AIDS, maternal and child health, and other health areas. SHOPS Plus supports the achievement of U.S. government priorities, including ending preventable child and maternal deaths, an AIDS-free generation, and FP2020. The project improves the equity and quality of the total health system, accelerating progress toward universal health coverage.

Abt Associates Inc.
6130 Executive Boulevard
Rockville, MD 20852
Tel: 301.347.5000 Fax: 301.913.9061
abtassociates.com

American College of Nurse-Midwives | Avenir Health
Broad Branch Associates | Banyan Global | Insight Health Advisors
Iris Group | Population Services International |
William Davidson Institute at the University of Michigan

Madagascar Private Health Sector Assessment

Disclaimer: The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States government.

Contents

Tables

Figures

Acronyms

ABM	*Accès Banque Madagascar*
ACEP	*Agence de Crédit pour l'Entreprise Privé*
ACT	Artemisinin-Based Combination Therapies
AFD	*Agence Française de Développement*
AgMed	*Agence du Médicament de Madagascar*
AMIT	*Association Médicale Interentreprises de Tananarivo*
ANTM	*Association Nationale des Tradipracticiens Malgaches*
ATIA	*Actions de Terrain, Intégration, Autonomie*
CA-CSU	*Cellule d'appui sur la couverture de la santé universelle*
CHD	*Centre Hospitalier de District*
CHRD	*Centre Hospitalier de Référence de District*
CHRR	*Centre Hospitalier de Référence Régionale*
CHU	*Centre Hospitalier Universitaire*
CPSN-CSU	*Comité de pilotage de la SN-CSU*
CRS	Catholic Relief Services
CSB I	*Centre de Santé de Base de Niveau I*
CSB II	*Centre de Santé de Base de Niveau II*
CSBF	*Commission de Supervision Bancaire et Financière*
CSR	Corporate Social Responsibility
CSU	*Couverture Santé Universelle*
DCA	Development Credit Authority
DEP	*Direction des Études et de la Planification*
DHIS	District Health Information Software
DSI	*Direction des Systèmes d'Information*
DHRD/SHP	*Service des Hôpitaux Privés de la Direction des Hôpitaux de Reference Régionale et de District*
DHS	Demographic and Health Surveys

DLP	*Direction de Lutte contre le Paludisme*
DPLMT	*Direction de la pharmacie, du laboratoire et de la médecine traditionnelle*
DRSP	*Direction Régionale de Santé Publique*
DVSSE	*Direction de la Veille Sanitaire et de la Surveillance Epidémiologique*
FBO	Faith-based Organization
FP	Family Planning
FSP	*Formations Sanitaires Privées de Base*
GDP	Gross Domestic Product
GOM	Government of Madagascar
LARC	Long-acting Reversible Contraceptives
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MFI	Microfinance Institutions
MNO	Mobile Network Operators
MSP	*Ministère de la Sante Publique*
OTIV	*Ombona Tahiry Ifampisamborana Vola*
P4H	Providing for Health Program
PACSS	*Programme d'Appui Conjoint au Secteur de la Santé*
PDSS	*Plan De Développement du Secteur Santé* 2015-2019
PhaGeCom	*Pharmacie à Gestion Communautaire*
PhaGeDis	*Pharmacie de Gros de District*
PMI	President's Malaria Initiative
PNANIII	*Plan National d'Action Pour la Nutrition*
PPP	Public-Private Partnerships
PSA	Private Sector Assessment
PSI	Population Services International
RSC	*Réseau de Soins Coordonné*

SALAMA	*Centrale d'Achat de Médicaments Essentiels et de Matériel Médical de Madagascar*
SALFA	Malagasy Lutheran Church Health Department
SDI	Service Delivery Indicator
SHOPS Plus	Sustaining Health Outcomes through the Private Sector
SIG/RMA	*Système d'Information et de Gestion / Rapports Mensuels d'Activités*
SILC	Savings and Internal Lending Communities
SMIE	*Service Médical Inter-Entreprises*
SMLDP	*Service de la Médecine Libérale et des Dispensaires Privés*
SMT	*Services Médicaux du Travail*
SN-CSU	*Stratégie Nationale sur la Couverture de la Santé Universelle*
SNIS	*Système National d'Information Sanitaire*
SSA	Sub-Saharan Africa
STI	Sexually Transmitted Infections
UHC	Universal Health Coverage
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAT	Value-added Tax
VLSA	Village Loans and Savings Associations
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Acknowledgements

The assessment team is grateful for the support of Daniele Nyirandutiye, Azzah Al-Rashid, Hajarijaona Razafindrafito, and Sara Miner at USAID Madagascar for guiding the development, writing, and review of this report. We thank the *Ministère de la Santé Publique* and especially *Secretaire General* Dr. Joséa Ratsirarson, along with the stakeholders from nonprofit organizations, development partners, implementing partners, private clinics and pharmacies, and private sector health associations for sharing their insights about the private health sector. We appreciate the resources and insights offered by PSI Madagascar. We also thank Caroline Quijada of Abt Associates for her thoughtful review of the draft document and recommendations to improve it. Finally, we thank Davy Robson and Sarindra Ramanitrivonony for their exceptional support of and contributions to the assessment.

Executive Summary

The United States Agency for International Development (USAID) in Madagascar engaged the Sustaining Health Outcomes through the Private Sector (SHOPS) Plus project to conduct an assessment of the private health sector in Madagascar.

This assessment had the following objectives:

- Estimate the size, scope, and scale of the private health sector, with an emphasis on key stakeholders and their roles
- Review the types of health services and products offered by the private sector
- Review policies and factors that inhibit or enable private sector participation in the health system
- Estimate digital financial services and financial inclusion in Madagascar, with an emphasis on mobile money, barriers and opportunities for growth, and key stakeholders and their roles
- Review mobile-enabled insurance activities and opportunities

The SHOPS Plus Private Sector Assessment (PSA) team finalized a scope of work with USAID Madagascar in January 2017 and a team of three private sector experts conducted the onsite assessments in late March and early April 2017. The SHOPS Plus PSA team worked closely with Madagascar key stakeholders throughout the process. The team interviewed more than 80 individuals from 63 organizations, including the Government of Madagascar (GOM), donors, USAID implementing partners, private sector umbrella organizations, private insurance companies and *mutuelles*, faith-based organizations (FBOs), NGOs, private health care facilities, private pharmacies and *dépôts de médicaments* (*dépôts*).

In Madagascar, the public health sector struggles to provide the care needed by the population; the private sector provides vital complementary products and services and helps to improve geographic access. Data from the *Ministère de la Santé Publique* (MSP) show the private sector includes at least 825 primary health facilities (*formations sanitaires privées de base* or FSP), 469 private medical practices, 138 dental practices, 10 nursing practices, 17 midwife practices, 227 pharmacies, and 1,641 *dépôts*.

Through desk and field research, the assessment team noted the following key findings.

Table 1. Key findings

Theme	Findings
Private health sector as part of health system	• Government statistics suggest private sector comprises at least one-fifth of primary health care facilities and nearly one-half of first-line referral hospitals. However, MSP and professional order (*Ordre)* statistics are contradictory or appear incomplete. • NGOs and FBOs are major private sector players well integrated into the health system, but the private for-profit sector is not. • Private for-profit health sector is predominantly urban. • Many stakeholders are involved in the private health sector, but no clear

	coordination among stakeholders exists.
Service provision in the private sector	• There is limited information available about quality in the private health sector or the role the private sector plays in the provision of services. • There are missed opportunities for reaching the population through the private sector, especially for family planning (FP) and water, sanitation, and hygiene (WASH) services. • People may not receive quality care due to geographic and financial barriers and poor referral networks.
Access to essential pharmaceutical and medical commodities	• Private sector wholesaler-distributor sales account for 91 percent of the value of the total pharmaceutical market. • Public sector facilities are expected to buy from designated public sector wholesaler pharmacies, but in reality only 38 percent do, suggesting purchase from private wholesalers or illegal markets. • Prices are fairly consistent across private sector pharmaceutical facilities (including pharmacies, *dépôts*, and social marketing organizations).
Policy and partnership landscape for private health sector	• The lack of involvement of private sector providers, especially for-profit providers, in the development of legal and regulatory frameworks has resulted in gaps which hinder the private health sector. • The private sector lacks awareness of policies, regulations, and protocols. • The legal framework for health public-private partnerships (PPPs) is weak.
Human resources for health	• Not enough doctors are being trained, and many are on the verge of retirement. • More nurses and midwives are entering the market than can be absorbed; the quality of training in some private training facilities is substandard.
Access to finance	• Of the 45 financial institutions in Madagascar, only two show a targeted approach to the health sector. • Financing of the health sector makes up less than one percent of commercial bank portfolios. • Providers lack financial and business management skills which impedes their ability to access credit.
Health financing and universal health coverage (UHC)	• Private sector initiatives are contributing to objectives outlined in the GOM's National Strategy for Universal Health Coverage (SN-CSU), but the role of the private sector is not well-defined. • Government and private sector health financing initiatives are nascent. Approximately 3.4 million people (14% of the population) have some form of health insurance, with the majority of those insured (approximately 10% of the population) covered through privately-sponsored programs such as SMIE, mutuelles or for-profit insurance providers. • *Mutuelles* represent an important foray by private sector actors into risk-pooling and prepayment mechanisms that support financial risk protection and other UHC objectives. Initiatives are underway to improve their performance, yet *mutuelles* continue to face obstacles to scale up and become sustainable. • All three major mobile network operators (MNOs) in Madagascar are partnering with insurance companies to launch or expand mobile-enabled insurance products with health benefits. These affordable products show

	promise to provide basic benefits and introduce insurance to people.
Digital health financing	• Only 12 percent of the population has bank accounts, but 29 percent of the population has been formally served by a bank or financial institution, such as a microfinance institution or a mobile money operator. Among urban populations, 54 percent are formally served (26% banked) and among rural populations, 19 percent are formally served (7% banked). • Savings and internal lending communities (SILCs) help more than 25,000 members save, invest, and borrow. SILCs are stepping stones to formal financial inclusion, though there is limited exposure to digital channels. • Fifty-one percent of the population has a mobile phone or SIM card. There are more than five million mobile money subscriptions and more than 1.3 million active mobile money accounts. • Financial and health stakeholders are interested in leveraging mobile money but challenges persist, including resistance among intended clients and operating environment barriers.
Health information systems	• Only 25 percent of private providers routinely report data to the public sector; private facilities that do report data are more likely to submit incomplete data compared to public facilities. • Data collection tools, IT equipment, and supportive supervision are lacking in the private sector, leading to poor reporting. • The MSP, through its *Direction des Systèmes d'Information* (DSI) is planning on rolling out District Health Information Software (DHIS) 2 by the end of 2017 to replace and extend its current system.

Based on the findings, the assessment team identified the following challenges and recommends the following activities by theme.

Table 2. Challenges and recommendations for the private health sector

Theme	Challenge	Recommendation
Service provision in the private sector	• Oversight of quality of private providers lacking • Private for-profit sector not included in current FP total market assessment (TMA); generally private sector role in FP delivery not considered • Lack of coordination between maternal child health (MCH) and nutrition activities • Private facilities, pharmacies, *dépôts*, and distributors are often first line of client contact for malaria but many do not follow *Plan National de Lutte Contre le Paludisme* recommendations • Lack of technical WASH knowledge by private providers	• Establish a Confederation of *Ordres* that brings together doctors, nurses, midwives, and pharmacists to discuss quality protocols and build on synergies among cadres. • Begin public and private sector dialogue to discuss quality protocols, accreditation and supportive supervision; Financial and technical partners could lead coordination efforts between the private sector, donors, and the government. • Include private for-profit stakeholders in FP TMA activities; increase FP service provision in the private sector; include private for-profit providers in public sector FP trainings.

	limits effective engagement • Poor referral systems for community-based *matrones* to refer patients who need more specialized care	• Improve quality of service delivery in the private sector. • Expand dissemination of clinical guidelines; integrate private providers more fully into national malaria programs, and provide more training. • Develop incentives to increase involvement of private sector in WASH activities. • Identify training and referral support for private providers.
Access to essential pharmaceutical and medical commodities	• Lack of information on private sector supply chain patterns • Lack of collaboration between public and private sector supply chain actors	• Conduct a study on current pharmaceutical product demand at the last mile and on private sector wholesalers and distributors. • Identify opportunities for supply chain partnerships.
Policy and partnership landscape for private health sector	• Lack of organization of private health sector actors results in piecemeal interface with MSP • Regulatory barriers for private for-profit health sector; need to ensure private providers are aware of regulations • No health PPP strategy within MSP • Corporate Social Responsibility (CSR) activities are piecemeal, with few outlets for companies and USAID to gather to discuss CSR opportunities	• Involve private sector in policy development and strategic planning process; this involvement could be led by health financial and technical partners. • Support efforts for a private hospital dialogue platform which could be an initial step to establish a larger private health sector forum. • Conduct a legal and regulatory review to identify and potentially streamline legislation for the private sector; disseminate regulations and protocols to private sector. • Direct capacity building for MSP's Direction of PPP to ensure PPP facilitation and management. • Invite USAID to participate in Private Sector Humanitarian Platform.
Human resources for health	• Statistics on private sector providers differ significantly between MSP, *Ordres* and associations • Lack of quality training for certain cadres, especially nurses and midwives	• Conduct a private sector census to develop a complete and accurate baseline of the location and staffing of private health facilities and pharmacies. • Improve oversight of nurse and midwife training facilities to ensure quality through certification or licensing program.

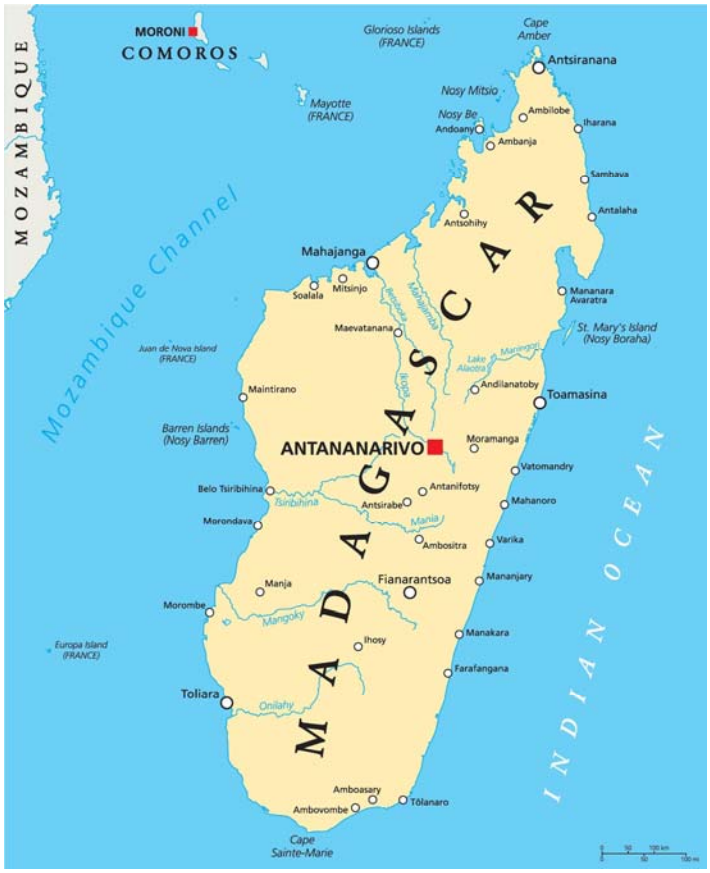
Access to finance	• Few financial institutions active in private health sector due to high cost and lack of competition • Private providers lack financial and business skills necessary to obtain loans and manage their accounts • Private providers have cash flow problems due to delays in insurance and third-party reimbursements	• Provide financial literacy and business management training to private providers. • Provide technical assistance to financial institutions on financing health providers. • Evaluate potential for developing credit process that would reduce costs. • Develop a business case to justify financial institution entrance into the health sector. • Develop tools to mitigate cash flow problems for private providers.
Health financing and universal health coverage (UHC)	• Role of private health sector, particularly the private for-profit sector in UHC not well defined • Demand for insurance is low; low-income clients can't pay and likely have no prior experience with insurance	• Develop and promote partnerships among insurance providers and micro-finance institutions (MFIs), banks, mobile network operators to expand enrollment in health insurance. • Support the creation of a federation of existing health *mutuelles* to improve coordination and dialogue. • Promote dialogue with *Cellule d'appui sur la couverture de la santé universelle* (CA-CSU) on strategy for financing access to care for vulnerable populations. • Support and expand the initiatives underway by *Programme d'Appui Conjoint au Secteur de la Santé* (PACSS) with a focus on inclusion of private health sector.
Digital health financing	• Culture of digital financial inclusion slowed by poverty, low population density, illiteracy, and limited infrastructure; connectivity and mobile coverage unreliable in rural areas • Current mobile money approaches are tentative, fractured, and small-scale	• Create synergies by partnering with MNOs on mobile solutions. • Advocate for the use of mobile money for UHC initiatives. • Promote and digitize SILCs to support both financial and digital literacy and inclusion.
Health information systems	• Private providers lack understanding of data needed for the *Système National d'Information Sanitaire (SNIS)* • No training or tools are provided	• Conduct research on private provider interests, motivation, and capacity to report data into the SNIS. • Develop private provider capacity to

	to support private provider data reporting • No uniform approach to developing health information systems in private sector, and no incentives for private providers to report	report data and participate in the SNIS by establishing a platform for dialogue. • Develop mutually beneficial partnerships with mobile operators to facilitate implementation of DHIS 2.

1. Background

Madagascar, an island nation off the coast of southern Africa, gained independence from France in 1960 and has since experienced a tumultuous political history. A coup in 2009 caused unrest and led many foreign governments to implement sanctions against and suspend foreign aid to Madagascar. Presidential elections in 2013 and local government elections in 2015 fueled political stability, and today, foreign aid has largely resumed. However, natural disasters and cyclical flooding leave large areas of the island inaccessible and cause humanitarian crises among the most vulnerable.

Figure 1. Map of Madagascar



With 24 million people, the population of Madagascar is young (nearly 43% under the age of 15) and poor (78% live at or below the poverty line). Further, the population is urbanizing quickly. While the majority of the country is rural (65%), it has been urbanizing at a rate of 4.6 percent annually over the past 15 years (World Bank 2017). It ranks 158 out of 188 countries on the Human Development Index (United Nations Development Program [UNDP] 2016).

These political, natural, and socio-economic facets of vulnerability contribute to a difficult environment for the delivery of health care.

1.1 Madagascar Health Sector Overview

In recent decades, Madagascar has seen tremendous health achievements. Between 1990 and 2015, the under-5 mortality rate decreased by 69 percent due to gains in fighting infectious diseases and nutritional deficiencies (World Bank 2017, Global Health Action 2014).[1] Life expectancy at birth increased from 54.6 years in 1995 to 65.5 years in 2015, higher than the sub-Saharan Africa (SSA) average of 59 years (World Bank 2017). Rates of chronic respiratory diseases, cancer, and most cardiovascular diseases have declined in the last 15 years, while

[1] Percentage decrease calculated using under-5 mortality rate in 1990 and 2015 (World Bank 2017, Global Health Action 2014).

non-communicable diseases account for 42.7 percent of all deaths (World Bank 2017,HealthGrove 2017).

Despite these gains, stark inequalities in access to health services by geographic area and wealth persists (World Bank 2017). Only 22 percent of the poorest quintile seek care in case of illness (International Monetary Fund 2015). Poor infrastructure in Madagascar isolates some regions. Between 50 to 100 percent of Madagascar's secondary and provincial roads are classified as "in bad condition" (World Bank 2015). Among those who were sick within the two weeks prior to the *Enquête Périodique auprès des Ménages de 2010* (EPM 2010) of *l'Institut National de la Statistique de Madagascar* (INSTAT) survey, only 33 percent sought care at a health facility. Figure 2 shows key health statistics in Madagascar. The status of health indicators by major health category is discussed below.

Figure 2. Key Health Statistics for Madagascar

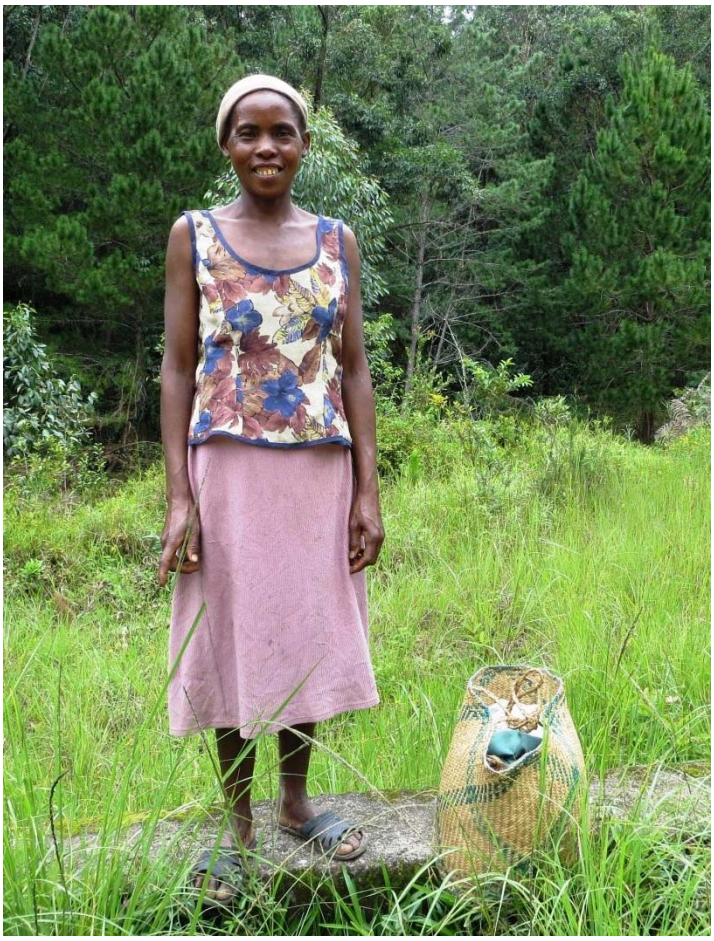
Life expectancy:	**65.5 years**
Contraceptive prevalence:	**40 percent**
Under-five mortality (per 1,000):	**49.6**
HIV/AIDS prevalence:	**0.04 percent**
Population without access to improved sanitation:	**86 percent**

Family Planning (FP): Between 1992 and 2013, the contraceptive prevalence rate increased from 17 to 40 percent, an increase of 135 percent (United Nations 2015). From 1992 to 2015, the fertility rate declined from an average of 6.2 births per woman to 4.2 births per woman, which is slightly below the SSA average (World Bank 2017). However, teen pregnancy rates remain high with approximately one-third of teenage girls either pregnant or already mothers (Radio France Internationale 2016).

Despite overall gains in contraceptive prevalence, regional variations persist from a low of 7.5 percent in Androy to 38.1 percent in Ihorombe (MSP 2016). Almost 24 percent of women have an unmet need for a modern method of contraception (Track20 Project 2016).

Maternal and Child Health (MCH): Though maternal and under-5 mortality have declined in recent years, MCH remains a priority health need in Madagascar. In 2013, the maternal mortality ratio was 478, well above the 2015 Millennium Development Goal (MDG) target of 127 (USAID Madagascar 2014). Post-partum hemorrhage is the leading cause of maternal death (MSP 2016). Only 44 percent of births are attended by skilled personnel, and there is a large urban/rural divide. The United Nations Children's Fund (UNICEF) reports that 82 percent of urban births have a skilled attendant at birth, while only 39 percent of rural births do (United Nations 2015). Prenatal care visits drop sharply after the first visit; a reported 59 percent of pregnant women have first prenatal visits, while 26 percent have four prenatal visits (MSP 2016).

Vaccination rate estimates for diphtheria, tetanus and pertussis ranged from 69 to 85 percent for 2015 (GAVI 2017). In 2014–2015, there was a resurgence of polio. As of 2017, the country was no longer polio-infected but remained at high risk of outbreaks (WHO 2015). Eighteen percent of under-5 mortality is attributable to pneumonia, 10 percent to diarrhea, and 35 percent to nutrition-related factors (USAID Madagascar 2014). Madagascar has one of the highest rates of stunting in Africa at 49 percent of children under 5 (International Food Policy Research Institute 2016). According to a 2015 UNICEF analysis, Madagascar's economy loses approximately $740 million or seven percent of the Gross Domestic Product (GDP) annually due to malnutrition (World Bank 2017). Only seven percent of children under 5 had been seen in local health centers for malnutrition despite one-half of children under 5 suffering from stunting.



Malaria: Malaria was the cause of four percent of under-5 deaths in Madagascar in 2015 (Countdown to 2030 2015). Between 1999 and 2008, morbidity declined from 19 percent to 4.9 percent. On average, 70 percent of rural populations and 68.5 percent of pregnant women use mosquito nets.

Water, Sanitation, and Hygiene (WASH): WASH challenges persist in Madagascar. Diarrheal disease resulting from contaminated water and poor hygiene and sanitation accounts for nine percent of mortality among children under 5. Eighty-eight percent of the population has no access to improved sanitation, and 48 percent has no access to improved water sources. Approximately 8.3 million people (39% of the population) defecate in open areas (Countdown to 2030 2015).

HIV/AIDS: Madagascar has one of the lowest HIV prevalence rates in SSA, at 0.4 percent for adults aged 15 to 49 (UNAIDS 2015). However, only 23 percent of women and 26 percent of men between 15 and 49 have what is considered "complete" knowledge of HIV/AIDS transmission and prevention (PNUD 2014), putting some people at risk. The know-do gap is even higher among youth. Recent studies show many youth are unable to correctly identify the two major ways of preventing sexual transmission of HIV. A recent study found that only five percent of girls and 12 percent of boys aged 15 to 24 years who were sexually active used a condom during their last sexual encounter (UNICEF Madagascar 2017).

1.2 Government Health Strategy in Madagascar

The Madagascar *Ministère de la Santé Publique* (MSP) has taken proactive steps to improve health outcomes. The MSP developed a *Plan de développement du secteur santé* (PDSS) for 2015 to 2019 with a vision that "the entire population of Madagascar will be healthy, in a clean environment, living a better, productive life in 2030."

The PDSS recognizes the health gains made in Madagascar but also emphasizes what remains to be done, particularly in MCH, youth, and adolescent health (i.e., teen pregnancy rates and sexually transmitted infections including HIV), communicable diseases, and non-communicable diseases. The PDSS highlights six key priorities for the coming years:

1. Improving the provision of quality integrated care and services at all levels
2. Stimulating demand for better use of health services at all levels
3. Strengthening the organization and management of the health system
4. Improving maternal and child health
5. Strengthening the fight against diseases
6. Promoting healthy behaviors and protecting health

GOM Key Health Strategies

- **MCH:** Feuille de Route pour l'Accélération de la Réduction de la Mortalité Maternelle et Néonatale à Madagascar 2015-2019
- **HIV:** Plan Stratégique National de Réponse aux Infections Sexuellement Transmissibles et au Sida à Madagascar 2013-2017
- **Malaria:** Plan Stratégique de Lutte contre le Paludisme à Madagascar 2018-2022
- **Mobile Health:** Stratégie Nationale en Cybersanté 2016-2019
- **Nutrition:** Plan National d'Action Pour la Nutrition
- **Service Providers:** Plan Stratégique des Centres Hospitaliers et des Etablissements Universitaires de Soins à Antananarivo 2012-2016
- **UHC:** Politique Nationale de Protection Sociale and Stratégie Nationale sur la Couverture Santé Universelle
- **Tuberculosis:** Plan Stratégique National de Lutte contre la Tuberculose à Madagascar 2012-2016

The Government of Madagascar (GOM) has made several other health commitments. As an FP2020 focus country, the GOM has resolved to increase the contraception prevalence rate to 50 percent and reduce the percent of unmet need for a modern method of contraception to nine percent (FP2020 2017).

1.3 United States Government Strategy in Madagascar

In the wake of the 2009 political crisis in Madagascar, the United States government restricted assistance to the GOM. Following the relatively peaceful Malagasy 2013 elections, the United States government lifted these restrictions in May 2014, and the United USAID resumed work with the MSP. USAID has been a major donor to Madagascar, and health has consistently been one of its biggest priorities, with an emphasis on malaria, MCH, and FP (ForeignAssistance.gov 2017). Currently, USAID does not have a Country Development Cooperation Strategy for Madagascar. The United States government has also responded to GOM health priorities through the President's Malaria Initiative (PMI), Ending Preventable Child and Maternal Deaths

(EPCMD) activities, and its Water and Development Strategy. Additionally, the United States government contributes funding to humanitarian, economic, environmental, and educational assistance in Madagascar.

1.3.1 SHOPS Plus in Madagascar

The Sustaining Health Outcomes through the Private Sector (SHOPS) Plus project is USAID's $150 million five-year flagship initiative in private sector health, awarded to Abt Associates and partners[2] in September 2015. Building on the success of the Strengthening Health Outcomes through the Private Sector (SHOPS) project, SHOPS Plus strategically engages the private sector to improve health outcomes in FP, HIV/AIDS, MCH, and other health areas. SHOPS Plus supports the achievement of United States government priorities in ending preventable child and maternal deaths, creating an AIDS-free generation, and FP2020. By increasing the participation and effectiveness of the private health sector, SHOPS Plus helps improve equity and quality in the total health system.

SHOPS Plus supports the goals of USAID Madagascar and the GOM to increase access to and use of priority health products through the strategic expansion of private sector approaches in the health system. This strategic objective is supported by the following intermediate results:

- IR1: Use and range of health services increased and sustainability of private health providers improved through enhanced business capacity and access to finance
- IR2: Increased, effective, public-private engagement to improve public health outcomes
- IR3: Strengthened supply of private sector health information, products and services

1.4 Purpose and Scope of the Private Sector Assessment

In October of 2016, USAID Madagascar requested support from SHOPS Plus to conduct a private sector assessment (PSA) to identify opportunities to expand private sector investment and participation in health. The objective of the PSA is to estimate the size, scope, and scale of the private health sector, with an emphasis on key stakeholders and their roles. The PSA examines the ecosystem for digital financial services in the health sector, in particular mobile money, and explores opportunities for improved digital financial inclusion, especially through mobile-enabled insurance.

1.5 Overview of Report

This assessment is divided into 13 sections, covering a range of technical areas. Section 2 presents the methodology used for the PSA. Section 3 provides an overview of the private health sector including trends in private sector provision, size of the private sector, and key stakeholders. Section 4 focuses on service provision in the private sector by key health area, including FP, MCH, malaria, WASH, and HIV/AIDS. In Section 5, we discuss access to essential pharmaceutical and medical products in the private sector and through private sector supply chain actors. Section 6 discusses the policy landscape for the private health sector and

[2] American College of Nurse-Midwives, Avenir Health, Broad Branch Associates, Banyan Global, Iris Group, Population Services International, William Davidson Institute at the University of Michigan, and Insight Health Advisors.

examines opportunities for public private partnerships. In Section 7, we look at private sector human resources for health. Section 8 examines the financial industry in Madagascar and what this means for private health sector access to finance. We also present a discussion of opportunities to grow health enterprises and innovation. Section 9 looks at how the private sector is supporting the goal of UHC through various health financing efforts. Section 10 explores digital finance, especially the landscape of mobile money in Madagascar. Section 11 presents the private sector's role in health information systems. Section 12 outlines challenges and recommendations for all technical areas, and Section 13 provides our conclusion.

2. Methodology

2.1 Key Concepts and Terms

This section offers definitions of three concepts used throughout the report.

Private Health Sector: The private health sector in Madagascar is diverse, comprised of for-profit commercial entities, as well as nonprofit organizations, such as non-governmental organizations (NGOs) and faith-based organizations (FBOs) that provide health services, products, and information, particularly for underserved populations. Ancillary services—private laboratories and diagnostic services, as well as private sector pharmaceutical supply chain actors—support these health care providers.

Public-Private Partnership (PPP): A PPP in health is any formal collaboration between the public sector (national and local governments, international donor agencies, bilateral government donors) and the nonpublic sector (for-profit and nonprofit) partnered to jointly regulate, finance, or implement the delivery of health services, products, equipment, research, communications, or education (Barnes 2011).

Key Health Stakeholders: A key health stakeholder is an individual or group who can affect or is affected by an organization, strategy, or policy in health. Below is a list of key stakeholder groups interviewed as part of the PSA. Annex A provides a list of stakeholders that the SHOPS Plus PSA team interviewed.

Table 3. Key Stakeholders Interviewed for Madagascar PSA

For-Profit Private Sector	Nonprofit Private Sector	Public Sector	Development Partners
• Health care providers • Pharmaceutical distributors • Health insurance companies/*mutuelles* • Telecoms • Financial institutions	• NGOs engaged in health care delivery • FBOs • Health professional associations	• Ministries of Health and Water • National statistics institute • Economic development board • National committees	• International donors • Multilateral organizations • Implementing partners

2.2 Steps in the PSA

The SHOPS Plus approach to the Madagascar PSA is based on the collective experience of conducting more than 25 assessments over the past 10 years. The assessment in Madagascar consisted of five steps: plan, learn, analyze, share, and act (SHOPS 2014).

Step One: Plan

In preparation for the PSA, the SHOPS Plus PSA team worked with USAID Madagascar to finalize the scope of the assessment, identify key questions, and confirm the schedule and timeframe. The goal of the PSA is to provide:

- An estimate of the size, scope and scale of the private health sector, with an emphasis on key stakeholders and their roles
- An overview of the types of health services and products offered by the private sector
- An overview of policies and factors that inhibit or enable private sector participation in the health system
- An estimate of digital financial services and financial inclusion in Madagascar, with an emphasis on mobile money, barriers and opportunities for growth, and key stakeholders and their roles
- A review of mobile-enabled insurance activities and opportunities

Step Two: Learn

In preparation for fieldwork, the SHOPS Plus PSA team conducted a comprehensive desk review to understand the regulatory, governmental, social, and economic landscape of Madagascar as it relates to the private health sector. Priority areas included:

- Health context using the most recent data from Demographic and Health Surveys (DHS) and national health accounts, as well as data from USAID and other donors, foundations, World Bank, World Health Organization (WHO), United Nations Population Fund/United Nations Development Program (UNFPA/UNDP), and others
- Policy and regulatory environment for private sector participation in the health sector
- Digital finance ecosystem, including an overview of key stakeholders and statistics on mobile penetration, use of mobile money, digital financial inclusion and policy and regulatory environment for telecommunication and financial sectors

Following the desk review, two local consultants with expertise in private sector health and digital finance were engaged to identify stakeholders, coordinate informational meetings, and support the SHOPS Plus PSA team throughout the assessment. In April of 2017, the SHOPS Plus PSA team—composed of a health specialist, health financing specialist, and private sector specialist—traveled to Madagascar to meet with representatives from stakeholder groups, including private health sector, telecommunications, donors, implementing partners, government, and financial services (insurance and mutuelles). The list of stakeholder meetings is found in Annex A.

Step Three: Analyze

Analysis began during the stakeholder interviews and continued as the SHOPS PLUS PSA team wrote the assessment. For the final report, the team compiled meeting notes and other quantitative and qualitative data and reviewed them during a series of collaborative debriefs, following up on outstanding questions and clarifications via phone and by email. The team reached key conclusions and recommendations through discussion.

Steps Four and Five: Share & Act

The assessment team produced this report, which offers insights, describes challenges, and highlights opportunities for private sector participation and digital finance in Madagascar. USAID, implementing partners, and MSP may use the report findings and recommendations to build strategic partnerships with the private sector to support USAID health goals.

3. The Private Health Sector in Madagascar

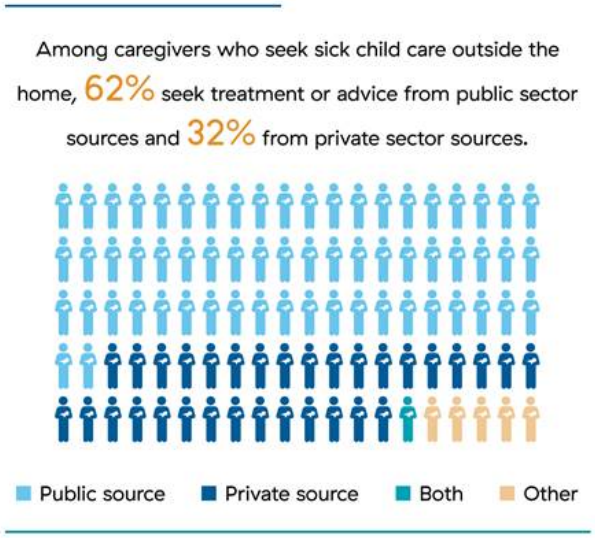
3.1 Overview

3.1.1 The Business Case for Engaging with the Private Sector in Madagascar

There is growing agreement in the international community that achieving the Sustainable Development Goals requires governments and donors to actively engage with the private health sector.[3] However, many governments have had limited engagement with the private health sector due to a lack of information and communication. In some countries, there is suspicion between the two sectors and the feeling that provision of health care is exclusively the public sector's role. Are there compelling reasons for the MSP to work with the private health sector in Madagascar? The rationale for engagement and greater stewardship of the private health sector in Madagascar includes:

- **The private health sector already plays an important role in health service provision in Madagascar.** The government estimates private sector providers (nonprofit and for-profit) account for one-third of service provision in the country. According to a 2005 World Bank study, many people in Madagascar prefer private providers due to a perception of superior service, including shorter wait times, higher clinical quality and greater confidentiality (World Bank 2005). Figure 3 shows that 32 percent of caregivers with a sick child seek care from private sector sources (Bradley 2017).
- **The private sector is used by both wealthy and poor populations.** Based on DHS and GOM statistics, poor and vulnerable populations that donors and the MSP most want to reach also seek care in the private health sector (DHS 2008-2009, MSP 2014).

Figure 3. Care-Seeking for Out-of-Home Treatment by Source for Children Sick with Diarrhea, Fever, and/or ARI Symptoms, 2008-09



Source: Bradley, 2017

[3] See, for example, the series of technical reports produced by Results for Development through Rockefeller Foundation funding entitled "The Role of the Private Sector in Health Systems" at http://www.r4d.org/focus-areas/role-private-sector-health-systems.

- **Progress toward UHC can be accelerated by the private sector.** Integrating the private health sector in initiatives that aim to achieve universal health coverage (UHC) ensures clients have access to a greater number of providers, including those they prefer, and the country deploys resources from the total health system.
- **The private sector is concerned with more than just profitability.** Contrary to popular opinion, private facilities do not always charge patients for care, thus expanding access to care to those unable to pay. Forty-six percent of private facilities surveyed in 2017 indicate they do not charge some patients (World Bank 2017). The SHOPS Plus PSA team confirmed this finding anecdotally in field interviews with private providers.

- **Engaging with the private sector can help improve service delivery quality.** Greater stewardship of the private health sector can improve quality and efficiency of service delivery. A more collaborative approach between the MSP and the private sector can enable the MSP to collect better data about the private sector, leading to a more accurate understanding of trends and challenges in the health system.
- **Partnerships with the private sector can improve utilization of health services.** A 2013 study of 27 low- and middle-income countries on the effectiveness of public-private partnerships for maternal and newborn health provides encouraging and significant evidence of the overall impact on increasing the use of maternal health services (Shehla Zaidi 2013).

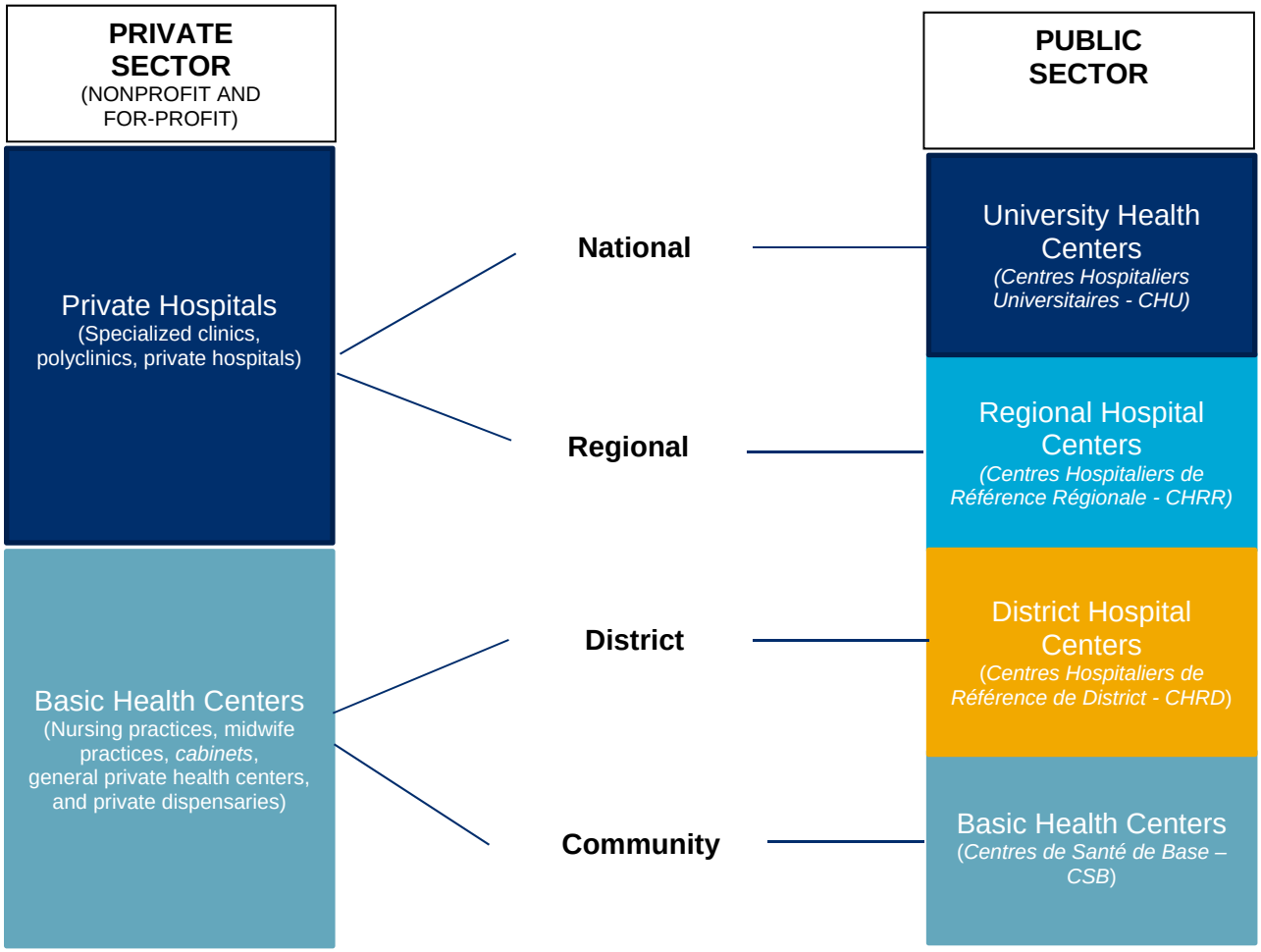
This report will further illustrate the importance of the private health sector in Madagascar's health system.

3.2 The Private Health Sector's Role in Madagascar

3.2.1 Overview of Madagascar's Health System

The health system in Madagascar is tiered, with public and private sector actors operating at the national, regional, district, and community levels. While the structures of the public and private sectors echo each other, they do not precisely correspond. This is largely because the structure of the private health sector is less clearly defined than the public sector. Figure 4 shows the tiers of the health system and how the public and private sector actors correspond with each other.

Figure 4. Structure of the Madagascar Health System as Defined in the *Code de Santé*



At the national level, the MSP coordinates and oversees public health services, human resources for health, the regulatory environment, quality assurance, and the health information system. At the regional level, the *Direction Regionale de Santé Publique* (DRSP) plans, implements, monitors, and evaluates health programs. This is also where the public regional and university referral hospitals are, or *Centre Hospitalier Universitaire (CHU)* and *Centre Hospitalier de Référence Régionale* (CHRR), respectively.

At the district level, the *Service de District de la Santé Publique* coordinates and supports public primary health care facilities. Community health agents and *Centres de Santé de Base* (CSB) provide basic health care and referrals for health services at the community level. There are also public first-level referral hospitals or *Centre Hospitalier de Référence de District* (CHRD) at the district level, as well as private and public health specialists including anesthesiologists, dentists, laboratory technicians, physical therapists, etc.

Primary care facilities or *Centres de Santé de Base* (CSB) are facilities which provide basic health care services including consultations, preventative activities (e.g., prenatal care),

vaccinations, FP, deliveries, and communication activities. CSB are classified as CSB I, staffed by nurses or midwives and CSB II, staffed by doctors. Within the public sector, there are pharmacies which operate within health facilities.

While the *Code de la santé* outlines four levels for the public health system (CSBs, CHRDs, CHRRs, and CHUs), it only outlines two levels for the private health system. The first level is private hospital facilities, which includes clinics, polyclinics, and private hospitals. According to the health code, clinics are defined as establishments where only one medical specialty is practiced. Polyclinics and private hospitals are facilities where multiple medical specialties are practiced. This categorization is divided into for profit and nonprofit private hospital facilities.

The second level of private health facilities are the primary health facilities or *formations sanitaires privées de base* (FSP), defined by the code as health posts (including nurse and childbirth posts), cabinets, private dispensaries, and private health centers. Cabinets and centers may provide a range of services (see text box). FSPs correspond roughly with the level of services provided by public sector CSB, but they do not precisely align. The private sector also operates pharmacies and *dépôts* at the community level.

Definitions of Different Types of FSP

(MSP Arrete Nº 37308 / 2014-MSANO)

- *Cabinets d'infirmier ou de soins*: Structure run by a paramedical professionals, providing paramedical care and medical prescriptions
- *Cabinet d'accouchement* : Structure run by a licensed midwife, providing pre- and post-natal consultations and uncomplicated deliveries
- *Cabinet médical* : Structure run by a licensed doctor providing medicine on an independent or private basis
- *Cabinet dentaire*: Structure run by a licensed surgeon-dentist who provides oral care
- *Cabinet médical de group*: Structure run by two or more doctors, subject to a contract of association
- *Dispensaire*: Establishment which provides preventative and curative care, and may offer hospitalization and medicines
- *Centre médical* : Structure with health care providers (may include a dental unit) providing paraclinical examination, as well as ECG, ultrasound, X-ray, laboratory and pharmacy services, and observation beds
- *Centre d'investigation médicale*: Structure providing biomedical analysis services, medical imagining, and functional exploration services
- *Centre de récupération nutritionnelle* : Structure accompanying pediatric services providing rehabilitative services for malnourished children
- *Centre de protection maternelle et infantile*: Structure providing maternal, child, and nutritional health services
- *Magasin d'optique* : Structure run by an optician
- *Centre d'analyse biomédicale*: Structure providing biological and medical analysis

Field research by the PSA team found that although definitions of different types of facilities exist, in reality the classifications are often blurred, which further complicates comparisons within and across the public and private sector system.

There are also health agents who operate outside of formal structures. They include community health agents organized by the public sector and those affiliated with NGOs and FBOs who provide basic health services and products, as well as health education and traditional practitioners who operate at the community level.

3.3 Number and Geographic Distribution of Private Health Sector Facilities in Madagascar

3.3.1 Private Sector Health Service Facilities

Exact statistics vary, but according to the MSP and professional association statistics, the private sector appears to comprise approximately one-fifth of the primary care facilities in Madagascar and approximately one-half of first-level referral hospitals.

Due to the political crisis in 2009, the number of functioning health facilities in Madagascar decreased, particularly in rural areas, as many had to close due to lack of funding and/or staff.[4] By 2011, UNICEF estimated that 214 CSBs had closed, and the World Bank reported that as many as 856 CSBs closed by 2013 (World Bank, 2017).

The number of private health facilities is difficult to verify or compare with public sector statistics. Different departments within the MSP use different names for types of facilities. The MSP's annual report (*Annuaire des Statistiques*) gives figures on public and private CSB I, CSB II, and CHRD. In contrast, the *Service de la Médecine Libérale et des Dispensaires Privés* (SMLDP) lists cabinets and FSP data in statistics obtained by the PSA team for 2017. The number of private facilities varies widely within the MSP. The SMLDP report in 2017 is more than 200 facilities greater than the 2016 private CSB data from the *Direction des Études et de la Planification* (DEP). Data from the *Service des Hôpitaux Privés de la Direction des Hôpitaux de Référence Régionale et de District* (DHRD/SHP) also reflects higher numbers of private hospitals than the DEP data shows. Table 4 below shows the variation in figures across sources and years.

[4] 'Functioning' denotes both staffed and open regular hours

Table 4. Total Number of Primary Private Facilities from 2014-2017 as Reported by the DEP and SMLDP[5]

Year	DEP				DHRD/ SHP	SMLDP				
	CHD	CSB I	CSBI I	Total CSB	Total private hospit-als	Total CSB	Cabinets Medicaux	Cabinets Dentaires	Cabinet d'Infirm erie	Cabinet d'Accou-chement
2014	67	120	500	620	93					
2015	71	102	452	554	105					
2016	70	110	492	602	115	789	448	135		
2017					121	825	469	138	10	17

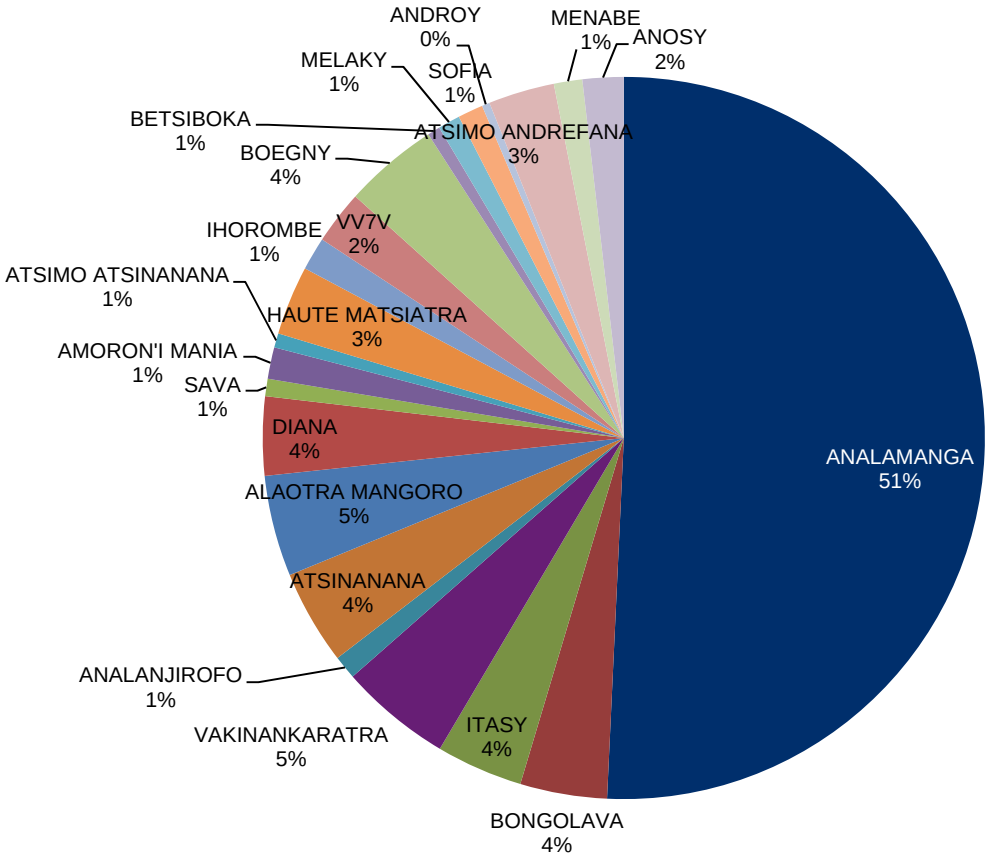
For the purposes of comparing the public and private sectors, we look to data from the MSP's 2015 annual report, which reported 160 CHRDs and 3,200 CSBs. Of these, 71 CHRD were private sector or 44 percent. Seventeen percent of CSB were private sector (554 of 3,214). In the annual report, CSB I and CSB II are not clearly defined, which makes it difficult to compare with statistics from other government agencies.

SMLDP data from 2017 provides another breakdown of private health facilities. It shows 223 more CSBs than the total reported by the 2015 annual report data. This data gives the breakdown of five types of FSP—*centres de santé de base cabinet medical, cabinet dentaire, cabinet infirmerie*, and *cabinet accouchement* (Table 4).

Unsurprisingly, FSPs are mostly located in urban areas. Figure 5 shows that 51 percent of FSP are in the Analamanga region, which includes Antananarivo.

[5] 2014 & 2015 DEP data is from *Annuaire des Statistiques*, 2016 DEP is from spreadsheet shared with PSA team by DEP, all DHRD/SHP data was shared with PSA team in digital correspondence, 2016 and 2017 SMLDP data is from spreadsheets shared with PSA team

Figure 5. Geographic Distribution of Private Sector Facilities by Region, 2017



Source: SMLDP 2017

3.3.2 NGO and FBO Networks

NGO and FBO networks/franchises are important private providers of health services in Madagascar. International Planned Parenthood Federation's *Fianakavian Sambatra*, Population Services International's Top Réseau and Marie Stopes International's BlueStar/CSBStar are the main franchise networks. These networks accounted for 488 health centers and 703,433 client visits in 2015 (Viswanathan et al 2016). The Catholic Church is the largest FBO stakeholder. The Protestant and Lutheran Churches also play important roles. The PDSS 2015–2019 reported 143 CSBs operated by the Catholic Church and 32 operated by the Protestant Church (MSP 2016).

3.3.3 Services Médicaux du Travail

Since 2003, employer-based health insurance programs or *Services Médicaux du Travail* (SMT) have been mandated by law for the formal private sector and are mainly delivered through

*Services Médicaux Inter-Entreprises (*SMIE).[6] There are 23 SMIEs in 17 regions. Minimum contributions are set by the government of Madagascar at six percent of participant wages with five percent paid by employers and one percent paid by employees.

Services provided through SMT include medical visits, preventive medicine and screening, and treatment for workers and their families when they are sick (Ministère du Travail et des Lois Sociales 2003). The *Organisation Sanitaire Tananarivienne Inter-Entreprises* (OSTIE), *Association Médicale Interentreprises de Tananarivo* (AMIT), and the Funds Health Center Association (FUNHECE) are the largest SMIE in Antananarivo (FUNHECE 2017, AMIT 2017, OSTIE 2017).

3.3.4 Pharmacies, *Dépôts*, and Laboratories

There are 221 private pharmacies in Madagascar, and 102 of these are in the city of Antananarivo (DPLMT 2017). Though pharmacies exist in every region in Madagascar, they are concentrated in certain districts. Only 28 percent of Madagascar's 114 health districts have pharmacies (32 districts total), and most are located in or around urban areas (Agence de Medicament 2017). There are 1,641 *dépôts* throughout Madagascar, with the greatest concentrations in Analamanga (161), Sophia (131), and Vakinankaratra (124) (DPLMT 2017). Due to the dearth of pharmacies, *dépôts* were created in 2013 to increase access to medicines for communities with limited access to pharmacy services. They are managed by non-health professionals who received training and are overseen by the district health manager (*Chef de service de district*). D*épôts* sell 54 approved medications, must be located at least 10 kilometers from a pharmacy, with a limit of three *dépôts* per community of 25,000 or more inhabitants (Sandid 2011).

According to statistics from the GOM, there are 114 laboratories in Madagascar; 44 are private (39%) and 70 are public (61%). Of the private laboratories, almost one-half (20) are located in Analamanga (DPLMT 2017).

3.3.5 Government Stakeholders

An array of government stakeholders interact with the private health sector. Separate government agencies regulate pharmacies and *dépôts*, clinic openings, licensing, health reporting, UHC strategy, cyber health, and contracts and partnerships. Table 5 lists the main public sector actors that interface with the private sector.

[6] SMT in some instances are provided through *Services Médicaux Autonomes d'Entreprise* (SMAE) for companies located beyond the sphere of action of SMIE.

Table 5: Government Stakeholders Involved with the Private Health Sector

Public Sector Stakeholder	Role with Private Sector
Agence du Médicament de Madagascar (AgMed)	Administers drug registration and delivery of drug authorizations for entry into the Malagasy market as well as drug quality control; conducts pharmacy and *dépôt* inspections
Agence Nationale Hospitalière (ANH)	Leads hospital reform efforts, provides technical inputs for laws and regulations impacting hospitals, overseeing accreditation[7], sets standards for hospital personnel, and leads research, monitoring, and evaluation of hospital performance
Cellule d'Appui à la mise en œuvre de la Couverture Santé Universelle (CA-CSU)	Coordinates implementation of UHC strategy in collaboration with the *Comité de pilotage de la SN-CSU*
Direction des Études et de la Planification (DEP)	Manages National Health Information System in collaboration with the *Direction du Système d'Information* (DSI); responsible for health statistics and health planning
Direction des Districts Sanitaires (DDS)–*Service de la Médecine Libérale et des Dispensaires Privés* (SMLDP)	Oversees private facilities and private provider standards; authorizes opening and closing as well as enforces standards for lower-level private sector facilities (e.g. CSBs, clinics, doctor's offices)
Direction des Hôpitaux de Référence Régionale et de District (DHRD) - *Service des Hôpitaux privés* (SHP)	Guides technical supervision of private hospitals as well as providing authorization to open a private hospital establishment. Also oversees additional regulations for NGO, faith-based, or association-managed private hospitals
Direction de la Pharmacie, des Laboratoires et de la Médecine Traditionnelle (DPLMT)	Oversees district wholesale pharmacies, authorizes sale of medicines to *dépôts*, manages *dépôts*, laboratories, and traditional practitioners, and restricts illegal pharmaceutical sales
Direction de Lutte contre les IST/SIDA (DLI/SIDA)	Collaborates with the private sector in the organization, monitoring, and evaluation of HIV/AIDS campaigns and the development of partnerships for counseling, testing, diagnosis, care and treatment of STI and people with HIV

[7] The SHOPS Plus PSA team found that there is some confusion regarding the separation of roles and responsibilities of the ANH and DHRD-SHP, particularly pertaining to the opening of hospitals. In some cases the roles may not be well defined.

Direction de Lutte contre les Maladies Non Transmissibles (DLMNT)	Coordinates with the private sector in the implementation of activities related to non-communicable diseases
Direction de Lutte contre le Paludisme (DLP)	Provides training to private providers including FBOs, NGOs and worksite doctors on malaria treatment
Direction de la Lutte contre la Tuberculose (DLT)	Collaborates with the private sector in the organization, monitoring, and evaluation of tuberculosis campaigns (promotion, prevention, care)
*Direction du Partenariat (*DP)	Manages relationships with donors as well as contracts and partnerships with private sector
Direction de la Promotion de la Santé (DPS)	Coordinates activities related to the creation of a supportive health environment (e.g., policy and communications development to support behavior change)
Directions Régionales de la Santé Publique (DRSP)	Develops the regional health plan in collaboration with the private sector and coordinates health district activities
Direction de la Santé Familiale (DSF)	Provides training to private providers to improve maternal and child health related services (e.g., prenatal care, family planning, vaccination)
Direction du Système d'Information (DSI)	Manages cyber health initiatives (e.g., *Réseau National Numerique de la Santé*, norms and interoperability) and the SNIS in collaboration with DEP
Direction de la Sécurité et la Santé au Travail (DSST) - *Ministère de la Fonction Publique et des Lois Sociales*	Manages the mandatory worksite health insurance programs (*Services Médicaux au Travail*)
Direction de la Veille Sanitaire et de la Surveillance Epidémiologique (DVSSE)	Collaborates with the private sector to strengthen epidemiological vigilance and respond to health challenges and emerging risks at the national and international level
Service de la Législation, de la Réglementation et du Contentieux (SLRC)	Oversees all legal aspects for the public and private health sectors including contracts, regulation, and legislation

3.3.6 Private Health Sector Organizations

Multiple organizations interface with and organize the private health sector including associations, O*rdres* and *syndicats* for different cadres of providers. Most of these organizations are a mix of public and private sector actors. The table below lists key organizational bodies involved with private sector stakeholders in Madagascar.

Table 6. Private Health Sector Organizations

Stakeholders	Role
Association des médecins de campagne de Madagascar (AMC-MAD)	Association of doctors working in rural areas. Provides training and information sharing services
Association Nationale des Sages-Femmes (ANSF)	Promotes health and builds capacity of members through training. Membership is voluntary. Approximately 800 members from public and private sectors
Association Nationale des Tradipracticiens Malgaches (ANTM)	Umbrella organization of 14 associations of traditional practitioners in Madagascar. Approximately 3,800 members
Comité des Entreprises d'Assurance de Madagascar (CEAM)	Advocates for insurance companies, supports development and execution of policies, and monitors compliance
Ordres (e.g., Ordre des Médecins, Ordre des Sages-femmes, Ordre des Pharmaciens, Ordre des Infirmiers)	Each medical cadre has a mandatory *Ordre*, which plays an important oversight role and advocates for members
Syndicat des Paramedicaux	Advocates for rights of nurses and midwives and builds capacity of members through training

4. Service Provision in the Private Health Sector

This section examines health service provision in the private sector, including for FP, MCH, malaria, WASH, nutrition and HIV/AIDS. Information regarding products related to these health areas can be found in Section 5 of this report.

The World Bank's 2016 Service Delivery Indicator (SDI) survey of public and private CSB I, CSB II, and CHRD for Madagascar, confirmed in interviews with key stakeholders during the May 2017 PSA field visit, reveal the following differences among public and private facilities:

- **Hours and caseload**: While public and private facilities are open for nearly the same number of hours, private sector facilities average at least twice as many patient visits per day as public sector facilities.
- **Infrastructure and equipment**: Private sector facilities have better basic infrastructure (access to running water, toilets, electricity) and means of communication (access to telephone, computer, and Internet) than public sector facilities. Even still, this infrastructure is not always available in rural areas.
- **Quality of services**: Diagnostic accuracy and adherence to clinical guidelines are low across both sectors, though slightly higher in the private sector than the public sector (32% versus 29%, respectively).
- **Affordability of services**: The price of services in the private sector varies greatly by type of facility. The SHOPS Plus PSA team sampled 10 clinics of various sizes in different areas of Antananarivo.[8] The team found that general consultation rates were about 3,000 Ariary in FBO facilities, between 5,000–10,000 Ariary in NGO network facilities, and between 7,000–15,000 Ariary in private for-profit facilities. The rates for specialist consultations and deliveries were higher in private for-profit facilities than in NGO network facilities. Specialist consultations ranged from 5,000–20,000 Ariary for NGO facilities and 20,000–50,000 Ariary in for-profit facilities. Prices for a normal delivery varied widely in for-profit facilities, from 100,000 to 1,000,000 Ariary. Stakeholders noted that services from traditional practitioners tend to be the least expensive option.
- **User fees**: While the private sector is often assumed to be more focused on profit than serving the poor and other vulnerable groups, the World Bank SDI survey found private facilities exempt fees for children under five, the elderly, and the very poor, as shown in Table 7.

Table 7. Percent of Facilities that Exempt User Fees for Specific Groups, 2016

User Group	% of Public Facilities	% of Private Facilities
Children under 5	26.1	11.3
Elderly	29.7	18.2
Very poor	77.7	52.7

Source: Africa Health Service Delivery in Madagascar: Results of 2016 Service Delivery Indicator Survey

[8] Pricing based on sample survey of 10 clinics of varying sizes in different areas of Antananarivo. Some private for profit facilities charge more for foreigners than nationals.

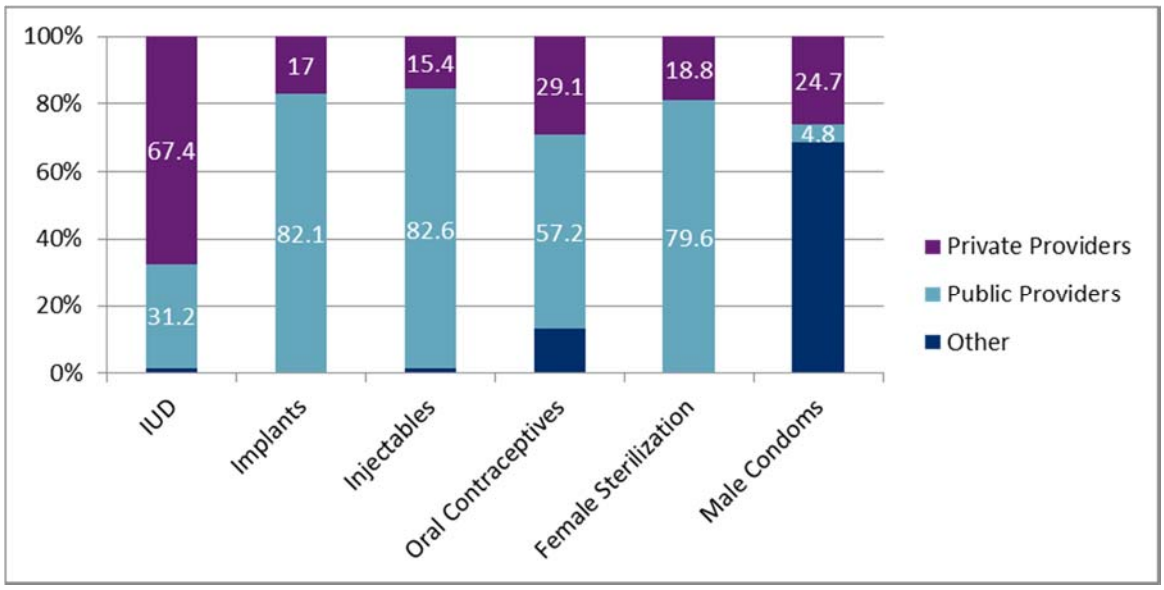
4.1 Private Sector Service Delivery by Health Area

This section provides a summary of the private sector's role in service delivery for FP, malaria, MCH, WASH, and HIV.

4.1.1 Family Planning

The 2008–2009 Madagascar DHS shows that the private sector is an important source for all modern family planning methods. The public sector is the primary source for contraceptive pills, injectables, and implants for women ages 15–49, as shown in Figure 6. The private sector is a dominant supplier for oral contraceptives, IUDs, and male condoms (DHS 2008–2009).

Figure 6. Source of Procurement of Modern FP Methods for Women Aged 15-49, 2008-2009



Source: Adapted from "Madagascar DHS, 2008-09 - Final Report (French)"

Social franchises are particularly important in the delivery of long-acting reversible contraceptives (LARCs). In 2015 Marie Stopes Madagascar provided 84 percent of LARCs and permanent methods in the country. For-profit private practitioners are largely absent from FP service provision, especially for LARCs (UNFPA 2017).

4.1.2 Maternal and Child Health

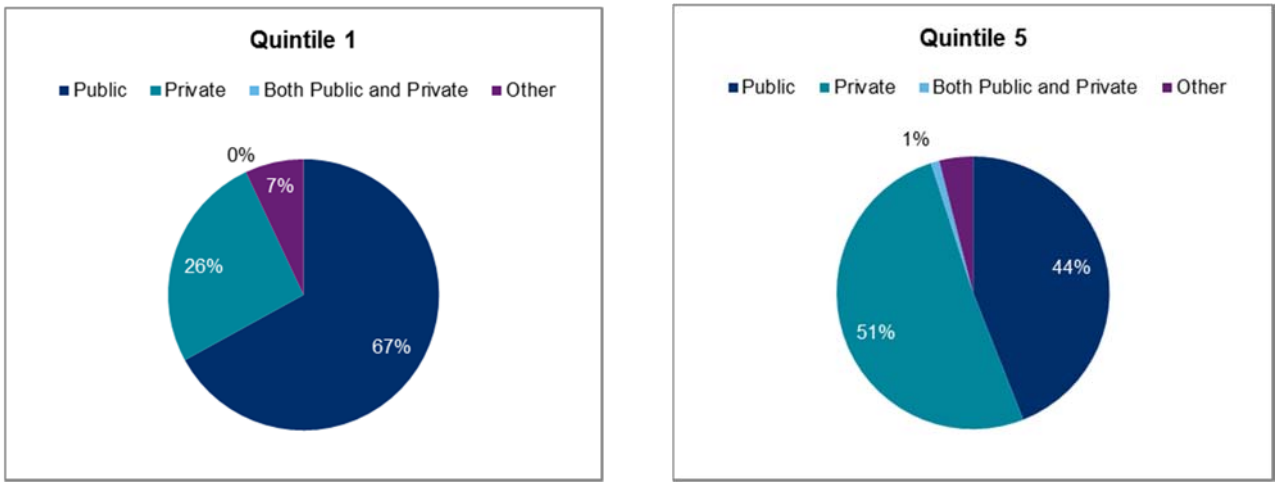
According to the 2008-2009 DHS, nearly 64 percent of women gave birth at home. Thirty-three percent of women gave birth in a public sector facility, and only three percent of women gave birth in a private sector facility (DHS 2008-2009). The private sector is most commonly used for delivery among wealthier, more educated women who live in the capital. Sixteen percent of Malagasy children under five experienced one or more of the following illnesses: fever (9%), acute respiratory infections (ARI) (3%), and/or diarrhea (8%) in the two weeks prior to the survey (Bradley 2017).

When children fall ill, less than one-half of caregivers in Madagascar (44%) seek advice or treatment outside of the home, much lower than the average rate (64%) across East and South African USAID maternal and child survival priority countries. Among caregivers who seek treatment or advice outside of their homes, 62 percent use public sector sources, and 32 percent use private sector sources. Figure 7 shows that caregivers from the wealthiest quintile of the Malagasy population are much more likely to seek care from a private sector source than those from the poorest quintile (51% versus 26%, respectively) (Bradley 2017).

Matrones

Matrones (traditional birth attendants) are a primary point of contact for many people in Madagascar, especially those in rural areas. The SHOPS Plus PSA team found that doctors, nurses, and midwives were concerned that *matrones* may be delivering services that they aren't qualified to provide. Due to the financial burden associated with referrals, many women prefer to seek care from *matrones.*

Figure 7. Care-Seeking for Out-of-Home Treatment by Source for Children Sick with Diarrhea, Fever, and/or ARI Symptoms by Wealth Quintile, 2008-2009



Source: Bradley 2017

Research conducted by the USAID-funded Social Marketing Plus for Diarrheal Disease Control: Point-of-Use Water Disinfection and Zinc Treatment project in 2010 found that private sector actors were an important source of advice or treatment outside of the home for pediatric diarrhea. Seventeen percent of caregivers visited a private provider, 14 percent visited a private pharmacy, dispensary, or *dépôt* for care, while 34 percent visited a public sector CSB, and 23 percent went to friends, neighbors, or relatives (POUZN 2010). People were more likely to obtain zinc from the public sector than the private sector (69% versus 31%), likely because zinc is free from the public sector. This survey found that caregivers were equally likely to obtain antibiotics for diarrhea from public and private providers, but were more likely to obtain anti-diarrheal medications from private pharmacies or providers.

No comprehensive information is available on the private sector's role in the provision of vaccinations, micronutrients, or polio or malnutrition services.

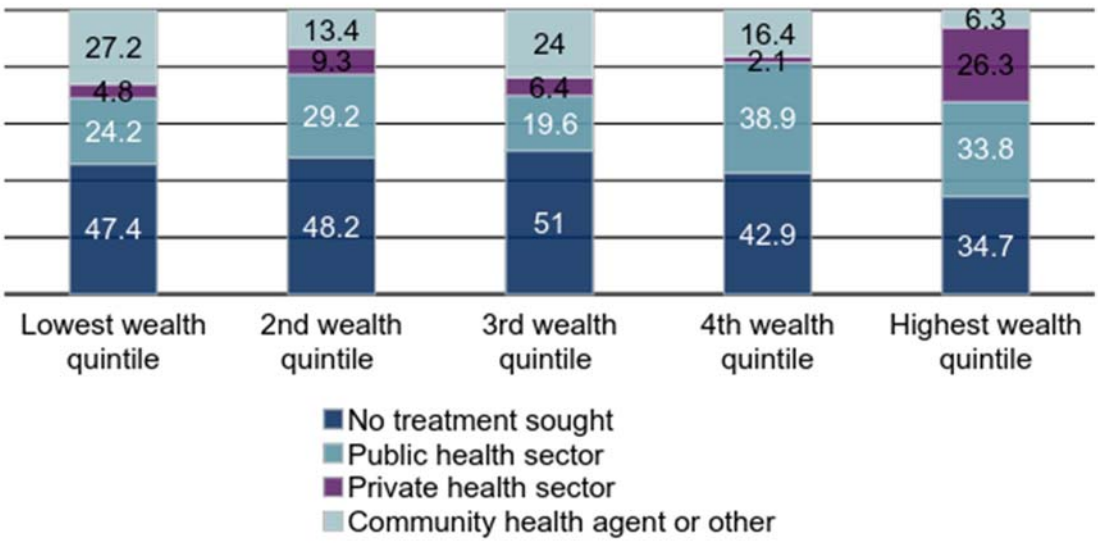
Launch of the Platform "Anjaramasoandro"

In May 2017, the GOM launched the third *Plan National d'Action Pour la Nutrition* (PNAN III) which aims to reduce stunting in Madagascar from 47 percent to 38 percent by 2021. The National Office for Nutrition is mandated to coordinate and monitor the contribution of various sectors to nutrition (Scaling Up Nutrition 2017). One of the coordination tools is the platform "Anjaramasoandro" launched in April 2017 to engage the private sector on nutrition. The platform brings together 10 companies with the National Nutrition Office to join the fight against malnutrition, aligning efforts behind government priorities.

4.1.3 Service Provision in Malaria

As Figure 8 shows, across all wealth quintiles, most parents do not seek treatment for children under five with fever. However, people from all wealth quintiles use the private health sector for treatment of fever, particularly the highest wealth quintile, followed by the second wealth quintile. More people in urban areas use the private sector than the public sector to seek care for children under five with a fever (31.5% versus 28%, respectively). Eight percent of people in rural areas sought care from the private sector (compared to 29% for the public sector) (EIPM 2013).

Figure 8. Source of Treatment Sought for Children under Five with a Fever, 2013



Source: EIPM 2013

Beginning in 2014, pharmacies and drug shops are permitted to sell and administer rapid diagnostic tests, although as of 2015 their role is limited. According to a 2015 survey, the private sector accounted for 16 percent of the malaria testing market share, and these tests were primarily provided by private for-profit facilities. Malaria blood testing was available at 45 percent of private for-profit health facilities and availability had increased in drug shops—from two percent in 2013 to 12 percent in 2015 (PSI for ACTwatch 2014). In 2016, according to the

national *Plan Strategique de Lutte Contre le Paludisme* (2018–2022), 73 percent of confirmed cases of malaria in private sector establishments received an appropriate anti-malarial treatment in line with national policy, as compared with 94 percent in public sector establishments.

4.1.4 Service Provision in WASH

Management of water and sanitation systems in Madagascar is fragmented, particularly so since the 2009 political crisis. A 2014 UNICEF bottleneck assessment of Madagascar WASH service provision emphasized that although there are government initiatives for the provision of WASH services, there is inadequate funding, coordination, and capacity, especially at the regional and district levels for these to be fully implemented (Ryan, 2014). The UNICEF assessment found that there was a "near absence of a vibrant private sector from the WASH sector" and cited both the lack of incentives for private sector participation in WASH service provision and poor organization of the existing WASH market. The study also found a lack of WASH training opportunities in the private sector.

The 2016–2019 Madagascar WASH Sector Key Results Framework highlights that the state of WASH services in rural areas is dire. This framework outlines the Government's strategy to shift from construction of infrastructure to sustainable delivery within the sector in a PPP approach (WASH Sector Key Results Framework), discussed further in Section 6.

4.1.5 Provision of HIV and AIDS Services

Demand

For the private health sector in Madagascar to continue to grow and meet the health needs of the population, demand and health-seeking behaviors must also increase. The GOM has recognized demand creation is a priority.

Limited data on demand is available for Madagascar, but the DHS offers insights into FP demand. Although 94 percent of women know of at least one modern method of contraception, only 40 percent of married or sexually active non-married women are using one. The most commonly cited reasons for non-use were that women wanted another child soon, were concerned about secondary effects, or were sterile (DHS 2008-2009).

Substantial gaps in education and exposure to the media in Madagascar may limit who is reached by demand creation messaging. Nearly 22 percent of rural women and 18 percent of rural men in Madagascar have no schooling. Forty-eight percent of rural women and 44 percent of rural men are not exposed to any media (television, newspaper, or radio) at least once per week. This statistic is even higher for the poorest quintile with 84 percent of women and 81 percent of men are not exposed to any media at least once per week (DHS 2008-2009).

In a recent survey, 70 percent of respondents said they preferred private clinics to public hospitals despite the higher costs. Across both urban and rural areas, people said they would be willing to pay more for higher quality treatment from the private sector (L'Express de Madagascar 2017). Similarly, an estimate from CSU's *Cellule d'Appui* says 60 percent of the population prefers private health centers for primary health services (CSU 2017). According to private providers interviewed by the SHOPS Plus PSA team, youth prefer private providers due to the perceived higher quality of services and confidentiality.

The private sector does not consistently report HIV statistics to the MSP, which makes it difficult to understand its role in HIV service delivery. According to the *Secrétariat Exécutif du Comité National de Lutte Contre le Sida*, provision of HIV and AIDS services is low in the private for-profit sector while many FBOs and NGOs conduct HIV activities, such as the Malagasy Lutheran Church Health Department (SALFA) (Comité National de Lutte Contre le Sida 2017).

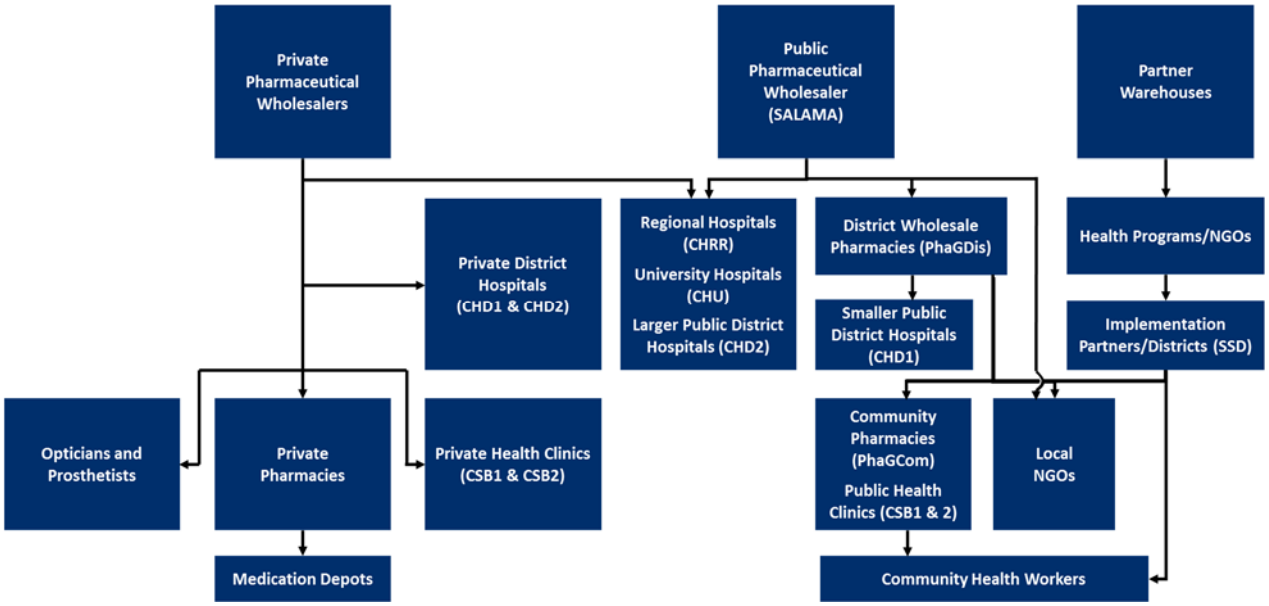
5. Access to Essential Pharmaceutical and Medical Products

Both the public and private sector play an important role in the supply of quality pharmaceutical and medical products in Madagascar. The government oversees and monitors the pharmaceutical sector through the *Agence du Médicament de Madagascar* and the *Direction de la Pharmacie, des Laboratoires et de la Médecine Traditionnelle* (DPLMT). The government has also set up a committee to address the growing illegal pharmaceutical market. In addition, the government purchases (through the public pharmaceutical wholesaler, *Centrale d'Achats des Médicaments Essentiels et de Matériel Médical* (SALAMA)), stocks, and distributes generic essential medicines and other products for public and nonprofit private health facilities. These medicines are distributed at the district and community levels through hospitals, *Pharmacies de Gros de District* (PhaGDis), and *Pharmacies à Gestion Communautaire* (PhaGeCom). Although they are public sector institutions, the PhaGDis are managed under a contract with an NGO, as are the pharmacies in reference hospitals. The private sector complements the public sector by importing, producing, stocking, and distributing essential and non-essential pharmaceutical and medical products (MSP 2016). This section examines the private sector's role throughout the supply chain—as manufacturers, wholesaler-distributors, and sellers of products.

5.1 Pharmaceutical Product Market

There are three types of legal, national-level entry points for the flow of pharmaceutical products in Madagascar: private pharmaceutical wholesalers, the public pharmaceutical wholesaler (SALAMA), and the warehouses of country partners (e.g., PSI, Marie Stopes Madagascar). Figure 9 shows the flow of products through the pharmaceutical supply chain in Madagascar, and the roles of each of these actors are explained below.

Figure 9. Simplified Pharmaceutical Product Flow in Madagascar



Source: Adapted from (1) Supply Chain Network and Cost Analysis of Health Products in Madagascar: Results (2) Étude TMA Pour les Contraceptifs à Madagascar: Rapport National 2016

5.1.1 Imports and Exports

Madagascar exports some packaged medicines, but imports far more. Exports of packaged medicines dropped from $87,874 in 2010 to $13,874 in 2013, and since recovered to $173,334 in 2016. Twenty-seven percent of packaged medicine export value in 2016 was for those "containing other antibiotics," five percent for medicines containing "penicillin or derivatives thereof, and 62 percent for “other." Imports of medicines increased slightly between 2010 and 2013, from $45.9 million dollars to $49.8 million dollars. The import of packaged medicines increased substantially, to $73.8 million in 2016 (DESA/UNSD, United Nations Comtrade database). China, France, and India are the primary sources of imported packaged medicines.

5.1.2 Manufacturers

Laboratoires Pharmaceutiques Malgaches Farmad (FARMAD) and Homeopharma are the only active pharmaceutical product manufacturers in Madagascar. FARMAD manufactures and processes drugs in pharmaceutical preparations for human and veterinary use. Its most well-known products are a syrup for child respiratory infection called *Sirop Farmad* and an anti-malarial product (Quinine Dihydrochloride). Homeopharma manufactures homeopathic products widely used in Madagascar including essential oils, vegetal soaps, natural perfumes, anti-mosquito oils, and beauty products.

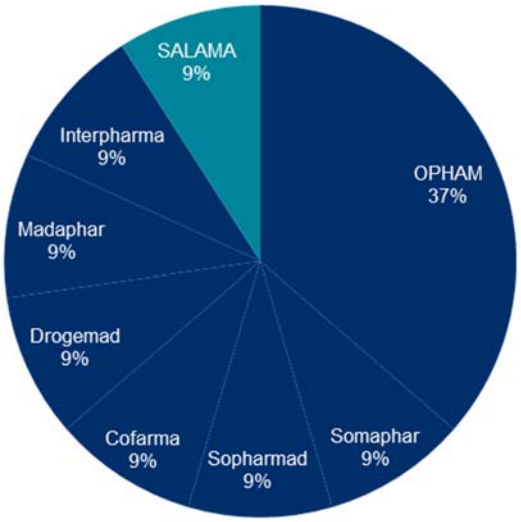
5.1.3 Wholesaler-distributors

The total value of Madagascar's pharmaceutical market is estimated at between 150 and 250 billion Ariary per year ($47 million to $79 million). In 2015 the public sector wholesaler-distributor, *Centrale d'Achat de Médicaments Essentiels et de Matériel Médical de Madagascar* (SALAMA), had sales totaling 22.8 billion Ariary, or approximately nine percent of the value of sales in the total pharmaceutical market (SALAMA 2016). Sales by private pharmaceutical wholesaler-distributors accounted for the remaining 91 percent of total pharmaceutical market revenues. Figure 10 shows an estimated breakdown of pharmaceutical market revenue shares. Of the 33 registered private pharmaceutical wholesalers in Madagascar, only seven currently play an active role in the market—OPHAM, Somaphar, Sopharmad, Cofarma, Drogemad, Madaphar, and Interpharma.

Figure 10. Estimated Share of Pharmaceutical Market Revenues in 2015*

**Estimated market shares based on total market size of 250 billion Ariary*

Source: SALAMA 2016



Private pharmaceutical wholesaler-distributors can sell to public health facilities with authorization from the Minister of Health as well as to private nonprofit health facilities without authorization. SALAMA cannot sell to any for-profit private health facilities or distributors. SALAMA can only sell to public health facilities and nonprofit private health facilities and distributors (MSP 2015).

5.1.4 Product Distribution

Regulations dictate that pharmaceutical products, whether paid or free of charge at the point that the patient receives them, must be dispensed through an approved health facility (such as a government-registered pharmacy) (AgMed 2017). As discussed in Section 3, there are 221 private pharmacies in Madagascar (AgMed 2017).

Table 8 shows private sector pharmaceutical manufacturers, wholesalers, and pharmacies are clustered in the province of Antananarivo, with very few located in other provinces.

Table 8. Number of Private Pharmaceutical Manufacturers, Pharmaceutical Wholesalers, and Pharmacies in Madagascar, by Province

Province	Manufacturers	Wholesalers	Pharmacies
Antananarivo	2	25	114
Antsiranana	0	3	26
Fianarantsoa	0	1	19
Mahajanga	0	0	21
Toamasina	0	4	27
Toliara	0	0	14
Total	2	33	221

Source: Adapted from data provided by the Agence du Médicament de Madagascar

According to the existing regulations, public sector CSB and CHRD are required to obtain their pharmaceutical products from a public sector district wholesale pharmacy (PhaGDis). However, in 2012, only 38 percent of public sector health clinics and district hospitals purchased regularly from their respective PhaGDis (MSP 2012). This indicates these public health facilities made regular purchases from a source other than their respective PhaGDis such as from a private wholesaler or from the illegal pharmaceutical market (MSP 2014).

The illegal pharmaceutical market remains a major concern for the GOM, for patients, and for private pharmaceutical wholesaler-distributors and pharmacies, whose market position is weakened through the presence of this illicit pharmaceutical trade. In the illegal market, products sold are often unregistered, expired, and/or of substandard quality. The illegal pharmaceutical market continues to thrive due to insufficient enforcement of existing market regulations. Very little data exists on the actual scale of the illegal market. The value and volume of expired medication resold into illegal markets is unknown (AgMed 2016).

5.2 Pharmaceutical Product Taxes and Pricing

In Madagascar, taxes are imposed on imported active pharmaceutical ingredients[9] though there are no taxes imposed on imported finished pharmaceutical products, with a few exceptions. These exceptions include certain hormonal products, which are taxed on the basis of their formulation (MSP 2011). While international NGOs and donors are permitted to import certain formulations of hormonal FP products tax-free, private wholesalers are not permitted to do so. Overall, there remains confusion about and associated with tax rules and exemptions for FP

[9] Active pharmaceutical ingredients include “any substance or mixture of substances intended to be used in the manufacture of a drug (medicinal) product and that, when used in the production of a drug becomes an active ingredient of the drug product.” (Registrar Corp, 2017)

products, the circumstances that determine when and whether FP products are freely available or subject to sale (HP+ 2017).

There is no system to monitor end-user purchase prices for pharmaceutical products, although the National Health Code assigns this task to AgMed inspectors. In 2017, there were only 11 AgMed inspectors who work in private pharmacies and two civil servant inspectors for the country (AgMed 2017). There is also no law fixing margins placed on pharmaceutical products across sectors (MSP 2011). However, in the public sector, the maximum total margin is 35 percent for the cost recovery system, *Les Fonds d'Approvisionnement Non-Stop aux Medicaments Essentiels* (FANOME) (DPLMT 2016; MSP 2016).

Table 9 shows end-user prices for nine key medications from five different types of service delivery points. These prices were collected by the SHOPS Plus PSA team during its 2017 visit to Madagascar.

Table 9. End-User Prices in Ariary for Nine Key Medications, by Source, 2017

Product	Private Pharmacies	Wholesaler	Dépôts	NGO/FBOs	Social Marketing Organizations
ACT	Coartem: 2,400–6,800 Coarsunate: 11,700–18,900 Coarsucam: 19,000	N/A	N/A	N/A	N/A
Amoxicillin, Pneumostop (child health)	Amoxicilline: 1,500–2,500 (plaquette) Pneumox: 2,200	Amoxicilline: 1,800 (plaquette)	Amoxicilline : 1,800–2,000 (plaquette)	N/A	N/A
Aquatabs	Sur'eau: 600	N/A	N/A	600	460
Bednets	3,000	N/A	N/A	3,000	2,000 Continuous distribution: 1,000
Condoms	200–2,400	N/A	1,000	200	960
Confiance, Pilplan	Confiance: 600 Pilplan: 300	N/A	N/A	Confiance: 600 Pilplan: 300	Confiance: 360 + TVA Pilplan: 180 + TVA
Injectable quinine	1,200	100 bottles (600	N/A	N/A	N/A

		mg /2ml): 77,000			
ORS & Zinc	Zinc: 2,200–2,500	N/A	Zinc: 2,500	N/A	ORS/Zinc combined: 1,600

The 2008–2009 DHS contains additional price data for FP commodities. Table 10 shows nearly two-thirds of women reported receiving their FP products free of charge in the public sector, while in the private sector less than one-third reported receiving products free of charge. Women who paid for injectable contraceptives in the private sector reported an average price nearly three times higher than the average price in the public sector. However, the average price of contraceptive pills was not significantly higher in the private sector than the public sector, at 229 Ariary versus 195 Ariary, respectively (DHS 2008–2009).

Table 10. Cost of Modern Contraceptive Methods by Sector, 2008–2009

	Injectables	Pills	Implants
Public sector			
% of women who received product for free	62.6%	66.2%	61.6%
Average price paid (Ariary)	306	195	1,494
Private sector			
% of women who received product for free	17.8%	8.8%	22.9%
Average private paid (Ariary)	903	229	1,946

Source: Adapted from the 2009 DHS data

In Madagascar, select anti-malarials are available free of charge within public facilities, while private facilities most often charge. According to a recent ACTwatch outlet survey data, prices for quality-assured artemisinin-based combination therapies (ACT) medication for malaria have been increasing in Madagascar. In 2010, the median price in private facilities for one adult equivalent treatment dose of a quality-assured ACT was 299 Ariary, and by 2015 that price had increased to 2,072 Ariary. Anti-malarial prices tend to be higher for private facilities in rural areas compared to urban areas (PSI for ACTwatch 2017).

5.3 Pharmaceutical Product Availability in the Private Sector

5.3.1 FP, MCH, and Malaria Products

Family Planning: In 2012, the MSP and UNFPA conducted a study on contraceptive access that included 2,278 public sector health facilities and 109 private sector health facilities.

More than 95 percent of both private and public facilities surveyed offered injectables and contraceptive pills. A greater proportion of public facilities offered male condoms compared to private facilities, with 92 percent versus 84 percent, respectively. However 49 percent of private facilities offered IUDs compared to only 11 percent of public facilities.

On the day of the survey, 18 percent of private facilities were stocked out of multiple modern contraceptive methods while only 10 percent of public facilities were stocked out. However, when examined on a method-by-method basis, private facilities were more likely to have each individual modern contraceptive method in stock.

Maternal and Child Health: The 2012 study conducted by the MSP and UNFPA found that only 60 percent of private facilities had two essential medications and one vital medication for maternal health available. This was slightly higher than public facilities, where 56 percent had the same medications available (MSP 2012).

PSI has been distributing diarrhea treatment kits (including both Zinc and ORS) through private sector channels in Madagascar since 2009. These products are provided to patients in private pharmacies and through PSI-trained community-based agents (PSI 2014).

Malaria: According to the 2015 ActWatch Household survey, the majority of anti-malarials in Madagascar are distributed by the private sector, though the private sector market share decreased from 82 percent in 2010 to 64 percent in 2015. The most common type of private sector actors providing anti-malarial are general retailers, which accounted for 40 percent of all anti-malarial stocking outlets in 2015 (PSI for ACTwatch 2017). Within the private sector, the role of private for-profit facilities has increased, as has the role of *depots*.

6. Policy and Partnership Landscape for Private Health Sector

Laws and regulations help insure the quality of private health sector facilities and providers, with a goal of improving the health system. A review of legislation of the private health sector in Madagascar (Table 11) shows private health professionals and facilities are regulated for market entry and service provision, but there is no legal requirement for continuing education or accreditation to ensure quality. The number of hospitals and clinics is not limited; however, pharmacies, laboratories and medical imaging facilities have limitations on the number of facilities in a given geographic area. While there is a regulation on the minimum distance allowed between providers, this regulation is generally not strictly enforced.

Table 11. Status of Legislation on the Private Sector by Objective

Type of Regulation		Yes/No
Regulation of health professionals		
Regulation of entry into the health care market (i.e., registering of health professionals)		Yes
Regulation of private health service provision (i.e., licensing of health professionals to practice in the private sector)		Yes
Regulation of quality of service provision by health professionals	Sanctions for unprofessional behavior	Yes
	Requirements for continuing education	No
Regulation of private health sector facilities		
Regulation of entry into the market (i.e., hospitals, clinics, pharmacies, laboratories, medical imaging facilities)		Yes
Regulation of number of health facility in a given geographic area	Hospitals	No
	Basic health centers	Yes
	Pharmacies	Yes
	Laboratories	Yes
	Medical imaging facilities	Yes
	Regulation of curricula of training institutions	Yes

Regulation of quality of service provision (i.e., standard-setting, quality assurance)	Setting of process norms and standards (hospitals and clinics)	Yes
Regulation of prices (i.e., setting of fees for services in hospitals and clinics)		No

Several health strategies in Madagascar speak of the need to include the private for-profit sector, but their role is not clearly defined. Other strategies mention NGOs and FBOs but exclude the private for-profits sector. One of the most important health laws in the country is the *Loi portant Code de la Santé*. Composed of 360 articles, it details the organization and functioning of the entire health sector, including private sector facilities and all cadres of private providers (doctors, nurses, midwives, traditional medicine practitioners).[10] Table 12 shows how the private health sector is integrated into health strategies and plans in Madagascar.

Table 12. Private Health Sector Integration in Health Strategies and Plans

Document	Private Sector References
Code de Santé	Features multiple general references to private sector but not included in development of the Code
Cadres de Mise à l'Echelle de la Prévention de l'HPP	Explains lack of involvement of the private sector in policy and project development and evaluation causes problems during roll-out with private sector providers unable to comply; however, private sector not involved in development of plan
Code de Déontologie de l'Ordre des Médecins	Makes no specific references to private providers
Projet de Loi de Planification Familiale	Mentions NGOs and civil society organizations but not for-profit providers
Politique de lutte contre le VIH	Includes private sector in the implementation of the *Politique de lutte contre le VIH* in the HIV Regional Task Force
Plan Stratégique des Centres Hospitaliers et des Etablissements Universitaires	Refers to private sector to increase public-private referrals, establish agreements with private training institutions, and identify potential public-private partnerships but private sector not involved in development of plan

[10] The law recognizes the following private health structures: les postes d'infirmerie, les postes, d'accouchement, les cabinets médicaux, les dispensaires privés, les centres de santé privé, les établissements hospitaliers privés de soins qui sont les cliniques, les polycliniques, les hôpitaux privés. Private clinics are defined as establishments that practice only one health specialty while policlinics and hospitals practice several medical specialties. Hospitals are categorized as either nonprofit or for-profit. For-profit hospitals are directly overseen by the Ministère de la Santé.

de Soins à Antananarivo (2012-2016)	
Plan Stratégique National de Lutte Contre La Tuberculose à Madagascar (2012-2016)	References private sector in context of public-private partnerships and collaboration but unclear if private for-profit sector included
SALAMA Plan Stratégique 2008-2012	References SALAMA selling products to nonprofit public sector providers and public sector purchasing medicine from private wholesaler pharmacies
Stratégie Nationale en Cybersante (2016-2019)	Outlines need for partnership with telecom operators for the implementation of specific programs and projects (e.g., partnering on the national digital health network; structuring the national data center; and developing the national multimedia information and sensitization platform (for communication, follow-up, and surveillance; promotion of telemedicine; and development of national standards for digital health applications (interoperability and capacity-building for the DSI)
Stratégie Nationale sur la Couverture Sante Universelle	Involves nonprofit private sector in development of strategy but not private for-profit sector; references challenges related to the private sector (lack of human resources, supply chain, and private sector data) and opportunities (public-private partnerships)
Loi Hospitalière	Defines the organization of the private hospital system (name, classification, authorization, cooperation, sanction, monitoring and control)
Plan Stratégique National de Lutte Contre le Paludisme	References difficulties to date coordinating with the private sector to improve malaria outcomes and emphasizes need to train private sector on policy and improve quality in private sector for malaria treatment; identifies one of the Plan's three guiding principles as strengthening PPPs to address social inequalities
Politique Pharmaceutique Nationale	Includes private sector pharmacists as key actors and public private partnership as a key value

The Government of Madagascar has several policies in place to facilitate implementation of UHC and digital health activities (Table 13).

Table 13. Laws and Codes Facilitating Implementation of UHC and Digital Health

Name of Law or Code	Focus
Code de la santé : loi N 2011- 002 en date de 22/08/2011	Speaks of *télémédecine* and its role to help the MSP support patients remotely (Article 17)
La loi N 2014-038 en date de 09/01/ 2015 portant sur la protection des données à caractère personnel	Protects personal data, including client medical data
Loi n° 2016_056 sur la Monnaie Electronique et Etablissements de Monnaie Electronique	Defines and sets national standards for mobile money in the country
National Strategy for Financial Inclusion (CNFI 2013–2017)	Focuses on microfinance development

While the *Loi Portant Code de la Santé*, the *Code Deontologique* and other laws and regulations provide a strong frame for the health profession, there are important gaps with regard to the private health sector. Examples of legal and regulatory gaps that hinder the private health sector include:

- The *Code de la Santé* and the *Codes Déontologiques* of the different *Ordres* restrict doctors, nurses, midwives, and pharmacists from advertising their services and limits advertising of facilities.
- All requests to open private health facilities in the country must be submitted to the MSP in Antananarivo.
- Pharmacies must be owned by a licensed pharmacist, and a pharmacist cannot be associated with more than two pharmacies; pharmacies must be located a certain distance from other pharmacies and may request permission to operate and provide products 24 hours a day.
- The presence of a pharmacy restricts any further opening of a *dépôt* within 10 kilometers; once a pharmacy opens near a *dépôt*, the *dépôt* must close within three months.
- Lack of national standards for accreditation and continuing professional development impacts quality of services.
- Lack of regulation of the pharmaceutical sector results in proliferation of a parallel market of sub-standard, non-registered products.
- The MSP chose to restrict *dépôts* from carrying MPA[11] hormone-based FP products such as Confiance after determination that FP products were used to fatten livestock in 2016.
- Import taxes on contraceptives mainly impacts the private for-profit sector.
- SMIE must limit activities to a radius of 30 km and cannot have branches in other regions.

[11] Medroxyprogesterone acetate (MPA)

They are not authorized to cover hospitalization, meaning clients pay completely out of pocket for hospitalizations (R4D 2009).

- While it is legal for midwives to own private clinics, both the *Ordre des Sages-femmes* and the *Association des Sages-femmes* in interviews strongly advise against it due to liability concerns when no doctor is present. Anecdotal evidence gleaned through stakeholder interviews indicates midwives may be blamed for poor health outcomes for patients even if the issue was lack of equipment or transport.

Revision of Private Facility Regulations

In June 2017, the MSP organized a workshop to discuss the revision of *Arrêté n° 37308/2014-MSANP du 22/12/14* on regulation of private health facilities. The workshop brought together representatives of different divisions of the MSP, NGOs, FBOs and a few implementing partners. The focus on improving regulation of the private health sector is an excellent step towards improved stewardship of the private sector. However, there was a complete absence of private for-profit representatives at the workshop as part of the policy discussions. The workshop was part of a larger effort by the SMLDP to improve oversight of and quality in the private health sector in Madagascar. The SMLDP's 2017 Action Plan includes an ambitious set of activities such as developing and disseminating a guide for management of the private sector, developing a training curriculum for private health providers, assisting with decentralized supervision of private health facilities and NGOs, conducting a census of private health facilities, and developing a map of private sector facilities that respect quality standards.

6.1 Public-Private Dialogue

Greater dialogue between the public and private sectors helps resolve health system bottlenecks and improve health service delivery. In 2015 the President of Madagascar established a national-level public-private platform for dialogue composed of 20 representatives from the public sector and nine from the private sector. The objective of this platform is to improve the operating environment for all businesses and as of 2017 the MSP is involved with this platform. Efforts are also underway to develop health dialogue platforms at the district level. However, private health stakeholders interviewed by the SHOPS Plus PSA team generally believed that there is insufficient political will to integrate the private for-profit health sector into national strategies or involve them in the dialogue process. When asked by the PSA team, private providers indicated they would appreciate being included in coordination meetings for different health areas, both at the national and district levels. While some NGOs and FBOs are routinely included in these coordination meetings, private for-profit providers are excluded. They are also excluded from trainings offered for public sector providers by the *Service de la District de la Santé Publique*.

A notable exception is the Diorano-WASH initiative, launched in 2002 by the WASH Coalition in Madagascar with the support of the GOM, which plays a coordination role at the national and regional levels. The initiative includes 22 regional platforms as well as multiple district-level

committees assembling stakeholders from all sectors to discuss implementation of the national WASH strategy. The initiative also contributes to awareness and advocacy campaigns with a focus on three key messages: (1) the importance of washing hands with soap, (2) the effective use of latrines, and (3) safeguarding the water supply between source and point of use (Diorano-WASH 2017, WSSCC 2008).

6.2 Public Private Partnerships in Health

In the face of dwindling development assistance and limited government funds, the GOM is looking to new funding mechanisms to help reach development goals. Like many countries, the GOM recently chose a PPP approach whereby both the public and private sectors share in the risks and rewards of development of key sectors of the economy.

The regulatory framework for PPPs in Madagascar is very recent, based on *Law no. 2015-039 from December 2015 du 3 février 2016*. Enabling legislation for the PPP law was passed in 2017, including *Décret No. 2017-150* which addresses the enabling framework and *Décret No. 2017-149* which addresses the rules and procedures for PPP contracts. The PPP law created a National PPP Committee (the *Comité National* PPP, responsible for PPP strategy in the country) and a PPP Unit (the *Direction Général de l'Unité PPP*, responsible for PPP project implementation and analysis). However resources and capacity are limited for these entities to move forward with their mandates (Ministère des Finances et du Budget 2017, Directeur du Partenariat 2018). The PPP law and enabling legislation do not mention any public or private health sector representatives on the PPP National Committee nor mention the health sector as a focus sector for PPPs. Despite this, the MSP is invited to participate in PPP activities, according to stakeholder interviews with the *Direction PPP* of the Economic Development Board of Madagascar (EDBM). A PPP strategy for health is drafted, but had not been finalized at the time of this report.

Spotlight on WASH PPPs in Rural Madagascar

In 1999, Madagascar's Water Code established that water supply infrastructure is the property of the communes, which are responsible for ensuring water services either directly or through management contracts with third parties. The first PPP in the rural water supply sector was launched in 2005. As of 2015, Madagascar had 25 piped water systems managed by PPPs (PPP Knowledge Lab 2017).

Annis and Razafinjato (2011) found that, in the case of Madagascar, PPPs have been most successful for piped schemes serving larger rural settlements of around 5,000 people or more. Other factors that contributed to the success of the country's PPPs according to their study are:

Political will, in particular the support of the town mayor

Latent demand for modern services among an emerging middle class

Offering a choice of service levels according to personal preferences and willingness to pay

Donor support (financial support for construction/ rehabilitation and also in creating an enabling environment by increasing capacity of communes to oversee water service provision and serve as contracting authorities).

Source: Adapted from IRC's "Public-private partnerships for rural water services."

To date, PPPs have focused on large infrastructure projects, such as hydroelectric and road construction projects (World Bank 2017). The *Direction Général de l'Unité PPP* is housed under the *Ministère auprès de la Présidence en charge de l'Aménagement du Territoire*. This Direction's role is to pilot PPPs and assist each Ministry in the establishment of PPPs. Government agencies with a direct role in PPPs include *Ministère en charge des Finances*, *Commission d'appel d'offres des PPP* (CAO PPP), the *Organe chargé du Contrôle des Marchés Publics*, and industry-specific regulations. Within each key Ministry (including Water and Energy, Transportation, Health, and Education), there is a PPP unit that works in coordination with the *Direction Général de l'Unité PPP.*

The MSP has a *Direction de Partenariat* which oversees donor coordination as well as the development of PPPs. Housed within the *Direction de Partenariat* is the *Departement de Contractualisation*, charged with development and oversight of service delivery contracts. The MSP's contracting strategy dates back to 2004, but remains limited chiefly to NGOs and FBOs. For example, the MSP contracts with SALFA for *l'Hôpital du District de Vohémar*, the *pharmacie* of *l'Hôpital HJRA d'Antananarivo* and *l'Ordre de Malte* for management of *Maternité Sainte Fleur*. Of note is the lack of a private for-profit representative on the contracting steering committee. In terms of the *Departement de Contractualisation's* procedures, stakeholders interviewed for the PSA felt that certain contracting requirements slow down the process, such as the requirement that the Minister of Health sign all contracts, no matter the value. There is a need to develop the legal framework for health contracting in the country.

Knowledge among the private sector of contracting opportunities with the MSP remains limited. In 2007, the MSP, WHO, and SantéNet (a USAID project) trained private providers (mainly NGOs and FBOs) on the national contracting policy and how to develop a contract in nine of 22 regions across the country. However, training on health contracting was interrupted and private for-profit providers in many regions are not sufficiently aware of contracting process.

6.2.1 Corporate Social Responsibility

Corporate social responsibility (CSR), in which companies commit to improving living conditions in the communities where they operate, is a relatively new concept in Madagascar. The SHOPS Plus PSA team's CSR findings are in line with the Corporate Partnerships Assessment conducted by SHOPS Plus (Mangone 2016), which found that the main companies involved in CSR in Madagascar are extractive companies, telecoms, foundations, and a few large local industries. Due to the poor global market, many extractive companies have smaller budgets for CSR. In addition, extractive companies usually seek CSR opportunities during the exploration phase, while the two largest consortia in Madagascar are in the production phase (Ambatovy and QMM). The SHOPS Plus PSA team found that non-extractive companies with annual CSR budgets that actively contribute to community-based health and development activities could be significant private players in health sector. For example, STAR spends $287,000 per year on CSR activities in health. These actions include support for the Tsaralàlana Mother-Child University Hospital Center, Operation SMILE, and the "Children of NOMA" Mission.

Madagascar's three telephone operators all have CSR activities in the health sector. One mobile network operator (MNO), Orange, supports several health initiatives, including the *Association Malgache contre le Diabète's* e-diabetes program, through its foundation and the Orange Solidarity Association. Airtel is a partner of the *Association Aide et Soin aux Patients*. In 2017, Airtel and Telma signed an agreement with the MSP and PSI to carry out SMS campaigns to raise awareness of breastfeeding, vaccination, and hygiene.

In December 2016, the Ministry of Environment, the Ministry of Industry and Development of the Private Sector, UNICEF, Total, DHL, Orange and other partners launched the *Salon RSE*, focused on sustainable development and CSR. Health isn't currently a large component of *Salon RSE*. Ambatovy and Rio Tinto participate in the Salon. For additional information on CSR opportunities in health for Madagascar, see Assessment of Opportunities for Corporate Partnerships in Madagascar (Mangone, 2016).

In 2013, Coca Cola announced the launch of a multi-country CSR water activity that includes Madagascar. The Replenish Africa Initiative (RAIN) Water and Sanitation for the Urban Poor (WSUP) project will expand service for low income peri-urban communities of Antananarivo by building the capacity of Jiro sy Rano Malagasy (JIRAMA), the local service provider, to support their delivery of water and sanitation services city-wide. Activities include construction of 73 water kiosks and eight laundry blocks, training of the community in facility management, and capacity building of JIRAMA's staff. The project stands to benefit 142,000 people and contribute to improvements in health, livelihoods, gender equality, and poverty reduction.

Source: WSUP 2013

7. Human Resources for Health

Private sector health professionals fill an important gap in the health system, but there is little exact knowledge about how many people work in the private sector. Though statistics vary (even among GOM sources), the data suggests that Madagascar is far from meeting the minimum threshold of 23 doctors, nurses, and midwives per 10,000 people that the WHO recommends (MSP 2015).

7.1 Doctors

The World Bank reports the number of doctors in the country decreased from .291 per 1,000 people in 2004 to .161 doctors per 1,000 people in 2010 (World Bank 2017). This echoes the data provided by the *Ordre des Médecins* to the SHOPS Plus PSA team, which shows a 27 percent decrease in *Ordre* membership between 2012 and 2016 (Table 14). According to a GOM document, 50 percent of doctors and 47 percent of paramedical professionals are over 50 years old, indicating an aging medical workforce (MSP 2015).

Table 14. *Ordre des Médecins* Membership 2004-2016

Year	Number of Doctors	Percent Change
2004	5,201	n/a
2012	5,570	+7%
2013	5,549	-.003%
2014	5,101	-8%
2015	4,791	-6%
2016	4,092	-15%

Source: Adapted from data provided by the Ordre des Médecins, 2017

Registration for private and public sector doctors within the *Ordre des Médecins* is mandatory, though not all doctors comply. The *Ordre* estimates about 1,000 doctors are not listed in their ranks. The *Ordre des Médecins* estimates approximately 50 percent of its doctors are in the public sector, and 50 percent are in the private sector. It also estimates an approximate 50/50 split of male and female doctors, with women likely comprising the slight majority of doctors in Madagascar (*Ordre des Médecins* 2017). Many doctors operate in both the private and public sectors. The MSP does not keep statistics on dual practice so it is difficult to calculate the division of public and private providers.

Geographic Disparities

Significant geographic disparities exist in the distribution of human resources in Madagascar. Less than one-half (47 percent) of the country's health workforce is located in rural areas, where 65 percent of the population and 85 percent of the poor reside. Antananarivo is disproportionately favored. Almost one-third of all health workers are in Antananarivo and close to one-half of the country's doctors (49 percent) serve in the capital, home to only 27 percent of the population. Fianarantsoa, the second most populous province, has only 10 percent of doctors, 17 percent of nurses/midwives, and an average of 2.4 health staff per facility.

The 2016 World Bank SDI survey found that 45 percent of the doctors who responded worked in the private sector. Unsurprisingly, this survey found that the majority (79%) of private sector doctors worked in urban areas (World Bank 2017). Approximately 150 doctors – are employed by SMT programs (OSTIE Behoririka 2017).

The *Ordre des Médecins* shared with the SHOPS Plus PSA team key challenges for doctors operating in the private sector. Many patients are unable to pay for services, especially in rural areas. Doctors also pay high tax rates. Additionally, medical materials and equipment are expensive.

7.2 Nurses and Midwives

Data on the number of nurses and midwives in Madagascar varies widely by source, as shown by the below table. A public-private breakdown of these two cadres is not currently available.

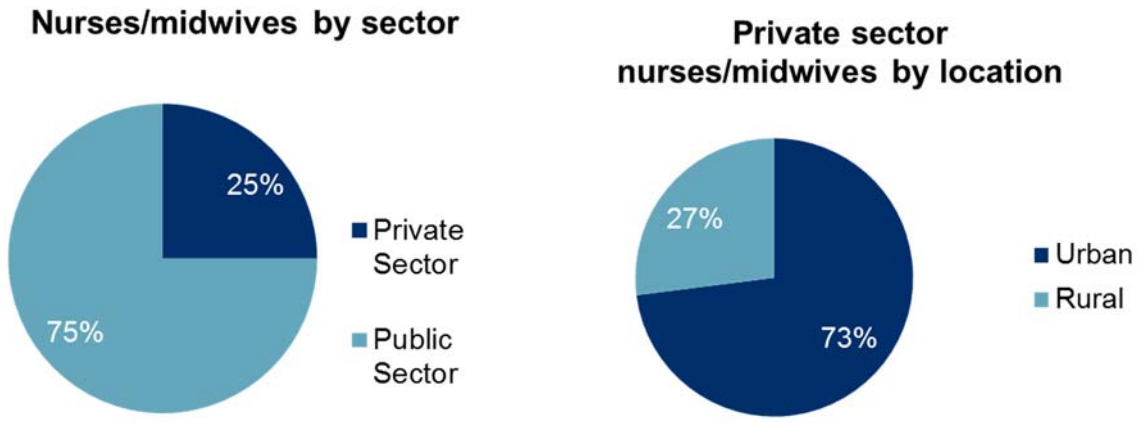
Table 15. Numbers of Nurses and Midwives by Source, 2012–2017

Year	Source	# of Nurses	# of Midwives
2012	WHO	3,383	1,475
2014	Order of Nurses	2,400	n/a
2014	UNFPA	6,000	3,400
2016	Order of Midwives	n/a	5,487*
2017	Order of Nurses	3,600	n/a

Source: Adapted from data from the Ordre des Sages-femmes, the Ordre des Infirmiers, the UNFPA's 2014 "The State of the World's Midwifery", the WHO's "Global Health Observatory Data Repository: Nursing and midwifery personnel data by country"

Figure 11 shows that 25 percent of the nurses and midwives surveyed by the Word Bank in 2017 worked in the private sector, and of those working in the private sector 73 percent worked in urban areas (World Bank 2017).

Figure 11. Nurses/Midwives by Sector and Private Sector Nurse/Midwives by Location, 2016



Source: Adapted from "Africa Health Service Delivery in Madagascar: Results of 2016 Service Delivery Indicator Survey" [12]

Similar to the *Ordre des Médecins*, registration for nurses with the *Ordre des Infirmiers* or the *Ordre des Sages-Femmes* is theoretically mandatory. Although the *Ordre des Infirmiers* reported a membership of 3,600, its leadership offered that as many as 2,000 new nurses graduate into the labor market each year from one of the 110 private institutions that train nurses and midwives. The labor market has difficulty absorbing all these new graduates, especially because not all of the training institutions conform to MSP standards. In fact, only 79 private training institutions are accredited by the MSP, according to the *Ordre des Infirmiers*. To ensure quality of nurses, in 2017 the MSP began implementing an examination, but the success rate was very low according to the *Ordre des Infirmiers*. Unlike doctors in Madagascar, who are in short supply, there seems to be a surplus of nurses who may not be trained to MSP standards.

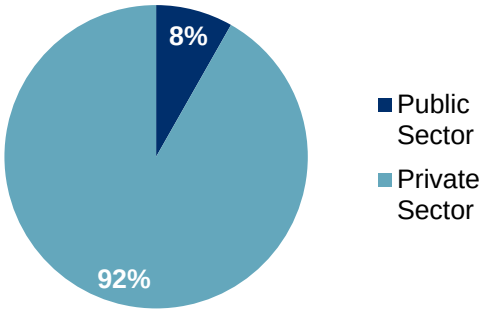
The *Ordre des Sages-Femmes* reported a membership of almost 5,500 midwives in 2016, and their membership has been increasing in recent years. The President of the *Ordre* reported that 1,306 of the 5,487 members work for private institutions. There is a lack of understanding of current policies governing midwives. The lack of regulation of training institutions is also an issue for midwives; of the 150 training institutions, only 50 are authorized.

7.3 Pharmacists

Statistics provided to the SHOPS Plus PSA team by the *Ordre des Pharmaciens* show 235 pharmacists in 2017, 109 of whom are in Antananarivo. Statistics provided by AgMed show 243 pharmacists working across 227 private pharmacies. Both data sets show a preponderance of women among private pharmacists, at 67 percent and 53 percent of private pharmacists respectively. Recent data highlights that the vast majority of pharmacists work in the private sector (MSP 2016).

[12] Note: This distribution is taken from the survey's sample of 756 nurses/midwives.

Figure 12. Percentage of Public and Private Sector Pharmacists, 2015



Source: MSP 2016

In addition, there are 1,015 pharmaceutical "preparers" or assistants in the public and private sectors (MSP 2016).

7.4 Traditional Practitioners

Traditional medicine is practiced widely in Madagascar, and there have been some attempts to integrate traditional practitioners into the health system with limited success. Traditional practitioners encompass a range of providers, from massage therapists to *matrones* (traditional birth attendants) to herbalists. The *Association nationale des tradipraticiens de Madagascar* (ANTM) has 3,329 members, and there are an additional 615 traditional massage therapists who are not members of the ANTM. The ANTM is comprised of 14 smaller associations. The DPLMT lists 3,329 traditional practitioners and 615 traditional massage therapists (DPLMT 2017, ANTM 2017). While there are believed to be many *matrones* in Madagascar, there are no official figures.

Efforts to integrate traditional practitioners into the formal health system have faltered. According to key health stakeholders, validation for a code of ethics for traditional medicine has stalled, CSBs are unable to capture and integrate traditional practitioner health information since traditional medicines aren't incorporated into the medical authorization system. Further, there is broad distrust between formal medical personnel and traditional practitioners.

8. Access to Finance

8.1 Financial Industry

Despite the political crisis from 2009 to 2013, the financial system in Madagascar remains resilient. Loans continue to grow from year to year, driven mainly by short-term credit. The market continues to be highly liquid as banks remain conservative in their lending practices. Financial inclusion continues to be low in Madagascar. In 2012, 4.3 percent of rural and 9.7 percent of urban Malagasy over 15 years of age had an account with a formal financial institution (compared to 34% in SSA as a whole); by 2016 those numbers had increased to seven percent for rural and 26 percent for urban Malagasy (World Bank 2014, Finscope 2016).

While banks have branches in major towns, outreach at the commune level is minimal and certain regions in the west and south (Melaky, Menabe, Atsimo Andrefana, Androy, and Anosy) have few financial institutions present.

In recent years, the entry of mobile network operators (MNOs) such as Telma money (mVola), Airtel (Airtel Money), and Orange (Orange Money) as authorized intermediaries for banking operations has the potential of expanding access to financial services for previously under-served populations. Several banks and microfinance institutions (MFIs) are now operating as mobile money agents, and MNOs are showing great interest in extending these partnerships beyond the conventional supply of payment services. Their goal is to facilitate, via electronic wallets, access to remote savings and loan services for customers. Digital finance is discussed further in Section 10.

8.1.1 Financial Services in Madagascar

Banking Sector

The banking sector in Madagascar is comprised of 11 banks, all foreign-owned (Table 16).

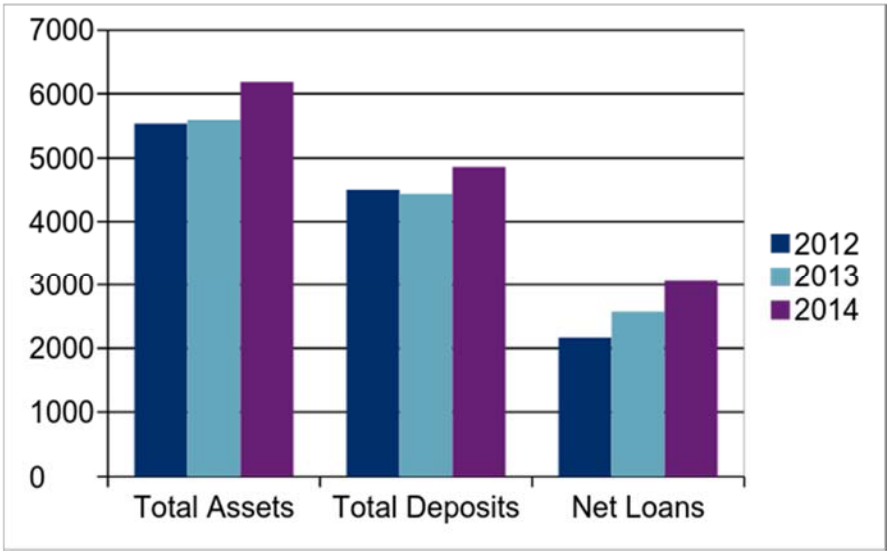
Table 16. Banks Operating in Madagascar

French	Mauritian	Panafrican	German
Banque Malgache de Madagascar et de l'Ocean Indien (BPCE group)	*Banque Nationale pour l'Industrie* (Ciel Group)	*Banque Gabonaise et Française pour l'Investissement* (BGFI Group)	*Accès Banque* Madagascar (Access Holding)
Banque des Mascareignes (BPCE)	Mauritius Commercial Bank of Madagascar (MCB Group)	Bank of Africa (BCME Group)	
BFV–*Société Générale* (*Société Générale* Group)	Standard Bank of Mauritius (SBM Group)		

Baobab Banque (formerly Microcred)			
Société d'Investissement pour la Promotion des Enterprises à Madagascar (SIDI Group)			

As illustrated in Figure 13, the banking sector has undergone strong growth in net loans. Although data is unavailable for 2015 and 2016, it is believed that the strong growth has continued. The ratio of loans to deposits, although increasing, remains low, showing room for banks to further develop their lending activity (Madagascar Central Bank 2015).

Figure 13. Madagascar Banking Sector Profile, 2012–2014 (Billions of Ariary)



Source: Adapted from data from the Madagascar Central Bank

Banks in Madagascar are risk averse and prefer lending to well-established companies or subsidiaries of international companies, resulting in high concentration of risk. According to the Central Bank, in 2015, the largest 10 clients of each of the four leading banks[13] represented 40 percent of each bank's portfolio (Madagascar Central Bank 2015). The four largest banks in Madagascar dominate the market with 86 percent of banking total assets, 88 percent of total deposits, 86 percent of net loans, and 72 percent of branches.

In 2015, 39 percent of loans went to the commerce sector, 39 percent to transportation and communication, 12 percent to light industry, and nine percent to real estate. The bulk of loans, 56 percent, were short-term, while 33 percent were medium-term, and 10 percent long-term.

[13]The four leading banks are Bank of Africa, BFV-Société Générale, Banque Nationale de l'Industrie, and BMOI.

Microfinance in Madagascar

The microfinance sector is increasing in financial offers and products targeting micro, small and medium enterprises. MFIs focus on the informal sector, which represents more than 75 percent of the economic activity in Madagascar and is not served by traditional banks. MFIs' portfolio quality is better than that of banks with an average non-performing loan rate under six percent. MFI lending activities are predominantly in urban areas and major towns, with the majority of branches clustered in the Antananarivo/Analamanga region, although some MFIs have service points in rural areas.

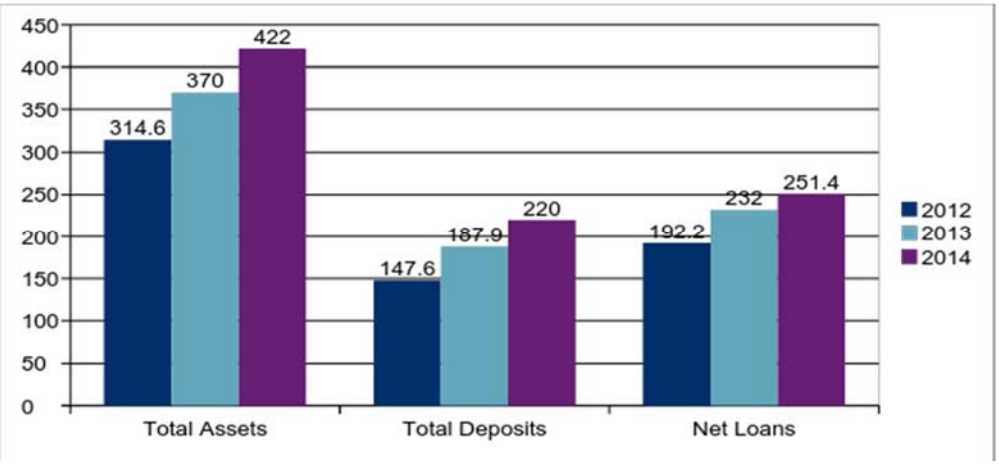
Baobab (formerly Microcred) Mobile Truck

Increasingly financial institutions offer microfinance services to clients in rural areas; Baobab has 200 mobile trucks that support rural zones, typically during market days.[14] Several banks and microfinance institutions are now operating as mobile money agents as well. This brings the potential of expanding access to financial services to previously under-served populations. An early entry into the space was Baobab, which in June 2013 established a partnership with Orange Money. The partnership allows Baobab customers to conduct remote loan repayment and savings transactions.

Microfinance in Madagascar is relatively new but growing rapidly as shown in Figure 14. Between 2008 and 2014, the period of the government's most recent National Strategy for Microfinance, the sector's client deposits grew by 375 percent and lending grew by 220 percent (Madagascar Central Bank 2015). MFI loans comprise only five percent of total credit outstanding. However, as of 2014, MFIs accounted for 5.1 percent of financial sector total assets compared to 4.8 percent in 2013. MFI total assets and deposits represented 1.6 percent and 0.9 percent of Madagascar's GDP.

[14] Baobab, formerly MicroCred Banque, is licensed and supervised as a bank, though its microfinance lending activities are described in this section.

Figure 14. MFI Sector Financial Indicators, 2012–2014 (Billions of Ariary)



Source: Adapted from data from the Madagascar Central Bank

Based on the most recent Central Bank report, 2015 suffered an increase in MFI non-performing loans to 6.7 percent (from 4.4% in 2013) and a reduction in profits (43% of MFIs operating at a loss) (Madagascar Central Bank 2015).

Based on 2015 results, there is a concern that the rapid growth of lending activities may have led to over-indebtedness of the sector. There are indications that MFIs need to strengthen credit processes and policies and that entrepreneurs require training on financial aspects of business management and borrowing.

8.1.2 Financial Institutions Currently Serving the Health Sector

There are more than 45 financial institutions in Madagascar, yet the private health sector remains vastly underserved. While some of the financial institutions support the health sector, they do so in an opportunistic manner. Based on interviews and research of development and banking activities in the country, only two financial institutions showed a targeted approach to the health sector:

AccèsBanque Madagascar (ABM): ABM is benefiting from technical assistance provided by USAID's SHOPS Plus program and a Development Credit Authority (DCA) Loan Portfolio Guarantee Agreement restricted to the private health sector.[15] The DCA aims to address challenges associated with collateral and incentivizes financial institutions to begin lending in new sectors and to new borrowers. ABM has developed health loan products targeting both working capital and equipment needs.

ABM offers a health equipment loan that features reduced interest rates and financing up to 100 percent of equipment value. Processing fees have been reduced and buy-back agreements are being negotiated with suppliers with the DCA providing collateral support.

[15] $1 million maximum portfolio amount with option to increase to $2.5 million

OTIV TANA: OTIV Tana has a micro-leasing product for health providers. Equipment financing requires a 20 percent down payment and a 10 percent participation deposit, with the balance in the form of a lease/loan.

Of interest in Madagascar is the growth of mobile banking and the potential it brings to increase access to finance for, among others, private health sector providers. Section 10 discusses this opportunity in detail.

8.2 Access to Finance by the Private Sector

With increasing numbers of Malagasy turning to the private sector for health care, private health providers require financing to grow, expand, and improve quality of service offering. Financial institutions in the country are not proactivity targeting the health sector. An evaluation of bank portfolios found that overall financing by commercial banks in the Malagasy health sector is limited, with investment in health less than one percent of portfolios. Most financial institutions interviewed indicated they did have some activities in the health care space. However, they were doing so in an opportunistic manner, taking a transactional approach to lending.

Access to finance for the private health sector is constrained by a range of supply and demand side factors. These include perceptions of risk by financial institutions, inadequate lending methodologies, cost to serve small/rural providers, and lack of or insufficient collateral likely unacceptable to the bank. A further constraint is the low level of business and financial management skills of health business owners. Based on research conducted by the PSA team, there is strong interest among private providers in accessing loans. Estimates are that in excess of 50 percent of providers would require or would be interested in loans for infrastructure, equipment, and expansion of services.

Some who have not applied for loans cited little knowledge on how to apply and manage bank loans, insufficient collateral, bureaucracy of the banks, deficient business skills, and desire for financial independence. Providers who unsuccessfully applied cited high interest rates, too many terms and conditions, unachievable conditions, lengthy loan approval process, and even poor customer service and a perception that they are unwelcome at financial institutions as reasons for not reapplying.

Health Enterprise and Innovation

Social enterprises in the health care sector are distinct from other private providers because they seek to operate on a sustainable basis while intentionally achieving social impact at scale. For health-focused social enterprises, this often means targeting low-income or otherwise underserved populations, while explicitly seeking to address the barriers that these populations may face in accessing health care. This can mean introducing new technology innovations or developing new business models that can scale in low income markets. If these enterprises can demonstrate the potential for sustainability at scale, this creates an opportunity for private investment capital to enter the market and contribute to increased access to and usage of priority health services.

Successfully reaching investor readiness requires that enterprises have access to appropriate sources of capital and technical assistance to enable innovation, experimentation, and learning. Health enterprises may also need assistance in addressing barriers to scale, such as an underdeveloped or challenging regulatory environment, shortage of available and qualified talent, or a lack of suitable partners. Health enterprises must rely on a strong ecosystem of supporting organizations that can address these scaling barriers.

In Madagascar, the ecosystem that supports scaling of health enterprises is weak. Accessing finance is challenging for entrepreneurs in Madagascar. Commercial lending rates are high, which makes it prohibitively expensive to access the type of capital necessary to start and grow businesses, even if the necessary collateral is available to gain loan approval (The Global Impact Investing Network, 2016). While there are some private investors active in Madagascar, they tend to be limited to a few industries including agri-business and information and communications technology (The Global Impact Investing Network, 2016). A recent study by the Global Impact Investing Network found no direct foreign investment details by private investors in the health sector. One of the reasons cited for this was the lack of investable enterprises as a result of heavy involvement by both the government and NGOs in the delivery of health care, which limited the opportunities for health-focused entrepreneurship (The Global Impact Investing Network, 2016).

There are few organizations positioned to provide technical assistance to enterprises in Madagascar that would enable them to be investor-ready, with investors often having to fill these gaps themselves during their due diligence phase. There are few impact-focused enterprise incubators or accelerators, and business networks and business development services are also lacking (Impact Amplifier, 2015). Where these services do exist, they are either primarily focused on the Information and Communication Technology sector, or they are targeted to Southern Africa rather than specifically to Madagascar (The Global Impact Investing Network, 2016).

While the Government of Madagascar has made it relatively easy to register a business through the Economic Development Board of Madagascar (EDBM), the lack of supportive intermediaries makes it challenging for these businesses to grow and achieve sustainability or scale (U.S. Department of State, 2016). This weak ecosystem has resulted in a weak entrepreneurial culture, along with a limited pool of qualified management and technical talent for health enterprises, among others, to recruit from.

Political instability in Madagascar compounds the challenge of creating long-term relationships with government, a key partner for private enterprises, especially in the health sector. The regional focus of many investors and donors and the lack of a local footprint in Madagascar by these organizations make it difficult for local entrepreneurs to access the few sources of support that are available. Further, they are placed at a disadvantage compared to foreign entrepreneurs based in Madagascar that may have greater capacity in language, business skills, and knowledge of procurement and investment processes.

Enterprise Support Ecosystem

Examples of the organizations supporting health enterprises in Madagascar include:

Investors and Investor Networks: *Investisseurs & Partenaires* (I&P), Ambatovy Social Investment Fund, Madagascar Development Partners, AMIC

Development Organizations: *Agence Française de Développement,* Center for Disease Control (CDC)

Business Support Organizations: Chamber of Commerce

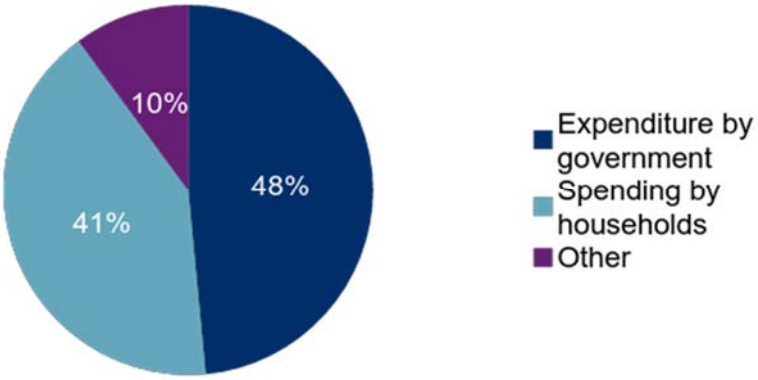
Incubators: *Agence Universitaire de la Francophonie* (AUF) incubator, *Institut Supérieur de la Communication des Affaires et du Management* (ISCAM)

Public Sector Agencies: Economic Development Board of Madagascar

9. Role of the Private Sector in Health Financing Initiatives that Support UHC

With the majority of Madagascar's population living below the poverty line, financing health services for vulnerable and impoverished populations is a key challenge. Out-of-pocket expenditure can be a major barrier for access to the public or private health sector (MSP 2017). In 2014, households accounted for 41 percent of health expenditures (World Bank, 2014), as shown in Figure 15.

Figure 15. 2014 Health Expenditures



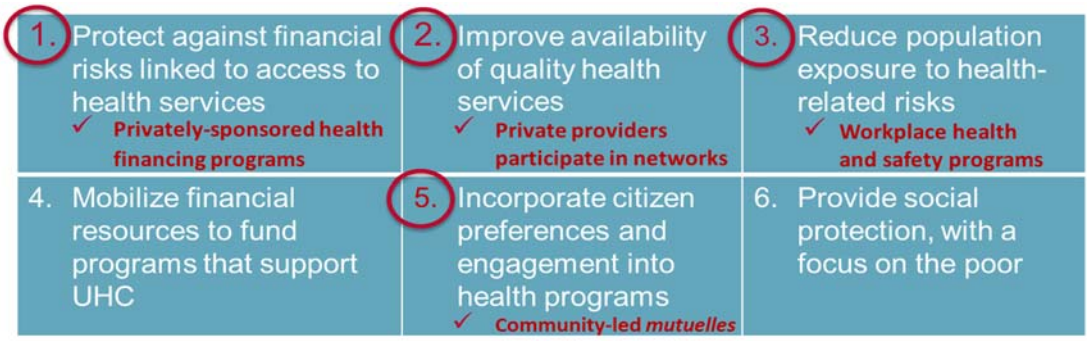
Source: Adapted from data from the World Bank's 2014 Public Expenditure Review: Health Sector Background Paper

In December of 2015 the GOM published its *Stratégie nationale sur la couverture de la santé universelle* (SN-CSU). The SN-CSU's vision is to ensure access to quality health services, without undue financial hardship, and protect the Malagasy population against health risks (SN-CSU 2015). Under the framework of the SN-CSU it created the *Caisse nationale de solidarité en santé* (CNSS) which is a health insurance system for the poorest populations. At the time of this report the GOM was conducting three pilots of the CNSS in Vatomandry (in the Atsinanana region), Faratsiho (Vainankaratra region), and Manandriana (Amoron'I Mania region).

The Providing for Health (P4H) social health protection network conducted a study in 2016 on how to operationalize the health financing components of the GOM'S UHC strategy. While the P4H report offers a comprehensive overview of how to expand health coverage, implement benefit packages, and institutionalize a program that supports UHC, the private sector was largely excluded from the approaches offered.

The SN-CSU articulated six objectives, four to which the private sector already contributes (Figure 16).

Figure 16. SN-CSU Objectives and Overlap with Private Sector Initiatives



The SN-CSU and la *Cellule de mise en oeuvre de la CSU* (CA-CSU) are the two entities in the MSP in charge of implementing the UHC strategy. They acknowledge that the implementation of a UHC strategy is not solely in the domain of the public sector and there is need for partnership with private health providers, employers, professional associations and NGOs, insurers, and technical and financing partners. NGO/FBO representatives are included in the CPSN-CSU, but there are no explicit roles for private for-profit actors. The private sector has the potential to play an important role in what is currently a fragmented and underdeveloped system of social support and health financing mechanisms.

Madagascar is one of many countries exploring health insurance as a primary path toward UHC. Privately-sponsored health insurance programs reach limited numbers: as of 2014, only 10 percent of the population was covered through privately-sponsored programs (i.e., SMIE, *mutuelles*, and/or for-profit insurance providers).[16] The primary barriers to insurance uptake in Madagascar are low demand based on low understanding of the value of insurance combined with an inability to pay for it. In Madagascar and globally, insurance providers are experimenting with innovative schemes, partnerships, and distribution channels to improve efficiencies in administration, lower costs, and create demand.

Lessons learned from other countries suggest that to expand population and service coverage and provide adequate financial protection, health insurance schemes require government subsidies, scale (through mandatory enrollment) and efficiency. Global experience further suggests that voluntary private health insurance schemes including *mutuelles* don't scale up or become self-sustaining (Kimball 2013). Most remain an option for affluent clients who can afford to pay for better financial protection and access. More generally, since no government can provide all health services to everyone for free, private schemes must evolve with and complement government schemes. In some cases, *mutuelles* establish a first foray into insurance. Eventually they may merge into a government-sponsored scheme that scales up using subsidies, capacity building, and regulation, as occurred in Ghana.

[16] Calculations based on estimates provided by the *mutuelles*, the *Commission de l'Eglise Catholique*, and the P4H report provided to the PSA team.

Private health insurance schemes also contribute by leading innovation and testing new models. An example of this in Madagascar is the current experimentation to improve efficiency of *mutuelle* operations and to improve standards of care by the *Programme d'Appui Conjoint au Secteur Santé* (PACSS).[17] The PACSS project centers on strengthening the supply of health services, supporting innovative interventions in favor of demand, the development and management of human resources, and institutional strengthening and monitoring and evaluation. The PACSS initiative's worked with *mutuelles* is discussed further in sections 10.3.3 and 12.7 of this report.

Below, we review how the private sector in Madagascar is already supporting two types of providers, *mutuelles* and licensed insurance companies, to offer health insurance programs.

Learning from Ghana: *Mutuelles* as a Foundation to Advance toward Universal Health Coverage

Since the launch of community-based health insurance (CBHI) schemes in Ghana in 1999, coverage in the country has been scaled up in two phases. First, CBHI schemes proliferated organically throughout the country, motivated by community solidarity principles, increasing from three schemes in 1999 to 258 by 2003. Despite limited coverage, this fostered a culture of health insurance. In 2000, Ghana passed the National Health Insurance law which ordered a new health insurance scheme with a standard benefit package to be set up and administered at the district level. This melding of existing CBHI capacity with a top-down, national framework increased population coverage rates 30-fold over a relatively short period of time, reaching the present coverage of 40 percent.

(Source: adapted from Atim, 2010 and Joint Learning Network, 2012)

9.1 Mutuelles

While *mutuelles* are not new to Madagascar, participation in them among the population remains extremely low at only 0.9 percent.[18] *Mutuelles* in Madagascar face the same obstacles as *mutuelles* in other countries (see global lessons, below), but with even larger hurdles given the pervasive poverty found in the country. Small and struggling to offer a full range of essential health services, *mutuelles* are also fragmented; they operate with limited know-how, and inefficiencies at all levels of administration, from data management to provider network development and claims. *Mutuelles* are not regulated by the MSP so they are able to set operating guidelines and practices without external oversight.

Mutuelles are unregulated, community-based health financing schemes that usually target low-income and informal populations for protection against catastrophic costs, such as those for hospitalization.

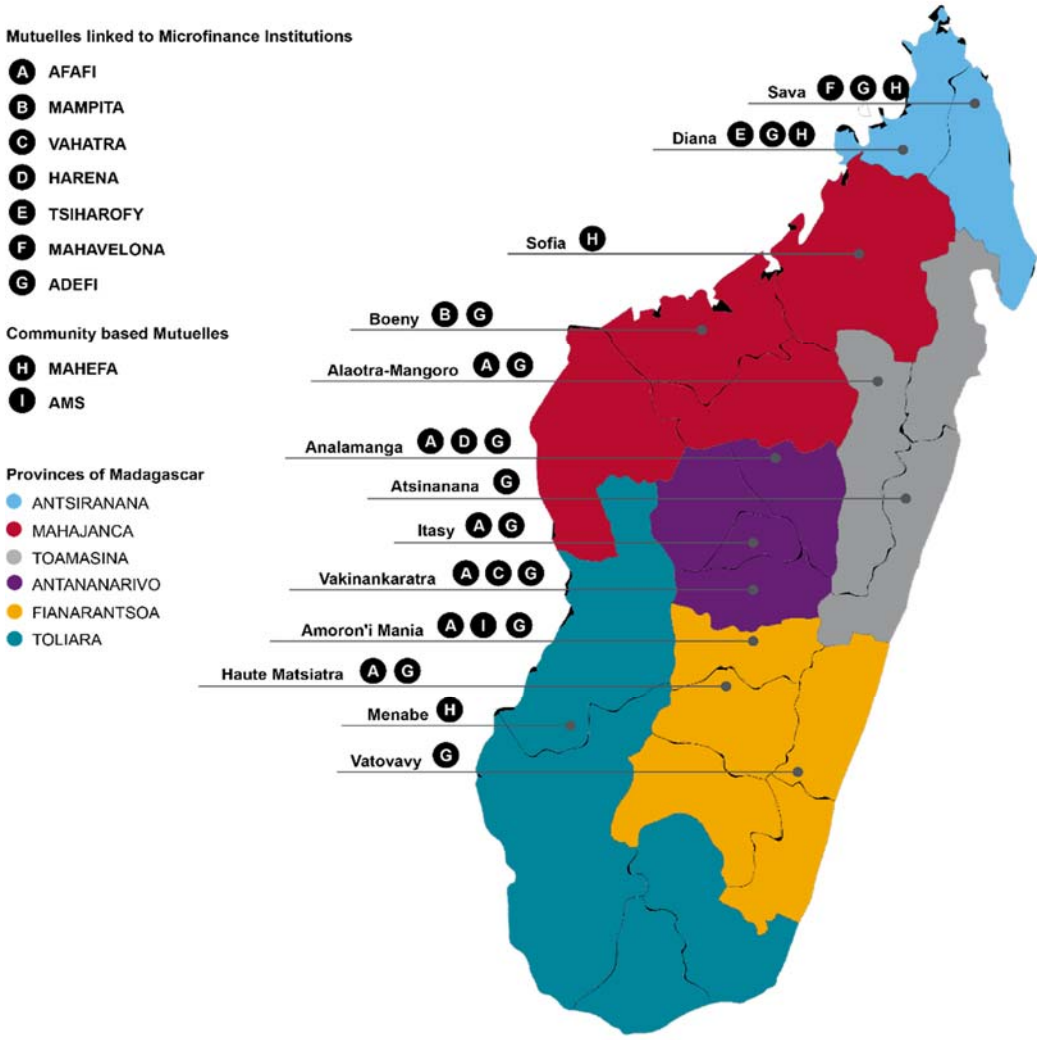
Despite these limitations, *mutuelles* represent an important foray by the private sector into risk-pooling and pre-payment mechanisms that support financial risk protection and other UHC objectives. First seen in Madagascar in the 1970s in response to stock outs and high medicine costs, *mutuelles* have since expanded to cover broader health services. While still nascent, *mutuelles* are developing networks of hundreds of NGO and independent private providers in addition to public providers. They are also beginning to develop common treatment protocols and fee schedules with private providers. In theory, private providers will agree to adhere to broadly accepted

[17] The PACSS project was active at the time this report was written, but ended at the end of 2017.
[18] Calculations based on estimates provided by the *mutuelles*, the *Commission de l'Eglise Catholique*, and the P4H report provided to the PSA team.

standard protocols and quality standards as a condition to be included in third-party payer networks for *mutuelles* and thereby be able to provide covered services to clients. The CPSN-CSU, as part of the Health Sector Development Plan and the SN-CSU, is interested in potentially integrating *mutuelles* into the social health insurance scheme proposed under the SN-CSU.

The map in Figure 17 shows the location of prominent *mutuelles* in Madagascar, including *mutuelles* that have partnered with an MFI and those that are community-based. All schemes benefit from donor-funded projects. While *mutuelles* are present in all six provinces, they are clustered within only 13 of the 22 regions.

Figure 17. Location of *Mutuelles* in Madagascar, by Region, 2017



Source: Based on data provided by stakeholders interviewed

9.2 *Mutuelle* Administrators

Networks of *mutuelles* are administered by international NGOs (such as Positive Planet and Inter Aide), by communities, or by associations. These administrators perform three main roles: provision of subsidies; promotion, advocacy, and enrollment of new clients (enterprises and individuals); and overall program administration.

Administrators of *mutuelles* provide in-kind or financial subsidies to offset operating costs and to improve operational performance of the schemes. The financial viability of *mutuelles* in Madagascar is closely linked to the donor-funded project that supports it. Table 17 offers details on several *mutuelles* developed by donor-supported projects. The MAHEFA scheme covered services in public facilities. Patients used the *mutuelles* to pay for drugs and emergency transport systems as consultations are free. At its peak, the MAHEFA *mutuelle* had nearly eighty thousand beneficiaries, but shrank to less than half that size during the period where MAHEFA, implemented by John Snow Inc. (JSI), was facing an uncertain bid for project renewal. Interestingly, MAHEFA was providing no financial subsidy to the *mutuelle*, only technical support and leadership. The drop in enrollment, therefore, was more likely due to a lack of direction and oversight, rather than a loss of financial subsidy. Similarly, the end of the Santenet2 project resulted in the closure of most of the associated *mutuelles*.

Table 17. Community-Based *Mutuelles* Associated with Donor-Funded Projects

Name, Year initiated	Number of beneficiaries	Implementing / Development partner
AMS (2011)	1,016	Santenet2 / USAID
MAHEFA (2014)	28,276 (Previously: 77,233)	Mahefa / USAID
MIAI (2011)	Closed (Previously: 8,901)	Santenet2 / USAID
TIAA (2011)	Closed (Previously: 13,936)	Santenet2 / USAID
TIAVA II (2011)	Closed (Previously: 3,063)	Santenet2 / USAID

Source: Adapted from data provided by stakeholders interviewed

Administrators of *mutuelles* establish provider networks using criteria developed for that network. For example, Positive Planet uses several general criteria to determine whether to

approve a private provider to participate in its network, which include reputation of provider, provision of patient-centered care, billing practices, fees, and fraud concerns.

Criteria and methods used to pay providers are also determined by each *mutuelle*. Among the 296 providers in the Positive Planet network are Marie Stopes Madagascar clinics, Top Réseau (PSI) providers, independent private practitioners, private pharmacists and drug shops, as well as CSB and public hospitals. Charges to patients for the same service vary significantly across private providers, even within the same region.

In their third role, administrators of *mutuelles* focus on overall program administration. Revenue generation, risk-pooling, and the ability to spread fixed costs depend to a large extent upon enrollment. Some employers who offer an SMT to their employees see *mutuelles* as an appealing way to supplement limited covered health services that may require long waits. However, only eight percent of the population in Madagascar is employed in the formal sector and even eligible for a workplace program such as OSTIE, AMIT or another SMIE (P4H 2016). Other distribution partners, including enterprises that are interested in insuring not just their employees, but their clients as well, can help *mutuelles* penetrate Madagascar's extensive informal sector. Enterprises such as mobile network operators (MNOs), banks, and MFIs, are particularly strategic partners since they have aggregated large groups of clients and are established and trusted "brands" within target communities.

Initiatives to Improve *Mutuelle* Performance

Under the *Programme d'Appui Conjoint au Secteur de la Santé* (PACSS), funded by AFD, the FTHM Group is leading two initiatives designed to improve *mutuelle* performance:

1. ***Réseau de Soin Coordonné* (RSC):** The goal of this effort is to improve understanding of whether and how the private sector can be organized, harmonized, and prepared to participate in larger networks in support of UHC. Importantly, these lessons can be extended to the public sector as well to regulate and integrate services across sectors.
    - The RSC network is being piloted in a peripheral district of Antananarivo with five independent doctors and three pharmacies. The pilot was set to finish in December 2017 and is developing common protocols for consultations, fees, and training tools to enable the network of providers to provide consistent, predictable, and fair services.
2. **Study of six *mutuelles* managed by Atia and Positive Planet**: This study will estimate operating costs of *mutuelles* and examine whether it is feasible to create a network of *mutuelles* with protocols and services in common to streamline administration and reduce costs.
    - Based on the review, FTHM will propose specific operational improvements for the *mutuelles*. One issue that is already emerging is the need for better digital data management systems.
    - This initiative will also examine how to develop a legal and advocacy platform for *mutuelles* to advance collaboration and dialogue with the public sector.

9.3 MFIs: A New Distribution Channel for *Mutuelles* in Madagascar

During the last five years, prominent MFIs in Madagascar such as OTIV Tana, ACEP, *Crédit-Epargne et Formation* (CEFOR), and Baobab have begun offering insurance to credit clients. The motivation behind the offer is both commercial and social. MFIs first offered "credit life" insurance to ensure that loans were repaid in the event of the client's death. The MFI was listed as a beneficiary of the insured. MFIs also observed that uninsured clients who encountered economic shocks such as high medical costs were less likely to pay back loans and take out new loans. Finally, insurance was seen as a way to differentiate the lender and add value for clients. In terms of social impact, MFIs affirm their commitment to extending access to health services to vulnerable and underserved populations that they target with small credit products.

Table 18 below presents information on several of the largest and most prominent *mutuelle*-MFI partnerships in Madagascar. ADEFI, originally an association providing savings and credit, transformed into a health *mutuelle* in 2010 with the support of the European Union and now serves clients of the *Agence de Credit pour l'Entreprise Privée* (ACEP), an MFI. ADEFI is currently the *mutuelle* in Madagascar with the largest enrollment, thanks to its strong partnership with ACEP. Positive Planet (PPOI) and ATIA both manage multiple *mutuelles* that are also associated with MFIs.

Table 18. Overview of *Mutuelles* Affiliated with MFIs

***Mutuelle* Name, Year initiated**	**# of Beneficiaries**	**MFI (Channel)**	**Partners**
ADEFI (2011)	90,000	ACEP	Eur. Union
AFAFI[19] (2007)	33,527	CEFOR	ATIA/AFD
Harena (2012)	5,200	OTIV TANA	PPOI/AFD
Mampita (2012)	10,000	OTIV Boeny	ATIA/AFD
Mahavelona (2013)	1,000	SUMRISE	PPOI/AFD

[19] * AFAFI membership includes 900 families enrolled on voluntary basis in 3 rural communes: Ambohitrimanjaka, Sabotsy Namehana and Ankadimanga

Tsiharofy (2012)	9,620	SUMRISE	PPOI/AFD
Vahatra (2012)	28,406	CEFOR	ATIA/AFD

Source: Adapted from data provided by stakeholders interviewed

Insurance programs offered by MFIs are not typically subsidized, so premiums are borne by clients in the form of fees bundled with other loan charges. Because the value and function of insurance is not immediately apparent to most clients, few choose to voluntarily enroll. Some MFIs, such as OTIV Tana, make insurance programs mandatory for clients as a way to maximize participation in the programs. While MFIs were initially concerned that mandatory insurance enrollment would deter recruiting and retaining credit clients, they also recognized that mandatory enrollment increases revenue, creates a larger and more stable risk pool, and maximized the protection of financial assets.

Despite the benefits, challenges remain for MFIs that offer insurance. In particular, if insurance is bundled with a loan, coverage typically lapses when the loan is paid off, usually in nine to 12 months. Additionally, when dependents can be insured the number of clients increases by a factor of four or five. Setting up and maintaining information systems for additional clients besides the borrower requires additional resources. Decisions must be made about whether and under what circumstances a new dependent can be enrolled once the loan has been issued, and how insurance enrollment tied to credit will be affected when the borrower pays late, repays early, or defaults on the loan.

What is microinsurance?

"A mechanism to protect poor people against risk (accident, illness, death in the family, natural disasters, etc.) in exchange for insurance premium payments tailored to their needs, income, and level of risk" (ILO's Impact Insurance Facility, 2008)

The concept of "microinsurance," is becoming more familiar in Africa thanks to overall economic growth, growth in the insurance sector, promotion of financial inclusion for vulnerable populations, and innovations such as mobile money. However, people still have extremely limited understanding of the utility of insurance, especially health insurance, which is more complex and usually more expensive than other types of insurance.

9.4 Licensed Insurance Companies

Licensed, regulated, for-profit insurance companies also offer health insurance programs in Madagascar. These insurance companies generally court corporate sponsors that employ higher-income clients. Their products are correspondingly higher-value, offering more comprehensive benefits at a higher premium, compared to those of *mutuelles*.

Health insurance is often a less profitable line of business for insurance companies than other types of insurance because claim and administrative costs are generally higher. As with *mutuelles*, insurance companies were established in Madagascar in the 1970s, and they too have seen slow growth in the health insurance market. Licensed insurers are taxed and regulated by the Ministry of Finance. Insurers interviewed noted that high taxes as well as bureaucratic bottlenecks limit their ability to lower premiums and increase sales and penetration. Further, insurers raised concerns around the double taxation on medicines. Health insurance programs are taxed, but so are medicines covered by the programs, making medicines more

expensive for insurers and clients. In addition, some insurance companies and private providers use inefficient, paper-based systems to track data and to manage quality and detect fraud.

Of the five commercial insurers operating in Madagascar, four offer health products. Aro is the leader in both overall insurance market share (61%) and in health insurance more specifically, with approximately 30,000 health insurance clients. Ny Havana follows with 17 percent of the market share, Allianz with seven percent, and SAHAM with seven percent. Aro and Ny Havana are both state-majority-owned.

For Aro, the largest health insurance provider, health insurance began as accident benefits offered to motor insurance clients. Aro's health insurance has evolved into a standalone product sold to enterprises and individuals. Aro focuses on two products: 1) a "full service" benefit package which covers a comprehensive range of services including hospitalization, maternity care, and outpatient and preventive services and 2) a more limited hospitalization product providing benefits that offset the ancillary costs associated with hospitalization, such as transportation. The "hospital cash" product also targets employers/employees already covered by SMIE but who want to access to a wider network of providers (mostly private) and to reduce wait time to access care.

In 2005, the insurance market opened to private for-profit insurance companies such as Allianz and SAHAM. Allianz began offering health insurance in 2016 but only offers it to groups and not individuals. Typically, these group policies target large employers who subsidize 90, 80 or 70 percent of the premium, while the employee contributes the balance. Though Allianz is positive about the potential for group health insurance in this market, as of April of 2017 the company had insured just four enterprises with a total of 300 employees. Allianz, like other insurers, recognizes that to spur real growth, individual products, especially those tailored for low-income households, are crucial.

9.5 Third Party Administrators

As with the *mutuelles'* provider networks, these provider networks create an important opportunity to organize private providers, monitor quality, and incentivize adherence to agreed-upon protocols. While the market for health insurance is still quite small, one of the most important advances associated with the growth of health insurance is the development of provider networks that include private providers. Ascoma and BSA Gras Savoye are two principle intermediaries that work with insurers in Madagascar. BSA Gras Savoye works primarily with Aro and Ascoma serves Allianz, Aro, and Ny Havana. In these roles, Ascoma and BSA Gras Savoye recruit private and public clinics, hospitals, and pharmacies that meet their quality and geographic needs, and manage all of the claims. The Ascoma provider network has 250 providers, most of which are in Antananarivo. Most of BSA Gras Savoye's contracted health providers are private.

9.6 Innovative Approaches for Extending Health Financing: Mobile-Enabled Insurance

In Madagascar those who are not formally employed, wealthy, or based in urban areas may find access to health financing, particularly health insurance, difficult. One innovative approach being used to increase access is selling health insurance through and with MNOs.

All three major MNOs in Madagascar have developed, or are developing, mobile-enabled insurance programs. These programs offer a range of benefits, but may not be accessible to the majority of the population due to a lack of information or training. MNOs have expansive networks of clients and airtime distributors, marketing channels, and mobile financial transaction infrastructure. Communities engage daily with MNO brands, making these companies well-placed to promote the concept of insurance and to leverage existing infrastructure to efficiently distribute and manage insurance products. For MNOs, offering insurance opens opportunities for new partnerships, revenue streams, and competitive differentiation.

The most prominent example of a mobile-enabled insurance program is Antoka, offered by Airtel and Allianz. In addition, Aro plans to launch a mobile-enabled product with mVola. mVola is the mobile money arm of Telma, one of the three major MNOs in Madagascar. Like Antoka, the yet-unnamed product will provide death, disability, and accident benefits.

In 2014, MicroEnsure, a UK-based insurance intermediary with mobile-enabled insurance projects in eight African countries, launched a partnership with Airtel and Allianz to offer “Antoka”, a simple, mobile-enabled insurance, to Airtel clients in Madagascar. Antoka, which means “Sure” in Malagasy, was piloted as a “freemium" product. This means that existing Airtel clients didn’t need to pay to enroll in Antoka. Clients who maintained certain levels of credit on their Airtel account over consecutive billing cycles could receive benefits in case of accidental death, permanent disability, or hospitalization over three nights.

A “freemium” product serves two important purposes. It incentivizes client loyalty and encourages clients to either maintain or increase their levels of spending. Client loyalty and spending are key for MNOs, especially in a competitive market like Madagascar where clients are accustomed to owning multiple SIM cards and switching operators frequently. A freemium product also acts as a gateway; the product is offered to clients free of charge so that they can begin to understand its terms and its value, slowly building a culture of insurance. Freemium products are typically a stepping stone to future client-paid products, once customers recognize the value of the product. Since 2014, approximately 60,000 clients have enrolled in Antoka. The average client’s age is 26 and the majority of clients are urban.

In 2016 the partnership between Airtel, Allianz, and MicroEnsure dissolved. Two of these partners, Airtel and Allianz, relaunched the product in February of 2017. While the re-launched version of Antoka is more streamlined and efficient, without client-paid premiums Antoka is not self-sustaining. To demonstrate success, there must be high levels of client satisfaction with Antoka and the willingness and capacity of clients to pay for this type of product, but consumer acceptance takes time.

A key hurdle for mobile-enabled insurance products is that clients must continuously take action to authorize payments or maintain enrollment. Passive renewal features would help overcome this issue but current regulations in Madagascar don’t allow auto-deductions from mobile money wallets. This leaves a behavior barrier because clients must take action to top-up or authorize payments. Additionally, digital literacy in Madagascar is limited.

Another limitation of current mobile-enabled insurance is that it offers mostly simple benefits with limited coverage. These benefits fall short of providing adequate financial protection for the health needs of the population. There has been an uptick in interest on the part of insurers, MNOs, and MFIs in offering health insurance through innovative distribution channels that improve access and reduce cost.

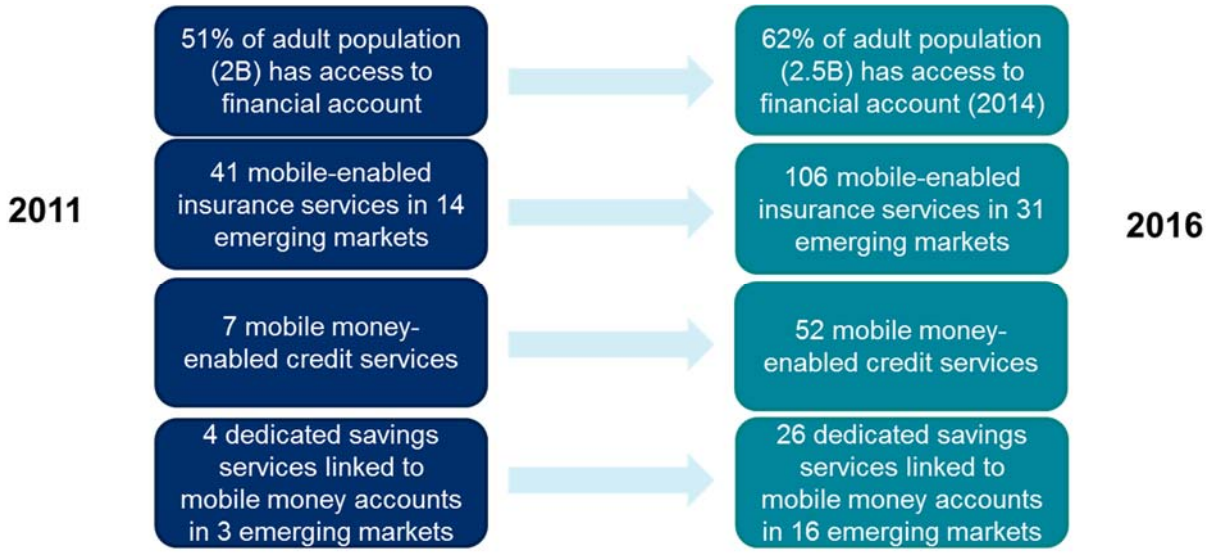
10. Digital Finance

While digital financial inclusion is not typically considered a health sector priority, it does have important intersections and synergies with health. Understanding the context of digital financial inclusion globally and in Madagascar in particular can help address key barriers prohibiting financing of and access to health services. Financial inclusion has come to the forefront of development efforts through entities like the Consultative Group to Assist the Poor (CGAP), which brings together leading global donors, including USAID, the Bill and Melinda Gates Foundation, and the Omidyar Network under the World Bank umbrella to ensure that all individuals, regardless of income level, have access to and can effectively use the financial services they need to improve their lives. In this section, we explore financial inclusion and the growth of mobile money in Madagascar as a vehicle to improve digital financial access and applications in health.

10.1 Digital Financial Inclusion

Digital financial services use technology to support access to and use of formal financial services. Digital financial inclusion is the concept of extending these services, often through mobile phones, to underserved populations. In 2014, the number of adults globally without access to a financial account (the "unbanked") was 2 billion (Findex 2015). However, between 2011 and 2014, 700 million people globally became financial account holders, representing an increase from 51 to 62 percent of the global population with an account (Findex 2015). Mobile money has facilitated rapid advances in financial inclusion. These advances include increased access to formal financial accounts, insurance services, credit services, and savings services. Figure 18 highlights the details of these key achievements over the past five years, including increases in mobile-enabled insurance, credit and savings services.

Figure 18. Global Advances in Mobile-Enabled Products

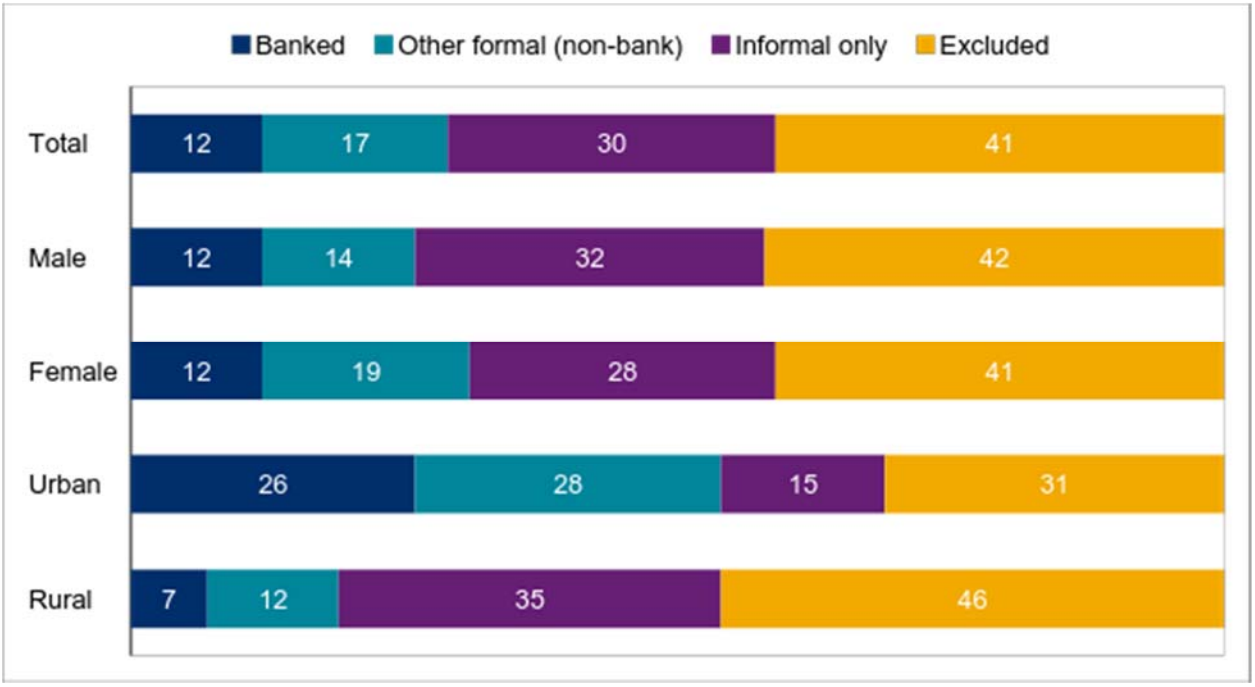


Source: GSMA 2017, Findex 2015

10.2 Financial Inclusion in Madagascar

Access to formal financial services, such as savings and credit, is important in the context of health because it promotes planning for health care expenses, facilitates timely access to appropriate health care, and reduces the likelihood of having to make difficult tradeoffs between health and other essential goods and services (e.g., nutrition, education, and housing). In Madagascar, 12 percent (1,350,000) of the adult population have used or currently use accounts at a regulated bank (Finscope 2016). More than twice that many (26%) have used financial products at other, non-bank financial institutions, such as MNOs (mobile money) and MFIs (credit products). With more than five million mobile money account subscriptions, there are significantly more mobile money account users than bank account users (Madagascar Central Bank 2016). There are also differences in financial inclusion among women and men and among urban and rural users (Figure 19). Unsurprisingly, urban dwellers are more likely to be banked (i.e. have bank accounts) or use any kind of financial product, including mobile money. There is no gender gap between men and women who are banked, and women are actually more likely to have had an account with a non-bank formal financial service provider compared with men. The higher rate for women would suggest that service providers are targeting women as customers and meeting their needs.

Figure 19. Percent of Malagasy with Access to Different Financial Services



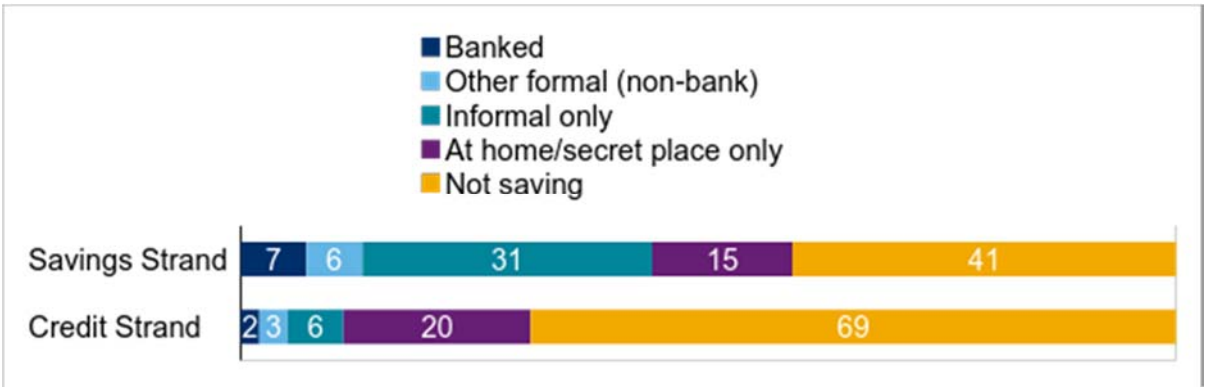
Source: Finscope 2016

Reasons given for being unbanked include not having enough money for savings (49%), not having a regular source of income (39%), not needing a bank account (37%), the places are too far away (36%), and various levels of not understanding how banks work (35%), including how to apply (34%) and what benefits are offered by having an account (31 %) (Finscope 2016).

10.2.1 Savings and Internal Lending Communities (SILCs) and Village Saving and Loans Associations (VSLAs)

A key component of financial inclusion is the ability to take part in savings, investment, and credit. In Madagascar there are very few mechanisms of formal savings or credit. Only seven percent of adults have savings accounts at banks, and only five percent of adults have credit from a bank or MFI (Finscope 2016), as shown in Figure 20. The largest mechanism of saving is informal and mainly based on livestock. One notable informal mechanism of savings and credit is the Savings and Internal Lending Committees (SILCs), also known as VSLA (Village Saving and Loans Association).

Figure 20. Percentage of Population with Access to Savings and Credit Products in Madagascar



Source: Finscope 2016

SILCs are informal groups of friends and communities that come together to pool, save, and invest funds. This develops the financial planning skills needed to enter the formal sector. Key donor-funded organizations like MSH (through its USAID project, Mikolo), Catholic Relief Services (CRS), Care, and the Aga Khan Foundation help establish these groups and provide technical support and training, though importantly, the funds for saving and lending are not subsidized. In some cases where the savings accounts are too large to safely store as cash, the SILCs use an MFI account to prevent theft. Interestingly, initially the banks and MFIs saw the SILCs as their competition rather than as developing their future market. Mikolo supports the largest group of SILCs with between 1,000 and 1,500 SILCs with 15-25 participants each. In the Mikolo SILC model, there are three pools of funds: group savings, group solidarity fund, and dedicated savings funds, and clients contribute somewhere between 200 and 10,000 Ariary ($0.06 to $3.20) per week. Each individual group sets its own rules, with members deciding collaboratively how to structure their savings and loan mechanisms. Typically members can borrow after four meetings, up to three times the value of their savings. While SILCs focus more on financial inclusion than on health, Mikolo has also built some synergy with the health sector by inviting health workers to join SILCs and share health information during the regular gatherings. Mikolo does not have any plans to partner with MFIs. There are no plans currently to link SILCs to other health financing services such as *mutuelles* or insurers.

CRS supports another large group of 513 SILCs with approximately 10,000 members overall, 65 percent of whom are women. CRS offers an intensive certification-based training program on

the SILC model. If successful during training, the individuals are certified as Private Service Providers and can offer their SILC support service to communities for a fee.

Despite what would seem to be a mutually beneficial synergy between SILCs and banks/MFIs, there has been limited partnership. Banks and MFIs have viewed SILCs as competitors rather than as a building block to more formal financial sector engagement. At the time of writing CRS was launching a study to determine the feasibility and cost-effectiveness of using mobile money for all SILC transactions and savings.

10.3 Mobile Money

Mobile money is an electronic wallet service that enables people to store, send, and receive money in digital form from their mobile device. Mobile money can be used on any type of phone. It represents one channel for digital financial services, which can also be offered through cards, bar codes, chips, and online. In this report we focus on financial services delivered through mobile money, particularly in the context of health. A mobile money account can typically be opened without a minimum balance requirement, but identification documents are required. Mobile money was first launched in Kenya by Safaricom as M-PESA, which offered financial services to the more than 80 percent of the population who were unbanked. M-PESA's incredible success (nearly 25 percent of the country's gross national product now flows through it) has inspired other markets to develop similar products. Models vary from country to country, some requiring banks to back the services (Economist 2015). Mobile money is now available in two-thirds of low- and middle-income countries. In sub-Saharan Africa, where 97 percent of the population has no bank account, there were 277 million registered mobile money accounts at the end of 2016 (GSMA 2017).

Mobile money has potential utility in the following areas for health:

- Facilitating person-to-person (P2P) transfers at scale, such as conditional cash transfer programs for dispersed populations to increase use of services
- Enabling collection of funds from hard-to-reach locations, such as small, routine payments for health insurance premiums

There is increasing momentum for digital technology to facilitate financial inclusion and protection, and to make financial transactions more secure, transparent, and efficient. Digital financial services can also support health programs, health providers, and health seekers.

SHOPS Plus conducted a survey in 2017 of health stakeholders in the public and private sectors to better understand current use of and future interest in mobile technology to achieve program objectives in Madagascar. Key findings of this survey included:

- 38 percent of respondents (n=15) said that they had used mobile money to pay staff or partners and 10 percent (n=4) said that they had used mobile money for other programmatic purposes
- 39 percent of respondents (n=16) said that they would be interested in exploring mobile money for beneficiary financial inclusion and 29 percent (n=12) said that they would be interested in exploring mobile money for operational payments and/or monitoring and evaluation incentives
- Respondents reported that mobile money use increased the speed and security of payments and increased the ability of women to access money
- Key challenges noted were that clients may not want to use mobile money for reimbursement payments and insufficient funds among cash points in remote areas to pay workers

- Increasing safety and efficiency of health workforce by reducing need for cash transactions at clinics
- Allowing for targeted and timely assistance in emergencies, such as taxi payments in the event of obstructed births
- Providing permanent real-time records for bulk payments such as per diems or salaries paid to health workers and community agents by program administrators (HFG 2013).

These use cases can help springboard new concepts and innovations for mobile money applications in health.

10.3.1 Mobile Infrastructure in Madagascar

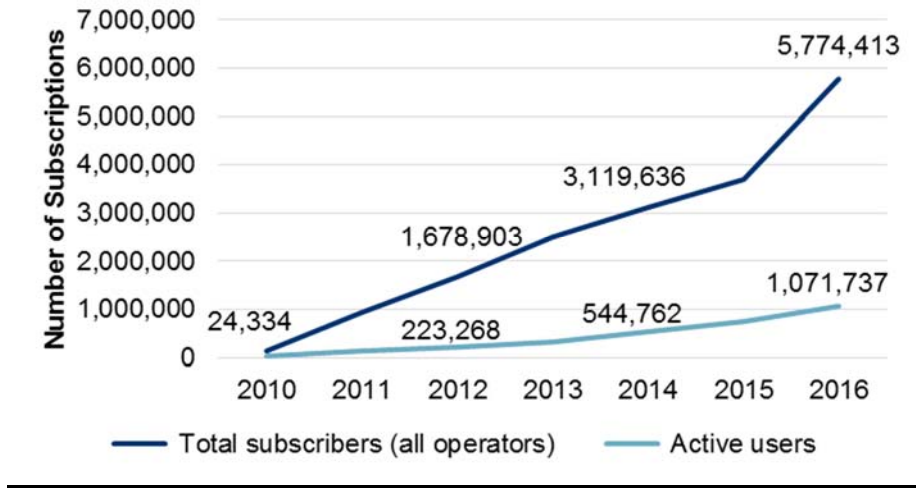
The mobile money platform is bounded by the mobile infrastructure, marketplace, and penetration of a given country, so it is important to first consider these foundational elements. In Madagascar, there are three major MNOs and each of the major mobile operators offers mobile money services: Orange via Orange Money, Airtel via Airtel Money, and Telma via mVola. In Madagascar, an estimated 51 percent of the population has a mobile phone or SIM card (63% in urban areas) and the market is largely driven by prepaid accounts, rather than subscriptions, indicating a preference for the "pay-as-you-go" model typically used in low-resource settings (Budde 2016, Finscope 2016). Despite continuing to have one of the lowest mobile penetrations in SSA, the growth is promising, driven by investments in infrastructure (notably Telma's $250 million fibre optic "backbone") and the competition between operators with fairly even market shares. In 2013, Airtel had 40 percent of the market, followed by Telma and Orange at 31 percent and 29 percent, respectively (GSMA 2013). Market share figures are difficult to come by, but Telma claims to have about one-half (50%) of the mobile money market. Geographic mobile coverage is actually quite high at 85 percent given the size of the market.

In 2017, Madagascar became the second market (after Tanzania), in which all major operators agreed to make their mobile money services interoperable, supporting seamless and potentially less expensive transactions across operators. This move was hailed as demonstrating the mobile industry's commitment to developing financial services for consumers and driving economic growth (GSMA 2016). The 2016 Finance Act raised the Telecom Tax to 10 percent, a fee MNOs will likely pass on to their users (Budde 2016).

10.3.2 Mobile Money Penetration in Madagascar

Mobile money debuted in Madagascar in 2010 and reached more than 5.77 million subscriptions (1.35 million active users) in 2016 (Figure 21). This represents a growth of 4,400 percent (CSBF 2016, CNN 2017). Number of active users (having used the mobile money service within 90 days) is a more accurate reflection of how many current users there are in Madagascar. As is the case in many other countries, subscribers often register for mobile money but may not be active users because they are not clear on its application, can't pay high transaction fees, do not have access to a mobile money agent, or have trouble using it (due to gaps in signal coverage or a limited number of businesses accepting it). The number of active users has not been as quick to grow and reflects the fact that many users have SIM cards from all three operators.

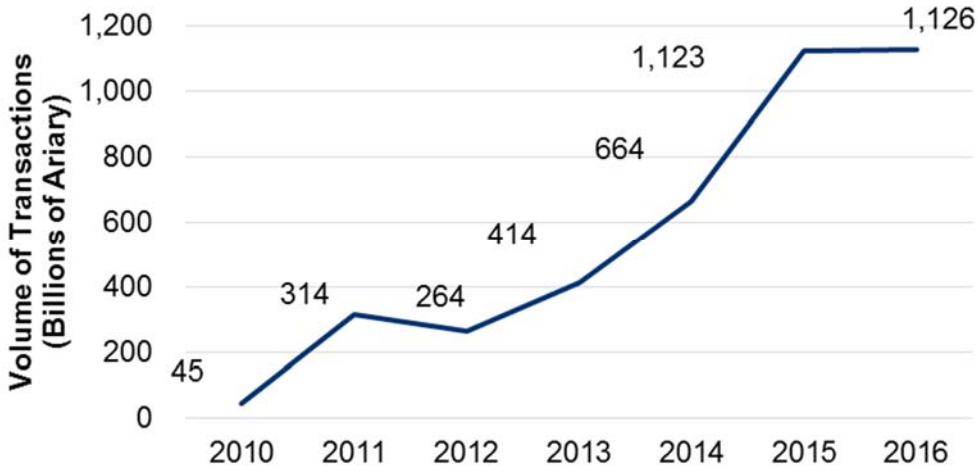
Figure 21. Number of Total and Active Subscribers 2010-2016



Source: CSBF 2016

Corresponding to the increase in subscriptions, the volume of transactions of mobile money has also increased by 2,500 percent since 2010 (Figure 22).

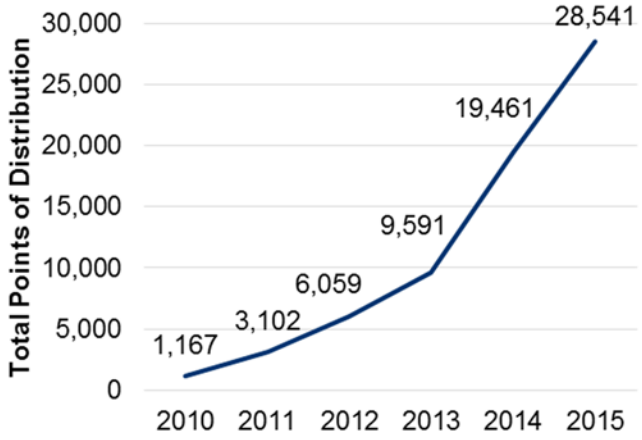
Figure 22. Volume of Transactions (in billions of Ariary), 2010-2016



Source: CSBF 2016

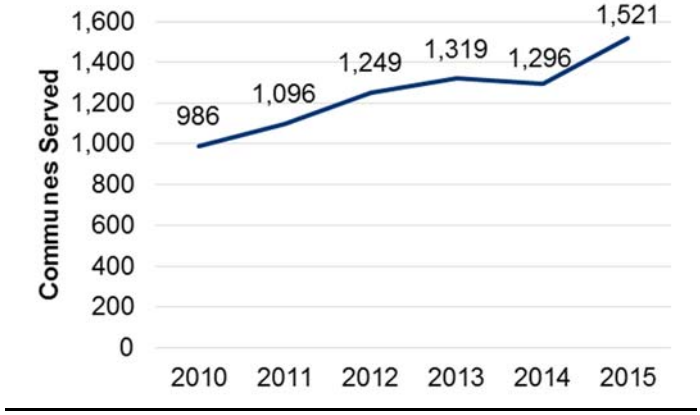
The number of distribution points ("cash points") and communes served by mobile money are also increasing, creating greater geographic access and convenience to potential users (Figures 23-24). With approximately 1,600 communes in Madagascar, this means that most communes are served in some capacity by a mobile money operator. A recent survey found that geographic access may explain some of mobile money's dominance over financial institutions; on average is takes 24 to 30 minutes for clients to commute to formal financial service destinations such as banks, ATMs, and MFIs, while time to mobile money agents on average is shorter, at 18 minutes (Finscope 2016).

Figure 23. Number of Points of Distribution, 2010-2016



Source: CSBF 2016

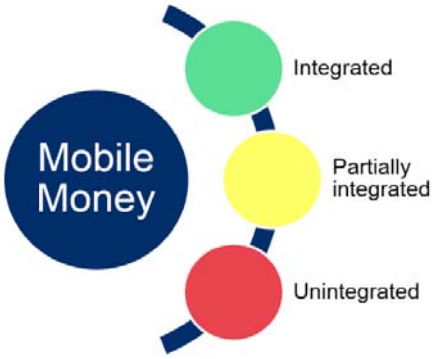
Figure 24. Number of Communes Served, 2010-2016



Source: CSBF 2016

10.3.3 Mobile Money Use Cases for Health in Madagascar

The concept of digital finance and the use of mobile money for health are still new, and organizations have taken different approaches to integrating mobile money into their business practices. To better understand organizations' attitudes towards the use of mobile money for health and how they have used it, a small set of current examples have been sorted into three categories: integrated, partially integrated, and unintegrated. Integrated examples are those in which organizations use mobile money fluidly as part of a program. Partially integrated examples are those which demonstrate mixed attitudes towards and experiences with mobile money. Unintegrated examples are those in which mobile money has not worked or is not perceived to



respond to program needs. Because the unit of analysis is the use case, a single organization may appear in more than one category depending on its experiences and attitudes associated with mobile money.

Integrated (early adopters)

Integrated use cases are examples of organizations that have used or currently use mobile money to support their program's health objectives in Madagascar. They are considered early adopters because they have decided to use mobile money at this early stage despite contextual challenges noted earlier. Examples include:

- Baobab, a leading microfinance lender, committed to leveraging mobile channels to improve their financial offerings. Baobab has partnered with Orange Money to enable cash-in cash-out services and a mobile wallet for credit clients. It has also partnered with Airtel Money to finance cashless customer cards. MAHEFA partnered with Fondation Telma and mVola to push airtime credit to at-risk youth for an SMS-based family planning activity. Pushing airtime or other credit through mobile money is a useful tool for incentivizing healthy behaviors and participation.

- Aro and Ny Havana have each partnered (separately) with mobile money operator mVola to offer mobile-enabled insurance.

- CRS, Care, and the AIRS project pay per diems, vendors, and seasonal work using mobile money. Using mobile money for small, recurring payments in hard-to-reach locations has improved security and timeliness of payments and reduced program cost and administrative burden.

These pioneers are investing in a range of digital financial services for health including incentives, mobile-enabled insurance, financial services, and program administration. They will be able to offer important insights into the challenges, costs, and benefits of applying mobile money for these objectives.

Partially integrated (Receptive)

Programs that are partially integrated currently offer mobile money channels but are facing difficulty with uptake or are actively considering using mobile money to support their program's health objectives in Madagascar, including:

- Ascoma, the third-party administrator of a health provider network used by Allianz, Aro, and Ny Havana, began using mobile money in 2017 to reimburse health insurance clients for covered out-of-pocket costs associated with their insurance claim. This payment method is available to clients of any operator and complements the existing channels of bank deposit and cash.

- Aro, the largest insurance company in Madagascar, and Positive Planet, a *mutuelle* administrator, offer health providers in their networks the option of receiving payments for their services through mobile money (any operator). However, Aro noted that doctors prefer to receive payments through their bank accounts, and Positive Planet noted that many providers were unsure how to use mobile money or did not have an account.

- CRS and Care are actively considering or conducting studies to determine whether the use of mobile money will create efficiencies in the administration of their SILCs.

- MAHEFA, Positive Planet and FTHM/PACSS, are actively considering or conducting studies to determine whether the use of mobile money will create efficiencies in the administration of their *mutuelle*s. In particular, they are investigating whether mobile money offers improved financial tracking and accounting (audits and fraud detection), at a lower cost (monetary and time).

Partially integrated examples demonstrate both that there is still some uncertainty and reluctance tied to the use of mobile money and that these organizations are keenly interested in learning more about how to best leverage digital financial services to improve financial inclusion and their own operations.

Not integrated (Sceptic)

Some programs do not currently see a benefit from introduction of mobile money to support their program's health objectives in Madagascar. There is a readiness continuum, and these organizations have concluded that investing in the transition to digital financial services is not cost-effective at this time, in this setting, or for the specific objective. Unintegrated examples demonstrate that there are a lot of competing priorities, and programs must evaluate when digital payments are valuable to program objectives.

- Mikolo does not see the value in using mobile money to support their SILC program, or as a platform on which to store money instead of the use of cash boxes.

- OTIV Tana, an MFI, does not yet see the value in making loans through mobile money accounts because then the money sits on the client's phone rather than in their MFI account.

- ATIA (Inter Aide), a *mutuelle* administrator, surveyed clients about their interest in having the option to receive reimbursements for health care expenses through mobile money. Clients said that they preferred to receive cash and so ATIA has no plans to add a mobile money reimbursement channel.

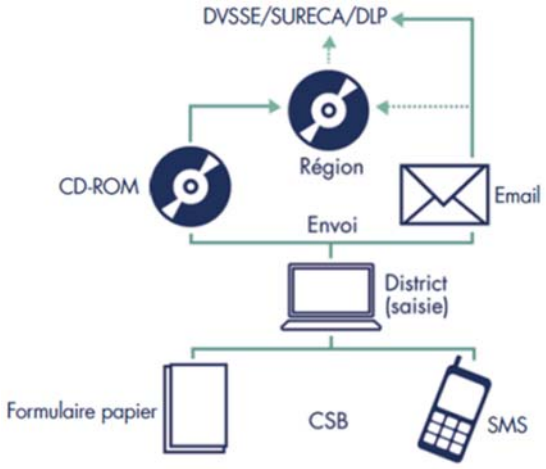
Ultimately, digital financial services are offered at some level by most prominent banks and MFIs but use cases and the quality of services vary and reach is still limited to mostly urban and relatively affluent clients. There are limited available data that describe the demographics of who uses which digital services for what purposes since MNOs and MFIs do not share user data without strong incentives. Cooperatives, provider networks, and SILCs have expressed mixed sentiments of whether using digital approaches will facilitate their objectives and offerings. Similarly, use of mobile money by health organizations remains patchy, with roughly one-third of organizational stakeholders using mobile money in some capacity and one-third interested in learning more. Beneficiaries, health providers, and other health stakeholders are limited in their ability to transact with each other electronically.

11. Health Information Systems

The *Système National d'Information Sanitaire (SNIS)* in Madagascar was developed to improve the collection, reporting, management, and use of health information throughout all levels of the health system. The *Système d'Information Sanitaire de Routine (SISR)* incorporates an Information and Management System (MIS) and the *Système d'Information et de Gestion-/ Rapports Mensuels d'Activités* (SIG/RMA). The SNIS includes other data production subsystems such as the *Surveillance Intégrée de la Maladie et la Riposte (SIMR)*, the information systems of vertical programs, the Community Information System, the Resources Information System (health, supplies/materials, infrastructure), and the Birth and Death Registration System.

Under the umbrella of the MSP, three entities oversee the SNIS: the *Direction de la Veille Sanitaire et de la Surveillance Epidémiologique* (DVSSE) which implements the Integrated Surveillance of Disease and Response (IDSR) and sentinel malaria surveillance, the Directorate of Health Information Systems (DSI) which manages the data collected through the system, and the Directorate of Planning Studies (DEP)'s Health and Demographic Statistics Service (SSSD). These three entities developed the 2013–2017 SNIS Strategic Strengthening Plan and the 2016–2019 Cyber Health Strategy.

Figure 25. Data Collection in the SNIS

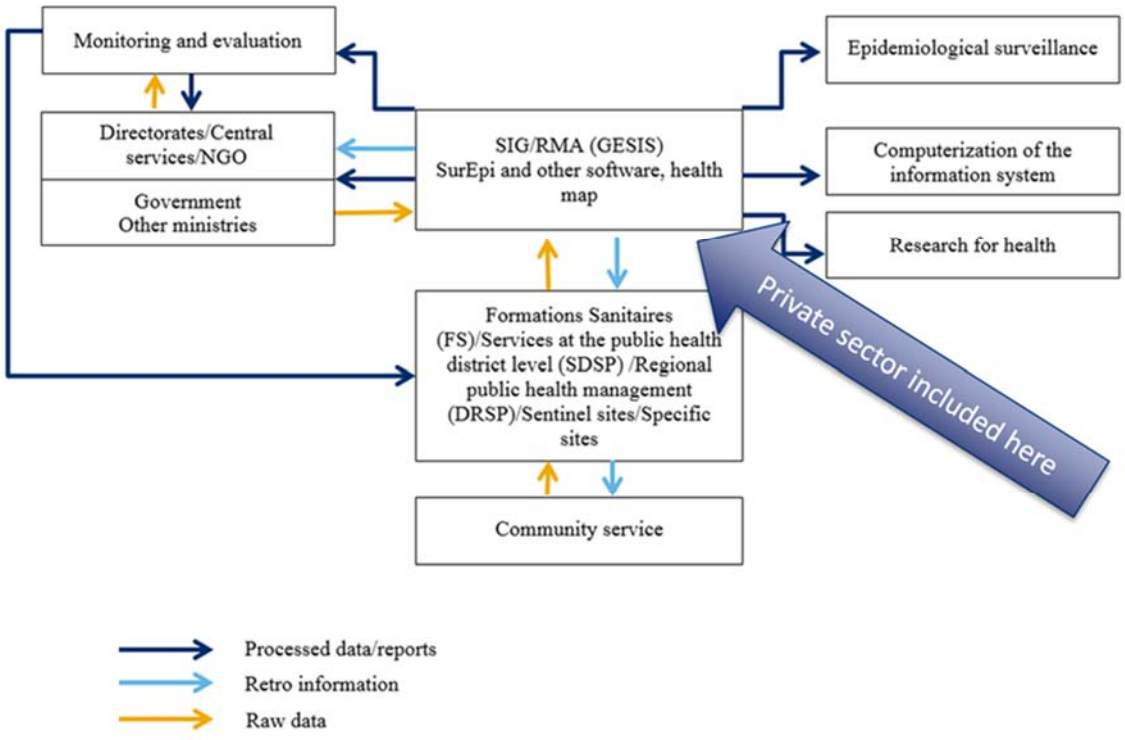


Source: Rapport d'évaluation de la performance du Système d'Information Sanitaire de Routine (SISR) et de la Surveillance Intégrée de la Maladie et la Riposte (SIMR), 2015

Health facilities provide data to district-level authorities via paper or SMS, with the majority using paper. The district then sends the data by email to the DVSSE, the SUREC (*Service des Urgences et des Ripostes aux Epidémiologies et Catastrophes*) and the DLP (*Direction de Lutte contre le Paludisme*). The regions receive the data by email or CD-ROM and then share the consolidated data with the DVSSE, SURECa, and the DLP (Figure 25).

The Routine Health Information System (SIG/ RMA) is the core of the SNIS. It manages routine data from public and private facilities through the software GESIS. Data collected at different levels is processed at the central level and used by the other components of the SNIS including (1) epidemiological surveillance, (2) the monitoring system, and (3) evaluation and research for the health sector (as shown in Figure 26).

Figure 26. Routine and Specific Health Information System and Users



Source: Adapted from the Plan de Développement du Secteur Sante 2015-2019

Ongoing efforts to reinforce the SIG/RMA include plans by the DSI to operationalize the District Health Information Software (DHIS 2) platform at scale by the end of 2017.

In addition to building its own system, the MSP has developed two large surveillance partnerships for epidemiologic surveillance, one with the World Health Organization (WHO) and the other with Institut Pasteur. The disease surveillance system established with the support of WHO currently encompasses 380 CSB and collects key health indicator data using tablets. This partnership is expected to increase to additional CSB with the Global Fund to Fight AIDS, Tuberculosis and Malaria financing 500 additional tablets. Institut Pasteur supports disease monitoring at 102 data collection centers and 11 laboratories and has equipped 108 Community Agents with iPads to do household monitoring to detect fevers/malaria. Institute Pasteur also works with 54 CSB/CHD. The data collected through these partnerships are fed up to the national level and present one slice of the overall picture of the health of the country.

What is DHIS 2?

DHIS 2 is a free, web-based, open-source software used by health information systems to capture, manage, validate and analyze transactional and statistical data. It includes useful dashboard and visualization features including geographic information systems (GIS), charts and pivot tables. DHIS 2 has been adopted by 47 countries globally as a way to manage data analytics for individual, district and national health information.

11.1 Private Sector Participation in Data Collection & Reporting

11.1.1 Data Collection and Reporting

Data is the most fundamental element of a health information system. Systems of collection, transmission, and reporting on data are essential to ensuring that health ministries are able to draw complete, well-informed conclusions and take action based on what is reported from health facilities. Since the private sector plays an important role in delivery of products and services, it is critical that private sector data is included to offer a reliable picture of public health. However, only 25 percent of private providers routinely report data to the public sector (MSP 2016). A 2015 survey of public and private health facilities found that 33 percent of private health establishments submitted complete health reports (Table 19). Private facilities are more likely to submit incomplete data compared to public facilities. One probable reason for low participation among private providers is that data collection tools are only available in 50 percent of districts visited by MEASURE and only half of private health providers have the IT equipment needed to send data electronically (MEASURE 2015). The other 50 percent of private providers collect and report data through paper registers. Paper systems and material and equipment gaps can lead to delays in the submission of data and difficulties in quality assurance.

Table 19. Completeness of Health Reports (%) from Different Health Facility Levels (Q1, 2015)

Health Facility	Overall Completeness	% of Transmitting Health Facilities	
		No report	All reports
CSB I (N=15)	53.3	33.3	40.0
CSB II (N=45)	77.4	13.3	68.3
Hospital (N=5)	80.0	2 of 5	3 of 5
Sentinel sites (N=19)	80.3	10.5	68.4
Private health establishments (N=30)	33.3	56.7	26.7
All health establishments (N=110)	62.2	28.2	53.6
Community agents (N=218)	8.6	88.9	7.3

Source: Adapted from the "Rapport d'évaluation de la performance du Système d'Information Sanitaire de Routine (SISR) et de la Surveillance Intégrée de la Maladie et la Riposte (SIMR), 2015. "

There is also a low level of accuracy on reporting from private (and public) facilities across health indicators (Table 20). Little is known about why there are reporting differences in indicators.

Table 20. Percentage of Health Facilities Reporting Accurately on Specific Indicators (Q1, 2015)

	Private		Public		
	Private (N=30)	Community (N=215)	Hospitals (N=5)	CSB I (N=16)	CSB II (N=60)
New FP Users	54	60	80	58	48
Delivery at health center	39	56	75	65	68
Maternal deaths	60	53	58	69	79
Cases of Malaria	71	85	40	69	81
Children under 5 vaccinated	53	96	60	645	46

Source: Adapted from the "Rapport d'évaluation de la performance du Système d'Information Sanitaire de Routine (SISR) et de la Surveillance Intégrée de la Maladie et la Riposte (SIMR), 2015. "

12. Challenges and Recommendations

Through interviews with public and private sector stakeholders in Madagascar and review of key documents, the SHOPS Plus PSA team identified constraints that hinder the private health sector's ability to increase access and efficiency in the health system. In this section, challenges are grouped by theme followed by recommendations to address those challenges.

12.1 Service Provision

12.1.1 Challenges

The MSP and *Ordre*s do not adequately oversee the quality of private providers. To improve service delivery in the private sector, the *Ordres* need to be engaged in accreditation and supportive supervision.

Challenges by specific health area include:

- FP: For-profit private practitioners are largely absent from FP service provision, especially for LARCs
- MCH: Challenges persist in quality of services; *matrones* sometimes provide services they are not qualified to deliver while clients may prefer *matrones* because of financial constraints and geographical access in rural areas
- Malaria: Private facilities, pharmacies, *dépôts*, and detailers are often the first line of client contact for malaria but many do not follow PNLP recommendations
- WASH: Lack of incentives, coordination, and technical WASH knowledge by private providers limits effective engagement

12.1.2 Recommendations

Establish a Confederation of *Ordres* that brings together doctors, nurses, midwives, and pharmacists to discuss quality protocols and build on synergies among cadres. The *Ordres* have already expressed interest in this platform which could spearhead accreditation and supportive supervision efforts that are lacking in Madagascar.

Increase the role of the for-profit private sector in FP. For example, the private for-profit sector should be included more in the TMA activities led by UNFPA. Including private for-profit providers in public sector FP training would also help improve the quality and availability of FP services.

Improve the quality of private sector service delivery. Better dissemination of clinical guidelines is needed and stronger support and referral networks should be established, especially for *matrones*.

Integrate private providers, especially cabinets, more fully into existing national malaria programs in the short-term and all other priority programs in the medium-

term. To address the existing training gap, there is a need for private provider training, led by the *Ordres* on malaria case management.

Provide WASH and business training to potential WASH entrepreneurs and develop incentives to increase involvement of the private sector in WASH activities. Given the relative success of WASH PPPs in Madagascar, it would also be useful to understand the lessons learned to apply to other health PPP activities.

12.2 Policy and PPP

12.2.1 Policy Challenges

The private sector is fragmented and advocacy efforts with the MSP are piecemeal. There is a need to harmonize definitions of private health facilities across GOM agencies. Efforts currently underway to revise the *arrêtés* regulating private health facilities lack representation of the private for-profit health sector, although NGOs and FBOs are part of the reform process. There is also a need for legal expertise to ensure the new policies under development on private health sector facilities follow best legal practice. In addition to reform of policies and regulations on private sector facilities, there is a need for a more general review of current legislation on the private health sector. Many private providers are unaware of the MSP's policies, regulations, and protocols.

12.2.2 Recommendations

Involve private for-profit sector in policy development and strategic planning process. The PSA team found that NGOs and FBOs are well represented in health policy and strategy dialogue, but there is a need to include the for-profit health sector in these discussions to ensure all segments of the health sector are adequately represented.

Explore the need to organize the private sector. In several West African countries such as Benin, Togo, and Senegal, the private health sector has organized itself into a private sector federation that interfaces with the public sector. In Madagascar, there are few private sector organizations so it may be premature to launch a federation. An exploratory meeting with private sector stakeholders has already taken place regarding the creation of a private hospital platform. These efforts should be supported as an initial step to help establish private health associations that could later form a federation.

Conduct a legal and regulatory review to streamline legislation for the private health sector. There is a need to review prior legislation to address inconsistencies and ambiguities. For example, in their review of the legal environment for family planning and reproductive health, the Health Policy Project found there were conflicts between the medical code of ethics, the health code, and the penal code (HP+ 2017). The PSA field team found there was a lack of clarity regarding the laws and regulations on importation, sale, and distribution of family planning and reproductive health products. The review could address other regulatory issues identified during the PSA as well. For example, stakeholders interviewed by the PSA field team highlighted the pharmacy-*dépôt* issue, whereby a *dépôt* must close if a pharmacy opens in the area. A 2017 SHOPS Plus global review of pharmacy and drug shop legislation found that of the 17 countries that had second-tier drug shops such as *dépôts*, only

three countries have legislation explicitly stated that the drug shop must close if a pharmacy opened, and all three countries are in francophone Africa (Riley 2017). A more thorough stakeholder review of the regulatory and market dynamics around pharmacies and *dépôts* is needed. Another regulatory issue that the field team discussed with several stakeholders is the restriction on the geographic range and health offerings of SMIEs. SMIEs wish to operate over a larger area, provide hospitalization services and insurance to the self-employed and informal workers. AMIT is piloting a product for informal workers and preliminary results are encouraging.

Harmonize definitions of private facilities across GOM agencies. Currently, DEPS, AgMed, SMLDP and DPLMT categorize private facilities differently, making it difficult to get a true picture of the scope of the private sector in the country. A workshop of these stakeholders is needed to kick-start the harmonization process.

Monitor progress related to actions that contribute to the legal enabling environment such as resourcing and partnerships, and track impact on health outcomes. Publicizing progress made will help garner the support needed to continue improving the legal enabling environment.

12.2.3 PPP Challenges

While health PPPs are different from the large infrastructure PPPs that the Ministry of Finance spearheads in Madagascar, there is as yet no health PPP policy or strategy within the MSP. To date, the *Direction de Partenariat* is more focused on donor coordination and contracting than PPPs. In addition, FBOs and NGOs are included in contracting opportunities but the private for-profit sector is not yet included for the most part. The USAID-supported contracting training that took place under a previous project was interrupted, and the private sector in many regions is unaware of contracting opportunities and procedures.

12.2.4 PPP Recommendations

Develop a national strategy on public-private partnerships in health to move the health PPP agenda forward. The MSP could use Uganda's strategy, which lays out the policy framework and institutional design of health PPPs in the country, as an example.

Build the capacity of the MSP's Direction of PPP in coordination with the PPP Unit. In addition to improving the facilitation and management of PPPs this could enable the MSP's Direction of PPP to adapt the legal frameworks for the health sector context and better prepare them to identify potential PPPs with the private for-profit sector.

12.2.5 CSR Challenge

CSR activities in Madagascar are currently piecemeal, with few outlets for companies and USAID to gather to discuss CSR opportunities.

12.2.6 CSR Recommendation

USAID should leverage the Private Sector Humanitarian Platform. The platform, composed of 28 private companies (including the Telma Foundation, Ambatovy and DHL), is a

good avenue for USAID to begin an ongoing relationship to help shape and inform their philanthropic and programmatic efforts.

12.3 Access to Essential Pharmaceuticals

12.3.1 Challenges

There is opportunity for the private sector to help fill gaps in the supply chain in Madagascar to ensure a strong, efficient health supply chain, but there is a lack of both information on private sector supply chain patterns and collaboration between the private sector pharmaceutical wholesalers and distributors and the public sector. For a further review of challenges in the pharmaceutical sector in Madagascar, see the *Politique pharmaceutique nationale* (2016).

12.3.2 Recommendation

Identify opportunities for partnership in the public and private health sector. This can be done by identifying the services, product segments, and geographic areas for which private sector wholesalers and distributors are best positioned to partner with the public sector to ensure a strong, efficient health supply chain. PPPs can be focused on outsourcing discrete areas to improve the health supply chain function. For example, a PPP could be developed to combat the expansion of illegal, parallel pharmaceutical markets, which harm legitimate sales from both SALAMA and private pharmaceutical wholesalers.

12.4 Human Resources for Health

12.4.1 Challenges

Lists of private facilities and private providers (doctors, nurses, midwives, pharmacists) differ between the MSP figures and those of the *Ordres*, making it difficult to get a clear picture of the private health sector. Accurate statistics on the number of providers by cadre and the number of private facilities in the country are essential to guide GOM and donor activities. There is a lack of doctors, and many current doctors are approaching retirement age. On the other hand, there are more trained nurses and midwives than the market can absorb. There is a lack of quality training for private sector nurses and midwives, and some training institutions are not accredited or do not align with the MSP.

12.4.2 Recommendations

Conduct private sector census to develop a baseline on the location and staffing of private health facilities and pharmacies. Additionally, the MSP needs technical assistance with developing an electronic database of private facilities and private providers that is easy to update. This recommendation is in line with the SMLDP's action plan for 2017 which lists conducting a census as a top priority. Data collection had just been completed at the time this report was finalized.

Work with training institutions to improve the quality of education for midwives and nurses. This will not only improve quality of care, it will also help the nurses and midwives who enter the market place each year to secure employment in the public or private sector.

12.5 Access to Finance

12.5.1 Challenges

Limited financial services are available to private health providers and low competition allows financial institutions to focus on the strongest health providers, leaving a gap of unserved providers. The cost of reaching health providers reduces the interest of financial institution to compete in this space, and there is a lack of appropriate lending products for the health sector. Providers have a negative view of financial institutions. Further, private providers lack business and management skills. Delays in receiving insurance reimbursement harms health provider cash flows and financial stability.

12.5.2 Recommendations

Provide technical assistance to financial institutions on financing health providers. Financial institutions need help to understand and develop appropriate lending products for the health sector.

Provide financial literacy and business management training for private providers. Experience in Madagascar has shown that limited financial literacy of health providers results in poor management of business, impacting growth opportunities. Business management training that leads to health practitioners operating as an entrepreneur would result in improved overall results, both at financial as well as health outcome levels.

Develop a business case to encourage health sector lending by financial institutions. Opportunities also exist for financial institutions to develop financial products that target specific needs of pharmacies, equipment suppliers, and to leverage mobile banking to better serve the health sector without need for heavy investment (branches).This would build awareness among financial institutions as to potential business opportunity in the health sector, and lead to new entrants in the space.

Develop credit process that reduces bank's administrative expenses. SHOPS Plus (core funds) will evaluate and design credit process that will reduce the DCA bank's lending costs. Should the development process indicate potential to reduce costs, piloting and implementation of the tool could result in an increase of lending to health sector, primarily smaller loans that may be of less interest to bank.

Develop tools to mitigate cash flow problems. By working with financial institutions and private provider networks, USAID and partners could develop tools such as working capital loan products, receivables factoring, and mutual guarantee funds which would help private providers cope with cash flow problems associated with delays in reimbursements.

Evaluate financing requirements of WASH. Conduct a rapid assessment of private WASH sector to understand financing needs and opportunities. Consider expanding DCA definition of qualified borrower to include WASH.

12.6 Health Enterprises and Innovation

12.6.1 Challenges

There are gaps in support for health enterprises across the ecosystem, a limited pool of management and technical talent for health enterprises to recruit from, and a limited supply of capital for health enterprises in Madagascar.

12.6.2 Recommendation

Identify opportunities for private sector entrepreneurial approaches to provide priority health services to low income segments. This could include for example, health technology, medical devices, or information systems.

12.7 Health Financing and UHC

12.7.1 Challenge

The role of the private health sector, including private providers and health financing actors, is not well defined in UHC.

12.7.2 Recommendations

Develop and promote partnerships between insurance providers and MFIs, banks, mobile network operators, and other large service providers to expand enrollment in health insurance. As government programs and fiscal space for health grow, the private sector can exploit large, growing potential distribution channels to reach larger numbers of people with low-income with simple private health insurance products. These products can help generate awareness of the potential value of insurance and generate lessons on how to reach poor and vulnerable populations.

Promote dialogue with SN-CSU on a strategy for financing access to care for vulnerable populations. USAID could support advocacy on the potential role that *mutuelles* can play in extending financial protection and expanding access to care for informal sector populations and vulnerable groups. A key to the sustainability of *mutuelles* will be to tap into planned funding streams from government health financing initiatives such as insurance. In time, as has been seen in other countries, the government may be willing and able to channel subsidies to *mutuelles* or to integrate *mutuelles* into a consolidated government-sponsored scheme.

Create a federation of existing health mutuelles. Based on stakeholder input at the PSA validation workshop and given the commitment of the GOM to UHC, there is a need to organize existing health mutuelles in Madagascar into a federation or similar structure. This would allow the mutuelles to improve coordination, visibility, advocacy, partnership, and dialogue among themselves and with external actors.

Support and expand the initiatives underway by PACSS. The PACSS project conducted two studies with the following overarching goals: 1) to improve understanding of

whether and how the private sector can be organized, harmonized, and prepared to participate in larger networks in support of UHC; and 2) estimate operating costs of *mutuelles* and determine feasibility of creating a network of *mutuelles* with protocols and services in common to streamline administration and reduce costs. To build on this work, USAID should draw from lessons learned in other countries and explore ways to scale recommendations.

12.8 Digital Finance

12.8.1 Challenges

Widespread poverty, low population density, illiteracy, and limited infrastructure have slowed the development of a culture of digital financial inclusion and the use of mobile money for health. Approaches to using mobile money are tentative, fractured, and small-scale- yet typical in a nascent market.

12.8.2 Recommendations

Create synergies by partnering with MNOs. There is ample opportunity to promote digital financial inclusion and health through strategic partnership. One example of a potential collaboration is the creation of dual roles for health workers as mobile money agents. This could boost income and promote digital financial inclusion while at the same time providing community sensitization around critical health topics. Projects could commit to promoting and using specific operator services and MNOs could provide lower fees in exchange for exclusive use of their platform. Further, USAID could build on GSMA's work towards interoperability and advocate with MNOs for the removal of inter-operator transaction fees and the government, for lower taxation or use of tax money to support financial inclusion objectives. This would also help break down financial barriers to use among individuals and organizations.

Advocate for the use of mobile money for UHC initiatives. The Government of Madagascar is currently developing the implementation plan for its UHC initiatives so now is the time to advocate for and support the use of mobile money in the planned national health insurance scheme and for other transactions related to social security. The committee in charge of piloting UHC initiatives has expressed interest in collaboration with USAID.

Promote and digitize SILCs to support both financial and digital literacy and inclusion. Build on the CRS study on the feasibility and cost-effectiveness of using Orange Money for all SILC transactions and savings. Support dialogue and partnerships between SILCs and financial institutions and insurers and help the latter view SILCs as developing the next generation of their clientele.

12.9 Health Information Systems

12.9.1 Challenges

Private providers currently lack an understanding of what data is needed by SNIS for what purposes, and lack training and tools to support timely and accurate data submission. Private providers also lack incentives to collect and report data to the SNIS. In the private sector, there

has not been a uniform approach to developing health information systems. Each organization has its own process and platform, and many of these systems are based on limited technology.

12.9.2 Recommendations

Conduct research on how to improve private provider reporting into the SNIS: Private providers need clear incentives to actively participate in sharing their data with the public sector. Research is needed to better understand what types of support and incentives private providers need to share reliable, high-quality data in a timely manner. Based on the research findings, it may be necessary to develop private provider capacity to report data and participate in the SNIS by providing training and oversight.

Develop mutually beneficial partnerships with mobile operators to facilitate implementation of DHIS 2: The mobile network operators have already been identified in the Cyber Health Strategy as key partners. Types of support they can offer could include secure data upload access points for data and other technical assistance in exchange for exclusive contracts with the government or other beneficial arrangements. MEASURE Evaluation is finalizing their landscape of health information systems and next steps for digital health information system consolidation, which may provide useful guidance for developing targeted partnerships between MNOs, DSI, and other private sector stakeholders.

Reach out to global stakeholders such as the Health Data Collaborative for additional resources: The Health Data Collaborative is an initiative of the WHO and partner development agencies formed in 2016 to support country efforts to improve quality and use of health data. Based upon requests from country ministries of health, the Collaborative aims to support country needs for technical assistance. Resources and standards are available to support such activities as harmonization of incompatible datasets, develop training packages, and assistance in costing M&E improvements. Participation of Madagascar representatives in these activities would provide opportunities for peer-to-peer learning from counterparts in other countries struggling with similar challenges in health data management.

13. Road Mapping

On January 25, 2018 at the Ibis Hotel in Antananarivo, the SHOPS Plus PSA team held a dissemination and validation event for the findings of this PSA. More than 60 key stakeholders attended the event, including participants from USAID and other donors, the GOM, implementing and technical partners, and the private sector. The SHOPS Plus PSA team integrated the feedback and inputs received from stakeholders at the event into this final report. To build consensus on next steps towards strengthening public-private partnerships in the health field, the team also conducted a road mapping exercise with the stakeholders at this event.

The SHOPS Plus PSA team selected four key pillars from this report for the road mapping exercise: Service Provision, Health Financing, Access to Financing, and Policy and Partnership. Stakeholders voted on their highest priority recommendation among the report recommendations for each pillar. Small groups then reviewed the top three ranked recommendations per pillar and identified next steps at one month, six month, and one year intervals. The SHOPS Plus PSA team has synthesized these steps to short-, medium-, and long-term activities. The results of this road mapping exercise are presented below in Table 21. Additional recommendations provided by stakeholders are also included below.

These steps are not meant to be comprehensive, but illustrate a way forward to better engage and leverage the private health sector in Madagascar to achieve improved health results for all.

Table 21. Road Mapping Activity Results

Recommendation (total votes)	Road mapping steps		
	Short-term	**Medium-term**	**Long-term**
Pillar: Service Provision			
Create a confederation of associations / professional orders to discuss quality protocols and strengthen synergies between professions (9)	Form the necessary commissions to establish confederation goals, membership, board, and subcommittees/ working groups	Convene stakeholders for discussions of quality protocols and confederation activities	Hold official launch of authorized confederation Review and, as necessary, adapt or create quality protocols. Share and integrate validated protocols and begin implementation
	Note: As part of the road mapping for this activity stakeholders suggested an inventory of public and private health entities lead by the SSD and MSP		
Public-private dialogue is needed to discuss quality protocols, accreditation and formative supervision (9)	Facilitate dialogue between public and private stakeholders to discuss quality protocols, accreditation, and supportive supervision to develop draft quality protocols and create synergy between these entities. Explore ways to formalize this dialogue		

Recommendation (total votes)	Road mapping steps		
	Short-term	**Medium-term**	**Long-term**
Systematically include private for-profit providers in training organized by the MSP (6)	• Identify ways in which medical inspectors and CSB leaders can better work with the private sector • Systematically involve private providers in all activities planned by the SSD • Involve and offer similar benefits (information, training, compensation, and travel expenses) for all providers to attend meetings organized by MSP		
Pillar : Health Financing			
Develop and promote partnerships between insurance providers and MFIs, banks, mobile network operators and other important service providers to increase health insurance adherence (15)	Convene all relevant stakeholders to identify common interests	Develop action plan specifying baseline, roles, and contributions of stakeholders	Implement action plan
Promote the dialogue on SN-CSU to include a strategy to finance access to health care for vulnerable populations (9)	Advocate among authorities that the current strategy for access to financing for health is not sufficient	Develop the National Health Financing Policy	
Support and expand the initiatives undertaken by the PACSS (1)	• Revitalize the initiatives undertaken by PACSS through support from donors or partners • Start developing relevant policies, and platform		
Pillar: Access to Finance			
Provide technical assistance to financial institutions for financing health providers (stimulate offer of loans) (8)	Share information about the private health sector with banks and MFIs	Support the development of bank/loan products adapted to the needs of the sector, such as flexible guarantees and which financial records are required	
Provide financial literacy and business management training for private providers (8)	Support training/coaching initiatives in financial and operational management (share private physician contacts, support groupings, etc.)	Integrate management short course in PARAMED faculty of medicine and schools	
Identify opportunities to develop entrepreneurial approaches in the private sector to provide priority health	This recommendation was not specifically addressed in group work		

Recommendation (total votes)	Road mapping steps		
	Short-term	**Medium-term**	**Long-term**
services to low-income individuals (7)			
Pillar: Policy and Partnerships			
Involve private sector in policy development and strategic planning process (9)	Inventory representatives for each type of profession and identify the gaps in terms of framework documents	Conduct advocacy activities for private sector inclusion in the development of all health strategies and plans, culminating in the signing of an MOU	Fully integrate private sector as participants in policy dialogues
Develop a national public-private partnership strategy for health to accelerate the implementation of the PPP program (8)	Facilitate dialogue with private sector to bring out the vision and goals of the strategy	Conduct analysis of current state, goals, objectives, and priorities for PPP program	Finalize PPP strategy
Conduct a legal and regulatory review to streamline legislation for the private health sector (6)	This recommendation was not specifically addressed in group work		

14. Conclusion

In Madagascar, where the public health sector struggles to provide the care needed by the population, the private sector is vital to providing complementary products and services and improving geographic access. All actors in the health system have an important role to play in improving health outcomes. The intent of this private health sector assessment is to support the MSP, USAID, donors, and other key stakeholders in enhancing public-private engagement at all levels of the health system in Madagascar. The assessment provides a snapshot of the private health sector landscape in Madagascar revealing the multiple health areas and health system functions to which private health sector actors (both for-profit and nonprofit) make significant contributions. This report reviews how the private sector is involved in UHC, digital finance, and mobile money and provides key findings and recommendations highlighting actionable opportunities for increased public-private collaboration. The findings, recommendations, and strategic priorities were reviewed and validated by local stakeholders during an in-country dissemination workshop in January 2018. The information presented in this report is intended to create an initial opportunity for multi-sectoral dialogue. Fostering a health system that leverages the skills, resources, and talents of all health actors helps achieve the goal of accessible and high-quality health care to all in Madagascar.

Annex A. List of Key Stakeholders Interviewed

Health local NGOs/FBOs	
Lutheran Church's Health Department – SALFA Meeting date: April 04th, 2017 Contact: Mme Rasoarimanana Pascaline Title: General Manager Email: andriasahondra@gmail.com Phone: +261331404128	**Reform Church's Development Department - SAF/FJKM** Meeting date: March 31st, 2017 Contact: Mr Andriamitandrina Naivosoa, Title: Technical Manager Email: naivosoa_andriamitandrina@saf-fjkm.org - saf@saf-fjkm.org Phone: 020 22 227 78 Contact: Josoa Andrianambelo Title: Health Program Coordinator
Fiananka viana Sambatra (FISA) Meeting date: April 04th, 2017 Contact: Mme Razanamampandry Vololona Title: Directeur Executif ai Email: fisar1@yahoo.fr Phone:	**Polyclinique d'Ilafy** Meeting date: April 07th, 2017 Contact: Dr David Khelif Title: Oncologue Radiotherapeute Email: david.khelif@polycliniqueilafy.com Phone: +261325678612
Centre de santé de Mandroseza Meeting date: April 07th, 2017 Contact: Dr Josée Rakotondrabe Title: Docteur Email: N/A Phone:	**Comité Episcole de Santé (CES) de l'Eglise Catholique Romaine** Meeting date: May 11th, 2017 Contact: Mme Paula Baodiasa Title: Secrétaire technique Email: comepisante@yahoo.fr Phone: +261 32 02 408 65, + 26134 18 631 47
USAID Implementing partners / International NGOs	
Marie Stopes Madagascar (MSM) Meeting date: March 31st, 2017 Contact: Rijalalaina Rasolofonirina Title: Evidence and Innovation Director	**MSH-Mikolo project** Meeting date: April 05th, 2017 Contact: John Yanulis Title: Chief of Party

Email: rijalalaina.rasolofonirina@mariestopes.org.mg Phone : +261 341 183 603 020 22 403 04	Email: jyanulis@mikolo.org Contact: Rambeloson Harintsoa Lalah Title: CB Director, DCOP Email: lrambeloson@mikolo.org Phone : 034 42 805 81 Contact: Rasoatiana, Title: SILC specialist Email : rrasoatiana@mikolo.org Phone : 032 02 143 89
JSI Miaraka/Mahefa project Meeting date: April 07th, 2017 Contact: Dr. Chuanpit Choa-Oon Title: Directeur du projet Email: chuanpit_choa_oon@jsi.com Phone : 034 49 790 01 Contact: Dr. Yyvette Ribaira Title: Deputy Chief of Party – Technical Director	**PSI-Madagascar** Meeting date: April 03rd, 2017 Contact: Noelimanjaka RAMALANJAONA Title: Child Survival Director Email: noelimanjakar@psi.mg Phone : +261 20 22 629 84
Intrahealth Meeting date: March 27th, 2017 Contact: Mrmamitiana Ranaivozanany Title: Conseiller formation Clinique SR/PF Email: mranaivozanany@Intrahealth.org Phone : +261320404720	**HP Plus/Palladium** Meeting date: April 06th, 2017 Contact: Mr Rivo Noelson Title: Senior Health Policy Advisor Email: Rivo.Noelson@thepalladiumgroup.com Phone : 043 05 158 32 Contact: Mahefanirina Rakotomalala Email: Mahefanirina.Rakotomalala@thepalladiumgroup.com
JHPIEGO – MCSP Meeting date: March 30th, 2017 Contact: Eliane Razafimandimby Title: CoP	**Chemonics– PSM** Meeting date: April 03rd, 2017 Contact: Andriaherinosy Solofo Robson Title: Technical Director Email: sandriaherinosy@ghsp-psm.org

Email: Eliane.Razafimandimby@mcsprogram.org Phone : 034 026 32 85 Contact: Haja Andriamiharisoa, Title: Database Specialist, Email: Haja.andriamiharisoa@mcsprogram.org Phone : 034 026 32 82	Phone : +261320757682
CARE International Meeting date: April 11th, 2017 Contact: Avo Ratoarijaona Title: Institutional Development Specialist Email: Avo.Ratoarijaona@care.org Phone :	**SantéSud** Meeting date: April 12th, 2017 Contact: Dr Niry Ramaromandray Title: Chargée de projet Email: niry.ramaromandray@santesud.org Phone : 033 08 674 70
Institut Pasteur de Madagascar (IPM) Meeting date: April 07th, 2017 Contact: Andre Spiegel, Director Title: General Manager Email: aspiegel@pasteur.mg Phone :032 07 413 35 Contact: Diane Randrianasolo Title: Project Manager - Unité Epidémiologie Email: DianeRANDRIANASOLO@pasteur.mg Phone : +261 20 22 412 72	**Catholic Relief Services (CRS)** Contact: James (Jim) Hazen Title: Fararano Project Manager Email: james.hazen@crs.mg Phone :
Human Network International (HNI) Meeting date: April 06th, 2017 Contact: Salohy Razanajatovo Title: Deputy Technical Director Email: salohy@hni.org Phone: +261 37 452 76 Contact: Barilolona Randrianarisoa Title: Deputy Country Director	

Email: lolonar@hni.org Phone: +261 33 37 015 44	
Health Professional Associations	
Ordre des Médecins de Madagascar (OMM) Meeting date: March 28th, 2017 Contact: Dr Eric Andrianasolo Title: National President Email: andrianasolo.eric@gmail.com Phone: +261331112687	**Ordre National des Infirmiers de Madagascar (ONIM)** Meeting date: April 12th, 2017 Contact: Mr Rakotonirina Urbain Antoine Title: President Email: ordredesinf-malgache@yahoo.fr Phone : +261346384292
Ordre National des Pharmaciens de Madagascar Meeting date : March 27th, 2017 Contact: Tantely RAKOTOMALALA Title: President Email: contact@ordrepharmacien.mg - pdt_ordrephcien_mada@yahoo.fr Phone	**Ordre des Sage-Femmes de Madagascar (OSFM)** Meeting date: March 28th, 2017 Contact: Mme Razafindrabe Ranorolalao Omega Title: National President Email: ranorolalao@gmail.com Phone : +261347482446
Association nationale des sages-femmes (ONSFM) Meeting date: March 27th, 2017 Contact: Voahangy RAMAHAVONJY Title: President Email: ramahavonjyvoahangy@gmail.com Phone : +2610331107172	**Association des Praticiens Traditionnels** Meeting date: April 12th, 2017 Contact: Rasolofomanana François d'Assise Title: Vice-President Email: francois.rasolofomanana@yahoo.fr Phone
Association Médicale Interentreprises de Tananarive (AMIT) Meeting date: April 05th, 2017 Contact: Vony Rakotoniana Title: Assistante de direction Email: amitbeho@gmail.com Phone: +261 20 223 0383	**Syndicat des Agents Paramédicaux de Madagascar** Meeting date: April 10th, 2017 Contact: Rakotondrazafy Aimé Title: President Email: raaimeoli@gmail.com Phone : 033 12 215 71

Organisation Sanitaire Tananarivienne Inter-Enterprises (OSTIE) Meeting date: April 27th, 2017 Contact: Dr. Emile Christian Ramisaely Title: Technical Director Email: ramisaely8@yahoo.fr Phone: +261 320 302 802	**Fun and Health Center (FUNHECE)** Meeting date: April 11th, 2017 Contact: Rajaonary Francky Title: Directeur d'établissement Email: Francky.rajaonary@gmail.com Phone : 032 07 058 50 Contact : Dr Rakotondrasoa Angelin Title : Médecin Chef Mail : dr_romange@funreco.mg Contact : 032 02 411 88
Donors/International Development Agencies	
World Bank Meeting date: April 05th, 2017 Contact: Dr Voahirana Hanitriniala Rajoela Title: Health Specialist Email: vrajoela@worldbank.org Phone: 032 07 212 23	**World Health Organization (WHO)** Meeting date: April 04th, 2017 Contact: Henintsoa Rabarijaona Title: Chargée de Programme Paludisme Email: rabarijaonah@who.int Phone: 032 03 303 11
International Labor Organization (ILO) Meeting date: April 04th, 2017 Contact: Séverine Deboos-David Title: Spécialiste Emploi Email: deboos@ilo.org Phone: 034 49 755 16 Contact : Razafinisoa Nombana Title : Chargée de programme Mail : razafinisoa@ilo.org Phone : 034 05 156 85	**UNICEF** Meeting date: April 06th, 2017 Contact: Mirana Ranarivelo Title: Private Sector & Fundraising Specialist Email: mranarivelo@unicef.org Phone: +261 32 23 426 11
Financial Institutions	
Microcred/Association Professionnelle des Banques (APB) Meeting date: March 27th, 2017 Contact: Michel Iams	**OTIV TANA/Association Professionnelle des Institutions Micro Finance (APIFM)** Meeting date: April 21st, 2017 Contact: Rakotoarivo Randrianiaina

Title: General Manager Email: miams@microcred.org Phone: 034 11 372 94 Contact: Anne Delvern Title: Directrice Marketin&eXperience client Email: adelvern@microcred.com Phone: 034 05 368 55	Title : General Manager Email: dir.otivtana@moov.mg Phone: 020 22 290 68 / 034 11 160 27
Insurance Companies/Mutuelles	
Allianz Madagascar Meeting date: April 03rd, 2017 Contact: Philippe LEBRETON Title: CEO Administrator Email: allianz.madagascar@allianz-mg.com Phone: +261 20 22 579 00	**Ascoma Madagascar** Meeting date: April 03rd, 2017 Contact: Mickael Gonçalves Title: Directeur Général Email: mickael.goncalves@Ascoma.com Phone: +261 32 03 502 22
Assurances et de Reassurances Omnibranches (ARO) Meeting date: April 07th, 2017 Contact: Mahenina Ranaivo Title: Chef de Département Vie et Assurance de Personnes Email: mahenina@aro.mg Phone: 020 22 201 54 Contact: Dina Elisabeth Solofoarisoa Title: Adjointe au Chef de Département Vie Email: dsolofoarisoa@aro.mg Phone: 034 17 452 76	**Ny Havana** Meeting date: April 05th, 2017 Contact: Tian'Harison Rakotomalala Title: Directeur Assurances des personnes Email: t.rakotomalala@nyhavana.mg Phone: 032 05 008 15 Contact: John Nirina Rakotomanga Title: Responsable Assurances des personnes non-vie Email: johnnirinamanga@nyhavana.mg Phone: 034 22 255 64
Positive Planet Océan Indien (PPOI) Meeting date: April 03rd, 2017 Contact : Felana Rajomarison Title: Coordinatrice Project Zina – Mutuelles de Santé Email : felana.rajomarison@positiveplanet.ngo	**Interaide/ATIA– AFAFI** Meeting date: April 04th, 2017 Contact: Mme Agathe Simonin Title: Coordinatrice Mutuelles de santé Email: mutuelle.interaide@gmail.com Phone: 032 81 895 23

Phone : +261 034 64 963 38 Contact : Jean Bosco Tatatsiresy Title: Medical Advisor of mutuelle de santé-ZINA Platform Email: jean-bosco.tatatsiresy@positiveplanet.ngo Phone: +261 321 178 686	Contact: Mr Lala RATRIMOSON Title: Directeur AFAFI Email: afafilog@gmail.com Phone: 0331104342
ADEFI Santé Meeting date: April 26th, 2017 Contact: Maryse Danielle Razafimahazo Title: Responsable des opérations Email: Maryse.Razafimahazo@adefisante.org Phone: 034 05 028 04	**Comité des Entreprises d'Assurances de Madagascar CEAM** Meeting date: April 06th, 2017 Contact: RAKOTOMALALA Louis Ferdinand Title: General Secretary Email: rlouisferdinand@yahoo.com Phone : 032 07 909 67
Telecoms	
Airtel Madagascar Meeting date: April 05th-12th , 2017 Contact: Thierry Botomaroza Title: Network Director Email: thierry.b@mg.airtel.com Phone: +261 33 22 11 710 Contact : Harifidy Title : Représentant Airtel Micro assurance	**Telma MVOLA** Meeting date: April 13th, 2017 Contact: Heritiana Andrianalisoa Title: Directeur adjoint MVOLA Email: heritiana@telma.mg Phone: 034 00 344 25 Contact: Ericka Valery Title: Responsable équipe commercial Mvola Email: ericka.verly@telma.mg Phone: 034 00 172 21 Contact: Danielle Rahaingonjatovo Title: Project Manager Email: Danielle.Rahaingonjatovo@telma.mg Phone: +261 340 030 008
Orange Madagascar OMA Meeting date: April 27th, 2017 Contact: RAKOTO Tovomanitra Julien Title: AMEA/OMA/DDOM	

Email: tovo.rakoto@orange.com Phone:	
National Committees	
SE/CNLS - Comité National de Lutte contre le SIDA Meeting date: March 28th, 2017 Contact: Dr Razafinjato Raminosoa Title: Responsable technique volet clinique Email: secnls@moov.mg Phone: 033 07 077 57	**ARTEC** Meeting date: April 14th, May 04th 2017 Contact : Mr le Directeur Administratif Contact: Mr Joseh Hardine Title: Chargé d'étude Email: hardine@artec.mg Phone:
Commission de Supervision Bancaire et Financière (CSBF) / Banque Centrale Meeting date: April 25th, 2017 Contact: Mr Seheno RANAIVOSON Title: Secrétaire Général Email: sec.sg.csbf@bfm.mg–s.ranaivoson@bfm.mg Phone: 020 22 642 26 - (261)20 22 642 26 / 20 22 627 81	**Coordination Nationale de la Finance Inclusive - CNFI** Meeting date: April 19th, 2017 Contact: Mme Tiana Ramparany Ramanarivosoa Title: Coordinatrice Nationale de la Finance Inclusive Email: t.ramanarivosoa@tresorpublic.mg Phone: 034 07 620 08
Ministry of Health	
General Secretary Meeting date: March 31st, 2017 Contact: Dr Joséa Ratsirarson Title: General Secretary Email: jratsirarson@sante.gov.mg Phone: +261340215715	**DEP** Meeting date: April 05th, 2017 Contact: Tiana Lalarijaona Vololontsoa Title: Directeur des études et planification Email: tvololontsoa@gmail.com Phone: -
Direction Santé Communautaire Meeting date: March 24th, 2017 Contact: Mme Nivo Title: Directeur Santé Communautaire Email: - Phone: 034 04 037 95	**Direction de Partenariat** Meeting date: April 12th, 2017 Contact: Dr Andriamanjato Hery Title: Directeur de Partenariat Email: mboarah@sante.gov.mg Phone: 034 05 800 02

Direction du Système d'Information et du Cybersanté Meeting date: April 12th, 2017 Contact: Aristide Ramahatanaharisoa Title: Directeur du Système d'Information Email: awramahatanaharisoa@sante.gov.mg; awr5691@gmail.com Phone: +261 32 56 279 87	**DPLMT** Meeting date: April 04th, 2017 Contact: Mme Iarivo Hasina Title: Assisatante Technique Email: ticdplmt@sante.gov.mg Phone: -
Direction de Lutte contre le Paludisme (DLP) Meeting date: April 06th, 2017 Contact: Mr Arsène Ratsimbasoa Title: Directeur de la lute contre le paludisme Email: servicedeluttecontrelepalu@gmail.com Phone:	**Cellule d'appui à la mise en œuvre de la CSU** Meeting date: April 08th, 2017 Contact: Dr Sylvie Title: Coordinatrice nationale de la CSU Email: sphaja@yahoo.fr Phone: 034 48 872 88 Contact: Martina Pellny Title: Assistante technique CSU/GIZ Email: martina.pellny@giz.de Phone: -
Service de Médecine Libérale et Dispensaires privés (SMLDP) Meeting date: June 14th, 2017 Contact: Dr Cécile Title: Chef Service SMLDP Email: smldpandrohibe@gmail.com Phone: (+261) 34 98 640 85	
Government Stakeholders	
Ministère de l'Eau et Assainissement Meeting date: March 30th, 2017 Contact: Andriavelojaona Nirina Title: Secrétaire Général Email: luciano.Andriavelojaona@gmail.com Phone:	**Economic Development Board of Madagascar (EDBM) Direction de Partenariat** Meeting date: March 28th, 2017 Contact: Mme Lisivololona Title: Directeur du partenariat public et privé Email: edbm@edbm.mg Phone: (+261) 20 22 670 40 / 681 21

Institut National de la Statistique - INSTAT Meeting date: April 07th, 2017 Contact: Ida Rajaonera Title: Directeur Général Email: dginstat@moov.mg Phone: -	**Ministère de la Fonction Publique et des Lois Sociales** Meeting date : June 27th, 2017 Contact : Mme Rafarahanta Nirina Title : Directrice de la Sécurité et de la Santé au Travail (DSST) Email rafarahantanirina@yahoo.fr Phone : (+261) 33 11 187 65
Others	
Programme d'appui conjoint au secteur santé - PACSS Meeting date: April 27th, 2017 Contact: Dr Christina Elison Title: Chef de projet, Email: celison@fthm.mg Phone: 034 49 036 83 Contact: Pascal NDIAYE Title: Assistant technique Email: pascal.ndiyae@cidr.org Phone: 034 05 390 53	

Annex B. Scope of Work for Private Sector Assessment

I. Background

Madagascar is one of the poorest countries in the world, with three-quarters of the population below the poverty level.[20] Health coverage remains limited. Access to care is most difficult in rural areas, where 35 percent of the population lives more than 10km from a health facility.[21] Total health expenditure as a percent of GDP is three percent,[22] one of the lowest rates in the world. The latest DHS (2008–2009) shows that the total fertility rate for woman is 4.8 children. The rate is higher in rural areas (5.2%) and in women without education (6.4%). The latest CPR measured for Madagascar is just under 30 percent. Diarrheal disease resulting from contaminated water supply and poor hygiene and sanitation is the primary cause of mortality among children under five.[23]

Due to the political crisis of 2009, international partners were unable to fund the country's health activities. Following elections in 2014, the U.S. State Department lifted restrictions, clearing the way for USAID to re-engage with the Government of Madagascar. Since 2014, USAID has provided ongoing assistance to the Government of Madagascar with a focus on improving health outcomes through delivery of family planning and reproductive health services, maternal, child and infant health services and malaria treatment.

The public sector has been unable to serve the health needs of all citizens so the private sector (both nonprofit and for-profit) has stepped in to fill the void, accounting for 36.9 percent of total expenditure on health.[24] These factors warrant increased consideration of the key role the private sector could play in helping Madagascar to better meet national health needs. Gathering more in-depth and up-to-date information to describe and quantify the private health sector and its contributions to health is a critical first step in promoting cooperation between the public and private health sectors.

To address this need, the USAID-funded Sustaining Health Outcomes through the Private Sector (SHOPS) Plus project will conduct an assessment of the private health sector in Madagascar, with a particular focus on digital finance. The proposed private health sector assessment (PSA) will be a collaborative effort between USAID Madagascar, the Ministry of Health, and other relevant stakeholders.

[20] The World Bank. 2016. *World Development Indicators*. Publication. USA: The World Bank.

[21] WHO Country Cooperation Strategy 2014

[22] The World Bank. 2016. *World Development Indicators*. Publication. USA: The World Bank.

[23] Countdown Report (2012)

[24] World Health Organization. 2014. *Madagascar Country Cooperation Strategy At A Glance*. Brief. Madagascar: WHO.

II. Goal and Objectives

Goal

The goal of the PSA is to identify opportunities for greater private sector engagement to contribute to a stronger health system in Madagascar.

Objectives

To achieve this goal, the private sector assessment will provide the following information:

- An estimate of the size, scope, and scale of the private health sector, with an emphasis on key stakeholders and their roles.
- A general overview of the types of health services and products offered by the private sector
- An overview of policies and factors that inhibit or enable private sector participation in the health system
- Assessment of mHealth opportunities for digital finance and coordinated partnerships with the private sector, particularly with telecommunications industry
- Opportunities to further engage the private sector beyond those identified in the corporate partnership assessment.

Based on the assessment, SHOPS Plus will provide USAID Madagascar with a roadmap and recommendations for further engagement with the private sector.

III. Approach

The SHOPS Plus approach is based on the collective experience of conducting more than 25 assessments over the past 10 years during the SHOPS project. As Figure 1 shows, a PSA typically consists of five steps: plan, learn, analyze, share, and act. All five steps emphasize collaboration and engagement with local stakeholders in order to ensure accuracy and buy-in for the key findings and recommendations.

FIGURE 1: STEPS IN A PRIVATE HEALTH SECTOR ASSESSMENT

Step One: Plan

In preparation for the private health sector assessment, SHOPS Plus proposes to work with USAID Madagascar to finalize the detailed Plan of Action, including the scope of the assessment, agreement on key questions to answer, schedule, and timeframe.

Step Two: Learn

To better understand the current political, economic, and health landscape in Madagascar, the SHOPS Plus PSA team will conduct a background review that covers the most recent Demographic and Health Surveys (DHS) and national health accounts analysis. The review will also cover reports from USAID, World Bank, World Health Organization, UNFPA, UNDP, telecommunications companies and others. This first step will provide a comprehensive picture of emerging issues within the private health and health insurance sectors and suggest key knowledge gaps to focus on during the in-country stakeholder interviews.

Following the literature review, a PSA field team composed of national and international health, mobile, and private sector experts will conduct key stakeholder interviews and collect additional documentation. Key stakeholders will include members of the for-profit and nonprofit private health sector, public sector, development partners, associations, and private companies. Key stakeholders will be chosen based on their role in the Madagascar health system, the degree to which they represent their respective fields, and the size and scope of their work.

Step Three: Analyze

Analysis will begin during the stakeholder interviews and continue through writing of the PSA draft report. Based on the initial data analysis and stakeholder interviews, individual team members will prepare their respective sections, and the assessment team leader will compile the information into a consolidated draft report.

Step Four: Share

The SHOPS Plus PSA team will share the draft PSA with SHOPS Plus senior management for comments and submit to USAID for approval. Based on USAID Madagascar's preference, the SHOPS Plus PSA team can disseminate and validate the PSA at an optional dissemination event.

Step Five: Act

The assessment team will produce a final report that reflects the comments and concerns raised by USAID and local stakeholders. USAID and its implementing partners will be able to use the report recommendations to better leverage the private health sector in USAID-funded health activities.

IV. PSA Team

The PSA team will be led by Bettina Brunner, Francophone Africa Regional Manager, who has led similar efforts in seven West African countries. The PSA team also includes Emily Mangone,

private sector specialist, as well as a local expert. Katie Baczewski, Erin Mohebbi and Virginie Combet will conduct desk research for the PSA.

V. Duration, Timing and Schedule

The period of performance for the assessment will be approximately 10 months, including preparation time, in-country field work, report writing, and dissemination. Dates for in-country data collection will be determined in consultation with USAID/Madagascar and the Madagascar Ministry of Health. Preliminary recommendations will be presented to the Mission as part of the PSA field team's exit briefing, and a draft report will be available for review within six to eight weeks after the field visit. The chart below suggests an illustrative timeline for the Madagascar private sector assessment.

	2016	**2017**								
	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Step 1–Develop Plan of Action										
Finalize SoW	X	X								
Secure team members and recruit consultant(s)	X	X	X							
Identify key research questions		X	X							
Identify key stakeholders			X							
Schedule meetings with key stakeholders			X							
Step 2–General Background Literature Review and Research										
Conduct background research and document review			X							
Develop questions tailored to specific stakeholders			X							
Step 3–Conduct In-Country Assessment										
Conduct key informant interviews				X	X					
Conduct field visits				X	X					

Conduct data analysis					X	X				
Step 4–Report Writing and Dissemination										
Develop outline for report					X					
Conduct analysis and draft report						X	X	X		
Submit report to USAID in English for comment prior to dissemination/ revisions									X	X
Disseminate findings in French to stakeholders (optional)										X
Finalize report										X

References

ACT Watch. 2013. "*Household Survey Madagascar 2012 Survey Report*." Madagascar: ACT Watch.

ADEFI Santé. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Advancing the Blue Revolution Initiative (ABRI). "*Madagascar: Water and Sanitation Profile.*"Madagascar: USAID. http://pdf.usaid.gov/pdf_docs/Pnado933.pdf.

Agence du Médicament de Madagascar. 2016. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Agence du Médicament de Madagascar. 2017. "*Demographie Pharmaceutiqe*." Madagascar: Ministère de la Santé Publique de Madagascar.

Agence du Médicament de Madagascar. 2017. "*Liste des Grossistes Pharmaceutiques*." Madagascar: Ministère de la Santé Publique de Madagascar.

Agence du Médicament de Madagascar. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Airtel Madagascar. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Allianz Madagascar. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

ARTEC. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

ASCOMA MADAGASCAR. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Association des Praticiens Traditionnels. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Association des sages-femmes. 2017 Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Association Médicale Interentreprises de Tananarive (AMIT). 2017. Primary and Secondary Data. Madagascar : SHOPS Plus Interviews.

Association nationale des sages-femmes (ONSFM). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Association nationale des tradipraticiens de Madagascar (ANTM). 2017 Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Assurances et de Reassurances Omnibranches (ARO). 2017. Primary and Secondary Data. Madagascar : SHOPS Plus Interviews.

Bradley, Sarah E. K., Lauren Rosapep, and Tess Shiras. 2017. *Sources for Sick Child Care in Madagascar*. Brief. Bethesda, MD: Sustaining Health Outcomes through the Private Sector Plus Project, Abt Associates.

Brinkerhoff, D.W., O. Indriamihaja, A. Lipsky, and C. Stewart. 2017. *The Legal Environment for Family Planning and Reproductive Health in Madagascar*. Washington, DC: Palladium, Health Policy Plus.

Camilo Téllez for GSMA. 2012. "*Emerging Practices in Mobile Microinsurance.*" UK: GSMA.

CARE International. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Cellule d'appui à la mise en œuvre de la CSU. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Centrale d'Achat de Médicaments Essentiels et de Matériel Médical de Madagascar (SALAMA). 2016. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Centre de santé de Mandroseza. 2017. Primary Data. Madagascar : SHOPS Plus Interviews.

CGAP. 2014. "*The Emerging Global Landscape of Mobile Microinsurance.*" Washington, DC: CGAP. https://www.cgap.org/sites/default/files/Brief-The-Emerging-Global-Landscape-of-Mobile-Microinsurance-Jan-2014.pdf

Chemonics–PSM. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Chemonics. 2017. "*Cutting-edge Technologies in Global Health Supply Chains.*" Washington, DC: Chemonics. http://www.chemonics.com/OurWork/OurProjects/Pages/Procurement-and-Supply-Management-Project.aspx.

Comité des Entreprises d'Assurances de Madagascar CEAM. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Comité Episcole de Santé (CES) de l'Eglise Catholique Romaine. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Comité National de Lutte contre le Sida. 2014. "*Rapport sur la réponse face au VIH et au Sida à Madagascar*." Madagascar: Ministère de la Santé Publique de Madagascar. http://www.unaids.org/sites/default/files/country/documents/MDG_narrative_report_2015.pdf.

Commission de Supervision Bancaire et Financière (CSBF) / Banque Centrale. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Coordination Nationale de la Finance Inclusive–CNFI. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Countdown to 2030. 2015. "*Madagascar Health Data–2015 Profile*." Switzerland: Countdown to 2030. http://countdown2030.org/documents/2015Report/Madagascar_2015.pdf.

Département de développement humain, Région Afrique. World Bank Group. 2005. "*L'efficience et l'équité auprès des formations sanitaire Malgache: Résultats d'un enquête.*" Washington, DC: World Bank Group. http://siteresources.worldbank.org/INTAFRREGTOPEDUCATION/Resources/444659-1210786813450/H_Madagascar_efficience_equite_formations_sanitaire.pdf.

Development Indicators Unit, Statistics Division, United Nations. 2015. "*Births attended by skilled health personnel, percentage.*" New York, NY: United Nations. https://mdgs.un.org/unsd/mdg/Data.aspx.

Development Indicators Unit, Statistics Division, United Nations. 2015. "*MDG Country Progress Snapshot: Madagascar.*" New York, NY: United Nations. https://mdgs.un.org/unsd/mdg/Host.aspx?Content=Data/snapshots.htm.

Directeur des Etudes et de la Planification of the Ministere de la Sante Publique. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Direction des Hôpitaux de Référence Régionale et de District (DHRD)– Service des Hôpitaux Privés (SHP). 2018. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Direction de la Pharmacie, des Laboratoires et de la Médecine Traditionnelle (DPLMT) of the Ministere de la Sante Publique. 2016. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Direction de Lutte contre le Paludisme (DLP) du Ministere de la Sante Publique. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Direction de Partenariat of the Ministere de la Sante Publique. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Direction de la Phamacie, des Laboratoires et de la Médecine Traditionnelle of the Ministere de la Sante Publique. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Direction des Districts Sanitaires (DDS) of the Ministere de la Sante Publique. 2016. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Direction du Système d'Information et du Cybersanté du Ministere de la Sante Publique. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Direction Santé Communautaire du Ministere de la Sante Publique. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

DPLMT. 2017. "*Repartition Par Region Des Depôts De Medicaments De Madagascar, Annee 2017*. " Madagascar: DPLMT.

Economic Development Board of Madagascar (EDBM) Direction de Partenariat. 2017. Primary and Secondary Data. Madagascar : SHOPS Plus Interviews.

Elizabeth Kleemeier and Harold Lockwood for IRC. 2015. "*Public-private partnerships for rural water services.*" Netherlands: IRC Wash.

Emily Mangone. 2016. "*Assessment of Opportunities for Corporate Partnerships in Madagascar*." Bethesda, MD: Sustaining Health Outcomes through the Private Sector Project, Abt Associates.

Evariste Lodi Okitombahe, Adanmavokin Justin Sossou, Virgile Pace, François Boillot for P4H. 2016. "*Mission d'appui technique sur les modalités de mise en œuvre du dispositif d'assurance santé à Madagascar - Rapport final*". Madagascar : Evariste Lodi Okitombahe, Adanmavokin Justin Sossou, Virgile Pace, François Boillot for P4H.

Fiananka viana Sambatra (FISA). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

ForeignAssistance.gov. 2017. "*Madagascar Foreign Assistance*." Washington, DC: ForeignAssistance.gov. http://foreignassistance.gov/explore/country/Madagascar.

FP2020. 2017. “*Madagascar: Commitment Maker Since 2015*.” Madagascar: FP2020. http://www.familyplanning2020.org/entities/124.

Fun and Health Center (FUNHECE). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

GAVI The Vaccine Alliance. 2017. “*Madagascar Fact Sheet.*” Washington, DC: GAVI http://www.gavi.org/country/fact-sheets/madagascar.pdf.

General Secretary of the Ministere de la Sante Publique. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Global Findex for the World Bank. 2015. “*The Global Findex Database.*” The World Bank. http://www.worldbank.org/en/programs/globalfindex.

Global Health Workforce Alliance. “*List of 57 countries facing Human Resources for Health crisis.*” Global Health Workforce Alliance. http://www.who.int/workforcealliance/countries/57crisiscountries.pdf.

GSMA. 2016. “*GSMA Announces Launch of National Interoperable Mobile Money Service Across Madagascar.*” UK: GSMA. https://www.gsma.com/newsroom/press-release/gsma-announces-launch-of-national-interoperable-mobile-money-service-across-madagascar/.

GSMA. 2017. “State of the Industry Report on Mobile Money. Decade Edition 2006–2016.” GSMA

Haas, Sherri, Marilyn Heymann, Pamela Riley, and Abeba Taddese. 2013. Mobile Money for Health. Bethesda, MD: Health Finance and Governance Project, Abt Associates Inc.

Health Finance and Governance (HFG) USAID-funded Project. 2013. “Mobile Money for *Health.*” Washington, DC: HFG. https://www.hfgproject.org/wp-content/uploads/2013/12/Mobile-Money-for-Health-Case-Study.pdf.

HealthGrove. 2017. “*Madagascar Statistics on Diseases, Injuries, and Risk Factors*.” Graphiq. http://global-health.healthgrove.com/l/187/Madagascar#Non-Communicable%20Diseases&s=3ka0mr.

Henry Lancaster and Peter Lange for BuddleComm. 2017. “*Madagascar—Telecoms, Mobile, Broadband and Digital Media—Statistics and Analyses.*” Australia: BuddleComm. https://www.budde.com.au/Research/Madagascar-Telecoms-Mobile-Broadband-and-Digital-Media-Statistics-and-Analyses.

Homeopharma. 2017. “*Homeopharma–La Solution Naturelle*.” Madagascar: Homeopharma. http://www.madagascar-homeopharma.com/.

HP Plus/Palladium. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Human Network International (HNI). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

IFC and GSMA. 2013. “*GPM Case Study: Airtel, Madagascar.*” UK: IFC and GSMA. https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2013/04/GPM_AirtelCaseStudy190413.pdf.

Impact Amplifier. 2015. “*Madagascar's Impact Enterprise Ecosystem*.” South Africa: Impact Amplifier. http://www.impactamplifier.co.za/wp-content/uploads/2017/02/GIZ_Full_Report_Final.pdf.

Institut National de la Statistique–INSTAT. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Institut National de la Statistique–INSTAT/Madagascar and ICF Macro. 2010. « *Enquête Démographique et de Santé de Madagascar 2008-2009 »*. Antananarivo, Madagascar: INSTAT and ICF Macro.

Institut National de la Statistique (INSTAT), Programme National de lutte contre le Paludisme (PNLP), Institut Pasteur de Madagascar (IPM) et ICF International. 2013. Enquête sur les Indicateurs du Paludisme (EIPM) 2013. Calverton, MD, USA: INSTAT, PNLP, IPM et ICF International.

Institut National de la Statistique de Madagascar–Ministère d'Etat chargé de l'économie et de l'industrie. 2010. “*Madagascar–Enquête périodique auprès des ménages 2010*.” Washington, DC: International Labor Organization. http://www.ilo.org/surveydata/index.php/catalog/1002/study-description.

Institut Pasteur de Madagascar (IPM). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Interaide/ATIA–AFAFI. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

International Food Policy Research Institute. 2016. “*Global Nutrition Report 2016: From Promise to Impact: Ending Malnutrition by 2030.*” Washington, DC: International Food Policy Research Institute. http://data.unicef.org/wp-content/uploads/2016/06/130565-1.pdf.

International Labor Organization (ILO). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

International Monetary Fund. 2015. “*IMF Country Report No. 15/26–Republic of Madagascar*.” Washington, DC: International Monetary Fund. https://www.imf.org/external/pubs/ft/scr/2015/cr1525.pdf.

Intrahealth. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

J. Annis and G. Razafinjato for IRC. 2011. “*Public-Private Partnerships in Madagascar: a promising approach to increase sustainability of piped water supply systems in rural towns*.” Madagascar: IRC.

JHPIEGO–MCSP. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

JSI Miaraka/Mahefa project. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Kieron Monks for CNN. 2017. “*M-Pesa: Kenya’s mobile money success story turns 10.*” Atlanta, GN: CNN. http://www.cnn.com/2017/02/21/africa/mpesa-10th-anniversary/index.html.

Kimball M, Phily C, Folsom A, Lagomarsino F, Holtz J. 2013. "*Leveraging health microinsurance to promote universal health coverage.*" Geneva: Microinsurance Paper; no. 23. International Labour Office.

L'Express de Madagascar. 2017. "*Cobaye médicale.*" Madagascar: L'Express de Madagascar. http://www.lexpressmada.com/blog/opinions/cobaye-medical/

Linda Sandid. 2011. "*Disponibilité et accessibilité aux médicaments dans les pays en développement: situation à Madagascar en 2009, Thèse 2011*." Grenoble, France: Université Joseph Fourier. https://dumas.ccsd.cnrs.fr/dumas-00592377/document.

Lutheran Church's Health Department–SALFA. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ly M, N'Gbichi JM, Lippeveld T, Ye Y. 2016. "*Rapport d'évaluation de la performance du Système d'Information Sanitaire de Routine (SISR) et de la Surveillance Intégrée de la Maladie et la Riposte (SIMR), 2015*." Chapel Hill, NC: MEASURE Evaluation.

Madagascar Central Bank. 2015. "*Rapport sur la Stabilité Financière 2015.*" Madagascar: Madagascar Central Bank. http://www.banque-centrale.mg/index.php?id=m6_6_3.

Madagascar Central Bank. 2015. "*Financial Statements of Microfinance Institutions.*" Madagascar: Madagascar Central Bank. http://www.banque-centrale.mg/index.php?id=m8_8.

Marie Stopes Madagascar (MSM). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Microcred /Association Professionnelle des Banques (APB). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ministère de la Fonction Publique et des Lois Sociales. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ministère de la Santé Publique de Madagascar en collaboration avec l'OMS. 2011. "*Profil Pharmaceutique du Pays, 2011*." Madagascar: Ministère de la Santé Publique de Madagascar en collaboration avec l'OMS.

Ministère de la Santé Publique de Madagascar. 2006. "*Plan de Développement Secteur Santé 2007-2011*." Madagascar: MSP. https://www.internationalhealthpartnership.net/fileadmin/uploads/ihp/Documents/Country_Pages/Madagascar/MadagascarPDSS_25mars_2007.pdf.

Ministère de la Santé Publique de Madagascar. 2011. "*Plan Stratégique des Centres Hospitaliers et des Etablissements Universitaires de Soins à Antananarivo 2012-2016*." Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2011. "*Plan Stratégique National de Lutte contre la Tuberculose à Madagascar 2012–2016*." Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2012. "*Évaluation de la Sécurisation des Intrants de Santé à Madagascar Année 2012*." Madagascar: Ministère de la Santé Publique de Madagascar.

Ministère de la Santé Publique de Madagascar. 2017. “*Plan Stratégique de Lutte contre le Paludisme à Madagascar 2018-2022.*” Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2012. “*Plan Stratégique National de Réponse aux Infections Sexuellement Transmissibles et au Sida à Madagascar 2013-2017*.” Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2015. “*Annuaire des Statistiques du Secteur Santé de Madagascar Année 2014*.” Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2015. “*LOI n°2011-002 portant Code de la Santé; Convention entre le gouvernement de la République de Madagascar et La Centrale d’Achats de Médicaments Essentiels et de Matériel Médical de Madagascar « SALAMA ».”* Madagascar: Ministère de la Santé Publique de Madagascar.

Ministère de la Santé Publique de Madagascar. 2015. “*Plan de développement du secteur santé 2015–2019*.” Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2015. “*Politique Nationale de Protection Sociale and Strategie Nationale sur la Couverture Sante Universelle*.” Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2015. “*Strategie Nationale en Cybersante 2016–2019*.” Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2016. “*Annuaire des Statistiques du Secteur Santé de Madagascar Année 2015*.” Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2016. “*Cadres de mise à l’échelle de la prévention de l’hémorragie du post-partum à Madagascar*.” Madagascar: MSP.

Ministère de la Santé Publique de Madagascar. 2016. “*Politique pharmaceutique nationale*.” Madagascar: MSP. Ministère de la Santé Publique de Madagascar. 2017. “*Comptes Nationaux de Sante 2003, 2007, 2010.*” Madagascar: Ministère de la Santé Publique de Madagascar.

Ministère de la Santé Publique de Madagascar. 2017. “*Plan National d’Action Pour la Nutrition (PNAN III).*” Madagascar: MSP.

Ministère de l'Eau et Assainissement. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ministère des Finances et du Budget. 2017. “*Décret N° 2017–150 Portant application de la loi N°2015-039 du 3 février 2016 sur le partenariat public-prive relatif au cadre institutionnel*.” Madagascar: Ministère des Finances et du Budget.

Ministère des Finances et du Budget. 2017. “*Décret N° 2017–149 Portant application de la loi N°2015-039 du 3 février 2016 sur le partenariat public-prive relatif aux modalités d’application des dispositions concernant la passation des contrats de partenariat public-privé*.” Madagascar: Ministère des Finances et du Budget.

Ministère du Travail et des Lois Sociales. 2003. “*DECRET N° 2003-1162 Organisant la Médecine d’Entreprise.”* Madagascar: International Labor Organization. http://www.ilo.org/dyn/natlex/docs/ELECTRONIC/72837/105784/F-2107365791/MDG-72837.pdf.

MSH-Mikolo project . 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Nadene Ghouri. 2016. "*Health in Madagascar takes turn for the worse as $22m hospital abandoned.*" Madagascar: The Guardian.

Ny Havana. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Orange Madagascar OMA. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ordre des Infirmiers et des Sages-femmes. 2017 Primary and Secondary Data. Madagascar SHOPS Plus Interviews.

Ordre des Médecins de Madagascar (OMM). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ordre des Medecins. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ordre des Sage-Femmes de Madagascar (OSFM). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ordre National des Infirmiers de Madagascar (ONIM). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Ordre National des Pharmaciens de Madagascar. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Organization Sanitaire Tananarivienne Inter-Enterprises (OSTIE). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

OSTIE Behoririka. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

OTIV TANA/Association Professionnelle des Institutions Micro Finance (APIFM). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Peter Ryan. 2014. "*Version Preliminaire Rapport Final sur l'Analyse des Goulots d'Etranglement des Fournitures de Services pour le Secteur WASH a Madagascar.*" Madagascar: UNICEF.

Polyclinique d'Ilafy. 2017. Primary Data. Madagascar: SHOPS Plus Interviews.

Population Services International. 2014. "*TRaC Study Evaluating Diarrhea Prevention and Treatment among Mothers and Caregivers of Children Under Five Years Old*." Madagascar: PSI.

Positive Planet Océan Indien (PPOI). 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

POUZN Project for USAID. 2010. "Assuring Access to Paediatric Zinc for Diarrhea Treatment through the Private Sector in Madagascar–Results and Lessons Learned." Maryland: USAID. http://www.worldbank.org/en/programs/globalfindex.

PPP Knowledge Lab. 2017. "*Madagascar.*" Madagascar: World Bank. https://pppknowledgelab.org/countries/madagascar.

Programme d'appui conjoint au secteur santé–PACSS. 2017. Primary and Secondary Data. Madagascar : SHOPS Plus Interviews.

Programme des Nations Unies pour le Developpement (PNUD). 2014. "*Enquête nationale 2012-2013 sur le suivi des OMD à Madagascar.*" Madagascar: PNUD. http://www.mg.undp.org/content/madagascar/fr/home/library/mdg/publication_1.html.

PSI for ACTwatch. 2014. "*Résultats De L'Enquete ACTwatch Madagascar 2013/14.*" Madagascar: ACTwatch.

PSI for ACTwatch. 2017. "*ACTwatch Outlet Survey Results Madagascar, 2015*." Madagascar: ACTwatch. http://www.actwatch.info/sites/default/files/content/publications/attachments/Madagascar_2015%20OS%20Research%20Brief_English_Final.pdf

PSI. "*Private Health Providers in Madagascar: Key Players in Improving Malaria Case Management to Contribute to 'Malaria No More' brochure.*" Madagascar: PSI.

PSI-Madagascar. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Radio France Internationale. 2016. "*Madagascar: l'école lance une lutte contre les dangers de la sexualité précoce*." Madagascar : Radio France Internationale.http://www.rfi.fr/afrique/20160328-madagascar-le-gouvernement-instaure-cours-lies-activites-sexuelles-precoces.

Ravélo, Arsène, Gilles Pison, Osée Ralijaona, Dominique Waltisperger, and Bruno Masquelier. 2014. "*The epidemiological transition in Antananarivo, Madagascar: an assessment based on death registers (1900–2012*)." Global Health Action. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4028933/.

Reform Church's Development Department–SAF/FJKM. 2017. Primary and Secondary Data. Madagascar : SHOPS Plus Interviews.

Registrar Corp. 2017. *"U.S. FDA Drug Descriptions."* Virginia, USA : Registrar Corp. https://www.registrarcorp.com/fda-drugs/definitions/.

Results for Development. 2009. "*Monographie: Le rôle du secteur privé dans le domaine de la santé et l'état de développement de l'assurance maladie à Madagascar*." Madagascar: Results for Development for AFD.

Results for Development. 2009. "*The Role of the Private Sector in Health Systems*." Washington, DC: Results for Development. http://www.r4d.org/focus-areas/role-private-sector-health-systems.

Riley, Pamela, Sean Callahan, and Mike Dalious. January 2017. *Regulation of Drug Shops and Pharmacies Relevant to Family Planning: A Scan of 32 Developing Countries*. Bethesda, MD: Sustaining Health Outcomes through the Private Sector Plus Project, Abt Associates Inc.

SantéSud. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Scaling Up Nutrition. 2017. "*A new National Nutrition Action Plan forges a strong path ahead for Madagascar.*" Madagascar: Scaling Up Nutrition. http://scalingupnutrition.org/news/a-new-national-nutrition-action-plan-forges-a-strong-path-ahead-for-madagascar/.

SE/CNLS–Comité National de Lutte contre le SIDA. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Service de la Médecine Libérale et des Dispensaires Privés (SMLDP). 2017. "*Termes de Référence–Service de la Médecine Libérale et des Dispensaires Privés.*" Madagascar: Ministère de la Santé Publique de Madagascar.

Service de Médecine Libérale et Dispensaires privés (SMLDP) du Ministere de la Sante Publique. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

Shehla Zaidi. 2013. "*Report: Public-Private Partnerships Improving Maternal and Neonatal Health Service Delivery."* Pakistan: Aga Khan University. https://www.researchgate.net/publication/279757775_REPORTPUBLIC_PRIVATE_PARTNERSHIPS_For_Improving_Maternal_and_Neonatal_Health_Service_Delivery.

Syndicat des Agents Paramédicaux de Madagascar. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

T.S. for The Economist. 2015. "*Why does Kenya lead the world in mobile money*?" UK: The Economist. http://www.economist.com/blogs/economist-explains/2013/05/economist-explains-18.

Telma MVOLA. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

The Global Impact Investing Network. 2016. "*The Landscape for Impact Investing in Southern Africa: Madagascar*." Madagascar: The Global Impact Investing Network. https://thegiin.org/assets/documents/pub/Southern Africa/Madagascar_GIIN_southernafrica.pdf.

The Observatory of Economic Complexity. 2012. "*Where does Madagascar import Packaged Medicaments from?*" The Observatory of Economic Complexity. http://atlas.media.mit.edu/en/visualize/tree_map/hs92/import/mdg/show/3004/2012/.

The World Bank. 2014. *"Madagascar—Public expenditure review 2014: health sector background paper"*. Washington, DC: WHO.

Track20 Project. 2016. *"FP2020 Core Indicator 2015-16 Summary Sheet.*" Washington, DC: FP 2020. http://www.familyplanning2020.org/entities/124.

U.S. Department of State. 2016. *"Investment Climate Statements for 2016: Madagascar."* Washington, DC: U.S. Department of State. https://www.state.gov/e/eb/rls/othr/ics/investmentclimatestatements/index.htm?dlid=254215&year=2016

U.S. President's Malaria Initiative. 2016. *"President's Malaria Initiative Madagascar: Malaria Operational Plan FY 2017*". Washington, DC: PMI. https://www.pmi.gov/docs/default-source/default-document-library/malaria-operational-plans/fy17/fy-2017-madagascar-malaria-operational-plan.pdf?sfvrsn=6.

UNAIDS. 2015. *"Madagascar HIV and AIDS estimates (2015)."* Madagascar: UNAIDS. http://www.unaids.org/en/regionscountries/countries/madagascar.

UNFPA. 2014. "*The State of the World's Midwifery.*" New York, NY: UNFPA.

UNICEF Madagascar. 2017. "*Youth and HIV/AIDS*." Madagascar: UNICEF. https://www.unicef.org/madagascar/5558_6564.html.

UNICEF. 2017. "*PASSOBA–Sante*." Madagascar: UNICEF. https://www.unicef.org/madagascar/6412_13246.html.

UNICEF. 2017. Primary and Secondary Data. Madagascar : SHOPS Plus Interviews.

United Nations COMTRADE. 2017. "*UN Comtrade | International Trade Statistics Database*" New York, NY: UN. https://comtrade.un.org/db/dqBasicQueryResults.aspx?cc=3004&px=HS&r=450&y=2010,%202011,%202012,%202013,%202014,%202015,%202016&p=0&rg=1,2&so=9999&rpage=dqBasicQuery&qt=n

United Nations Development Programme (UNDP). 2016. "*Human Development Report 2016–Human Development for Everyone.*" New York, NY: United Nations Development Programme (UNDP). http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf.

United Nations Population Fund (UNFPA). 2017. "*Etude TMA pour les contraceptifs à Madagascar*." Madagascar: UNFPA.

USAID Delivery Project. 2015. "*Supply Chain Network and Cost Analysis of Health Products in Madagascar: Results.*" Madagascar: John Snow Inc.

USAID Madagascar. 2014. "*Ending Preventable Child and Maternal Deaths: 10 Innovation Highlights from Madagascar."* USAID Madagascar. https://www.usaid.gov/sites/default/files/documents/1864/EPCMD-%2010%20Innovation%20Highlights%20from%20Madagascar.pdf.

Viswanathan, R., Behl, R., and Seefeld, C.A. 2016. "*Clinical Social Franchising Compendium: An Annual Survey of Programs: findings from 2015.*" San Francisco: The Global Health Group, Global Health Sciences, University of California, San Francisco. http://sf4health.org/sites/sf4health.org/files/sf4h-social-franchising-compendium-2016.pdf.

Water & Sanitation for the Urban Poor (WSUP). 2013. "*New Partnership with The Coca-Cola Company (TCCC) Announced!*" Madagascar: WSUP. http://www.wsup.com/2013/09/04/new-partnership-with-the-coca-cola-company-tccc-announced/.

Water Supply & Sanitation Collaborative Council (WSSCC). 2008. *"Madagascar WASH Case Studies."* Madagascar: WSSCC. http://wsscc.org/wp-content/uploads/2016/05/WASH-Case-Studies-Series-Madagascar-2008.pdf.

World Bank Group. 2015. "*Madagascar Systematic Country Diagnostic*." Washington, DC: World Bank Group. http://documents.worldbank.org/curated/en/743291468188936832/pdf/99197-CAS-P151721-IDA-SecM2015-0168-IFC-SAecM2015-0123-Box393189B-OUO-9.pdf.

World Bank Group. 2017. "*Africa Health Service Delivery in Madagascar: Results of 2016 Service Delivery Indicator Survey*." Washington, DC: World Bank Group.

World Bank Group. 2017. "*Shifting Fortunes and Enduring Poverty in Madagascar*." Washington, DC: World Bank Group. http://documents.worldbank.org/curated/en/413071489776943644/pdf/113582-v2-FINAL-PUBLIC-7817-Madagascar-Poverty-Report.pdf.

World Bank Open Data Bank. 2017. "*Cause of death, by non-communicable diseases (% of total).*" Washington, DC: World Bank Group. http://data.worldbank.org/indicator/SH.DTH.NCOM.ZS?locations=MG.

World Bank Open Data Bank. 2017. "*Fertility rate, total (births per woman).*" Washington, DC: World Bank Group. http://data.worldbank.org/indicator/SH.DYN.MORT?locations=MG.

World Bank Open Data Bank. 2017. "*Life expectancy at birth, total (years).*" Washington, DC: World Bank Group. http://data.worldbank.org/indicator/SP.DYN.LE00.IN?locations=MG&view=chart.

World Bank Open Data Bank. 2017. "*Mortality rate, under-5 (per 1,000 live births).*" Washington, DC: World Bank Group. http://data.worldbank.org/indicator/SH.DYN.MORT?locations=MG.

World Bank Open Data Bank. 2017. "*Physicians (per 1,000 people).*" Washington, DC: World Bank Group. http://data.worldbank.org/indicator/SH.MED.PHYS.ZS?locations=MG-ZG&year_high_desc=true.

World Bank Open Data Bank. 2017. "*Population, total.*" Washington, DC: World Bank Group. http://data.worldbank.org/country/madagascar.

World Bank Open Data Bank. 2017. "*Urban population growth (annual %).*" Washington, DC: World Bank Group. http://data.worldbank.org/indicator/SP.URB.GROW?locations=MG.

World Bank. 2014. "*The Global Findex Database 2014*." Washington, DC: World Bank. http://documents.worldbank.org/curated/en/187761468179367706/pdf/WPS7255.pdf#page=3.

World Bank. 2017. "*Benchmarking PPP Procurement 2017 in Madagascar*." Madagascar: World Bank.

World Bank. 2017. "*Project Information Document/Integrated Safeguards Data Sheet (PID/ISDS).*" Washington, DC: World Bank.

World Bank. 2017. Primary and Secondary Data. Madagascar: SHOPS Plus Interviews.

World Health Organization (WHO). 2017. Primary and Secondary Data. Madagascar : SHOPS Plus Interviews.

World Health Organization. 2014. "*WHO's Health System Financing Country Profile, 2014.*" Switzerland: WHO.

World Health Organization. 2015. *"Poliovirus in Madagascar*." Switzerland: World Health Organization. http://www.who.int/csr/don/24-july-2015-polio/en/.

World Health Organization. 2017. "*Global Health Observatory Data Repository: Nursing and midwifery personnel data by country.*" Geneva: World Health Organization.