FINAL Report

Thematic Review on the Role of the Private Sector in Program Delivery

Aceso Global
1616 P Street NW, Suite 103
Washington DC, USA 20036
www.acesoglobal.org

February 15, 2021

Table of Contents

List of Abbreviations

ACT	Artemisinin-based combination therapies
ACO	Accountable Care Organizations
AGYW	Adolescent Girls and Young Women
AMF-m	Affordable Medicines Facility - malaria
ARV	Antiretroviral Drugs
BD	Bidan Delima Midwive Association
BPJS-K	Badan Pelaksana Jaminian Sosial-Kesehatan
CBHI	Community-based Health Insurance
CCM	Country Coordinating Mechanism
CCMD	Critical Care Medicine Department
CCMDD	Chronic Care Medicines Delivery and Distribution
CFW	Child and Family Wellness (Kenya)
CHW	Community Health Worker
CMS	Council Medical Stores
COE	Challenging Operating Environments
CSO	Civil Society Organizations
CSR	Corporate Social Responsibility
DFID	The Department for International Development
DHD	Demographic Health Data
DHIS	District Health Information Software
DOTS	Directly Observed Therapy
DRC	Democratic Republic of Congo
EBRD	European Bank for Reconstruction and Development
EMDC	Emerging Market and Developing Countries
ENHANCE	Enhancing Hospital Networks and Communities to End TB
ER	Emergency Room
EU	European Union
FBO	Faith Based Organizations
FDEC-India	Foundation for Disease Elimination and Control of India
FPM	Follow-on Public Officer
FPO	Fund Portfolio Managers
GAVI	The Global Alliance for Vaccines and Immunization
GF	The Global Fund
GHG	Georgia Healthcare Group
GMS	Greater Mekong Subregion
GoMO	Government of Madyha Pradesh
GP	General Practitioners
GPS	Global Positioning System
HFC	Health Finance Coalition
HMO	Health Maintenance Organization
ICU	Intensive Care Unit

IFC	International Financial Corporation
IHS	Imperial Health Services
IQ	Intelligence Quotient
ISTC	International Standards for Tuberculosis Care
IT	Information Technology
IT IS	Integrated TB Information System
JEET	Joint Effort for the Elimination of TB
JKN	Jaminan Kesehatan Nasion
KAPTLD	Kenya Association for the Prevention of TB and Lung Disease
KP	Key Populations
LIC	Lower Income Countries
LLIN	Long-lasting Insecticide
LMIC	Low- and Middle-Income Countries
LMIS	Logistics Management Information System
MBCA	Malawi Business Coalition Against HIV/AIDS
MDP	Mectizan Donations Program
MEDP	Malaria Elimination Demonstration Project
MOH	Ministry of Health
MRI	Magnetic resonance imaging
NCDs	Non-Communicable Diseases
NACO	National AIDS Control Organization
NGO	Non-Governmental Organization
NHI	National Health Insurance
NHS	National Health System (UK)
NTLP	National Tuberculosis, Leprosy and Lung Disease Program
NTP	National TB Program
OECD	Organisation for Economic Co-operation and Development
OOP	Out of Pocket Payments
PDPI	National Pulmonology Society
PHC	Primary Healthcare
PHI	Private Health Insurance
PLHIV	People Living with HIV
PPIA	Public-Private Interface Agency
PPM	District-Based Public-Private Mix
PPP	Public-Private Partnership
PPSA	Public Private Support Agencies
PR	Principal Recipient
PS	Private Sector
PSC	Private Sector Constituency
PSE	Private Sector Engagement
PSI	Population Services International
QAACT	Quality-Assured Artemisinin Combination Therapies
RAI	Regional Artemisinin-Resistance Initiative
RDT	Rapid Diagnostic Test

RNTCP	India's national TB program
RSSH	Resilient and Sustainable Health Systems
SIMA	Strategy for Implementation of Medicine Availability
SMS	Short Message Service
SQH	Sun Quality Health
SRH	Sexual and Reproductive Health
STI	Sexually Transmitted Infections
TB	Tuberculosis
TBA	Traditional Birth Assistant
TERG	Technical Evaluation Reference Group
THE	Total Health Expenditure
THS	The Health Source
TPA	Third-part Administrators
UAE	United Arab Emirates
UHC	Universal Health Coverage
UIC	Upper Income Countries
UK	United Kingdom
UMIC	Upper- and Middle-Income Countries
US	United States
UTI	Urinary Tract Infections
WHO	World Health Organization

Acknowledgements

We are grateful to the Global Fund to Fight AIDS, Tuberculosis and Malaria for the opportunity to conduct this review. We greatly appreciate the encouragement, technical insights, and thoughtful inputs from the TERG PSE Working Group, the TERG members, and TERG Secretariat.

Thank you to the FPMs, managers, and specialists for sharing their insights, as well as all other key informant interviewees. We are particularly grateful for the unwavering support of John Fairhurst and his team, as well as Guy Stallworthy (Gates Foundation) and William Wells (USAID) who provided extensive guidance and suggestions.

This report was written by Aceso Global's team: Dr. Maureen Lewis, Project Director, Dr. Ioan Cleaton-Jones, Director at the William Davidson Institute at the University of Michigan, Ann Casanova, Esq. Project Manager, Jake Mendales, Sebastian Elie-York, Alex Csanadi and Esteban Bermudez. Nicole Tapay, Esq. provided inputs on healthcare financing, and Kiran Correa provided overall guidance and contributions in key areas. The case study authors are as follows: Dr. Ioan Cleaton-Jones -- South Africa; Dr. Ioan Cleaton-Jones, Sebastian Elie-York and Julie Cege -- Kenya; Dr. Ioan Cleaton-Jones and Sebastian Elie-York -- South Sudan; Jonty Roland -- Indonesia and Thailand; and Dr. Lal Sadasivan Sreemathy-- India.

Executive Summary

Motivation for the Report

While the private sector (PS) has been a key part of the Global Fund (GF) partnership since its founding, private sector engagement (PSE) has been largely concentrated on its role as a contributor of financial resources. There has historically been a lack of strategy, policy and guidelines to shape the role of the private sector in service delivery and health systems support. As such, the GF Technical Evaluation Reference Group (TERG) commissioned this study to better understand the role of for-profit private entities in the fight against the three diseases and health system strengthening, and potential opportunities for engagement. It is intended to inform the implementation of the current GF Strategy 2017-2022 and the development of the post-2022 GF Strategy.

The Global Fund's strategic and operational objectives provide the backdrop and driving motivation behind this report and the accompanying six country case studies on India, Indonesia, Kenya, South Africa, South Sudan and Thailand. As such, the report focuses on five GF priority areas:

1. Engagement of private sector service delivery to increase access to quality care, including to KPs
2. Data management
3. Supply chain management
4. Financing and financial management
5. Policy and regulation

Defining the Private Sector

WHO (2020) defines the private health sector as "the individuals and organizations that are neither owned nor directly controlled by governments and are involved in provision of health services. It can be classified into subcategories as for profit and not for profit, formal and informal, domestic and international." While recognizing that all healthcare systems are mixed, this report focuses on examining the private sector as it relates to service delivery for both for-profits, and non-profits that are market-oriented.

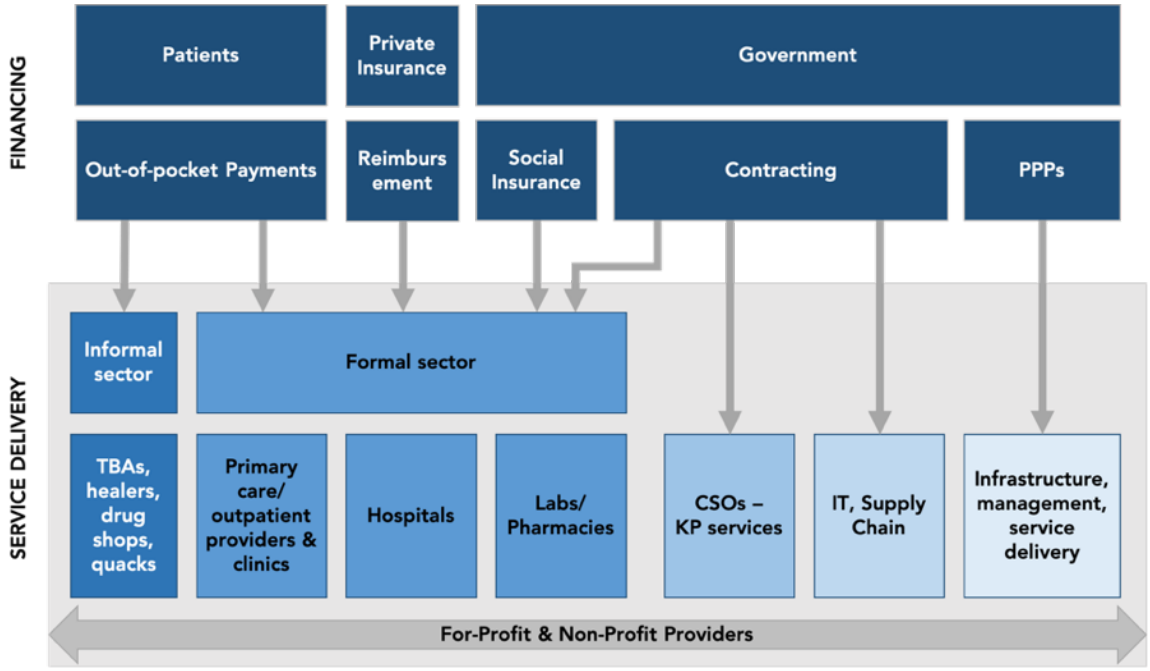
This report applies the generic "private sector" to the activities of both for-profits and non-profits, and wherever possible indicates if one or the other category applies. Specifically, this report focuses on for-profits and "commercially-oriented" non-profits, and therefore only captures part of the non-profit sector. As such, this report uses "private sector" throughout, but distinguishes where possible between for-profit and non-profit. We exclude CSR and the mission driven CSOs that already engage with GF country grants.

The typology of the PS is shown below. It touches upon numerous characteristics that can help parse the private sector, including different functions, formality and size of private actors. Together, these characteristics help to define a private provider market and its individual components.

Private Sector Landscape

The most important finding from this effort is that the PS providers are already providing healthcare services for HIV, TB and malaria diagnostics and treatment. The strongest private sector engagement both globally, and as part of GF country programs, is found in TB, which relies heavily on informal for-profit providers.

Typology of the Private Sector in Health



CCMs, governments and PRs are already using grant funding to partner with the private sector, and the range of initiatives is significant, covering all three diseases. The interventions are varied and activities include:

- Relying on the PS for disease notifications.
- Working with pharmacies to provide KPs with services for HIV, TB and malaria.
- Adopting IT and digital tools to bolster RSSH, service delivery, and KP access to care;
- integrating care through innovative delivery arrangements.
- Collaborating with Social Health Insurance (SHI) schemes to ensure that the PS is reimbursed for services related to the three diseases.
- Contracting for logistic and management services for supply chains, among other initiatives.

The range and creativity are impressive. This suggests that notwithstanding an explicit PSE strategy for service delivery, the Global Fund is already engaging the PS in achieving country and global goals.

Two new areas for the GF are critical to effective PSE: (1) bolstering governments' abilities to design, manage and enforce contracts with the PS since expertise is weak in most LMICS; and, (2) regulations that include rules for the private sector to ensure that PS providers meet standards of care and deliver quality of services.

Barriers to Private Sector Engagement

- *Challenges governments face in working with the private sector:* general mistrust, challenges in mobilizing consistent resources, weak and non-existent regulations, and the fact that maturity of the private sector varies from country to country.

- *Risks and limitations of the private sector working with the public sector*: delayed payments, administrative costs, and an inability to manage contracts.
- *Challenges the Global Fund faces in working with the private sector*: a lack of policies, siloed knowledge, a lack of focus on multi-country partnerships, and contracting issues.

Mapping Areas of Potential Private Sector Engagement to the GF Strategic Objectives

There are numerous examples that show how the private sector is engaged to accomplish GF strategic objectives. Through thoughtful and judicious engagement of the private sector, the GF strategic objectives can be achieved through: service delivery that increases access to quality care, data management, supply chain management, financing and financial management, and policy and regulation, which are the key thematic elements of this report.

Recommendations

1. Global Fund Strategy

- Explicitly recognize that health systems are mixed health systems where the PS already plays a significant role in the treatment of the three diseases.
- Recognize there is a need and opportunity to increase and optimize the contribution of the domestic PS to achieve the 2030 goal.
- Recognize and support the increased contribution of the domestic PS in building more resilient and sustainable health systems.
- Move past debating the private sector's value and engage in analysis of what channels can accelerate and drive sustainable and effective change, with the development of the tools to support appropriate and effective implementation that can advance GF efforts to meet the 2030 goals.

2. *Policy and PSE Strategy Development*

- Develop a GF PSE strategy and policy that addresses PSE to clearly define the GF position.
- Engage in partnerships to strengthen the GF approach and extend its reach.
- Determine an acceptable and broadly applicable definition of the PS and PSE so that there is a clear basis for a GF PSE strategy and appropriate activities can be defined and endorsed.
- Build public sector capacity in contracting as it is the cornerstone for government's PSE, and expertise is inadequate.
- Support regulation and policy at the country-level to help governments structure an "enabling environment" for the PS.
- GF should understand patient journeys and the rationale for patient decisions more clearly in order to design interventions that meet patient needs and optimize the impact for patients.
- Define performance parameters to provide a basis for assessing PSE activities.

3. *High-Value Intervention Options*

- Compile existing experiences and evidence on GF PSE since there are considerable ongoing activities.
- Explore how the GF can support scalable innovations in digital health and share knowledge across countries.

- Explore partnerships related to supply chain, pharmacies, and laboratories.
- Explore market-based models of access harnessing for-profit, nurse-run primary care networks that reach both AGYW and patients with the three diseases. Subsidies can be made through vouchers, digital payments, and other means.

4. Mobilizing Resources, Financing Interventions and Coordination

- Support domestic and international resource mobilization and public sector management.
- Initiate stronger coordination with other actors, particularly those with PSE experience, and MDBs that have a broader mandate and greater levels of investment.
- Engage with SHI systems as it is growing rapidly across GF focus countries and has implications for financing for the three diseases.
- Develop a clearer vision and guidance for multi-country partnerships internally to address rigidities that impede engagement.

5. Global Fund Internal Challenges

- Embed a mixed health system approach in grant design.
- Strengthen knowledge management to help FPMs learn about options and share ideas.
- Assess and determine how Catalytic Funds can innovate to best harness its strengths for PSE.
- Track performance of PSE both new and ongoing to learn lessons for the GF.
- Bolster internal capacity to handle a broader agenda that includes PSE.

1. Introduction, Definitions and Typology

1.1. Introduction

The Global Fund (GF) is an innovative public-private partnership, founded in 2002, with the expressed goal of eliminating AIDS, TB, and malaria by 2030. Since the beginning, private sector (PS) actors have been a key component of this partnership, bringing financial and non-financial resources to the table and supporting major advancements against the three diseases at the country and global levels. However, the PS has largely been absent from the GF's strategy and policies.

The Global Fund Strategy 2017-2022: Investing to End Epidemics emphasizes PS resource mobilization as one of its operational objectives but is largely silent on other potential areas of private sector engagement (PSE), such as leveraging PS delivery mechanisms, corporate systems, skills and capacities. Nonetheless, the GF does engage with the PS through various mechanisms, globally and at the country level. GF purchases drugs and commodities from the PS, procures systems and services from the PS, and at times contracts with the PS to deliver services and reach the needs of key populations (KPs) in prevention, treatment and management of the three diseases. Additionally, the GF engages with businesses to strengthen country systems and capabilities, and the GF's Secretariat contracts Local Fund Agents – private for-profit audit firms – to be its "eyes and ears" on the ground to evaluate and monitor activities before, during and after the implementation of a grant.

To date, much of this engagement has occurred in the absence of institutional policy and guidelines, and with limited scale-up of successful initiatives or sharing of lessons across the partnership. As such, the GF has identified the need to "better engage and strengthen program outcomes through the private sector," and has stated that the GF "might arguably be even more effective with a greater strategic engagement with domestic private sector actors." To that end, the GF Technical Evaluation Reference Group (TERG) commissioned this study, as well as six accompanying country case studies, to better understand the role of the private sector, specifically for-profit entities, in health systems strengthening and the fight against the three diseases Specifically, the GF seeks analysis on health delivery and its support systems. The results of this report and the case studies will inform the implementation of the current GF Strategy 2017-2022 and the development of the post-2022 GF Strategy.

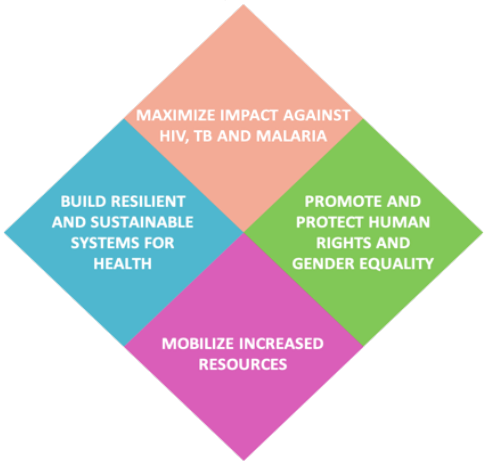
This report addresses opportunities for PSE to strengthen GF outcomes and provides high level recommendations regarding how the GF can improve and facilitate for-profit PSE. More specifically:

- Section 1 provides a working definition of the private sector based on those of WHO, World Bank and others, and a typology of the PS;
- Section 2 assesses the landscape of the PS in countries receiving GF grant funding (including the roles of PS actors in healthcare delivery, health systems strengthening, and in supporting people affected by the three diseases), identifies promising examples of PS innovation and partnership with governments and the GF, and outlines the importance of regulation to foster PSE;
- Section 3 identifies barriers that hinder engagement of the PS by the GF, and offers potential mitigation strategies;
- Section 4 maps the current and potential functions of the PS to the GF's strategic objectives; and
- Section 5 provides learnings and recommendations on how the GF can engage the PS to achieve its objectives, including through adjustments in its policies and processes.

1.2. Relevance to The Global Fund's Strategy

The GF's strategic and operational objectives provide the backdrop and driving motivation behind this report. As the "north star" for the partnership, the strategic objectives, presented in Figure 1.2.1 below, serve as the guiding force for GF activities at all levels of the partnership. As such, any potential PSE needs to be considered within the context of whether and how it can contribute to the GF's goals and objectives.

Figure 1.2.1. Global Fund Strategic Objectives



Each of the GF's four strategic objectives has a set of accompanying operational objectives. Only one of these explicitly mentions the PS. Operational objective 1, under the strategic objective *Mobilize Increased Resources,* is to "Attract additional financial and programmatic resources for health from current and new public and private sources." However, the PS has potential relevance across all four of the strategic objectives, to varying degrees.

As such, this report has relevance for the GF strategy more broadly. The links to some of the strategic objectives are strong, such as building resilient and sustainable systems for health and maximizing impact against the three diseases. Weaker connections are with advocacy for human rights and gender equality, although influencing how the PS delivers is of significant importance. This report has also given considerable attention to delivering healthcare services to key populations (KPs). Mobilizing resources is touched upon in relation to efficiency gains and cost-effective solutions, as well as leveraging healthcare payers, including Social Health Insurance (SHI), to get more out of existing resources. Additionally, mobile payments and savings, as well as vouchers offer other opportunities for mobilizing resources, and are discussed in this report.

In short, this report therefore relates to all four of the strategic objectives, and more specifically, focuses on five GF priority areas, as described below:

1. **Engagement of private sector service delivery to increase access to quality care, including to KPs**, e.g., supporting models of delivery for the three diseases, sexual and reproductive health and integrated care through grants to the PS;
2. **Data management,** e.g., development of health management information systems, innovative data collection, data analytics; M&E technologies, surveillance;
3. **Supply chain management**, e.g., logistics, forecasting, warehousing, distribution;
4. **Financing and financial management**, e.g., strengthening financial management of grant recipients, including governments; working with SHI to ensure coverage for the three diseases; and PS contracting; and.
5. **Policy and regulation**, e.g., making diseases notifiable and other ways to get and utilize data from the private health sector, and improving quality of care.

These five focus areas cover many aspects of health systems, in line with the GF objective to build resilient and sustainable health systems. Figure A1 in Annex 1 maps these areas to the WHO's Health System Building Blocks.

1.3. Defining the Private Sector

The PS is multi-dimensional and encompasses a broad range of organizational structures, functions and services (Mackintosh et al. 2016). Development actors tend to use the term "private sector" in an all-encompassing way for every sub-sector, from informal pharmacies and grocery stores to big tech companies. As a result, defining the PS, and within that the for-profit sector, is fraught with difficulties. Box 1.3.1 summarizes recent definitions of the PS by WHO, Stop TB Partnership, and the GF. All of them encompass a broad swath of the PS and include both non- and for-profit entities.

Box 1.3.1. Definitions of the Private Sector

- "Private health sector is defined as all non-state providers of health services, which includes for-profit (both formal and informal) and not-for-profit (NGOs, faith-based organizations, community-based organizations), domestic or international entities." (WHO 2020b)
- "The 'private sector' is typically considered to include any facility, outlet or individual that provides health services, and is not managed by a government." (Global Fund 2019d)
- "The term 'private providers in health care,'… includes any provider and facility under private or non-public ownership." (WHO 2018a)

While they are legally distinct entities, in practice, the distinction between for profit and non-profit poses challenges, because:

- The delineation between for-profit and non-profit is vague, and activities are overlapping;
- Data on the private health sector in low- and middle-income countries (LMICs) frequently do not distinguish between non-profit and for-profit, and where that distinction exists, a recent WHO (2018b) report suggests the data are suspect;
- Patients and governments often do not recognize the difference between the two and use them interchangeably; and,
- Increasingly, non-profit, for-profit and government entities are working in partnerships, or non-profit and for-profit are working within the same organization, further complicating efforts to separate sub-sectors and undermining the ability to track for-profit engagement or impact.

The World Bank Group's (2011) "Healthy Partnership" came to the same conclusion that the distinction was unhelpful, and ultimately meaningless, and embraced the all-encompassing "private sector" as the more useful term.

Considering that we cannot systematically isolate the for-profit sector and taking into account the fact that all private organizations must be break-even to survive, this report applies the generic "private sector" to the activities of both for-profits and non-profits, and wherever possible indicates if one or the other category applies. Specifically, this report focuses on for-profits and "commercially-oriented" non-profits, and therefore only captures part of the non-profit sector.

While recognizing that healthcare in any state operates on a continuum between fully private and fully public actors, this report focuses on examining the private sector as it relates to service delivery. In this examination, certain actors have deliberately been excluded, including those that produce medical inputs and infrastructure, as well as the non-profits that lack a commercial component. By focusing on service delivery provided by for-profits and "commercial" non-profits, this report captures the vast majority of private care that is provided across the healthcare spectrum (see Table 1.3.1). The report does not provide a comprehensive review or analysis of the "non-profit private sector" or how the GF relates to civil society implementers. The inclusion of the non-profit private sector is limited to its overlap with the for-profit sector in market-based arrangements. Mission-driven, purely charitable organizations and corporate

social responsibility (CSR) activities that already play a major role in the GF agenda are outside the scope of this report.

Examples of the types of for-profit and non-profit organizations operating in different parts of low- and middle-income countries (LMICs) health systems can further inform and clarify the discussion of non-profit and for-profit definition. Table 1.3.1 summarizes the major categories, from high-end corporate hospital groups, some of which are for-profits (e.g., Apollo Hospitals) and other non-profits (e.g., Johns Hopkins Hospital). Non -profit (e.g., Crown Agents) and for-profit (e.g., Imperial Logistics) companies often compete for the same tenders for logistic services. In between are the range of players in healthcare from licensed, trained professionals to informal, undertrained and unlicensed providers. These distinctions are discussed further in section 1.4 below. Notably, Table 1.3.1 does not include IT partners, though these are part of a broader discussion below, and are addressed throughout the report given their critical nature for the GF and its country programs.

Table 1.3.1: Private Provider Types, For-profit and Nonprofit Status and Examples of Types

Types of Private Providers	Profit Status	Examples of Provider Types
High-end corporate hospitals	Mixed	**For-profit:** • Apollo Hospital Chain, India; Med Life Healthcare, South Africa • Bumrungrad Hospital, Thailand **Non-profit:** • Aga Khan hospitals, Kenya, Tanzania, Pakistan, etc. • Johns Hopkins University Hospital, global
Small to mid-sized hospitals/clinic networks	Mixed	**For-profit:** Nursing homes hospitals, India **Non-profit:** FBO hospitals, various **For-profit/non-profit mixed**: CFW Clinics, Kenya
Laboratories	Mixed but primarily for-profit	**For-profit:** Range from small individual labs to large groups e.g., DASA in Brazil **Non-profit:** Typically in FBO or other non-profit hospitals that only serve that facility and community
Pharmacies	Mixed but primarily for-profit	**For-profit:** Range from small individual stores selling limited stock to large chains e.g., Apollo Pharmacies, India; Clicks, South Africa **Non-profit:** Largely pharmacies in FBO hospitals that only serve that facility and community
Independent qualified practitioners	Mixed	**For-profit:** Private physicians; nurses; midwives; therapists; HIV counselors **Non-profit:** Aggregators of small informal and formal providers, e.g., Professional Medical Associations in India **For-profit/non-profit mixed**: Unjani Clinics, SA non-profit organization of nurse-led for-profit clinics
Informal Drug Shops	For-profit	Accredited drug-dispensing outlets; Patent Medical Vendors; independent entrepreneurs selling drugs of uncertain quality
Independent, non-formally qualified practitioners	For-profit	Community health workers (remunerated); unlicensed providers; traditional healers, unqualified practitioners
Independent supply chain and financial management providers	Mixed	**For-profit:** Imperial Logistics, Africa; KPMG/PwC global; independent motorcycle owners **Non-profit:** Crown Agents, global

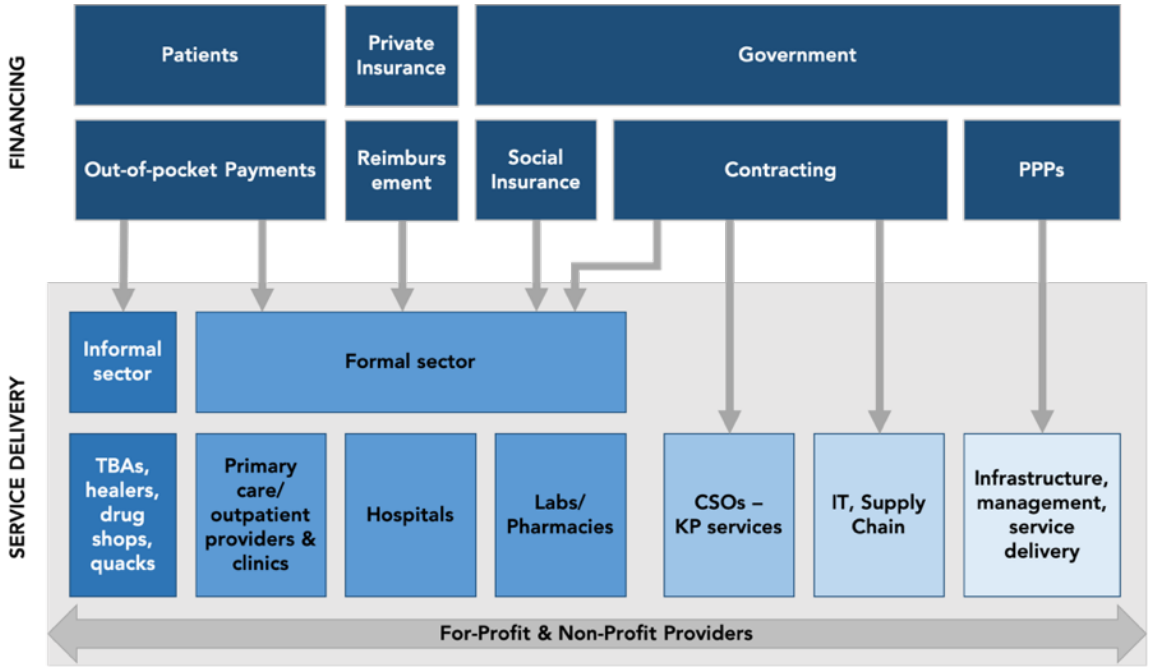
Source: Authors' elaboration.

1.4. Typology of the Private Sector

Building off of the definition of the PS provided above, this section provides a more granular look at the diverse nature of PS actors in health systems. Figure 1.4.1 presents a typology of the components of the PS. It touches upon numerous characteristics that can help the reader think about the PS, including different functions, formality, and size of private actors, which are discussed below. Such characterizations are useful for understanding the nature of PS actors in a given country or context.

The benefit of this typology is its dynamic nature: it depicts the flow of financing from and to the PS, which is important as financing and payment set the incentives for providers and can drive performance (or underperformance) of the PS. As shown in the figure, the main sources of financing for the PS include out-of-pocket (OOP) payments, private insurance (minimal in most GF countries), and government. Government is included as a financer in this typology due to its important, and growing, role as a purchaser of PS services, which has implications for the level of PSE in health and for the three diseases specifically. Governments purchase services from the PS through three main modes: (i) contracting private providers for services (e.g., ancillary services for providers, IT, supply chain); (ii) via Social Health Insurance (SHI) schemes, whereby private providers can be contracted to deliver services for SHI beneficiaries – this represents a fast-growing financing mechanism in many GF countries with implications for the GF (see section 2.6); and (iii) public-private partnerships (PPPs) that are associated with large infrastructure projects such as major hospitals, but also management services for hospital chains or other major inpatient facilities. Additionally, governments engage with the PS through regulating the market and setting policy directions, which serves as a backdrop to private sector activity.

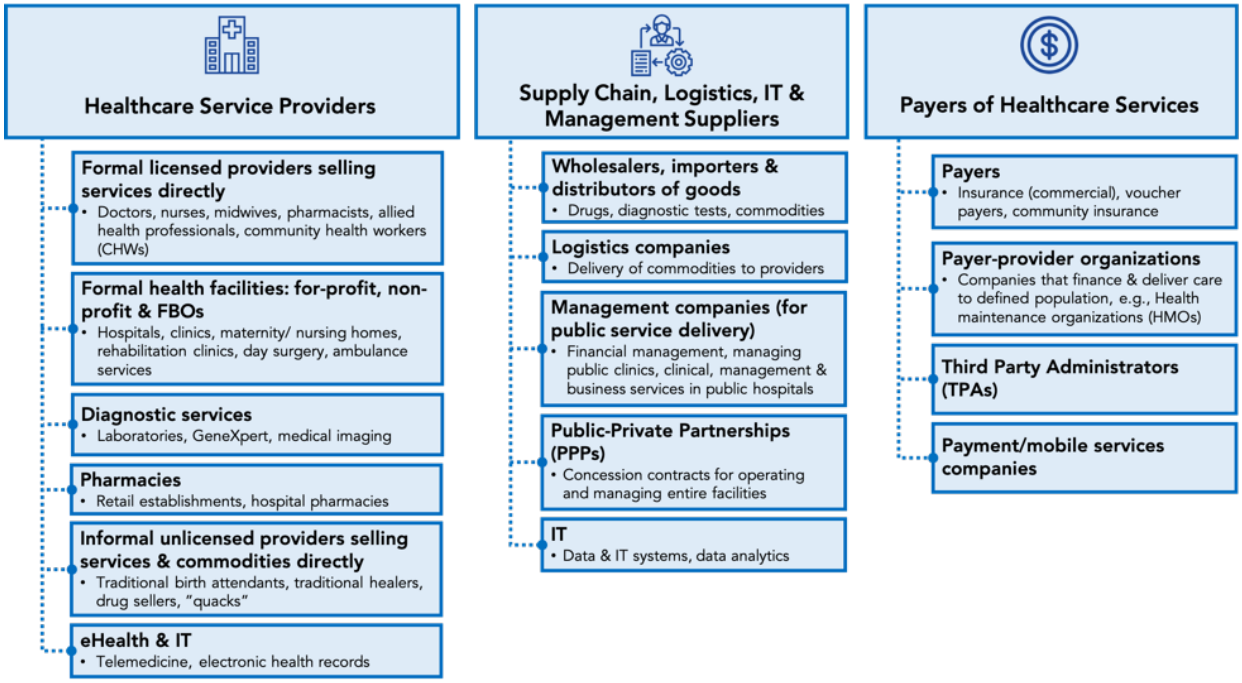
Figure 1.4.1 Typology of the Private Sector in Health



Source: Authors' elaboration

- ***Functions of the PS:*** While Figure 1.4.1 shows how the components of the PS fit together, Figure 1.4.2 provides a deeper look at the types of functions carried out by PS actors in health. By extension, it provides a summary of potential areas for GF collaboration and partnership with these actors.
- ***Formality:*** Figure 1.4.2 also differentiates between the formal (licensed) and informal (unlicensed) provider sectors. This is an important distinction because in some countries, like Bangladesh, Pakistan, India and Nigeria, unlicensed providers outnumber licensed formal providers. Engaging with the large, fragmented informal sector can be challenging due to the fact that many operate independently and offer services of low or unknown quality. However, given its market share in some countries, the informal sector cannot be ignored.
- ***Size:*** In most LMICs, there is a range of providers of different sizes. In the informal sector, providers tend to be small – usually individuals operating alone, like traditional healers or drug vendors. The formal (licensed) market, however, ranges from solo practitioners, including doctors, midwives and community health workers (CHWs) to clinic franchises in the outpatient market and from independent hospitals to large hospital networks in the inpatient market.

Figure 1.4.2: Functions of Private Health Sector



Source: Authors' elaboration

The typology offered above provides a way to understand the functions and nature of PS providers. The types of providers – whether healthcare providers, suppliers of support services or payers; operating in the formal or informal sector; or small or large – define a given market and its components.

1.5. Additional Considerations Regarding the Private Sector

Health systems in LMICs are largely mixed, and both public and private sectors are relied upon by citizens and patients (Montagu and Chakraborty 2019). As described above, the PS serves numerous functions in these mixed systems, many of which overlap with public services, though certain roles (e.g., regulation) are within the sole purview of the public sector. There are issues that must be considered when thinking about the PS, which are discussed throughout the report. A few notable issues are highlighted below.

- **Perverse incentives:** Private providers can and do fill important roles in health systems. However, without proper oversight, financial incentives can encourage private providers to engage in unwanted behaviors such as:
    - providing services that have no health benefit;
    - over-servicing;
    - selling counterfeit medicines with low or no active ingredients;
    - focusing only on populations that can and will pay for services;
    - overcharging that can leave some groups without access to goods or services; and,
    - fraud and abuse in financial transactions in healthcare.

  A major objective of government regulation is to prevent such abuses, enable health providers to offer quality care and enforce rules that protect citizens. Effective enforcement of regulation effectively means punishing perpetrators, which offers confidence in other private players.

- **Contracting challenges:** Contract management is critical to success – without it, partnerships can fail, often due to a mismatch in expectations and working arrangements. It is important to engage PS actors with an understanding of what they can bring to the table, and where they are likely to falter. Without mutual understanding and government expertise to draft and enforce well-designed contracts, contracting and partnerships are at risk of failing. These issues are discussed in Section 2 but included here to highlight that partnership with the PS entails benefits, and also risks and costs, and investments are needed to mitigate these as part of a GF PS strategy.

- **COVID-19 and increased PS roles:** Changing circumstances can alter the role of the PS and appetite for engagement. The COVID-19 outbreak has accelerated the relevance of local businesses and non-profits in both spearheading domestic initiatives and in partnering with larger local and international entities. In many countries where public sector resources were insufficient to cope with the sharp increase in demand, the PS was an essential partner, contributing to national response efforts by notifying cases, abiding with clinical protocols for testing, isolation and treatment, and responding to demand for surge capacity in hospitals (WHO 2020a). While the virus outbreak has made governments more reliant upon and open to collaborating with the PS, it has also exposed weaknesses in those collaborations. Because of the nature of the partnership, the GF is uniquely positioned to build on the momentum generated by COVID-19 and help support continued – and improved – engagement between the public sector and private providers.

2. Landscaping the Private Sector

2.1. Introduction

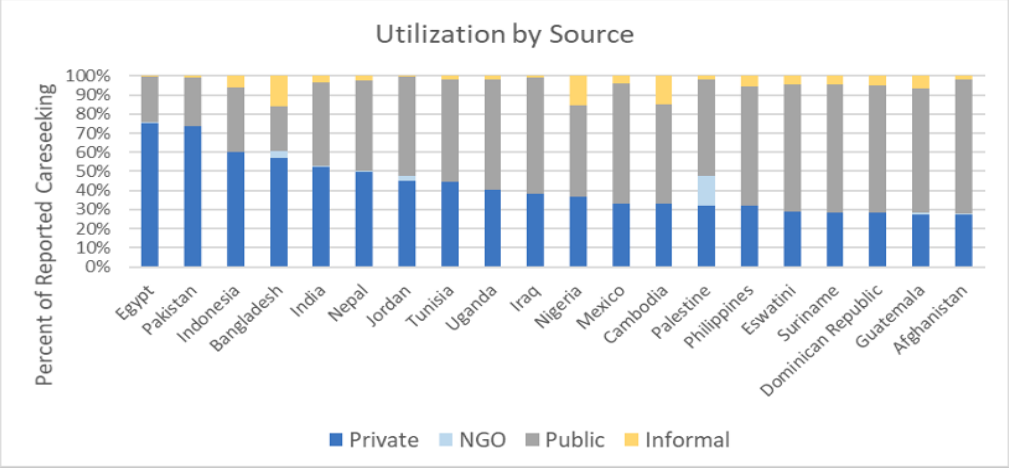
This section offers a broad examination of the private healthcare sector in LMICs. It examines the service delivery landscape through the lens of the four Global Fund Strategic Objectives with priority given to the five focus areas of this PSE review, articulated in Section 1.2. While some of these priority areas are addressed directly – for example, there are standalone sub-sections on supply chains and regulation – others, such as data management, are addressed across several sections of the landscaping due to their relevance to multiple health system functions.

2.2. Who Uses the Private Sector for Healthcare?

A significant proportion of patients in LMICs seek care in the PS, including for the three diseases. This section discusses the role of the PS, the proportion of patients who seek care in the PS, and its significance to the three diseases.

By some estimates, the PS accounts for over half of all care delivered worldwide (Harding and La Forgia 2009). WHO's Private Sector Utilization report (2019) analyzed 65 countries from 2010 to 2019 and found that the PS provides nearly 57 percent of outpatient and inpatient services in Southeast Asia, 62 percent in the Eastern Mediterranean, and nearly 40 percent in Latin America and the Caribbean, Africa and the Western Pacific (WHO 2020a; Montagu and Chakraborty 2019). Notably, the prominence of the PS in service delivery is also observed in low-income countries and fragile states, and among the poor (see Annex section 2.2 for more detail). In Bangladesh, for instance, 64 percent of care seeking occurs in the PS, and in the Democratic Republic of Congo the PS often serves as the first point of service provision for patients, especially for primary care. Figure 2.2.1 below presents the care-seeking patterns for the twenty countries with the highest PS utilization rates from a recent study.

Figure 2.2.1: Twenty Countries with the Highest PS Utilization Rates, 2018



Source: WHO pre-publication, 2021.

These care-seeking patterns hold for the three diseases. The best documented example is TB, where private providers account for about 75 percent of initial care-seeking worldwide (WHO 2018a). There is also a high utilization of malaria-related services from the PS. A household survey completed between 2015 and 2018 across 19 sub-Saharan countries found that 40 percent of children with a fever were

diagnosed with malaria in a formal, private facility (WHO 2019a) and 9 percent in an informal, private facility. The same survey found that approximately 58 percent of diagnosed children received malaria treatment in a private facility. For HIV-related services, PS utilization varies significantly by country. In 2010, USAID conducted a 12-country analysis and found that up to 45 percent of women reported the private, for-profit sector as their most recent source for HIV testing (Wang, Sulzbach, & De 2010). Overall, the PS plays a large role in service delivery and case management for the three diseases. Thus, effective engagement with the PS would likely contribute towards achieving the goal of eliminating the three diseases by 2030 as it would capture those currently outside the public system.

2.3. Scope, Scale and Role of the Private Sector in the Delivery of the Three Diseases

Summary of Three Diseases and PS Delivery

The private sector commonly serves as the first point of service provision for the three diseases (three diseases). This holds true even amongst the poorest income quintiles; extensive private spending by low-income patients reveals an ability and willingness to pay. The issues are whether those patients receive adequate care, and if governments can effectively monitor cases, reduce transmission, and lower the overall burden of disease by ensuring notification, contact tracing and effective case management. In low income and rural communities, the options for healthcare are limited, and differences between public and private are not evident to those seeking care – where they are both available, patients seek out both public and private services simultaneously (Das and Hammer 2014). PS services are clearly already being used for the three diseases; strategic engagement of the PS by the public sector and donors can help to better align and coordinate efforts within and across fragmented health systems and ensure effective management of the three diseases.

Governments play a central role in tracking incidence and prevalence and can strengthen the private sector's ability to notify and manage cases (Joudyian et al 2021). For private providers, notification can be bureaucratically onerous, time-consuming and uncompensated, all serving as disincentives. In some instances, private providers are unaware of the notification process. Treatment compliance is less clearly a PS priority because the point-of-sale model incentivizes diagnosis and prescribing, not necessarily case management, a priority for effective treatment. The public sector stewardship role combined with efforts to engage and compensate informal and formal private providers for notification, diagnosis and case management can help align private and public service objectives. Furthermore, private sector engagement would better align with the observed patterns of health seeking behavior. Issues of PS oversight, guidance and regulation to ensure quality is addressed in Section 2.8.

Box 2.3.1: List of Services Provided by the PS in a Meta-Analysis of PPMs

- Case detection
- Diagnosis
- Treatment
- Educational services
- DOTS
- Screening
- Transport services
- Training
- Referral
- Notifications
- Voucher program

Source: Joudyian et al 2021.

The opportunity for the GF and governments entails engaging private players, compensating them, and upgrading skills and processes for detection, notification and treatment. For example, pharmacies can be involved in both detection and treatment of the three diseases (see Box A2.3.1 in Annex 2.3 for greater detail). Through judicious agreements and relationship-building, governments can guide private providers towards higher quality practices, and effectively establish a platform of private provider engagement, that can include accreditation, quality assurance, and consistent payments for goods and services, that together can improve service access and quality. The set of tools and solutions are summarized in Box 2.3.1 and can be adopted and used across different context depending on circumstances. The GF can facilitate this process and build on local

capacity, expand access, and spur innovation to maximize impact against the three diseases, while maintaining alignment with the fundamental principles of country ownership and partnership.

This section provides an overview of PSE in service delivery of the three diseases, with special emphasis on successful and unsuccessful examples of the role of the PS in addressing the three diseases. Through this detailed modular approach, the following sub-sections reveal opportunities for the GF to build on existing engagements and interventions to ultimately improve quality of care for the three diseases.

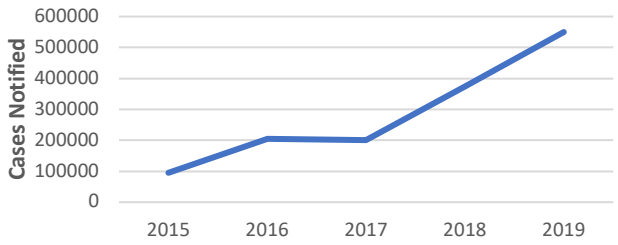
Tuberculosis

Private provider engagement in TB is particularly noteworthy and well-documented in highly endemic areas of India, Pakistan and Myanmar, and can be traced to strong partnerships between government and private, informal for-profit providers (WHO 2020a; WHO 2018b; Global Fund 2015). As a disease of poverty, TB patients are often underserved and delay seeking care, while many are asymptomatic and unknowingly spread the disease. Patients are frequently less well-informed about options, and therefore rely on convenient and available advice and services, paying little attention to whether care is coming from the government or the PS. While healthcare practitioners are available, they range from informal unqualified to informal qualified to high-end formal, and patients cannot distinguish among the options. The ability of health systems to appropriately count and monitor TB patients has been a persistent challenge given the scope and range of needed services to achieve these objectives.

Of the approximately 10 million individuals who were estimated to have contracted TB in 2019, only 7.1 million were officially notified to national authorities and reported to the WHO (WHO pre-publication 2021). The "missing" cases are significantly attributable to a lack of compliance with NTPs or providers falling outside the purview of NTPs. Assessments show that 75 percent of TB patients in high prevalence countries seek initial care in the PS, and 54 percent of all anti-TB drugs are prescribed by private sources in some countries (WHO 2018a). Despite this, private providers account for just 19 percent of all notifications officially submitted to authorities (WHO 2018c). Many efforts to stop the spread of TB are hindered by fragmented, antiquated or nonexistent case detection reporting mechanisms, highlighting the urgent need for data sharing and aggregation across healthcare systems. Fragmentation of data has contributed to inefficiencies and poor quality of care, and ultimately exacerbates challenges in the management of TB. As a result, there is no assurance of quality care or case management for millions of cases. Table A2.3.1 in Annex 2.3 provides a list of relevant existing technologies that aim to address data fragmentation, including for TB.

India is an effective example that demonstrates the challenges and opportunities of PSE. Historically, India has accounted for 25 percent of all missing TB cases globally. India's national TB program (RNTCP) began systematically engaging with PS providers in 1997 (Arinaminpathy et al. 2016). The Public-Private Interface Agency (PPIA) model in Mumbai saw close to 100 percent case notification in 2014, setting off an increased push to revise national policies to pursue greater PSE (see section 2.8 for more on regulations). Importantly, prior to the establishment of the PPIA, India made TB a notifiable disease in 2012, requiring both public and private practitioners to alert government authorities of each positive TB diagnosis, with a goal of increasing notifications by 10-fold over

Figure 2.3.1: Increase in Number of TB Notifications from Private Sector in India, 2015 to 2019



Source: Arinaminpathy 2019

the subsequent two to three years (WHO 2018a). Integrating into the national notification system, Nikshay is a simple electronic platform (see Box 2.3.2) that has facilitated widespread adoption and implementation and has been rapidly scaled-up (WHO *pre-publication* 2021). Figure 2.3.1 illustrates the dramatic jump in notifications, increasing five-fold from 4 percent to 19 percent over a five-year period, and after a period of stagnation. The scale-up of the Joint Effort for the Elimination of Tuberculosis (JEET) made the engagement of PS providers a key strategic priority for India. The resulting provider incentives and patient subsidies led to an exponential rise in TB notifications (JEET 2019, Arinaminpathy 2016).

Box 2.3.2: Nikshay

Nikshay is India's national TB patient management system. The web-based platform was established in 2012 by India's National TB Program (NTP) as a part of a multi-pronged approach to treating TB. The platform is used by both the public and private sectors, and functions as the TB case notification database, monitoring system for treatment adherence, and the National TB Surveillance System. Additionally, it can be used by providers to order diagnostic tests (Nikshay n.d.). Nikshay and mandatory reporting statutes, have increased case notifications by 29% in 2014 (WHO 2018a). By 2018, more than 223,000 private facilities were registered with the technology and 41,000 facilities notified at least one TB case (WHO *pre-publication* 2021). In 2018, the system is being upgraded to facilitate mobile-based notification and a National TB Call Centre is being established. Nikshay is also being linked to the Public Financial Management System to facilitate electronic payment of cash benefits (i.e. Direct Benefit Transfer) (WHO 2018c).

The government of India will continue scaling up PSE with their own resources through their Public Private Support Agencies (PPSAs) and results-based financing mechanisms to improve the end-to-end TB services to all PS patients. Critically, India imposed regulations that encouraged higher standards and improved diagnosis, treatment and management within the PS (Arinaminpathy 2016). These regulations were effective because they were clearly communicated and enforced with penalties, including fines and eventual facility closure (Uplekar et al. 2016). Resources from the 2017-2019 GF Strategic Initiative cycle helped further develop PSE, and have contributed to the Indian government's request of a US$400 million loan from the World Bank for TB.

Similar success stories in Zambia (Chongwe et al., 2015), Nigeria (Gidado and Ejembi 2009), Vietnam (Quy et al 2003), and Kenya (Lönnroth et al 2004) have shown successful PPMs under international standards to diagnose, treat and manage TB cases (Joudyian et al 2021). In Pakistan, Greenstar Social Marketing and Mercy Corps, both primary grant recipients for TB, implemented a model of general practitioner (GP) engagement, deploying one field worker to support approximately 15 GPs. These field workers partnered with local GPs and provided them with training to identify TB cases. Additionally, field workers provided equipment to private laboratories, free NTP drugs and small financial incentives (US$ 2.86) for registering patients and completing treatment (JPRM 2019). Pakistan saw a 71 percent increase in case notifications by GPs as a result of this successful model. Similar projects are being ongoing in other countries, and since 2010, the proportion of total TB notifications from PPM initiatives has increased from 10 percent to 30 percent (WHO 2020b).

The inclusion of private providers in National Strategic Plans is recognition of this PS's potential to close the "missing" cases gap. WHO guidance suggests that a strong and effective NTP is a crucial prerequisite of successful PSE (WHO 2018b). With common policies and goals in place, a shared framework for a regulatory environment can be built (WHO pre-publication 2021). Using this framework, countries can begin to address the gaps in their notification strategies. Indonesia exemplifies the consequences of not coordinating with the PS to manage TB cases, as summarized in Box 2.3.3, as the sector accounts for 42 percent of treatment but just 9 percent of notifications.

Engaging all relevant health care providers in TB care through PPM approaches is an essential component of the WHO End TB Strategy and has been fundamental to successful PSE. Importantly, nearly all high TB-burden countries are implementing PPM activities, as more countries move towards an integrated strategy rather than standalone TB systems. As of 2020, 52 countries have used the TB DHIS2 package for aggregate data either prospectively (ongoing data input) or retrospectively (historical data input and analysis). Reports from eight countries and several project evaluations have shown that PPM could help increase case detection (between 10 percent and 36 percent), improve treatment outcomes (over 85 percent), reach the poor and reduce costs. A review of evidence indicates that PPM initiatives contributed to a 10 to 40 percent increase in case detection (WHO 2018a). The wide range and depth of successful PSE for TB provides powerful evidence of the opportunities for the GF to engage the PS and improve the accessibility and quality of care for TB patients.

Box 2.3.3: Gaps and Opportunities for TB Engagement in Indonesia

In the archipelago nation of Indonesia, 74 percent of initial TB care seeking, and 50 percent of TB treatment takes place at private hospitals, clinics, and pharmacies (Indonesia case study), yet the PS only accounts for 9 percent of notifications. Lack of coordination and incentives historically incentivize hospitals to retain patients rather than refer out. Accordingly, Indonesia represents 11 percent of missing cases of TB globally. Their sophisticated telehealth and m-health apps are showcasing increased facilitation of partnership between the JKN national health insurance, MOH, and providers, proving the potential of existing platforms with huge markets to introduce innovations to the public and private health systems. The two largest "super app" platforms, Alodokter (30 million monthly users, 30,000 doctors) and Halodoc (12 million monthly users, 22,000 doctors), lead the pack of more than a dozen telehealth apps in use in Indonesia. An already strong telehealth sector with integrated payment mechanisms, linked to local labs and pharmacies has seen its demand grow 300 percent during the pandemic alone; yet TB is still not included in these services.

Malaria

Globally, 40 percent of patients with suspected malaria seek care in the PS (WHO 2019a), yet PS reporting accounts for less than 2 percent of all malaria cases (Global Fund 2019d). A handful of high-burden countries (India and 15 sub-Saharan African countries) are responsible for 80 percent of the global malaria burden, which, like TB, allows for a focus on specific countries or regions (Lal et al 2019). As with TB, the PS has little incentive and no compensation to notify. The juxtaposition of widespread utilization of PS services with an undeveloped notification system presents challenges for the GF in its malaria elimination strategy, but also may serve as an entry point for a strategy that builds on the experience of TB. Private providers can be effective at increasing access to quality case management, reaching patients where they are – but significant concerns remain about quality and safety of care and medications, as well as a lack of referral links with public facilities, notifications, and surveillance (Global Fund 2019d). Without effective regulations that are imposed and enforced or, more importantly, compensation for notification and incentives for appropriate care, providers are inclined to maintain their supply of customers, and prescribing ACTs to patients with febrile conditions rather than confirming with an RDT. While a poor strategy for case management, it is an effective strategy for selling ACTs. As patients' extensive private spending in malaria across income quintiles, reveals an ability and willingness to pay, assurance of basic quality care constitutes a pressing concern. The Child and Family Wellness (CFW Shops) in Kenya provide an excellent example of successful franchising to guarantee basic quality standards for malaria service provision as well as other diseases. These are described in Box A2.3.2 in Annex 2.3.

Box 2.3.4: Goodlife Pharmacy's Health Hub Increases Access to Care, East Africa

Goodlife, East Africa's largest pharmacy chain in Kenya and Uganda, served 1.1 million people in 2017. It positions stores in convenient locations such as near bus stops and health clinics, and inside shopping centers and other retail outlets frequented by KPs. In 2018, it launched its "health hub" care services concept by adding laboratory and telemedicine services. Patients can have blood drawn in dedicated private spaces at the pharmacy for several conditions, including for malaria and HIV testing. The samples are analyzed by Lancet Laboratories, a leading and well-regarded provider of pathology services across Africa.

Patients can choose from two options to use Goodlife's telemedicine platform to access a licensed doctor. The first option uses Goodlife's mobile application which can be used from anywhere with Internet connectivity. It connects patients with a doctor who provides advice, prescribes medication and can recommend a consultation at a Goodlife pharmacy or a referral to a specialist. The second option facilitates access for those who find it more convenient to have a tele-consultation from a dedicated private space inside the pharmacy (IFC 2018).

As previously mentioned, pharmacies and drug sellers are well positioned to reach low-income patients and can be leveraged to offer a broader set of services, as Goodlife Pharmacy's Health Hub is achieving (see Box 2.3.4). Another example of effective use of pharmacies is the Accredited Drug Dispensing Outlet (ADDO) program in Tanzania providing subsidized quality-assured ACTs (QAACT's) to private facilities (see Box A2.3.3 in Annex 2.3).

Due to the wide availability of test kits and medicines, as well as the short duration of the illness, patients generally receive care from the PS, seeking the nearest and most convenient providers. Recognizing that informal providers will remain indispensable to finding new cases, India has prioritized the integration of private informal providers into their national health goals. See Box A2.3.4 in Annex 2.3 for information on the Malaria Elimination Demonstration Project (MEDP), an innovative PPP between the Indian Council of Medical Research (ICMR), the government of Madhya Pradesh (GoMP) and the Foundation for Disease Elimination and Control of India (FDEC-India), which was established by Sun Pharmaceutical Industries Ltd.

Quality-control parameters such as accreditation and licensure improve disease notification, yet convincing private providers to participate is often challenging. The WHO Strategy for Malaria Elimination in the Greater Mekong Subregion (GMS), which has set a target for malaria elimination by 2030 in Cambodia, Lao PDR, Myanmar and Thailand, assures and underscores the importance of supporting the integration of private care providers into the overall health system (WHO 2020a). In a 2017 study of 76,168 outlets across GMS, the PS played a larger role than the public sector in the distribution of anti-malarials (ACTwatch Group 2017).

The integration of appropriate notification systems into data-driven technological tools is generating significant opportunities for PSE. Utilizing existing mHealth app technologies, M-TIBA and SafeCare4Covid, Health Finance Coalition (HFC) is partnering with patients and providers to generate real-time data and accelerate digital lending (see Box A2.3.5 in Annex 2.3 for more detail). They have been utilizing M-Tiba, a platform with a strong patient and provider base, to identifying febrile symptoms of malaria and have quickly pivoted to detect COVID-19-symptoms. Additionally, they offer a supply checklist, patient on-boarding, and readiness assessments. Malaria No More will mobilize US$ 18.5 million in loan guarantees for medical equipment procurement, financing through the Medical Credit Fund, technical assistance and training and cultivation of health data through SafeCare to ensure continuation of services during COVID-19 (HFC 2020a).

Table 2.3.1: Percent of Private Sector Involved in Treatment for Fever, 2020

Countries	Population at Risk for Malaria (000,000)	Projected Number of Fever Cases (000,000)	Private Sector Treatment for Fever (%)
Nigeria	215.6	102.2	66
Tanzania	55.5	27.2	40
Kenya	50.3	16.6	25
Ghana*	30.8	31.0	51
Uganda	41.4	69.1	40-60
Total	**393.6**	**246.1**	**48% (Average)**

*Ghana's data is from 2018.
Source: HFC 2020b.

Social franchising can help meet malaria control goals by linking private providers in a network to offer services under a common brand, while combating issues of medication quality and patient safety. The granting of exclusive rights to local independent entrepreneurs captures several critical components of successful PSE when addressing the strategic goals of the GF. Sun Quality Health in Southeast Asia trains, supervises, diagnoses and treats malaria within a network of private doctors and community health workers. In Myanmar, which has used a social franchising model since 1999, female patients found franchised providers to offer higher quality care than other available healthcare providers (O'Connell et al. 2011).

HIV

Of the three diseases, the role of PS actors in HIV is perhaps the least comprehensive or understood. Condoms are predominately obtained from a range of commercial sources, from pharmacies to dispensers in bars. PS actors can also be leveraged for distribution and marketing of subsidized condoms (ie. social marketing) that are also associated with raising actual use (Mclean 2020). All parts of the PS – from FBOs to for-profits – are engaging in the fight against HIV. One-third of men and one quarter of women in Kenya seek out for-profit and not-for-profit providers for HIV tests (World Bank, 2010). The Malawi Business Coalition Against HIV/AIDS (MBCA) has taken primary responsibility for coordinating the scale-up of the PS ART program and supervising the PS clinics accredited under this program (USAID 2011).

Box 2.3.5 offers an example of a PS actor working in tandem with the public system to

Box 2.3.5: BroadReach Down Referral Model in South Africa's North West Province

"Down referral" refers to the reallocation of service provision away from hospitals and other centralized high-end facilities and towards lower tier facilities closer to patients. The North West Province, South Africa entered into an MOU following such a model with private company BroadReach Healthcare to alleviate some of the burden of HIV treatment within public hospitals. Patients initially enter into a public Wellness Center where they receive treatment for six months before being referred to either private GPs (managed through BroadReach) or public clinics. Treatment continues to be financed by the government even when services are delivered at private facilities. Patients have access to hospitals but are monitored at Wellness Centers and referred back to the private doctor or clinic after stabilization. The private doctor model has outperformed the public clinics on ART compliance as 94 percent of patients in the private model remained on ART compared to 75 percent in the public clinics. Loss to follow-up was nearly 47 percent lower among private doctors, and fewer PS patients required referral back to the Wellness Center for stabilization (USAID 2009; USAID 2014).

relieve the burden of a high number of PLHIV in South Africa. Box 2.5.1 in Section 2.5 describes another example from the same country of a private entity providing PHC and HIV counseling, testing and treatment. These types of provision help explain why the PS can account for upwards of 40 percent of HIV-related services, and why seeking care in the PS does not necessarily correlate with wealth (USAID 2010).

Once patients have stabilized, long-term management of HIV has some similarity to other chronic diseases. Insights gained from management of other chronic non-communicable diseases (NCD) are instructive for long-term HIV treatment. Box 2.3.6 outlines the innovative approach taken by Clinicas del Azucar in Mexico to improve chronic disease management. Lessons learned from this example can be applied to HIV management and presents a natural opportunity for possible PSE. Another consequence of the similarity between HIV and NCD management is the necessity of embedding HIV treatment coverage in SHI benefits (see Section 2.6). Chronic conditions like HIV and diabetes require follow-up and tracking of patients to ensure periodic testing, compliance and heading off other medical problems, and increasingly this will be accomplished through SHI.

Digital technology innovations is proving critical to PS engagement at all levels of the healthcare system. The success in TB has already been touched on. Vula Mobile – a provider-to-specialist communication system for e-referrals in South Africa has been highly successful, and some of its largest uses are for HIV and TB. Vula consultations allow providers to discuss a patient's case and determine whether a specialist referral is necessary (see Box 2.5.4 in Section 2.5 for more detail).

Box 2.3.6: Clinicas del Azucar, Chronic Disease Management in Mexico

Clinicas del Azucar pioneered a disruptive innovation for chronic disease management that could revolutionize the way diabetes and hypertension is treated in LMICs. Clinicas created a structure that provides coordinated care for diabetes and hypertension by specialized doctors, nurses, nutritionists, and psychologists – a one-stop-shop, all under one roof and in retail locations close to where people live and work. Nurses handle intake and lab work, lowering costs and leaving the doctor to manage more complex problems. With efficient workflows, the average patient can be seen in about an hour and a half, an 80 percent reduction for patients wait time.

The impacts of Clinicas have been substantial; the program reduced the number of annual medical visits from 21 to 4 and the cost of private diabetes care from US$1,000 to US$250 a year. In eight years, it has treated more than 103,000 patients and prevented about 20,000 complications. From these 103,000 patients, more than 63% have met their health goals. It is improving health outcomes at rates better than the national average. It is already reducing hospitalizations and reducing healthcare costs for the government (Casanova, 2019).

Engaging all components of the health system is critical in the fight against HIV. Myriad PS entities around the globe are involved across the entire continuum of care. This section has identified several illustrative examples of such involvement, ranging from complementary service provision, to digital innovation. The relative paucity of concrete examples of PSE in HIV may be supplemented with examples and lessons learned from PSE in long-term management of other chronic diseases, including NCDs, which complements other initiatives in diagnosis, testing and launching treatment for HIV.

In line with its strategic objectives, the GF has already engaged with and funded the PS in a number of areas to increase impact against the three diseases and to strengthen health systems. The next section will go into greater depth examining what the GF has done in terms of PSE at country level.

2.4. How are Global Fund Country Programs Already Partnering with the Private Sector?

Despite the lack of policy or guidance, there are already on-going creative activities with the PS – non-profit and for-profit – driven by governments, FPMs, CCMs and PRs across a number of countries. Based

on only a handful of interviews with FPMs, this section represents a small segment of what may already be happening with PS engagement at the country level, but it represents a highly innovative and broad set of programs.

Driven by frustration with slow progress in one or more of the three diseases, FPMs and governments have together identified barriers and sought creative solutions. In some cases, partnerships have been formed with other donors or PRs to identify alternative solutions to help governments figure out how to leverage the PS; together these partnerships have resulted in a robust PSE agenda at the country level.

Global Fund's Catalytic Investments have also been used to support PSE by financing pilots targeting data, IT, SHI and other initiatives. The Strategic Initiative work stream "Service Delivery Innovations" is partially dedicated to strategic PSE, which helps explain the significant efforts in PSE emerging from FPM interviews (Shargie 2021). By complementing country grants, Catalytic Investments over the past two grant cycles have effectively targeted new and promising areas for investment in the PS. These investments deserve to be assessed and better understood to unpack the motivations for PSE, the process of engaging CCMs, the roll out of in initiatives and investments, and how they have affected the overall PPM and approach to the three diseases.

Strategic Engagement with PS

Even at the corporate level, the GF has reached out to the PS to benefit from innovation and to take advantage of outreach where the PS is either already dominating the market, as in IT, or is already reaching low-income populations with healthcare services. On the former, a partnership with Zenysis offers a platform for integrating surveillance and program data for all three diseases and has been used in multiple countries (see Box 2.4.1).

Box 2.4.1: Zenysis Technologies, South Africa

In 2018, Zenysis and the Global Fund collaborated to create a platform for health officials that combines data from various sources, revolutionizing the way that officials perform surveillance, analysis and evaluation of their programming. Zenysis began supporting Global Fund programs in nine countries, with plans to expand to four additional countries by December 2019. Specifically, for malaria, Zenysis provided technical support to the Rwanda Biomedical Center malaria division to collate data from three IT systems and analyze medicine consumption, case fatality, and absolute numbers of malaria cases being reported at community and facility levels. Zenysis's platform aggregates data that was previously fragmented and conducts an integrated analysis on demand (Global Fund 2019b).

The other foray into a global partnership was the AMF-m experiment that harnessed the PS for malaria treatment as outlined in Box 2.4.2. Though short-lived, there were some enduring successes including the private market maintaining lower prices for medicines in Kenya after the project's conclusion in 2012. Subsidies continued through support, albeit at lower levels, from DFID from 2013 through 2017 as well as the AMF-m's successor, known as the Co-Payment Mechanism, since 2018. AMF-m contributed to substantial improvements in the availability of QAACTs. In 2013, 91 percent of rural, informal PS drug outlets stocked QAACTs at the target price of under US$1 (MOH 2019). AMF-m has had an impact on malaria partnerships, and the PSE sustained even after the initiative was discontinued. This is a good example of a trial that positively impacted both PSE and malaria control.

Box 2.4.2: The Global Fund Initiative for the Affordable Medicines Facility – malaria (AMF-m)

AMF-m was a financing mechanism piloted in eight countries from 2010 and 2011, with the objective of increasing the affordability, accessibility and use of ACTs while crowding out other monotherapies (ACTwatch Group 2017). It had two main features: (i) price reductions for ACTs, negotiated by the GF with drug manufacturers, and (ii) buyer subsidies, in which the GF made co-payments for ACTs at the supranational level of the supply chain (IFC 2012). Despite initial fears that the subsidies would be captured by intermediaries and not passed on to

consumers, AMF-m reached its goals for ACT availability and affordability in five pilots, and for crowding out other monotherapies in four pilots despite running for less than 12 months. AMF-m is regarded as having substantial and long-lasting impact on the private for-profit market for ACTs (Tougher et al 2012).

AMF-m continued in six of the pilot countries for a short time, before being discontinued as a separate financing mechanism and absorbed into the GF's overall country malaria funding application as the Co-Payment Mechanism. All GF countries can still access ACTs at subsidized prices, but this comes out of their overall funding envelope. As such, countries face the difficult decision of prioritizing investments that reduce funding for their own malaria management programs to subsidise private, for-profit sector activities.

Despite having met success benchmarks, AMF-m is still controversial among stakeholders, with some reports citing donors rather than countries as the primary driver of the discontinuation of AMF-m (Arrow et al 2012). The program was quite expensive for its short timeframe, raising challenges for sustainability. Critically, the program was not accompanied by a concurrent push for affordability, availability and use of RDTs; thus, while treatments became more affordable, the program was unable to address misdiagnosis. Even proponents of AMF-m agree that the model, while successful in its own right, is not likely to be repeated without substantial modification.

Country Program PSE

Table 2.4.1 summarizes the results of interviews with FPMs on PSE in their countries. There is a range of PSE initiatives, many of which are pilots or have simply been implemented at a small scale. The creative use of GF grants demonstrates the strong country focus of activities, and the independence and creativity of CCMs. These initiatives touched on all three diseases, sometimes within the same innovation, but largely focus on a single disease improvement.

Table 2.4.1: Summary of Private Sector Activities in Selected GF Country Programs*

Ghana	Adopted hybrid model for supply chain management leveraging PS to increase efficiency of logistics ecosystem and drive down costs for storage and distribution (See Box 2.7.1.)
India	Harnessed informal for-profit providers already serving KPs with non-profit intermediary PATH and raised TB notification though Nikshay, a simple, web-based platform that monitors treatment adherence and serves as the National TB Surveillance System (See Box 2.3.1).
Indonesia	The CCM contracted TB screening to Fullerton Health, a Singapore-based for-profit integrated care provider network. Between 2018 and 2020 around 300,000 people were screened. Further efforts are planned for screening and workplace prevention activities in 250 Jakarta factories.
Kenya	AMREF, the GF's PR for TB, collaborated with the National Tuberculosis, Leprosy and Lung Disease Program (NTLP) and Kenya Association for the Prevention of TB and Lung Disease (KAPTLD). Together they procure subsidized TB drugs and offer educational courses on standard protocols for TB diagnosis and treatment to over 250 private providers.
Mekong Delta	The GF's Regional Artemisinin-Resistance Initiative (RAI) launched in 2013 in response to the emergence of drug-resistant malaria in the Greater Mekong Subregion (GMS), includes Cambodia and Thailand, Myanmar, Laos and Viet Nam. 33,000 malaria volunteers across the five countries are trained in prevention and how to test for and treat malaria cases. Government follows up on report cases. Malaria deaths declined by 91 percent from 2012 to 2017.
Myanmar	Social franchising network Sun Quality Health (SQH) with 1,800 free TB private clinics, serving 11.4 percent of official TB cases. SQH providers are trained by PSI Myanmar and offer services for HIV/AIDS, TB, malaria, diarrheal diseases, pneumonia, and STI treatment. In return, providers commit to service standards and a price structure with small margins. A small reimbursement for travel to TB clinics referred for HIV testing, increased TB testing from 5 to 24 percent.

Lagos State, Nigeria	The GF program partnering with PharmAccess and Lagos state government in developing the SHI to ensure continuity of care for the three diseases; supporting a low interest loan program for PS providers; encouraging private operational control of public facilities; supporting establishment of regulations for service providers including certifications of quality (see Box 2.4.4 below).
Philippines	The GF's PR hired notification officers to seek out private providers under the new TB Notification Law and provided training to allow them to become compliant. The next phase is improving quality of TB care among these for-profit providers. The GF is also negotiating with SHI to include MDRTB.
Thailand	PSI, a previous GF PR, partnered with 38 commercial pharmacies to combat the transmission of HIV via a voucher needle and syringe program. Discontinued by the Thai Council of State for potentially promoting criminal activity, an adapted version of such a partnership is being discussed for the next GF funding round.
South Sudan	UNDP, a GF PR, contracted the informal, PS to distribute payments to health workers operating in rural areas, and to distribute medical supplies. Payments and supplies are often distributed through motorcyclists-for-hire. PR has also funded two private, for-profit clinics in Juba to provide HIV and TB services, in addition to malaria (see Box A2.4.1 in Annex 2.4).
Ukraine	A SR operated voucher system for IVDU to receive supplies anonymously via existing pharmacy network (see Box 2.4.3).

*Table A2.4.1 in Annex 2.4 links each of the program in Table 2.4.1 to the GF Operational Objectives.

Ghana's supply chain reform, which was encouraged and supported by the GF, has become a comprehensive arrangement for Ghana for all commodities and drugs. Significant savings for the MOH drove further contracting (see Box 2.7.1). Reaching out to informal, for-profit providers with non-profit intermediaries is common across GF recipient countries. PRs in India, Indonesia, Kenya, Myanmar, South Sudan and Thailand reached out to build partnerships with private groups, often for-profit companies or individuals, to reach specific KPs or to complement ongoing initiatives that required upgrading (Win Htat, Han 2020 and Country Case Studies). In Myanmar, the Philippines and Lagos State, Nigeria, FPMs engaged with government on SHI to improve access and efficiency in provision of HIV, TB and malaria as funding and focus shift away from vertical programs and ensuring coverage for the three diseases requires engagement on SHI policies and benefits. In Kenya (TB), Thailand (HIV) and Ukraine (HIV), pharmacies were engaged as partners to reach KPs with innovative programs that are beyond government's reach, or in the case of Ukraine, in conflict with laws regarding drug paraphernalia (see Box 2.4.3 below on Ukraine's innovation for IVDUs).

Box 2.4.3: Leveraging Pharmacies for Harm Reduction Programming in Ukraine

The turning point for a harm reduction program in the Ukraine came when private pharmacies were used to dispense clean syringes and needles. Pharmacies offered greater convenience with longer operating hours, the ability to privately pick-up medications. Drug users received a voucher with a code so they could get supplies without providing their names, increasing trust, knowing they would not be identified to the police. It was a neutral system where patients were not lectured and were treated like any other customer. For their part, pharmacies were paid per client served. The new system meant that the GF did not need to fund service points around the country, but rather could utilize the existing network provided by private pharmacies. Similar schemes could be used to dispense antiretroviral or TB medications paid for by public or donor-funded programs. In countries where there are pharmacies with in-store primary care nurse clinics, public or donor funded vouchers could be distributed to populations that could be redeemed at such pharmacy clinics for HIV or TB testing in order to improve case identification.

The most comprehensive is the FPM driven agenda in Lagos State, Nigeria for RHHS, TB and HIV that in partnership with government and PharmAccess is reconfiguring healthcare in the state. It affects the three

diseases directly through both shifts in financing to SHI and service delivery that is now almost entirely private, targeted at all populations including key and vulnerable populations, and financed through SHI. Myriad innovative initiatives seeking to improve PS performance and quality, and strengthen the PS, regulation and enforcement are part of the GF's portfolio. The GF's Lagos State country program represents a microcosm of the ideas and suggestions that this report is analyzing and suggesting as possible directions for the GF (see Box 2.4.4).

Box 2.4.4: Promoting the Private Sector and SHI to Treat TB and HIV in Lagos State, Nigeria

Partnering with PharmAccess in Nigeria, the GF's FPM for TB and HIV have shifted delivery and financing of the three diseases to the PS, both for-profit and non-profit. For TB, all levels of providers are tracked and engaged, from large faith-based hospitals to single person shops. The GF jointly established an electronic reporting platform for TB that generates data without going through the public system, identifying who in the PS is providing services. Working with the PS to achieve its health care goals, the GF and the CCM have devised a program that addresses:

1. Healthcare Service Provision. Sixty percent of the 12 million citizens get healthcare from the PS, financed under SHI. The state has set up a competitive low-interest credit scheme for private providers to offer access to low-interest loans, to allow refurbishing and operating (formerly) public health centers. In theory, these are "PPPs," but in reality, they are privately run clinics financed under SHI. The government uses their own and donor funds to strengthen the PS to respond to health needs, recognizing that the system will not function without the PS. Using funding from an RSSH grant, and in collaboration with PharmAccess, the GF brought both bring these facilities under the umbrella of the insurance system and ensured that they began reporting TB cases.

2. Supply Chain, Logistics, IT and Management. The outsourcing has reduced the need for public supply chains; private entities procure from the market.

3. Payers of Healthcare. The state government established a quasi-private agency with less bureaucracy to run the insurance scheme. The government has embraced the language of the PS, facilitating communication and building trust with providers. The GF has supported actuarial studies for SHI and poverty identification exercises to see who in Lagos would qualify for state support. While the GF's country program is covering monitoring and drugs, they have determined that channeling funds through SHI is the only way to cover the entire continuum of care for the three diseases. Mainstreaming the program will ensure financing over the long-term.

4. Regulations. The GF has become a partner on building regulations to managing the PS, financing an analysis to identify and expand the most effective and highest quality private facilities, establishing set of standards and an accreditation system for providers. The government decentralized the monitoring of facilities to third-party providers. By outsourcing thousands of facilities (PPPs), it has freed a lot of the agency's time to build enforcement capacity to maintain standards through newly established data systems. This has raised the government's credibility within the PS and has strengthened its relationship with the PS.

5. Reliance on IT. TB notification, SHI tracking of provider and patient utilization, mobile money/tracking devices, and digitizing healthcare data are all priorities. E-wallet/health wallet initiatives are under discussion as a way to enable people to pay for other people's premiums, even if they are living abroad or part of the diaspora to help pay from afar. There is also an effort to get EMR in all facilities.

2.5. Strengthening Healthcare Systems and Opportunities to Further GF Strategic Objectives

Building resilient and sustainable health systems (RSSH) is the context within which the three diseases function. While disease-focused investments are key, integrating burden-reducing strategies within the broader system can both maximize impacts and build sustainability for the future. Partnering with the PS is a largely untapped opportunity that touches on RSSH, maximizing impact and generating data on incidence of investments. Moreover, because the PS is a driver of innovation – to improve its

competitiveness and reach more customers – the GF and governments can reap benefits from partnerships with the PS.

Healthcare delivery

As the PS continues to innovate, a number of low-cost primary care clinic models have emerged that hold promise for RSSH and also reaching KPs. These social franchising models use a non-profit franchisor to (1) establish networks of small, for-profit primary care clinics often run by nurses, or (2) partner with existing for-profit clinics to operate under common brand with improved standards of care. Examples include Unjani Clinics in South Africa (see Box 2.5.1), Huduma Poa, CFW Clinics and Tunza Clinics in Kenya and Sun Quality Health Clinics in Myanmar.

Box 2.5.1: Unjani Clinics, Franchise Model of Primary Care Clinics, South Africa

Unjani Clinics have developed an innovative solution with low-cost clinics that are owned by nurses who deliver primary care. The franchise model is a hybrid of non-profit (parent company) and for-profit (individual clinics), targeting 10-12 million low-income people who are employed but uninsured, serving the same patients who attend public primary care clinics. Unjani is able to provide affordable care that is conveniently located within high-burden and low-income communities – saving patients travel costs and keeping wait times short. Patients pay OOP for bundled services (consultation + medication, which costs $13). The clinics also offer lab tests, including HIV testing and counselling, which costs $5.20.

Each of the 80 Unjani clinics are modular, consisting of 12-meter shipping containers converted into a standard clinic design, allowing for rapid expansion of existing sites or the addition of new ones. Unjani is growing at an annual rate of 30% and has a growth target to reach 1,000 clinics by 2030, augmenting South Africa's 3,500 public primary care clinics (Schneider et al 2015). Unjani plans to expand their target market in and possibly eliminate user fees with the arrival of National Health Insurance, which will enable them to address all 48-49 million uninsured patients.

Unjani typically sees patient volumes averaging 500 consultations per month, while some of the busiest sites can reach up to 2,500 per month. They receive funding through CSR donations, and also secure funds from the National Treasury to establish clinics. After establishment, they transition to self-funding through patient fees (Unjani Clinics and Toussaint 2020).

Unjani was started as a CSR program by Imperial Logistics. It subsequently became an independent organization and has served as a model for other initiatives targeting key and vulnerable populations. These non-profit social franchising models that set up for-profit clinics already include the three diseases, but they are not necessarily the primary focus. Given Unjani's fee-for-service model, engagement with this franchise could increase both physical and financial access to testing and treatment of HIV, TB and malaria, particularly where coverage is low. As nurse-run clinics, such franchises could strengthen and specialize with a focus on AGYW. Unjani Clinics' location in under-served areas with under-served populations offers a potential partnership that complements public options.

Similarly, there are several examples in Kenya of social franchising that similarly use a non-profit franchisor to establish networks of for-profit primary care clinics or to partner with existing for-profit clinics in improving standards of care. Huduma Poa is a domestically developed innovation that works in parallel with donors' initiatives: CFW Clinics and Tunza Clinics. Tunza currently has 415 clinics located in 40 of Kenya's 47 counties, giving it scale and broad geographic reach. Importantly, such networks of private for-profit providers with scale are currently treating low-income and vulnerable populations that frequently fall between the cracks.

Aggregators

The concept of scale is critically important in effectively leverage the PS and ultimately strengthening the health system. The vast majority of PS provision is done by solo practitioners or small groups of doctors, nurses, etc. It is impractical, costly and unwieldy for the GF or governments to partner with a large number

of very small individual providers. Therefore, aggregators play a very important role in partnering with the PS. Different types of organization can play this role, including healthcare federations, social franchising organizations (explained above), medical associations and other non-profits.

Box 2.5.2: Healthcare Federations

The African Healthcare Federation, headquartered in Nairobi, Kenya, now comprises country-level federations in 26 African countries. Each federation is organized regionally in East, West, Central, North, and Southern Africa. The country-level Federation membership is organized by the main pillars of the healthcare system, such as: care provision, pharmacies, manufacturing, insurance, etc. In Kenya, an estimated 80 percent of membership is now represented by the private health sector. Federations have become an effective vehicle for PS collaboration with government and donors, because a Federation can efficiently coalesce and engage with small for-profit private entities. This allows them to effectively broaden governments' and donors' scope for contracting and identifying PPPs that are of increasing interest in African countries. In the Naivasha Declaration of 2009, the Kenyan Ministry of Health and PS agreed to work together, and today the Kenya Health Federation and Ministry of Health meet on a frequent and ongoing basis, building mutual trust and coordinating efforts to improve health in Kenya (Rogo and Thakker 2020).

In Africa, Tanzania saw the creation of the first PS healthcare federation in 1994 as a result of the joint World Bank-IFC *Health in Africa* initiative. The initiative has partnered with the private healthcare sector in many African countries (eg., Kenya, Tanzania, Rwanda) to create Healthcare Federations and Associations. These arrangements provide a mechanism for donors and governments to work with a coordinated private sector, addressing some of the fragmentation issues, and facilitating partnerships and contracting. Such mechanisms offer a simple starting point for a coordinated PSE strategy as they promote dialogue between the public and private sectors and establish the basis for trust and partnership. Country Federations are logical starting points for PSE for the GF, having been established for this very purpose (see Box 2.5.2 on the left).

Non-profits also play a valuable role in aggregating the fragmented for-profit PS. Non-profits can strengthen health services through improved standards of care or can fill gaps in PS services or inputs. For example, they have played a significant role in aggregating case identification in TB-endemic areas where the government's reach has been inadequate. For example, in Pakistan, Mercy Corps and Green Star aggregate for-profit providers and provide them with low-cost GeneXpert TB testing equipment, simple notification software and basic training. These informal, for-profit providers are now responsible for 20 percent of new TB case identification. Without aggregators the government could not have reached that level of notification (Stallworthy 2020).

India, Indonesia and Thailand provide us with additional examples. PSE was launched in each country through SHI negotiations around reimbursements for private providers. India's MOH also responded robustly to GF successes in engaging the informal for-profit sector in TB notification, which led them to obtain a $400 million World Bank loan to expand efforts with the PS. In contrast, South Sudan effectively has scrambled to contract randomly with largely informal PS providers to ensure bed net distribution but does not have a systematic relationship.

Laboratories

There are multiple benefits to expanding laboratory capacity by contracting private labs. Private laboratories often have a wide network and serve as a first provider to patients effected by the three diseases. Coordinating with private labs allows the MOH to identify patients with HIV, TB or malaria that would otherwise be lost to follow up. For example, by partnering with private labs for TB notification and outreach, India's MOH was able to ensure notifications and the adoption of adequate case management

protocols. Private labs relieve pressures on public facilities, and can accelerate diagnoses, improve quality and increase likelihood of continued follow up.

Pharmacies

Pharmacies offer another avenue for health system strengthening in PS care delivery for the three diseases. As discussed, pharmacies are a common first point of care seeking for patients. They represent significant infrastructure for care delivery, with many thousands of points of presence in a single country. In some countries they are organized into chains, making them easy to leverage. For example, in India there are pharmacy chains as large as 3,500 outlets, in South Africa there are chains of 800 outlets, and the first pharmacy chains are emerging in Kenya (case studies). Additionally, some countries have pharmacies with in-store nurse-driven primary care clinics.

Pharmacies can be used to distribute drug treatments for HIV and TB patients. They also perform a valuable service in case identification and testing for HIV, and sometimes TB. For example, in South Africa the government partners with private pharmacies to distribute medication for HIV and TB via the GF-backed CCMDD program (see South Africa case study). Private pharmacies are also used to deliver public vaccination programs in partnership with the Western Cape Department of Health in South Africa.

Additionally, private pharmacies in South Africa and Kenya offer lab tests for a variety of services, including HIV, TB and malaria (case studies). Box 2.5.3 summarizes an effective pharmacies-as-clinic model aimed at KVPs and conveniently located for those populations in East Africa. It makes diagnosis, testing and counseling accessible and inexpensive, and ensures quality. This is an option for reaching at-risk populations, or simply a means to ensure continuity of care for TB or HIV patients.

Engaging with pharmacies-as-clinics offers an opportunity to increase testing, case identification, and treatment programs. For example, voucher programs can be used to offer free testing for HIV and TB at pharmacies that already have such capability. In Ukraine, a voucher program allowed IV drug users to obtain clean syringes and needles in private pharmacies to prevent the transmission of HIV (see Box 2.4.3). Prior to the program, such patients were often unwelcomed in the pharmacy, but with a financial incentive, IVDU were served at the pharmacies (Mclean 2020).

Box 2.5.3: Goodlife Pharmacy's Health Hub Increases Access to Care, East Africa

Goodlife, East Africa's largest pharmacy chain, reached 1.1 million people in 2017. The company positions stores near convenient locations such as bus stops, health clinics, petrol/gas stations, and inside shopping centers and other retail outlets. Patients can have blood drawn at the pharmacy for lab tests, including for malaria and HIV. Samples are analyzed by Lancet Laboratories, a leading medical laboratory firm present in 13 African countries. In 2018, the company launched its "health hub" concept by adding laboratory and telemedicine services. Patients can also have access to Goodlife's telemedicine platform via a mobile application which can be used from anywhere with an internet connection. It connects patients to licensed doctors who can provide advice, prescribe medicines, and can recommend in-person consultations or refer to a specialist. Goodlife pharmacies also provide access to private spaces for teleconsultation for patients who need may not have their own mobile phone (IFC 2018).

Information Technology and Digital Tools

Information technology (IT) and digital tools have the potential to improve the accessibility, efficacy and efficiency of healthcare systems in LMICs, yet historically have been underleveraged. This has started to shift, however, and many investors and operators now view technology as the "next industry-defining trend," which will "impact UHC, market consolidation, and institutional equity" (Mohandas 2020). Medical technology already comprises a US$ 400 billion global market, and much of its growth is concentrated in

emerging economies. A 2019 study of healthcare organizations in LMICs found that 76 percent of surveyed organizations "are planning to invest heavily in big data and analytic capacity, which enables ongoing development of artificial intelligence-enabled applications and devices" (Stucke 2019).

Several factors are fostering the recent and projected uptake of health IT in LMICs, including the expanded reach of telecommunications networks as well as external pressures to find technology-driven solutions to deliver care (Bahia and Delaporte 2020; Awasthi and Stanick 2018). According to a Pew Research study of adults in LMICs, 83 percent have access to a mobile phone, 45 percent own a smart phone and 60 percent use the Internet (Silver 2019). This widespread access to phone and internet services has enabled health IT to develop in the form of mobile applications and Short Message Service (SMS) programs. COVID-19 has further accelerated the uptake of pre-existing technologies and encouraged the development of innovations. For example, the telemedicine industry is forecasted to grow at a rate of 19.3 percent annually for the next five years; approximately 4.3 percent of this growth is attributable to COVID-19 (Mrazek and Shukla 2020). The GF can benefit from these investments and innovations through PS partnerships and testing of the innovations for country programs.

A number of technologies specialize in care and outreach for HIV, TB and/or malaria. Many others aim to improve general healthcare access and case management. This section features innovative technologies that can improve healthcare delivery and can be leveraged by the GF to improve care for the three diseases, either directly or indirectly through overall healthcare services. The majority of these technologies involve joint public-private development and support, illustrating the possibilities for effective partnerships to tackle a range of data-related issues. This report has already described several innovative technologies. The subsection below covers the important topics of provider peer-to-peer networks and the integration of data systems.

Box 2.5.4: Vula Mobile, South Africa

Vula is a mobile application currently deployed in South Africa. In partnership with the government, Vula connects primary care practitioners with specialists for e-consultations, predominantly in public clinics, hospitals and medical schools. Vula consultations allow providers to discuss a patient's case and determine whether a specialist referral is necessary. These consultations have decreased patient referrals by 32 percent, reducing unnecessary healthcare expenditures (Mapham 2020). Additionally, Vula has streamlined patient paperwork, simplifying the referral process. Primary care providers who use Vula can easily submit a referral request, with an average response time of 11 minutes (Morkel et al 2019).

Established in 2013, Vula now serves 4,000 doctors across 53 medical disciplines and 19,000 patients per month across South Africa (Mapham 2020). The application is available to doctors free-of-charge and earns revenues from government and medical school clients plus commercial sponsors, such as pharmaceutical company Sanofi (Mapham 2020).

Provider Peer-to-Peer Networks

Streamlined communication across practitioners is essential to providing high quality care, especially for hard-to-reach populations. Cross-provider linkages are especially important for HIV and TB, which, once diagnosed, are treated and managed similarly to chronic diseases that necessitate extensive communication between providers for case management. Vula and Project ECHO are two telemedicine technologies that facilitate such provider peer-to-peer interaction (see Boxes 2.5.4 and 2.5.5). Both connect doctors to each other and allow them to easily share medical insights remotely, overcoming previous geographic and communication hurdles. These technologies have established strong provider peer-to-peer networks that are now relied on for e-consultations and referrals.

Box 2.5.5: Project ECHO, Worldwide

Project ECHO has a similar model to Vula, but without the focus on referrals. Based in the United States, Project ECHO was launched in 2003 as a videoconference technology that connects providers, often in rural communities, with a team of remote specialists. The technology allows for "long-term tele-mentoring, collaboration, and case-based learning on urgent social topics and conditions" (Project ECHO n.d.,b). The program allows for doctors to transcend geographical and educational barriers to provide practitioners with the tools and knowledge they need. It has a broad reach, with 920 programs across 44 countries, which are supported by 423 global hubs of medical experts and more than 30,000 partnering organizations. Additionally, Project ECHO has focused on building out the capacity of its HIV and TB initiatives by deploying experts and multidisciplinary teams in these specialties (Project Echo n.d.,a).

Integration of Fragmented Data Systems

Healthcare data in LMICs are often disjointed and stored across numerous databases – or in paper files – that lack interoperable functions. Frequently, there is limited systematic data sharing across public and private systems. Fragmentation of data has contributed to inefficiencies and poor quality of care, and ultimately exacerbates challenges in the management of the three diseases. For example, a common Achilles heel of national TB efforts is cases that are not notified to the national TB program: approximately 3.6 million cases go undocumented annually (WHO 2018c). Many of these patients receive care from the PS, but the government is never notified (WHO 2018a). As a result, there is no assurance of quality care or case management for millions of cases. Moreover, the government is unable to activate basic disease control techniques such as contact tracing or carrying out accurate disease surveillance (WHO 2018b). Issues of fragmentation impact all aspects of the health system and disease programs, from delivery of care to facility/program management to supply chains to strategic planning.

There is a strong need to aggregate and share data across the healthcare system to ensure patient continuity of care. The integration of data systems can, among numerous functions, help monitor supply chains, aggregate case notifications, connect community health workers with laboratories and provide interpreted diagnostic results to practitioners. Boxes 2.5.6 and 2.5.7 describe technologies that are aggregating data and creating more complete health information systems.

Box 2.5.6: M-Jali and Fionet, Kenya

M-Jali and Fionet, both artificial intelligence technologies, are attempting to bridge the gap between diagnostic platforms and databases. These technologies address the challenge of sharing data accurately, consistently and punctually, especially in rural areas. M-Jali is a mobile and web-based platform that allows Kenyan CHWs to capture patient data electronically and instantly upload it to a database. This technology has shortened the time it takes to transmit information from several weeks to a matter of minutes. The M-Jali platform is integrated with the District Health Information Software (DHIS), allowing the ministry of health and medical facilities to view and analyze the data in real time. The platform is used by approximately 4,000 CHWs and has registered the health information of over 390,000 community members (Amref n.d.).

Fionet takes M-Jali a step further by integrating individual diagnostic tools with a database. The Fionet platform includes a Deki Reader, a mobile device capable of interpreting a variety of RDTs including malaria tests. Data is immediately transferred to a cloud-based data program that's integrated with a number of analytic tools, and accessible to Ministries of Health. Fionet has served over 1 million patients in twelve countries and has proven to reduce testing errors and the per-patient cost of care while increasing compliance to care protocols. Fionet is funded by the Fio Corporation, Gates Foundation, The Global Fund, Kenya's Ministry of Health, National Health Laboratory Service, Ivanhoe Mines, and Ministère de la Santé, DRC (Fio Corporation n.d.)

Box 2.5.7: eMpower Project, India

In 2017, GF recognized that a paper-based system for tracking services for PLHIV was contributing to negative health outcomes in India, and therefore partnered with IBM and the India HIV/AIDS Alliance to develop a digital solution. The partnership developed a tablet-based app designed to help improve the efficiency of frontline workers by linking clients with health facilities, streamlining reporting, and helping monitor the provision of services. Data entered into the app are automatically synchronized with a national program database. The initial pilot enjoyed swift success and has been subsequently scaled up to cover the entire country. Between January 2018 and March 2019 an estimated 1.2 million people were tracked using the app. Additionally, the application increased the follow-up rate from 42 to 52 percent. Other HIV monitoring services, such as testing of family members, also increased as a result (Global Fund 2019a).

While a multitude of experiments and initiatives are proliferating, there has been little effort to bring the innovations to scale, and where it has scaled it has been confined to country borders. Two issues arise. First, many parallel IT initiatives are ongoing without benefit of shared learning leading to many innovations that are siloed and fragmented systems. Second, other countries or setting cannot benefit from pilots. Aggregation across location, and exploiting tested approaches remains limited.

2.6. Social Health Insurance and the Implications for the Global Fund and the Three Diseases

How healthcare services are financed, and how subsidies are structured to reach the poor and those unable to cover the cost of quality care, are central to ensuring access to appropriate and quality diagnostics and treatment for the three diseases. WHO (Montagu and Chakraborty 2019) and others (Mackintosh et al., 2016; McPake and Hanson, 2016) have noted that reliance on OOP as a measure of PS use is unhelpful as it combines payments to both public and private providers. Moreover, the current shift among LMICs to establish social health insurance systems (SHIs) has implications for how the GF engages and works with governments and CCMs. SHIs are broadening the role of government in managing and encouraging efficiency within the private sector.

Historically, public healthcare systems have relied on budgets and public providers, serving as the major partner for the GF, often leading CCMs, and the major interlocutor for FPMs. This is changing with the onset of SHI. The risk to the GF of not being involved in SHI policy is that the three diseases become overlooked as funding shifts to SHI, and those services are not (adequately) reimbursed under SHI. One of the major advantages of SHI is the ability to generate data on utilization, coverage and expenditures, which permits the tracking of services and spending, including how much and for what and who is being covered – KP, adolescents, women – and whether the three diseases are adequately treated. Recent IT innovations allow constant monitoring capacity, such as M-Jali in Kenya that also links to the DHIS, and uses AI to fill gaps in data, leading to more accurate and timely reporting (Kenya Case Study).

Table 2.6.1 summarizes LMIC countries with SHI and whether they cover the three diseases. Annex 2.6 has a more extensive table (Table A2.6.1) that describes each country's SHI model. The launch of SHI boosts governments' contracting with private providers in the delivery of service, and for the most part SHI reimburses both public and private providers. Countries like Colombia, Georgia, Lagos State, Nigeria and Rwanda have shifted all financing to insurance entities with extensive purchasing of services from the PS.

Table 2.6.1: Summary of SHI Coverage for HIV, TB and Malaria Coverage (Most Recent Year)

Country	Malaria	TB	HIV/AIDS
Benin	Yes	Yes	Partial
Cambodia	Partial	Partial	Partial
Cameroon	Yes	Partial	Partial
Chad	Yes	Yes	Yes
Colombia	Yes	Yes	Yes
Cote d'Ivoire	Yes	Yes	Yes
Gambia	Yes	Yes	Yes
Georgia	No	No	No
Ghana	Yes	Yes	Partial
Guinea	Yes	Yes	Yes
India	No	Partial	No
Indonesia	Partial	Partial	Partial
Jordan	N/A	No	Partial
Kenya	Partial	Partial	Partial
Kyrgyz Rep.	N/A	Partial	Partial
Lebanon	N/A	Yes	Yes
Mali	Yes	Yes	Partial
Moldova	N/A	Yes	Yes
Morocco	N/A	Yes	Unclear
Myanmar	Donor finance		
Nigeria, National	Partial	Unclear	Partial
Lagos State, Nigeria	Yes	Yes	Yes
Philippines	Yes	Partial	Yes
Rwanda	Yes	Yes	Yes
Sierra Leone	Yes	Yes	Yes
Thailand	Yes	Yes	Partial
Togo	Yes	Yes	Yes
Tunisia	Partial	Partial	Partial

India excludes state programs.
Sources: See Box A2.6.1 in Annex 2.6.

The implication of this trend is the need to ensure the inclusion of HIV, malaria and TB as reimbursable conditions under SHI, and it becomes essential to ensuring that government finances and includes providers who are eligible and willing to diagnose, treat and manage the three diseases. The impact of social health insurance on PS TB services in high burden countries has been constrained by general problems within the SHI schemes, such as: who is eligible for services, the range of benefits, accreditation of private providers and payment delays. Issues specific to TB include a lack of designated reimbursement rates, provision for diagnostic referrals, and trained providers for TB, among others (WHO 2018a). While many countries maintain parallel vertical programs that target KPs, the new focus on SHI reduces the role of direct MOH services, shifting it to funding and oversight of public and private providers by social health insurance bodies.

A key part of the puzzle is aligning payments with desired outcomes, the best example being bundled payments for TB where a flat fee covers diagnosis and case management. Vouchers are another mechanism that can be utilized to lower costs for specific disease-related services by prepaying for these services and providing patients with the "coupon" for the providers (e.g., diagnostics, lab testing). Each of these offers a different type of incentive and are therefore appropriate depending on the circumstances and desired outcomes (e.g., more tests, higher quality or less loss to follow-up, among other objectives). The GF can explore how its grants and Catalytic funds do or do not embed the desired incentives. What is important is ensuring that the three diseases are included as the funding and focus shift on a growing number of countries from direct MOH provision to reimbursing private providers.

There are a few innovative financing tools that increase access to services and goods related to the three diseases. Social Marketing uses commercial marketing techniques to subsidize products with high public health value, such as mosquito nets and ACT. Vouchers subsidize KPs for specific services and are redeemed at specific providers typically for defined products or services. Mobile payments safely allow savings, transmitting and payment for healthcare, finding major success in Kenya and Indonesia. All of these tools effectively subsidize access to quality services as a way to boost demand for high value diagnoses and treatments. These options are described in significantly more detail in Annex 2.6.

2.7. Supply Chain Management

Engaging with the PS to improve supply chain management aligns with multiple elements of the Global Fund's strategy as described in Section 4 of this report, specifically:

1. Maximizes impact against HIV, TB and Malaria;
    a. For-profit PS suppliers in supply chain are paid based on performance – thus grant implementation success can be measured, e.g. reduced stockouts and costs, and more reliable access to medicines;
    b. GF PSE has led to improved effectiveness in supply chain logistics, ensuring patients get their medicines in challenging operating environments through innovation and partnerships.
2. Builds Resilient & Sustainable Systems for Health;
    a. Strengthens supply chain systems to ensure adequate supplies of medicines, e.g. GF work in Ghana;
    b. GF funded work with PS supply chain management has led to better data systems and better ability to plan for drugs and commodities distribution to points of service;
    c. Strengthens financial management and oversight – PS partners can be used to manage funds for supply chain logistics and embed pay for performance contract models.
3. Mobilizes Increased Resources
    a. Supports more efficient use of existing resources by countries, e.g. cost savings from the Chronic Care Medicines Delivery and Distribution (CCMDD) program in South Africa allowed government to treat more patients with the same budget.

The GF has successfully engaged with the PS to bring about improvements in supply chain with examples in Ghana, South Africa and elsewhere. In Ghana, the GF grant catalyzed a different approach to supply chain logistics by contracting the private sector. This has resulted in more reliable delivery of medical supplies and reduced stock outs of medicines for treating the three diseases (see Box 2.7.1 below, and Box A2.7.4 in Annex 2.7). In South Africa, GF coordinated with USAID, Last Mile Foundation and the government to develop the innovative CCMDD (Chronic Care Medicines Distribution and Delivery) program that uses PS to deliver HIV, TB and other chronic medications to patients via private pharmacies. This has resulted in improved distribution of medicines for HIV and TB and a very innovative last mile delivery partnership between the public and private sectors. CCMDD enables millions of public patients on chronic medication to collect their medicines at private pharmacies, resulting in lower costs for government, greater convenience for patients and getting more patients onto the treatment they need, including HIV ART (see South African case study).

Box 2.7.1: Ghana's Hybrid Supply Chain

The for-profit PS is an important part of Ghana's supply chain, which was government-run until a fire in 2015 at the Central Medical Stores (CMS) led to changes. Imperial Health Services (IHS), a for-profit company now provides warehousing. There is also a smaller government warehouse for domestically procured supplies. All logistics are done by the PS. IHS transports from both warehouses in Accra to government-owned regional warehouses, which also buy some supplies directly from private wholesalers. Five PS companies then transport the "last mile" to public health facilities. This overcame historic issues of poor government vehicle availability.

Before 2015, clinic stock outs occurred despite stock availability at warehouses. A Logistics Management Information System (LMIS) was implemented by Resolve, an IHS company and data are managed by consulting firm Chemonics. Stock outs are now infrequent. GF and USAID assisted government to negotiate with PS partners who are paid for performance. Prices came down with each tender due to increased competition and certainty.

More reliable deliveries mean less stock is needed, resulting in a 60% cost saving of US$1.2 million monthly for warehousing.

GF and USAID use Chemonics to manage funds, but government has always been part of the equation. A Logistics Management Unit is being set up funded by the GF and USAID to build management capacity and transition to government funding and management (Nyiligira 2020).

Another example comes from the National AIDS Control Organization (NACO) in India. With GF support, NACO launched the Supply Chain Management Program designed to help address various logistical inefficiencies and help increase access to HIV commodities, such as ARVs. The project was run through Plan International, and an Indian non-profit, and receives USAID funding, and support from the JSI Research and Training Foundation (see Indian case study).

Many LMICs, particularly in Africa, have government-run medical supply chains that are a legacy of the colonial era when medicines arrived infrequently by ship, typically every three months. This necessitated a large central medical store to warehouse medicines and to control their distribution as scarce commodities until the next shipment could replenish stock (Barton, Rogo and Njuguna 2020). But medical supplies now arrive on a regular basis – and not necessarily by ship.

Box 2.7.2: Shortcomings of Public Supply Chains

- Lack of incentives for supply chain staff
- Diffuse accountability
- Uncertainties in financing
- Long resupply intervals
- Lack of interest in funding operating costs
- Lack of supply chain planning data
- Mismatch between skill and system design

Source: Yadav 2015.

Many countries choose to contract the PS to run all or part of the supply chain – including storage, transportation, and information systems – to third-party logistics providers (3PLs) (USAID 2010; Agrawal et al. 2016; Raubenheimer et al 2015). Typically, this is done to overcome the challenges experienced by public medical supply chains, identified in the literature and summarized in Box 2.7.2. Data issues are central to many of these challenges. Many LMICs lack systems to capture even basic information such as consumption levels (Sarley, Allain & Akkihal 2009).

Contracting is done in accordance with government procurement regulations. All contracting, including for supply chain, requires specific managerial expertise. Governments often lack these skills and must build it from the ground up. Recognizing this, the GF and others play an important role in advising and helping governments reduce these risks, as discussed in Box 2.7.1. Starting in 2021, with the support of USAID and GF, a Logistics Management Unit is being established along with training of Ghanaian staff to build national expertise. The transition to Ghanaian government funding will be accomplished over the three-year grant period. This represents an effective way to build capacity with TA and support. However, there are many issues with contracting - see Annex section 2.7 (Boxes A2.7.2 and A2.7.3) for more discussion of the specific pitfalls. Contracting is simpler than large PPP projects, which are typically used for big infrastructure such as constructing or managing hospitals, which are not part of the GF's mandate.

Where governments don't yet have such managerial capacity, an intermediary fourth-party logistics provider (4PL) may be needed to coordinate the relationship between government and the 3PL. Box 2.7.3 contains an example of this type of supply chain contracting from the Democratic Republic of the Congo (DRC). Private providers are often better equipped to comply with strict storage requirements, scale effectively and manage data and information systems (Agrawal et al. 2016).

Box 2.7.3: Using a 4PL in the DRC

In 2005, UNDP stepped in as principal recipient to manage a US$200 million GF grant and assumed control of the entire medical supply chain. Recognizing limited capacity in the public sector, UNDP contracted the PS entity, World Response Consultancy (WRC) as a 4PL to design a PPP to manage the supply chain. Through a competitive bidding process, WRC selected Missionpharma to serve as the 3PL. UNDP ensured accountability by tying payment to product receipt at the final destination. As a result, UNDP was able to successfully oversee the distribution of health commodities throughout the country despite poor state infrastructure and limited public sector capacity (USAID 2010).

One area in which the PS can play a valuable role is in last mile distribution (see Box 2.7.4). Another example of the benefits of PS management of supply chains can be found in the vaccine supply chain of South Africa's Western Cape province. Faced with stockout challenges and an overall inefficient vaccine supply chain, the Western Cape province entered into a contract with a PS logistics provider that outsourced certain aspects of the distribution. Through rigorous methodological analysis, researchers later concluded that not only did the outsourced segments of the supply chain outperform their "in-house" comparators in terms of their average *Effective Vaccine Management* score, but the PS services were also delivered at an affordable rate (Raubenheimer et al 2015). The authors stressed the importance of comprehensive stakeholder consultation, performance assessments and a strong capacity to manage the contract as keys for success.

Box 2.7.4: Last Mile Distribution in Uganda

Facing mounting pressure from chronic stock outs, in 2011 the Uganda National Medical Store (NMS) launched a 15-month pilot program to outsource last mile delivery to PS logistics service providers (LSPs). Following initial success, the pilot was extended to all 112 districts with two LSPs contracted. There was originally a third provider, but its contract was ultimately terminated due to poor performance. The NMS fleet still handles the majority of the distribution from the central store to the district level, at which point the LSPs assume responsibility. The LSPs are able to adapt to the local environment, employing a mixture of trucks, bicycles and boats to deliver medical supplies to end-users. Through a competitive tendering process, the LSPs were contracted directly by the NMS and now operate on annual contracts that can be renewed each year based on performance. The NMS outsourced the bid evaluation process to an independent auditor in order to mitigate the risks involved given their general lack of experience with contracting. While there are no performance-based payments, the incentive for the LSPs to perform is the promise of the annual renewal, as well as the risk of contract termination. To ensure full transparency, a weekly delivery report is posted on the NMS website. The program has been beneficial and by 2015 98% of goods were being delivered in a timely manner. Source: Gavi 2015.

PS supply chains face challenges as well, particularly around quality and the ability to reach rural populations (Yadav 2015). There is, however, evidence that PS logistics companies successfully reach rural areas: for example, Imperial Health Sciences delivers "to Table Top" for 45,000 patent medicine sellers in the most remote parts of Nigeria (Barton 2020).

Globally, contracting of PS supply chain functions is increasingly common, and for some services and functions, is arguably more common than direct provision by public agencies. All OECD countries use the PS for supply chain (Barton, 2020). In general, the experience of doing so in LMICs is more recent, with the launching of many initiatives in the 1990s. Nevertheless, the pace of introducing and expanding contracting has increased, with numerous examples that encompass a wide array of services and functions, increasingly at scale, including supply chains, primary health care services, disease-specific services, diagnostics, acute hospital care, child and maternal health and information management (Loevinsohn 2008; GAVI 2015).

Another avenue through which PS may be leveraged to improve supply chain is technological innovation. One example is a text message-based technology designed to help reduce stockouts (see Box 2.7.5).

Box 2.7.5 SMS for Life

SMS for Life is a mobile, text message-based technology launched in 2009. A team at Novartis identified that many Kenyan and Tanzanian clinics often encounter stockouts of malaria tests and treatment. In partnership with the private company Greenmash and the Swiss Tropical Public Health Institute, Novartis launched SMS for Life as a malaria surveillance and commodity tracking tool. Participating facilities simply have to text SMS for Life when they administer a test or treatment, and the technology maintains a database of supply levels and case counts. Facilities are notified once they reach a certain minimum threshold of supplies and encouraged to purchase more to avoid stockouts. To encourage uptake of the technology, SMS for Life credits 50 Kenyan shillings worth of airtime for each successful text response. The technology was piloted with 87 public health facilities across Kenya, and after 21 weeks of usage, all facilities reported having no stockouts (Novartis n.d.).

In 2016, Novartis and Vodacom rolled out a 2.0 version of SMS for Life for the Nigerian market. This update allowed the application to monitor the surveillance parameters of malaria and several other diseases, and to offer eLearning modules to healthcare workers (Novartis n.d.). Since its initial launch, SMS for Life has been rolled out in more than 10,000 health facilities in Kenya, Ghana, Cameroon and the Democratic Republic of the Congo (Global Health Progress n.d.). This project was funded through Novartis's CSR monies (Greenmash n.d.,b).

Government contracting the PS for supply chains in any form requires management expertise to avoid pitfalls (see Annex 2.7 for more detail). If leveraged correctly, contracting is likely to be the future of healthcare, driving efficiency and performance while helping eliminate the three diseases. This section has highlighted the potential value of partnerships and contracts with commercial providers for the GF and other major players in global healthcare.

2.8. Regulation and Public Sector Oversight

The government plays a significant role in the context of mixed health systems. One such role (outlined in Box 2.8.2) is to foster an enabling environment for healthcare providers. As such, the government plays a large role in supporting PSE initiatives. Engaging the PS will require complementary attention to issues of regulation, understood as the legal rules of the game and standards for health providers and payers (see Box 2.8.1) that are the basis for accountability in SOs 1 and 2.

Box 2.8.1: Regulation Definition

The term regulation is universally agreed to include statutory rules laid down by government or government-appointed agencies and include regulation by professional bodies. Regulation can encompass community accountability, and quality improvement or assurance activities, among others (Montagu and Goodman 2016).

As the CCM in Lagos State, Nigeria discovered, clear rules and regulations play several important roles: ensuring quality in PS performance while encouraging the functional private players to engage with the government in order to protect their industry reputation from those who undermine it with bad or illegal behaviors. Without that form of guarantee, along with commitments for on-time payment, private entities were reluctant to partner with government. The private providers also wanted quality standards to prevail to enhance their reputation in the community. The regulations and their subsequent enforcement drove out the "bad apples," resulting in high-quality PS clinics. This, in turn, earned the confidence of the population and attracted more patients. The state government has taken on the task of enforcement with trained staff to ensure that the regulations hold providers accountable for quality and adherence to the rules.

Box 2.8.2 The Pivotal Role of Governments in Health Systems

Governments play a central role in establishing health systems and in PSE. Specifically, governments establish the enabling environment that allows all players to contribute effectively and appropriately, imposing regulations to

define the rules of the game, and enforcing those rules. The list below describes the key functions of government that define the enabling environment. Governments are responsible to ensure:

(1) **Equity**, services are provided to all, including those unable to pay;
(2) **Communicable disease control,** ensuring communicable vectors are prevented and controlled;
(3) **Data,** to inform government and the population, in tracking disease status and system performance; and
(4) **Regulations and enforcement,** providing the framework to ensure that all providers, payers and entrepreneurs do no harm and provide legitimate medical services and medications, and insurers function within financial solvency rules.

These functions can be part of PS agendas, with the exception of regulation, which is exclusively a government; the PS responds to regulation. PS may embrace public imperatives, such as quality control, diagnosing and treating communicable diseases such as HIV, TB and malaria, as well as data generation and reporting, because they align with their own objectives. And while government has responsibility for stewardship of the system as a whole, it does not necessarily mean that all tasks must be provided by government directly (Ulbrich 2011).

Thus, government regulations play a critical role in promoting an enabling environment for the PS. The PS needs transparent laws and regulations, and predictability to function effectively. As the GF becomes further engaged in RSSH, SHI is rolled out and the three diseases are mainstreamed, regulation becomes a necessary component in country programs, just as it has in Lagos State, Nigeria. As markets become more sophisticated and complex, regulations take on greater relevance (see Table 1.2 in the Introduction).

Governments are not only responsible for establishing such standards, but also providing oversight and enforcement of standards, rules and regulations. Across LMICs, regulations are either vastly underdeveloped or have significant gaps. Importantly, the success of regulation and PS compliance depends upon sufficient government resources, competent governance institutions and trained personnel to meaningfully oversee the PS and hold them to account (Doherty 2015). These same skills are required to design and oversee contracts with private providers whether that is for supply chain services or service delivery, as discussed in the previous Section.

Regulation of Service Delivery

The market failure inherent in private investments – where the benefits to the individual do not necessarily translate into the social good and may undermine the latter, and where misbehavior by one in a corporate group affects the reputation of the group and the industry at large and effectively undermines quality of services from consumers – pose significant barriers to PSE for service delivery. Regulations and government oversight help to mitigate such downsides, negative externalities, and market failures. Accreditation is the first, basic start to regulations in the health sector (see Box 2.8.3, and Annex section 2.8 for more detail).

Box 2.8.3: Accreditation

Quality accreditation or certifications of institutional providers (eg. hospitals and clinics) help ensure the facility's safety and ability to meet basic standards of care and ongoing compliance with national regulations. In a study of eight African countries, all private hospital facilities are required to be licensed and inspected, and Kenya, Uganda, Zambia and Zimbabwe also require private primary care facilities to be licensed (Doherty 2015). Accreditation of hospitals is standard practice in most OECD countries. National and other international accreditations provide some degree of standards, but they are uneven. Accreditation (as opposed to licensing) is voluntary. For example, a PharmAccess initiative called Safecare, created an affordable, supportive process for reaching different levels of accreditation. It offers technology-enabled tools to help increase quality, particularly in small facilities with limited budgets. SafeCare is creating standards for healthcare quality in LMICs, covering several diseases, including HIV, TB and malaria. After an evaluation, SafeCare supports healthcare facilities in improving their services by extending loans, expert consultancy, and digital management tools. Since its founding in 2011, SafeCare has implemented standards in 800 healthcare facilities across six sub-Saharan countries" (Johnson et al. 2020).

Contracting the Private Sector

For effective engagement with the PS, it is vital that governments strengthen their capacity to perform contract management and provide oversight. Contracting with PS entities – whether along various parts of supply chain, basic clinical services for KPs or chronic care management – entails a fundamental shift in the role of the public sector, from provider to regulator.

There are many different possibilities for contracting, and each requires different capacities and entails different risks. To be successful in this new role, governments must develop the right capacities, namely an ability to ensure quality in regulation design and compliance in ensuring contract. This is not a simple task. In Ghana's supply chain (see Box 2.7.1), international non-profits, financed by donors, establish and manage the contracts. Over time this function needs to shift to the MOH, which is the intention of the GF. Lagos State, Nigeria, has seen a successful and well-organized expansion PS due to significant training of contract managers and oversight by regulators. These examples highlight the importance of regulation for the GF and its strategic agenda and for meeting its data, performance and impact objectives.

While there are always challenges associated with creating an environment conducive to effective contracting, there is evidence of success even in Challenging Operating Environments (COEs) such as Afghanistan. The Sehatmandi project (see Box A2.7.1 in Annex 2.7) has been successful at expanding access to primary care services throughout the country through the use of pay-for-performance contracting, without sacrificing quality (Andersen et al. forthcoming).

In limited resource settings, where human resources and materials are already constrained and the public health system is relatively weak, the necessary capacities to engage the PS often remain sidelined and underdeveloped. The GF has a potential role in addressing the deficit given the focus on RSSH and concerns about quality.

3. Barriers to Private Sector Engagement

The work of the GF is based on principles of partnership and country ownership; thus, governments will need to determine whether and how working with the PS will best achieve their own national strategies. As detailed in the landscaping section, there are numerous areas of existing and potential PSE that could assist countries and the GF in the fight to eradicate the three diseases while simultaneously bolstering RSSH more broadly. This chapter considers general and GF-specific barriers to PSE. For a more in-depth discussion on barriers see Section 3 of the Annex.

3.1. General Barriers: Main Challenges Governments Face in Working with the PS

Mistrust: Public sector often:

- Doesn't understand the different incentives, culture and language of the PS
- Fears privatization and is concerned that PSE may divert public resources
- Fears losing control of: budget, medicines, and services
- Is uncomfortable with companies that profit from health services and is wary of price gouging
- Lacks understanding of PS business models, the importance of covering costs, and that government payment delays can put PS health providers out of business

Mobilizing: country health strategies are increasingly starting to include PSE but lack understanding of how to operationalize it.

Regulations: weak or non-existent regulations is a barrier to engagement as laws and rules are needed to ensure confidence and trust in the system for both sides.

PS Maturity: the level of development of private sector and its ability to respond and work with government varies country to country.

3.2. General Barriers: Risks and Limitations for the Private Sector in Working with the Public Sector

Delayed payments: most frequent difficulty for PS; causes mistrust and sometimes refusal to work with government.

Administrative costs: burden of reporting requirements, paperwork, and evaluation are all costly for PS and is perceived to rarely have any direct benefit from it.

Inability to manage contracts: Weak skills in contract design, management, and enforcement.

3.3. Global Fund Specific Barriers: Main Challenges that the GF Faces in Working with the Private Sector

Policy: GF policy lacks guidance and incentives for engaging with the PS; current approach to PSE is ad hoc.

Knowledge dissemination: Knowledge and experience of PSE is already present in the GF but is siloed at the country team level.

Multi-country partnerships: Currently, multi-country partnerships are not clearly owned or invested in. External Relations have developed some, but this type of partnership is complex and time consuming to deliver. A clearer engagement model is needed for GMD, TAP and PSE teams.

Fragmentation: Contracting with many small providers is impractical for the GF; however, there are ways to overcome this, with multiple examples in the Section 2, as well as in the case studies accompanying this report.

4. Mapping Areas of Potential Private Sector Engagement to the Global Fund Strategic Objectives

Mapping specific ideas for PSE to the GF's strategic objectives highlights potential synergies between the GF objectives and PS offerings. Given the existing PS service delivery activities at global and national levels, including engagements with the GF, there is already a body of experience to build upon, as well as an opportunity to evaluate and assess what works, for whom and at what cost. It should be kept in mind that, as defined in Section 1, we are focusing on the for-profit and the non-profit entities whose activities overlap in service delivery. It excludes CSOs and other mission driven non-profits whose agendas are different.

Table 4.1 maps potential broad categories of engagement to the GF strategic objectives, broken down by the five focus areas of this report articulated in section 1.2: engagement of PS service delivery to increase access to quality care, including to KPs; data management; supply chain management; financing and financial management; and policy and regulation. Due to the interlinking nature of the strategic objectives, many of the categories of engagement support multiple GF strategic objectives. For example, strengthening supply chains can increase the impact against the three diseases by ensuring end-users receive quality medicines consistently, can build more resilient health systems and can effectively increase resources by improving value-for-money of existing funds.

The weakest linkage between the PS and the GF strategic objectives is in the area of human rights and gender equality. While many CSOs and some non-profits are critical in championing human rights and gender equality, such work is beyond the scope of many private, and particularly for-profit, providers. This is not to say that the PS is not a useful partner for KPs and others – as discussed in earlier sections, many private models extend access to traditionally marginalized and low-income groups – but rather that most private providers are not engaged in or focused on advocacy or issues of equity explicitly.

Finally, it is worth noting that Table 4.1 is illustrative in purpose and should not be viewed as an exhaustive list of ideas for PSE. It is meant to synthesize some of the engagements presented in the landscaping section above and to provide a jumping off point for further discussion. More concrete recommendations for the GF are provided in Chapter 5.

The remainder of this section expands on Table 4.1 by highlighting more clearly the linkages to the GF strategic objective in each focus area. It also provides some concrete examples drawn from the landscaping section above and the accompanying country case studies.

Focus Area 1: Engagement of PS service delivery to increase access to quality care, including to KPs

PS providers offer a wealth of service delivery innovations that could be tapped to meet GF strategic objectives. As the first point of contact for many patients, the GF can leverage private providers to deliver quality-assured services for the three diseases. Moreover, engaging private providers in GF activities can build more sustainable and resilient mixed healthcare systems over time, including by supporting the aggregation of the private provider market. As noted above, private delivery models can be incentivized to extend access and availability to specific KPs as needed. Moreover, private delivery models, particularly for-profit models, may be able to provide services at a lower cost given the need to innovate and compete, thus providing value-for-money for the GF and governments. Finally, private innovations in telehealth have the potential to revolutionize how care is delivered, creating much more person-centered, accessible services with greater efficiencies.

The Tunza Family Health Network serves as a relevant example of a for-profit franchise founded by the non-profit Population Services Kenya. With a network of 400 clinics in Kenya, it serves 3.5 million patients, 8,000 of whom receive HIV-related services. Tunza provides its clinics with business support while also enforcing quality standards and ensuring the reporting of data to government. As such, Tunza and models like it offer potential as a GF partner to improve access to quality-assured services for the three diseases.

Table 4.1. Mapping Potential Areas for PSE to the GF Strategic Objectives

Focus Area for PS Engagement	The Global Fund Strategic Objectives			
	Maximize Impact Against HIV, TB & Malaria	**Build Resilient & Sustainable Systems for Health**	**Promote & Protect Human Rights & Gender Equality**	**Mobilize Increased Resources**
1. Engagement of PS service delivery to increase access to quality care, including to KPs	**Test and scale innovative PS delivery models and partnerships to extend access to quality services for the three diseases** • Explore delivery models that use private provider aggregators, including social franchises, for-profit chains and industry associations to reach KPs, AGYW and others • Engage private pharmacies and labs to deliver services for the three diseases, particularly in hard-to-reach areas • Test and scale PS telehealth innovations to improve care access, retention and continuity			
2. Data Management	**Develop robust M&E and surveillance systems through PSE** • Improve the collection and use of data (and KP- and gender-disaggregated data) for decision-making, by scaling proven cost-effective IT systems • Increase access to PS data by improving reporting through incentives and engagement			
3. Supply Chain Management	**Strengthen supply chain management leveraging the PS** • Contract supply chain operators based on performance indicators to generate efficiencies and increase availability of medicines and supplies • Engage PS expertise, systems and practices to innovate in logistics IT and management to increase efficiencies			
4. Financing and Financial Management	**Engage SHI schemes to mobilize increased resources and improve access to services** • Advocate and engage governments and other authorities responsible for SHI to include priority services related to the three diseases, including through PS providers; this may involve exploring short-term subsidies for specific benefits packages **Based on clear parameters, appropriate regulations and quality assurance measures, use payment mechanisms to incentivize desired outcomes and subsidize services** • Use pay-for-performance (P4P) models, vouchers, and other subsidy arrangements and incentives to reach KPs • Leverage PS capabilities to explore options to mobilize health savings accounts and subsidize services for the three diseases through innovative financing measures and mobile money options **Strengthen financial management systems through PSE** • Strengthen financial management practices of Principal- and Sub-Recipients by leveraging PS-led financial management and mobile money systems			
5. Policy & Regulation	**Strengthen regulation and contracting of health services delivered by the PS** • Advocate and fund governments to improve regulation, enforcement, and oversight capabilities of PS service delivery, with PS partnership to support buy-in • Provide support to improve the quality of private (and public) providers • Engage with governments to strengthen capacity for PS contracting			

As another example, in Ukraine, private pharmacies were engaged to dispense clean syringes and needles to intravenous drug users, which proved a turning point for the country's harm-reduction program as pharmacies offered more convenient hours and anonymity for clients than other delivery points. Additionally, the program was easier to manage from an administrative perspective since it tapped an

existing network of providers. This engagement demonstrates how for-profit providers that may not traditionally be considered by the GF in the context of KP-friendly service provision may actually be preferred by these clients and could generate better outcomes for the GF in certain circumstances.

As a final example, Halodoc and Alodokter, two electronic health platforms in Indonesia, have developed into highly integrated systems of care offering multi-sided platforms that connect patients, providers, payers and suppliers into a single experience. These systems, already used by millions, have experienced huge growth during the COVID-19 pandemic. Given the growing importance of such non-traditional electronic provider platforms in many GF partner countries, the GF could consider strategies to engage these platforms to support delivery of affordable services for the three diseases.

Focus Area 2: Data Management

Data management is crucial to all four GF objectives and the PS has much to offer in this realm as the source of many innovations in health IT and data tools and systems. Specifically, PS expertise and systems can maximize the impact against the three diseases and also strengthen the resiliency of health systems through improvements in the collection and reporting of data on testing, diagnosis and treatment for the three diseases; surveillance to identify and trace outbreaks (and innovations in AI to predict future outbreaks); and data systems and analytics for management and policymaking, among other areas. Moreover, the PS can be incentivized to improve data reporting, including KP-disaggregated data, allowing for improved decision-making and also human rights and gender advocacy. Finally, more comprehensive and accessible data can potentially allow for better targeting of resources.

For example, in India, Philippines and Lagos State, Nigeria, the GF country program has partnered with NGO aggregators, IT companies and governments to establish an electronic reporting platform for TB case notification that generates data and improves notifications and case management. Such multi-sector partnerships allow for drawing on PS best practices and systems rather than trying to reinvent the wheel.

Focus Area 3: Supply Chain Management

Supply chains are integral to achieving the GF mission and strategic objectives: without the reliable delivery of quality-assured medicines and commodities, progress against the three diseases is not possible. This is an area with considerable potential for PS partnerships, given PS expertise and experience in supply chains in most countries. Such partnerships, in addition to improving access to medicines and commodities, could greatly improve value-for-money and efficiency, with fewer drugs/commodities going missing or expiring on the shelves and more getting into the hands of providers and ultimately end-users.

For example, the Ghanaian government has expanded reliance on the PS for the GF and its own logistics due to higher reliability and lower costs. A different approach was used in South Africa, where the GF and other donors helped hire the PS to develop the Strategy for Implementation of Medicine Availability (SIMA). SIMA drew on PS practices to streamline public sector warehousing and distribution and also introduced information systems to monitor drug and stock levels to reduce stockouts. Thus, GF engagement could take a range of forms depending on the context and goals, from supporting the contracting of whole supply chains to hiring the PS to strengthen aspects of public systems.

Focus Area 4: Financing and Financial Management

Financing and financial management cover a wide range of potential areas for PSE that can support not only better use of resources and mobilization of new resources, but also improved coverage for the three diseases through engaging SHI systems or subsidizing specific services or populations (e.g., KPs), among other means. As such, it can support improved access to services for the three diseases and also strengthen health systems by building capacity for financial management.

The Lagos State government in Nigeria provides an interesting example in this area, as it uses a quasi-private agency to run the SHI scheme. The GF, working with government, has ensured mainstreaming of the three diseases under SHI to secure continuity of care, consistent financing and regular data on performance for monitoring. These are all key elements for maximizing impact for the three diseases and ensuring adequate resources. As such, this model could be studied in greater detail to provide insights on how the GF might engage in other countries with nascent SHI systems.

India's Private Provider Interface Agency (PPIA) provides an example of how subsidies specifically can help expand delivery for TB. The PPIA used data to connect the public and PS in the TB response. As part of the program, subsidies for patients were implemented through an e-voucher program that guaranteed payment to private providers and pharmacies. The innovative use of data systems and payment have helped to maximize the impact against TB and warrants further exploration in other settings by the GF.

Focus Area 5: Policy and Regulation

Policy and regulation are unlike the first four focus areas, as governments and MOHs will have to take the lead in developing, implementing, and enforcing policies and regulations for the private (and public) sector. The GF can be a useful partner in this regard, helping to strengthen public sector capacities through training, the hiring of experts, and supporting the development of much needed data and management systems. This is a worthwhile endeavor that aligns with the GF strategic objectives – particularly building resilient and sustainable health systems – given the important role that policy and regulation plays in ensuring that the PS delivers quality services and avoids some of the perverse incentives detailed in section 1.5. Additionally, it will empower governments as stewards of their health systems and to engage the PS from a position of knowledge and expertise. This will be especially important in terms of government contracting of PS services, which is of growing interest to the GF.

Some interesting models for PS regulation exist. For example, the GF has become a partner for the government in Lagos State, Nigeria, to build regulations that benefit the PS and the population. The state government has adopted a standardized and tiered accreditation systems, facilitating the success of the PS by removing "bad apples" and ensuring higher-quality care for patients. In Kenya, the NHIF requires all private and public providers to meet basic standards as defined in the "Joint Health Inspection Checklist" that has raised quality and patient confidence. Also, in Kenya, the National Tuberculosis, Leprosy and Lung Disease Program (NTLP) and Kenya Association for the Prevention of TB and Lung Disease (KAPTLD) negotiated with pharmaceutical companies to subsidize TB drugs. Private providers are able to access the drugs for free as long as International Standards for Tuberculosis Care (ISTC) are followed, and patients are not charged.

5. Recommendations[1]

This report provides a review and analysis of the areas of potential engagement with for-profit and, to some extent, non-profit providers that deliver healthcare services. This report focuses on models of service delivery with an emphasis on for-profit entities. The inclusion of the non-profit private sector is limited to those organizations that overlap with the for-profit sector in market-based arrangements. Therefore, while the report has gone beyond the Terms of Reference – which focused exclusively on the for-profit sector – it includes segments of the non-profit sector because it is often difficult to distinguish between the two as they overlap in many areas. Notably, a comprehensive snapshot of the private sector is not fully addressed without the non-profit sector segment.

An important finding of this report is that the patient journey encompasses for-profits, government and non-profit providers in no particular order. Patients rarely distinguish among the sponsors of care. They seek the most convenient provider (often pharmacies) considering travel, wait times and satisfaction with provider responses. Health-seeking behavior tends to differ across urban and rural settings, but evidence on what people understand about access and quality of care provision suggests several commonalities: that patients do not have adequate information about healthcare options and their quality, and that "costs" are not simply the presence or absence of fees, but rather encompass non-financial factors such as convenient hours-of-service availability, responsiveness of providers as well as wait times. Patients weigh these factors against the cost of missing work. That said, understanding of the role of the PS in service delivery for the three diseases remains partial.

The recommendations are divided into five sections: i) Global Fund Strategy; ii) Policy and PSE Strategy Development; iii) High-Value Intervention Options; iv) Mobilizing Resources, Financing Interventions and Coordination; and v) Global Fund Internal Challenges.

1. Global Fund Strategy

As the Global Fund strategy evolves, the following should be taken into consideration regarding to role of the PS:

1) Explicitly recognize that health systems are mixed health systems where the PS already plays a significant role in the treatment of the three diseases;

2) Recognize there is a need and opportunity to increase and optimize the contribution of the domestic PS with countries to the GF mission to achieve the 2030 goals;

3) Recognize and support the increased contribution of the domestic PS in building more resilient and sustainable health systems; and,

4) Move past debating about the private sector's value and engage in analysis of what channels can accelerate and drive sustainable and effective change, with the development of the tools to support appropriate and effective implementation that can advance the 2030 goals.

Given the role of the PS in health systems in GF partner countries – and the many successful partnerships that already exist – the GF has an opportunity in its next strategy to consider ways to harness the contributions of the PS to support its strategic and operational objectives. For example, engagement with the PS has already made a major difference in TB notification and case management in a number of countries, and potential partners already exist. Some of the opportunity entails a more engaged and innovative public sector, collaboration across public, for-profit and non-profit players, expanding

[1] Note, these recommendations provide bullets with a high level, bolded introduction of key issues. These topics are then discussed below.

arrangements with existing GF partners, such as pharmacies and laboratories (and their networks), and expanding to new PS players, some of which are primary care networks that include the three diseases. Together, these different types of arrangements have the potential to help significantly expand the reach of GF-supported programs, including to populations currently underserved by existing service delivery modalities. Below are some specific ideas and options for the next GF Strategy to support this effort.

2. Policy and PSE strategy development

- **Develop a GF PSE strategy and policy.** There is a need for a clear strategy and policy for PSE within the GF. This will signal high-level support for such engagement and provide the foundation for developing a GF infrastructure that can guide, encourage and support private sector initiatives in a more systematic manner.
- **Partners can strengthen GF approach.** Partners such as USAID, PSI, AccessHealth and others have extensive experience in PSE and rely on PS partners in reaching their goals in UHC and in addressing the three diseases. Documenting experiences in HIV, TB and malaria could further inform directions for the GF PSE strategy and policy, and complement the existing GF country experiences with TB.
- **Determine an acceptable and broadly applicable definition of the PS and PSE** so that there is a clear basis for a GF PSE strategy and appropriate activities can be defined and endorsed.
- **Develop guidance on PSE at the country-level.** Draw from existing experiences with PSE at the country level for inputs on what to address in the guidance. For example, this may include defining the principles of engagement regarding how to work with governments and other partners, based on existing good practices that have led to significant improvement in access to quality services. .
- **Build public sector capacity in contracting.** Key to effective PSE is the design, management and enforcement of contracts, and the generation and use of data for management and contractor performance; these tasks could be strengthened by greater availability and reliance on digital tools. The GF's extensive experience in contracting CSOs can be drawn upon in addressing this topic. Ffocusing on performance-based contracting, where outputs and outcomes can be defined and monitored, strengthens governments' ability to partner with the PS and can strengthen health system capacity overall.
- **Support regulation and policy at the country-level** to help governments structure an "enabling environment" for the PS. Simultaneously, there is a need to develop GF capacity to support government in building regulations. Regulatory capacity enhances the government's ability to establish and clarify rules for everyone – a function that encourages PS investment in healthcare and reinforces stewardship tools at the government's disposal. For example, the World Bank Group helped launch Private Healthcare Federations and Associations in East Africa that integrate a fragmented private sector, and create a forum for dialogue and engagement with government. In Indonesia, Ghana and Thailand, introducing Social Health Insurance required reliance on PS providers that opened up dialogue and partnership with the PS.
- **GF should understand patient journeys and the rationale of decisions that patients make** more clearly in order to design its interventions to optimize impact for patients. Given the central importance of patient health seeking behavior, research to illuminate patterns of health services use across KVPs and their communities will be fundamental to finding creative ways to target the underserved. TB offers a good example, as there have been successful efforts to find patients where they are seeking care – most often from informal for-profit providers – and offering incentives to improve notification and case management by these private providers. Research on health-seeking

behavior can help guide GF strategic priorities, as well as country-level approaches. PS providers should be incentivized to participate in data collection efforts for all three diseases.

- **Define performance parameters to provide a basis for assessing PSE activities**. These parameters and associated accountabilities can determine the impact of PSE models and build sustainability into GF country programs that involve the PS. Having performance measures also signals important elements for Catalytic Fund applications and highlights the importance of measurement tools in tracking performance.

3. High-Value Intervention Options

- **Compile existing experiences and evidence on GF PSE.** A deeper analysis of the high-value models and thematic areas of PSE implementation is important. Extending this partial overview by undertaking a thorough analysis of the range of GF PSE is critical to building on experience and success. Examining how programs evolved, the role of government decision-making, the structure of the activities, and some evidence of impact will be essential for future GF activities, as the evidence presented here is incomplete and insufficient to guide strategy or decision-making. A full inventory of GF initiatives at the country-level and an integrated assessment are needed to do justice to this important but fragmented review.
- **Explore how the GF can support scalable innovations in digital health.** Digital health's clear growth and value-added are proven – but initiatives are fragmented and overlapping across countries, offering a potential role for GF. From tracking supplies to facilitating notifications to allowing communication across providers to EMRs, digital tools improve efficiency and quality, and promote data consistency. Some specific issues worthy of consideration include:
    - The potential for technology to link patients to quality care, financing capabilities and PS providers is considerable. Additionally, SHI is a growing area that will increasingly rely on digital solutions for payments to both public and private providers.
    - The PS provides the technology infrastructure and software development upon which digital solutions depend. This can be leveraged and supported to enhance local capabilities and support the public sector systems.
    - The PS relies heavily on data for all aspects of healthcare activities. Data collection, its quality, timeliness and scope can be improved and broadened using digital tools: from tracking the utilization of services to paying providers to ensuring coverage of defined populations to building patient records for referral across providers.
    - It will be important to develop clear guidance on privacy and security concerns on data storage and use, an area with limited experience in the GF or elsewhere.
    - PS reporting and notification is already being used for TB (e.g., India, Nigeria, Myanmar, Philippines, Pakistan), and has potential for establishing incentives for PS services for HIV and malaria.
    - Contracting can benefit from digital tools to track performance of contractors and maintain information on progress and achievements, both in general and specifically for KPs.
- **Explore partnerships related to supply chain, pharmacies and laboratories.** These offer strong PS partners for the GF and can be a source of efficiency, scale and performance.
    - Engaging the PS in supply chain logistics and management is an underutilized source of efficiency, but GF guidance is needed as are documented experiences (e.g., Ghana supply

chain contracting and South Africa Chronic Care Medicine Distribution) to demonstrate and quantify improvements in quality and savings that PS providers can deliver. On the latter, some GF experience exists to guide strategy in the short-term. For example, in South Sudan, despite advice to the contrary, informal private sector purveyors were contracted by government to achieve public sector goals.

- Pharmacies and laboratories are relied upon by virtually all citizens, and there are multiple efforts across countries that harness pharmacies for the three diseases. Pharmacies and pharmacy networks already provide prevention, diagnoses and treatment for the three diseases. PS laboratories can offer more responsive services and contribute to rapid inputs for both PS and government facilities.

- **Explore market-based models of access that reach both AGYW and patients with the three** diseases. Various options offer promising PSE, including harnessing laboratory and pharmacies networks to reach citizens broadly as discussed above. Market access aggregators and franchising arrangements where a non-profit works with informal for-profits can effectively and efficiently engage existing, already relied upon service providers. Social franchising can meet GF health goals by linking private providers in a network to provide services under a common brand, while also combating issues of medication quality and patient safety. Without the aggregators, partnering with small providers individually is beyond the capacity of governments or GF programs. In addition, clinic networks serving rural and low-income urban communities deserve to be involved. Primary care provider chains such as Unjani Clinics in South Africa, Huduma Poa, Tunza, and CFW Clinics in Kenya and Sun Quality Health in Myanmar offer broad ranges of services that often include one or more of the three diseases, are ideally suited to meeting the needs of AGYW, and they offer valuable outreach into the communities underserved by government programs. Harnessing market models can be combined with creative subsidy arrangements via vouchers, social marketing and other tools to ensure access to free services.

4. Mobilizing Resources, Financing Interventions and Coordination

- **Support domestic and international resource mobilization, and public sector management.** Countries will require financial and non-financial support and investment from the GF and other donors to effectively bolster domestic and international resource mobilization. Mobilizing domestic and international resources to launch PSE initiatives in a few countries would be useful to test the waters and consider how best to engage with governments. Coordinating with the larger donor community can leverage collective resources and experience. Assessing public sector management and the ways that government allocates and spends its resources can often be an impediment to efficient government and to partnering with the PS. This deserves to be part of the agenda – spending increases need to be complemented by ensuring effective spending.

- **SHI is quickly becoming a major source of financing for healthcare.** The rapid adoption of SHI is shifting funding from purely public services to greater reliance on PS providers, which translates into a need to engage on SHI issues to protect access and financing for the three diseases.

- **Initiate stronger coordination with other actors.** Already there are examples of coordinated approaches to PSE at the country-level, and that partnership can be strengthened at the strategic level with major actors already engaged in PSE. Existing partnerships (GAVI, USAID, PEPFAR, etc.) could be further leverage to expand PSE. WHO is a logical strategic partner, but the MDBs have a broader mandate and a mixed health system approach that includes the PS. With larger investments they are helpful partners to engage with government and private players, allowing GF grants to piggyback on their government access, analysis and investments. Partnerships leverage the MDB

advantages that often complement GF grants. Similarly, Stop TB, Malaria No More and other partners focused on the three diseases and private actors can be useful collaborators, particularly where they have already engaged with the PS.

- **Develop a clearer vision and guidance for multi-country partnerships internally**. Guidance should include in key areas such as the development of global goods from GF experience and learning more systematically from global goods that others develop. Regional initiatives have already been shown to complement country level initiatives and can be critical to achieving the GF mission.

5. Global Fund Internal Challenges

- **Embed a mixed health system approach in grant design**. As WHO and others have noted, all countries have mixed health systems and effective grant design should reflect this diversity in order to appropriately reflect where citizens seek care, particularly those patients not captured in current programs. The role of the PS as a major player in service delivery should be recognized alongside the public sector and civil society – a logical outgrowth of seeing the GF agenda within the context of an overall health system. Working with governments on the system as a whole can bring bigger impacts for the GF agenda.
- **Strengthen knowledge management.** Build capacity to learn from and engage with the PS across the GF, and support both implementing countries as well as civil society to also learn from past initiatives. The GF should build a deeper analysis of the high-value models and thematic areas of implementation described in this report, starting with knowledge management initiatives that compile and share existing work across country teams so that FPMs can learn from colleagues about effective PSEs and how they evolved. This is key to both strategy development and guidance for county teams and the grant application process.
- **The role of Catalytic Funds is key to innovation but needs to be evaluated.** Catalytic Funds have played a valuable role in some country initiatives on PSE, sometimes purposefully and other times because the PS proved essential to meeting goals. The limited evidence suggests a potentially important role in driving the PS and RSSH agendas. The role of the Catalytic Fund in innovation, in finding new solutions through PSE, in harnessing technology and new modes of delivery need to be understood and internalized to be able to structure the CF to help define and broaden the PSE. A thorough assessment of its role in country programs, how it has worked, why and where it has been effective, in general and in supporting PSE is warranted to provide input into overall GF strategy.
- **Track performance of PSE.** Performance data, reporting and analysis will be key to complement PSE initiatives to ensure impact, e.g. defining performance, collecting relevant data and undertaking analysis to understand where PSE is effective and working, and how it may catalyze other initiatives would be a start, but this issue deserves a focus within the GF to determine how best to structure performance measures, data and analysis. These measures will need to be elaborated further, but it will be a critical component for effective and sustainable PSE.
- **Bolster internal capacity to handle a broader agenda that includes PSE.** A great deal is being expected of FPMs, and the technical areas are expanding. Having access to clear guidance (e.g., on SHI development and how to ensure the three disease issues are included) and/or technical assistance may be useful to better design and improve country program components. The knowledge management suggestion above complements this recommendation as a way to boost the exchanges of ideas and innovations across FPMs.

References

Abu-Zaineh, M. et al (2013) "Appraising financial protection in health: the case of Tunisia," *International Journal of Health Care Finance and Economics*, March 2013, Vol. 13, No. 1,pp. 73-93

Aceso Global. (2021) "Country Case Studies - Global Fund Private Sector Thematic Review" *Report to the Global Fund.* Washington, DC: Aceso Global.

ACT watch Group et al. (2017). "Evidence of successful malaria case management policy implementation in Cambodia: results from national ACT watch outlet surveys" *Malaria Journal* 15:194

Agrawal P, et al. (2016). "Moving medicine, moving minds: helping developing countries overcome barriers to outsourcing health commodity distribution to boost supply chain performance and strengthen health systems." *Global Health: Science and Practice*. 4(3):359-365.

Akhnif et al. (2019) "The place of learning in a universal health coverage health policy process: the case of the RAMED policy in Morocco," Health *Research Policy and Systems* 17:21

Alhassan, RK et al. (2016) "A Review of the National Health Insurance Scheme in Ghana: What Are the Sustainability Threats and Prospects?" *PLOS ONE* 11(11): e0165151. https://doi.org/10.1371/journal.pone.0165151

Amaya et al. (2014) "Identifying barriers to move to better health coverage: preferences for health insurance benefits among the rural poor population in La Guajira, Colombia*," THE INTERNATIONAL JOURNAL OF HEALTH PLANNING AND MANAGEMENT*

Ammar, W. (2003) "Chapter 3: Financing of the Health System," *Health System and Reform in Lebanon.*

Amref (n.d.). "The Community Health Engagement Platform – M-Jali". Retrieved Nov. 2020 from: https://amref.org/enterprises/our-products/m-jali/

Andersen C, et al. (forthcoming). "Improving health service delivery in conflict-affected settings: lessons from a nationwide pay-for-performance mechanism in Afghanistan". Draft.

Arfa, C. (2013) "Consolidation and Transparency: Transforming Tunisia's Health Care for the Poor," *World Bank*.

Arfa C, et al (2017) "Measuring the Capacity Utilization of Public District Hospitals in Tunisia: Using Dual Data Envelopment Analysis Approach," *Int J Health Policy Manag*.;6(1):9-18. doi: 10.15171/ijhpm.2016.66. PMID: 28005538; PMCID: PMC5193511.

Arinaminpathy N et al. (2016). "The number of privately treated tuberculosis cases in India: an estimation from drug sales data" Lancet Infect Dis 16: 1255–60

ASSOCHAM and KPMG (2019) "Ayushman-Bharat, A Big Leap Towards Universal Health Coverage in India" *ASSOCHAM INDIA*

Arrow, K. et al. (2012). "The Affordable Medicines Facility—malaria: killing it slowly." *The Lancet*. December 1st 2012. 380; 9857: 1889-1890.

Awasthi P, and J, Stanick (2018). "The Rise of Global Medical Technology". *IQVIA*. pp. 1-28.

Bahia K and A, Delaporte (2020). "The State of Mobile Internet Connectivity 2020". *GSMA Intelligence.* pp. 1-61.

Barton, I. CEO, *Clinton Health Access Foundation*. Personal communication, November 4, 2020.

Basu, S. et al. (2012) "Comparative Performance of Private and Public Healthcare Systems in Low- and Middle- Income Countries: A Systematic Review." *PLOS Medicine.* June 19th 2012. 9;6.

Berendes, S. et al. (2011). "Quality of Private and Public Ambulatory Health Care in Low and Middle Income Countries: Systematic Review of Comparative Studies." *PLOS Medicine*. April 2011. 8; 4.

Blanchet et al. (2012). "The Effect of Ghana's National Health Insurance Scheme on Health Care Utilization" *Ghana Medical Journal, Ghana Medical Association.*

Borghi J., et al. (2005). "The cost-effectiveness of a competitive voucher scheme to reduce sexually transmitted infections in high-risk groups in Nicaragua". *Health Policy Plan*. 20: 222–3

Buregyeya et al. (2017). "Comparison of the capacity between public and private health facilities to manage under-five children with febrile illnesses in Uganda." *Malaria Journal.* May 2nd 2017. 16; 183.

Carlson, Cindy, TERG Chair, *TGF*. Personal communication, Dec 15th 2020

Casanova, A. (2019). "A Retail Approach to Diabetes Care: Clinicas de Azucar: Bringing Disruptive Innovation to Chronic Disease Management in Mexico" *IFC.*

CFW Shops (n.d.) "CFW Clinics" *CFW Website*

Chen, D. (2018) "Morocco's Subsidized Health Insurance Regime for the Poor and Vulnerable Population: Achievements and Challenges," *World Bank, Universal Health Coverage Studies Series*; No. 36.

Cleaton-Jones, I. Aceso Globa, Non-Resident Consultant*. Personal communication*, 2020.

Chongwe G et al. (2015). "A survey to assess the extent of public-private mix DOTS in the management of tuberculosis in Zambia" *African J Primary Health Care Family Med*. 7(1):1–7.

Collington, R. (2020). "The Myth of the 'Efficient' Private Sector Has Been Busted by Covid". *The Guardian*

Cotlear, D. et al. (2015) "Going Universal: How 24 developing countries are implementing universal health coverage from the bottom up" *World Bank.*

Dalaba, M. et al (2014) "Does the national health insurance scheme in Ghana reduce household cost of treating malaria in the Kassena-Nankana districts" Global Health Action, 7:1, DOI: 10.3402/gha.v7.23848

Das, J and J, Hammer (2014). "Quality of Primary Care in Low-Income Countries: Facts and Economics". *Annual Review of Economics*. 6: 23.1-23.29.

Devaux, M (2013). "Income-related inequalities and inequities in health care services utilisation in 18 selected OECD countries". *European Journal of Health Econonomics.* 16(1):21-33.

Doherty (2015). "Regulating the for-profit private health sector: lessons from East and Southern Africa." *Health Policy and Planning*. 30:i93–i102.

Eibl, M. F. (2017) "Social Policies in the Middle East and North Africa" *In The New Palgrave Dictionary of Economics Palgrave Macmillan.*

El-Jardali, F. et al (2014) "A retrospective health policy analysis of the development and implementation of the voluntary health insurance system in Lebanon: Learning from failure," *Social Science and Medicine*, 123 45-54.

Fenny, A. et al. (2018) "Social health insurance schemes in Africa leave out the poor" *International Health*, Volume 10, Issue 1, , Pages 1–3, https://doi.org/10.1093/inthealth/ihx046

Fio Corporation (n.d.). "Rapid Data. Rapid Response". *Fio Corporation.*

GAVI (2015). "Outsourcing the Distribution Component of Vaccine and Medicine Supply Chains." Geneva.

Gidado M and Ejembi C (2009). "Tuberculosis case management and treatment outcome: assessment of the effectiveness of public-private mix of tuberculosis programme in Kaduna state, Nigeria" *Annals African Med*; 8(1):25.

Global Fund (2015). "Framework on Private Sector Engagement", May.

Global Fund (2019a). "eMpower Project IBM and India HIV/AIDS Alliance". *The Global Fund: Private Sector Partnerships*. pp. 1-2.

Global Fund (2019b). "Zenysis Technologies". *The Global Fund: Private Sector Partnerships.* pp. 1-4.

Global Fund (2019d). "Technical Brief Malaria Case Management in the Private Sector" *Global Fund.*

Global Fund (2020) "The Global Fund Strategy 2017-2022" *The Global Fund*

Global Health Progress (n.d.). "SMS for Life". *Global Health Progress*. Retrieved Nov. 2020 from: https://globalhealthprogress.org/collaboration/sms-for-life/

Greenmash (n.d.a). "PSI Tanzania". *Greenmash.* Pp. 1-2.

Greenmash (n.d.b). "SMS for Life Kenya: Malaria Surveillance and Commodity Tracking Solution". *Greenmash.* pp. 1-2.

HalasaRappel et al. (2019) "The actuarial cost and fiscal impact of expanding the Jordan civil insurance programme for health coverage to vulnerable citizens" *East Mediterr Health J;* 25(x):xxx–xxx. https://doi.org/10.26719/emhj.19.044

Hamadeh, R. (2020) "Can Primary Healthcare be Protected as a Public Good in Lebanon Today?" *Research Square* https://assets.researchsquare.com/files/rs-73442/v1/c3bb2053-4fa0-4b73-b7c4-add1ec136458.pdf

Harding, A and La Forgia, J. (2009). "Public-Private Partnerships And Public Hospital Performance In São Paulo, Brazil". *Health Affairs*, vol. 28, no. 4, pp. 1114–1126.

Hennicot, J. (2020) "Towards Strategic Purchasing: Management of Multiple Schemes and Purchasing Decisions by the Cambodian National Social Security Fund," *GIZ*

HFC (2020a) "Emergency Response to Strengthen Private Health Delivery in Africa During COVID-19" *Health Finance Coalition, pp. 1-5.*

HFC (2020b) "Malaria Impact, Target Patient and Facility Profiles" *Health Finance Coalition, pp. 1-2.*

Hone, Thomas et al. (2016) "Expansion of health insurance in Moldova and associated improvements in access and reductions in direct payments." *Journal of global health* vol. 6,2: 020702. doi:10.7189/jogh.06.020702

Ibraimova, A.et al. (2011) "Kyrgyzstan: Health System Review, Health Systems in Transition" *World Health* Organization Vol.13, No. 3.

IFC (2012) "Independent Evaluation of the Affordable medicines Facility- malaria (AMFm) Phase 1" *Multi-Country Independent Evaluation Report: Final Report*, IFC International.

IFC (2018) "Bringing Safe, Quality Medicine to All Goodlife Pharmacy: A Health Hub for East Africa" *International Finance Corporation*

IFC (2019). "Public-Private Partnerships for Emerging Market Health". *The Economist Intelligence Unit*, Nov. pp. 1–7.

IFC (2020) "Understanding the Health Financing Landscape and Documenting of the Types of User Fees (Formal and Informal) Affecting Access to HIV, TB, and Malaria Services in West and Central Africa (WCA)" *International Finance Corporation, PPT.*

Ingun P. et al (2015) "Thailand health information system improvement through universal health coverage implementation," *Journal of the Thai Medical Informatics Association*. 2:137–47.

Jakab, M. et al. (2018) "Can people afford to pay for health care? New evidence on financial protection in Kyrgyzstan," *World Health Organization*, Regional Office for Europe.

JEET (2019). "2019 Annual Report" *Joint Effort for Elimination of Tuberculosis.*

Johnson, M et al. (2020) "SafeCare: An Innovative Approach for Improving Quality Through Standards, Benchmarking, and Improvement in Low- and Middle- Income Countries" *Joint Comission Journal on Quality and Patient Safety. 42(8): 350-AP11*

Jongudomsuk,. et al (2015). "Health Systems in Transition: The Kingdom of Thailand Health System Review" *WHO & Asia Pacific Health Systems Observatory.*

Joudyian et al (2021). "Public-private partnerships in primary health care: a scoping review" *BMC Health Services Research*, pp. 1-18.

JPRM (2019). "The Pakistan TB Joint Program Review Mission February 11-23, 2019" *Review Mission Report.*

Khetrapal S. et al (2019) "Assessment of the public-private-partnerships model of a national health insurance scheme in India*," Social Science & Medicine* Volume 243, 112634

Koh D (2019). "Indonesia's Healthcare Superapp Alodokter Raises $33M in Series C Funding". *Mobi Health News.* Retrieved Nov. 2020 from: https://www.mobihealthnews.com/news/asia-pacific/indonesia-s-healthcare-superapp-alodokter-raises-33m-series-c-funding

Kolesar, R. et al, (2020) "Expanding social health protection in Cambodia: An assessment of the current coverage potential and gaps, and social equity considerations," *International Social Security Review*, Volume 73, Issue 1, 35-63.

La Forgia G. et al. (2019). "Organization and Provision of Health." In Niti Aayog, ed . *Health System for a New India: Building Blocks – Potential Pathways to Reform Services*. New Delhi: Niti Aayog (Office of the Prime Minister)

La Forgia, J. and Correa, K. (2016) "*Scoping Exercise: Patient Flow Management and Metrics in Public Hospitals in Mexico*" *Report to Metrics for Management. Washington, DC: Aceso Global.*

Lal et. Al (2019). "Malaria elimination: Using past and present experience to make malaria-free India by 2030" *J Vector Borne Dis* 56. pp. 60–65.

Lamprea E. et al. (2016) "Closing the Gap Between Formal and Material Health Care Coverage in Colombia," *Health Hum Rights*. 18(2):49-65.

Lewis M, and G, Pettersson (2009). "Governance In Health Care Delivery: Raising Performance". *Policy Research Working Papers*. *The Center for Global Development*. doi:10.1596/1813-9450-5074.

Loevinsohn, B (2008) "Performance-Based Contracting for Health Services in Developing Countries: A Toolkit." Washington, DC: *World Bank*.

Loevinsohn, B, and A, Harding (2004). "Contracting for the Delivery of Health Services: A Review of Global Experience". *International Bank for Reconstruction and Development*, Sept. pp. 1- 48.

Lönnroth K et al. (2004) "Public-private mix for DOTS implementation: what makes it work?" *Bulletin World Health Organization;* 82:580–6.

Lonnroth, K, et al. (2006). "Hard Gains through Soft Contracts: Productive Engagement of Private Providers in Tuberculosis Control". *Bulletin of the World Health Organization* 84: 876–83.

Lupieri, S. et al. (2020) "Transnational interdependency and healthcare system change: The role of humanitarian and development aid in shaping health policy in Jordan," Global Social Policy 2020, Vol. 20(2) 192–214

MacKintosh et al. (2016). "What is the private sector? Understanding private provision in the health systems of low-income and middle-income countries". *The Lancet*. 388: 596-605

Mapham W. Founder and CEO of *Vula Mobile*. Personal communication, November 3, 2020.

Mathauer, I et al. (2016) "State budget transfers to health insurance funds: extending universal health coverage in low- and middle-income countries of the WHO European Region" *Int J Equity Health* 15, 57 https://doi.org/10.1186/s12939-016-0321-0

Mbau, R. et al. (2020) "Examining purchasing reforms towards universal health coverage by the National Hospital Insurance Fund in Kenya International," *Journal for Equity in Health* 19:19

Mclean S. HIV Prevention Advisor at the Global Fund. Personal communication November 2, 2020

McPake B, and K, Hanson (2016) "Managing the public–private mix to achieve universal health coverage. *The Lancet* 388: pp. 622–30.

Ministry of Health (2016) "National Health Insurance Policy Framework for Ghana, Revised Version," *Ministry of Health*

MOH (2019) "Kenya Malaria Programme Review 2018" *Nairobi, Kenya: Ministry of Health.*

Mohandas, B (2020). "Reflections on a Decade of Transformation". *World Bank: International Finance Corporation*. Nov. pp. 38-41.

Montagu, D et al. (2016). "Recent trends in working with the private sector to improve basic healthcare: a review of evidence and interventions". *Health Policy and Planning*. Volume 31, Issue 8, October, pp.1117–1132.

Montagu, D., and Goodman, C. (2016) "Prohibit, constrain, encourage, or purchase: how should we engage with the private health-care sector?" *The Lancet;* Vol 388, Issue 10044

Montagu, D and N, Chakraborty (2019) "Private Sector Utilization: Insights from Standard Survey Data". Geneva: *World Health Organization.*

Morkel, RW et al (2019). "Orthopaedic referrals using a smartphone app: Uptake, response times and outcome". *South African Medical Journal*. 109 (11): 859-864.

Mossialos et al (2016). "2015: International Profiles of Health Care Systems". *The Commonwealth Fund*.

Mrazek M, and R, Shukla (2020). "After Coronavirus, Telemedicine is Here to Stay". *World Bank Blogs,* July.

M-Tiba (n.d.). "Frequently Asked Questions". *M-Tiba.*

M-Tiba (n.d.). "Welcome to M-Tiba". *M-Tiba.*

Munge, K. et al. (2018) "A Critical Analysis of Purchasing Arrangements in Kenya: The Case of the National Hospital Insurance Fund." *International journal of health policy and management* vol. 7,3 244-254., doi:10.15171/ijhpm.

Muriuki, J. Fund Portfolio Manager, *The Global Fund*. Personal Communication, Nov 12th 2020

National Health Authority. (n.d.) "Benefits of PM-JAY," https://pmjay.gov.in/benefits-of-pmjay

National Health Insurance Scheme (2020) "Formal Sector Social Health Insurance Programme"

NHIS Website: Nigeria

NHIF (2015) "BENEFIT PACKAGE: Explanation of the benefit package for the National Scheme" *NHIF, pp. 1-25*

NHIF (n.d.) "National Hospital Insurance Fund Website" *NHIF: Kenyan social insurance*: http://www.nhif.or.ke/healthinsurance/home

Nikshay (n.d.). "About Us*", Nikshay.* https://nikshay.in/Home/AboutUs

Njuguna, M. *Specialist Health Product Management, High Impact Africa 2 Department, The Global Fund*. Nov 2nd, 2020.

Novartis (2018). "Novartis Social Business Report". *Novartis.* pp. 1-35.

Novartis (n.d.). "SMS for Life Uses Mobile and Digital Technology to Increase Quality of Care in Developing Countries". *Novartis.* Retrieved Nov, 2020 fromhttps://www.novartis.com/sites/www.novartis.com/files/factsheet-sms-for-life.pdf

Nyiligira, E. *Specialist Health Product Management, High Impact Africa 1 Department, The Global Fund*. Dec 10th, 2020.

Obermann, K. et al (2018)," The role of national health insurance for achieving UHC in the Philippines: a mixed methods analysis," Global Health Action, 11:1, 1483638, DOI: 10.1080/16549716.2018.1483638

O'Connell, K. et al. (2011). "Using and Joining a Franchised Private Sector Provider Network in Myanmar." *PLOS ONE.* December 13th 2011; 6;12.

OECD (2010). "Contracting out government functions and services in post-conflict and fragile situations". *Partnership for Democratic Governance*. OECD.

OECD (2011). "From Lessons to Principles for the use of Public-Private Partnerships". 32nd Annual meeting of Working Party of Senior Budget Officials 6-7. June. Luxembourg. *OECD.*

OECD (2020). "Focus on Public funding of health care". *OECD Policy Brief.* http://www.oecd.org/health/Public-funding-of-health-care-Brief-2020.pdf

Oh, K.H. et al, (2018) "Action towards Universal Health Coverage and Social Protection for Tuberculosis Care and Prevention: Workshop on the End TB Strategy Pillar 2 in the Western Pacific Region," *Trop. Med. Infect. Dis. 4*, 3

Okoroh et al. (2018) "Evaluating the impact of the national health insurance scheme of Ghana on out of pocket expenditures: a systematic review," *BMC Health Services Research* 18:426 https://doi.org/10.1186/s12913-018-3249-9

Onyeji, E. (2020) "Nigeria: Government Starts Health Insurance Scheme for Uninsured Nigerians," *Premium Times.*

Osoro, P. Specialist Public Health and M&E, *The Global Fund*. Personal communication, Nov 10th 2020

PAHO (2020). "Suriname". Retrieved Nov 2020. https://www.paho.org/salud-en-las-americas-2017/?p=4307

Pasumbal, G.R. (2018), "Tuberculosis Financing in the Philippines," *Global TB Conference 2015*

PATH (2011). "Public-Private Mix: Involving Pharmacies and Other Providers in TB Control - A Cambodia Case Study" *Path and USAID, pp. 1-72.*

PharmAccess Foundation (2015). "M-TIBA is Truly Leapfrogging Healthcare in Kenya". *PharmAccess Group.* Dec.

Preker, A. and J. Langenbrunner (2005). "Spending Wisely: Buying Health Services for the Poor." Washington, DC: *World Bank*.

Prinja, S. et al (2017)," Impact of Publicly Financed Health Insurance Schemes on Healthcare Utilization and Financial Risk Protection in India: A Systematic Review*," PLOS ONE* 12(2): e0170996. https://doi.org/10.1371/journal.pone.0170996

Project ECHO (n.d.a.). "ECHO Global Health Initiatives in HIV, TB and Health Security". *University of New Mexico: School of Medicine.*

Project ECHO (n.d.b.). "Global Impact and Initiatives". *University of New Mexico: School of Medicine.*

Project ECHO (n.d.c). "Where Our Funding Comes From". *University of New Mexico: School of Medicine*.

P4h (2020) "Toward Strategic Purchasing: Management of Multiple Schemes and Purchasing Decisions by the Cambodian National Social Security Fund" *Social Health Protection Network*

Quy H et al. (2003). "Public-private mix for improved TB control in Ho Chi Minh City, Vietnam: an assessment of its impact on case detection" *Int J Tuberculosis Lung Disease*; 7(5):464–71.

Radelet, S. and B. Siddiqi (2007). "Global Fund grant programmes: an analysis of evaluation scores". *The Lancet*. 369: 1807–13.

Raubenheimer, L. et al. (2015). "Outsourcing vaccine logistics to the private sector: the evidence and lessons learned from the Western Cape Province in South-Africa." *Vaccine*. 33(29):3429–3434.

Rawabdeh, A. et al, (2018) "Health Financing Policies in Jordan: The Allocation of Public Expenditures in Global Context," Makara J. Health Res., 2018, 22(3): 153-166 doi: 10.7454/msk.v22i3.9949 153 December 2018 | Vol. 22 | No. 3

Rayda, N. (2020). "More Demand for Telemedicine as Indonesians Stay Away from Hospitals Amid COVID-19". *CAN*. June.

RBM AIM (2019) "Action and Investment to defeat Malaria 2016-2030" *Roll Back Malaria Partnership*

Richardson, E. et al (2017). "Georgia: Health System Review." *World Health Organization, Health Systems in Transition*, 19(4): 1-90.

Rogo, K CEO, Lead Health Specialist (retired), World Bank. Personal communication, Oct 23rd 2020.

Sarley, D., L. Allain, and A. Akkihal. (2009). "Estimating the Global In-Country Supply Chain Costs of Meeting the MDGs by 2015." Arlington, Va.: *USAID | DELIVER PROJECT, Task Order 1*.

Service Delivery Indicators Database (n.d.). *World Bank*. Accessed Nov. 2020. https://datatopics.worldbank.org/sdi/

Sharma, N et al. (2019). "Partnership in tuberculosis control through involvement of pharmacists in Delhi: An exploratory operational research study. Indian Journal of Pharmacology" 51. 168-172. 10.4103/ijp.IJP_300_18.

Schneider H et al. (2015) "Primary Care Systems Profiles & Performance South Africa Case Study" *Alliance for Health Policy and Systems Research and the Bill & Melinda Gates Foundation.*

Shargie, Estifanos - Senior Specialist, Public Health Impact Evaluation, *TGF*. Personal Communication, Feb 12th, 2021

Sieverding, M. et al (2018) "Private healthcare provider experiences with social health insurance schemes: Findings from a qualitative study in Ghana and Kenya" *Plus One.* https://doi.org/10.1371/journal.pone.0192973

Silver, L. (2019). "Smartphone Ownership Is Growing Rapidly Around the World, but Not Always Equally". *Pew Research Center.* pp. 1-46.

Sriram, S. et al. (2020) "Effect of health insurance program for the poor on out-of-pocket inpatient care cost in India: evidence from a nationally representative cross-sectional survey," *BMC Health Serv Res* 20, 839. https://doi.org/10.1186/s12913-020-05692-7

SSA (n.d.) "Social Security Programs Throughout the World: Asia and the Pacific, 2018: Cambodia" *SSA: Office of Retirement and Disability Policy*

Stallworthy, G. *Global Lead for Private Provider Engagement, BMGF*. Personal Communication, Nov 9th, 2020

Stop TB Partnership (2018). "Philippines: USAID/TB Innovations Engages Hospital Networks to Notify Privately". *End TB.*

Stucke, A (2019). "Enabling Health Technology in Emerging Markets". *World Bank: International Finance Corporation*. Dec 2019. pp. 1-10.

Suchman, L. (2018) "Accrediting private providers with National Health Insurance to better serve low-income populations in Kenya and Ghana: a qualitative study," *International Journal for Equity in Health* 17:179

Telenor. (2016). "Free health service TONIC launched for Grameenphone customers." https://www.grameenphone.com/about/media-center/press-release/free-health-service-tonic-launched-grameenphone-customers

Telenor Pakistan (n.d.). "Digital Insurance". *Telenor*. Digital Products.

Thakker, A Chairman, Kenya Healthcare Federation. Personal communication, Nov 6th 2020.

The GF PSC (2020). "Private Sector Constituency Input Intersessional Meeting on Strategy Development" Private Sector Constintuency, pp. 1-2

Thin, K. et al (2019) "The cost of HIV services at health facilities in Cambodia". *PLOS ONE* 14(5): e0216774. https://doi.org/10.1371/journal.pone.0216774

Toussaint, L. CEO, Unjani Clinics, South Africa. Personal communication, Nov 4th 2020.

Tougher, S. et al. (2012) "Effect of the Affordable Medicines Facility—malaria (AMFm) on the availability, price, and market share of quality-assured artemisinin-based combination therapies in seven countries: a before-and-after analysis of outlet survey data." *The Lancet.* December 1st 2012. 380; 9857: 1916-1926.

Turcanu, G. (2012) "Republic of Moldova: Health System Review," *Health Systems in Transition, WHO.*

Ulbrich, Holley H. (2011) "Public Finance in Theory and Practice" *Routledge.* Taylor & Francis Group, London and New York.

Unjani Clinics (2020) "https://www.unjaniclinic.co.za/" *Unjani Clinics*

Uplekar M. et al. (2016) "Mandatory tuberculosis case notification in high tuberculosis-incidence countries: policy and practice" *European Respiratory Journal.*

USAID (2009) "Private Sector Involvement in HIV Service Provision" *USAID Technical Brief,* Washington D.C.

USAID (2010). "Emerging Trends in Supply Chain Management: Outsourcing Public Health Logistics in Developing Countries". Arlington, Va.: *USAID | DELIVER PROJECT, Task Order 1.*

USAID (2011) "Malawi Private Health Sector Assessment" *USAID: SHOPS*

USAID (2020). "Engaging Private Providers to Improve TB Outcomes in Indonesia." *USAID*, pp. 1–70.

Vargas, I. (2017) "Patient perceptions of continuity of health care and associated factors. Cross-sectional study in municipalities of central Colombia and north-eastern Brazil" *Health Policy and Planning*, 32, 549–562 doi: 10.1093/heapol/czw168

Vian, T et al. (2015) "Barriers to universal health coverage in Republic of Moldova: a policy analysis of formal and informal out-of-pocket payments" *BMC Health Serv Res* 15, 319. https://doi.org/10.1186/s12913-015-0984-z

Vincent, O.I. et al. (2020) "Critical Determinants of Demand for Services in the Nigeria Formal Sector Social Health Insurance Programme," *International Journal of Health Economics and Policy*. Vol. 5, No. 1, 2020, pp. 1-8. doi: 10.11648/j.hep.20200501.11

Vogler et al. (2019) "Affordable and equitable access to subsidised outpatient medicines? Analysis of co-payments under the Additional Drug Package in Kyrgyzstan," *International Journal for Equity in Health* 18:89

Vula Mobile (n.d.). "Vula Overview". *Vula*.

Wang, W., Sulzbach, S., De, S. (2010). "*Utilization of HIV-Related Services from the Private Health Sector: A Multi-County Analysis". Differentiated Health Services Program.* https://dhsprogram.com/pubs/pdf/WP67/WP67.pdf

WHO (2014) "Regional meeting on strengthening the implementation of social health insurance schemes for universal health coverage," *WHO: Regional Office for the Eastern Mediterranean* Amman, Jordan.

WHO (2018a). "Engaging Private Health Care Providers in TB Care and Prevention: A Landscape Analysis." *WHO*, pp. 1–58.

WHO (2018b) "Roadmap towards ending TB in children and adolescents: second edition" *Geneva: World Health Organization*.

WHO (2018c) "Public–private mix for TB prevention and care: a roadmap" *Geneva: World Health Organization*; Licence: CC BY-NC-SA 3.0 IGO.

WHO (2019a) "World Malaria Report". *Geneva: World Health Organization*. License: CC BY-NC-SA 3.0 IGO.

WHO (2019b) "Meeting report of the WHO technical consultation on malaria case management in the private sector in high-burden countries" WHO: Malaria Policy Advisory Committee Meeting Geneva, Switzerland Background document for Session 6

WHO (2020a). "Strategy Report: Engaging the private health service delivery sector through governance in mixed health systems." *Health Systems Governance and Financing* Department, WHO.

WHO (2020b) "Private Sector Landscape in Mixed Health Systems" *World Health Organization.*

WHO pre-publication (2021) "Engaging Private Healthcare Providers in TB Care and Prevention: A Landscape Analysis" *World Health Organization*

Win Htat, Han. Deputy Country Director Programs Division, *PSI Myanmar*. Personal Communication, Dec 18th 2020

World Bank (2010). "Private Health Sector Assessment in Kenya". *World Bank Working Paper No.* 193. Washington DC.

World Bank (2011). "Healthy Partnerships: How Governments Can Engage the Private Sector to Improve Health in Africa". *International Finance Corporation*. Washington, DC.

Yadav, P. (2015). "Health Product Supply Chains in Developing Countries: Diagnosis of the Root Causes of Underperformance and an Agenda for Reform". *Health Systems & Reform*. 1:2, 142-154.

Yassoub, R. (2017) "The Path Toward Universal Health Coverage: Stakeholder Acceptability of a Primary Care Health Benefits Package in Lebanon," *International Journal of Health Services*, Vol. 47(2) 352–373

Zhao, F. et al eds. (2020) "Tackling the World's Fastest-Growing HIV Epidemic More Efficient HIV Responses in Eastern Europe and Central Asia," *World Bank .* Chapter 7: Sarybaeva, M. et al, "Kyrgyz Republic: Addressing the HIV Treatment Gap."

Annex A: List of Consulted Stakeholders

Main Report

- Aladeshawe, Shina - Senior Program Officer, BMGF Nigeria – Dec 23rd 2020
- Arroyo, Juan - Researcher, Universidad Peruana Cayetano Heredia and Pontificia Universidad Católica del Perú – Oct 16th 2020
- Austin, Byron - Director, ESG and Global Health, Teva Pharmaceutical Industries – Dec 8th 2020
- Bhana, Janita - Specialist Public Health and M&E, TGF – Nov 10th 2020
- Bhatnagar, Pratik – Director, Global Public Health, IQVIA – Dec 8th 2020
- Borowitz, MicChael – Chief Economist, TGF – Dec 16th 2020
- Bosman, Andrea - Coordinator Malaria Director Office, WHO – Nov 6th 2020
- Campos, Julia - Director, Centro de Estudios de Problemas Económicos y Sociales de la Juventud (CEPESJU) – Oct 21st 2020
- Canarutto, David – Portfolio Manager Relationships, TGF – Nov 5th 2020
- Cantau, Nicolas - Regional Manager South East Asia, TGF – Dec 11th 2020
- Carlson, Cindy – TERG Chair, TGF – Dec 15th 2020
- Carrillo, Camilo – Consultant, Public-Private Association for Spain and Latin America – Oct 6th 2020
- Carter, Joanne – Executive Director, Results – Jan 5th 2021
- Chakraborty, Sarbani – Senior Specialist, Private Sector Engagement, TGF – Dec 18th 2020
- Charles, Sherwin - Co-Founder and Chief Executive Officer, Goodbye Malaria – Nov 19th 2020
- Chern, Ho Whei – Group Head, Communications, Fullerton Health – Dec 8th 2020
- Clarke, David - Team Leader UHC and Health Systems Law, WHO – Oct 30th 2020
- Collins, Terri – Consultant, Mott MacDonald – Oct 14th 2020
- Crowley, Siobhan – Head of HIV/AIDS, TGF – Oct 20th 2020
- Cui, Qi – Philippines Senior FPM, TGF – Dec 17th 2020
- Dalton, Charles – Senior Health Specialist, IFC – Oct 19th 2020
- Daly, Kieran - Deputy Director, Global Policy and Advocacy, BMGF – Nov 9th 2020
- Echenique, Marilu Chiang - Executive Director, Asociación Benéfica PRISMA – Oct 14th 2020
- Edington, Mark - Head, Grant Management Divison, TGF – Dec 14th 2020
- Edlund, Martin – CEO, Malaria No More – Jan 12th 2021
- Esveld, Marja – Board Member, TGF – Dec 17th 2020
- Fesus, Gabriella - Head of Unit, European Commission DG Development and International Cooperation – Dec 16th 2020
- Filler, Scott – Head of Malaria, TGF – Oct 28th 2020
- Fröhlicher, Pascal – Primary Care Innovation Scholar, Harvard Medical School – Dec 8th 2020
- Garner, Adam – Lagos State Fund Manager, TGF – Dec 17th 2020
- Goodman, Catherine - Professor of Health Economics and Policy, LSHTM – Nov 12th 2020
- Grant, Hannah – Senior Strategy and Policy Advisor, TGF – Oct 21st 2020
- Guinot, Philippe – Consultant, PATH – Nov 17th 2020
- Gunn, Trevor – Vice-President, International Relations, Medtronic – Dec 16th 2020

- Hara, Liuichi – Head of Global CSR Program and Partnerships, Takeda Pharmaceutical – Dec 8th 2020
- Harold, Matthew - Lead, Global Health Public Affairs, Novartis – Dec 8th 2020
- Hirschman, Annelise - Head, AELAC Department, TGF – Dec 15th 2020
- Hoibak, Sarah - Specialist Public Health and M&E, Western Africa Team, TGF – Dec 9th 2020
- Honjiyo, Alex – Program Manager, Health Finance Coalition – Jan 12th 2021
- Hughes, Emily – CCM Hub Manager, TGF – Nov 11th 2020
- Jager, Karin – Head, Public Affairs, Growth, and Emerging Markets, Takeda Pharmaceuticals – Dec 8th 2020
- Johnson, Micheal – Consultant, BMGF – Nov 9th 2020
- Johnson, Richard - Specialist Private Sector Engagement, TGF – Oct 21st 2020
- Jung, Francois - Manager, Private Sector Engagement Department, TGF – Dec 18th 2020
- Kunii, Osamu - Head, Strategy Impact and Investment Division, TGF – Dec 15th 2020
- Laticevschi, Dumitru - Regional Manager, EECA, TGF – Dec 18th 2020
- Lessidrenska, Teodorina - Focal Point / Manager Global Fund Private Sector Constituency – Dec 21st 2020
- Li, Lin – Manager, Strategic Sourcing, TGF – Nov 16th 2020
- Loevinsohn, Benjamin - Senior Technical Coordinator MNCH & HSS and TAP, TGF – Oct 21st 2020
- Macallister, Jack - Senior Technical Coordinator, Policy and Strategy, TGF – Oct 21st 2020
- Macgregor, Matthew – STC Manager, TGF – Nov 10th 2020
- Marcondes, Rogelio – Director, SALOG – Oct 16th 2020
- Mclean, Susie - Senior Advisor, HIV Prevention, TAP, TGF – Nov 2nd 2020
- Morris, Bryan - Disease Fund Manager High Impact, TGF – Nov 12th 2020
- Morrison, Linden - Head, High Impact Africa 2 Department, TGF – Dec 16th 2020
- Muputisi, Moses – Supply Chain Specialist, TGF – Nov 19th 2020
- Mwencha, Marasi – Manager, Supply Chain, TGF – Nov 19th 2020
- Myberg, Andrew – Health Economist, IFC – Nov 5th 2020
- Nair, Sreenivas - Regional Advisor, Asia and the Pacific, Stop TB – Dec 11th 2020
- Nyiligira, Eric - Specialist Health Product Management, High Impact Africa 1 Department, TGF – Dec 10th 2020
- Olatunji, Emmanuel - FPM Iraq (Jordan, Yemen, Lebanon, Syria), TGF – Nov 10th 2020
- Orford, Ricki - Senior Project Director and Vice President, PMI Impact Malaria Project, PSI – Nov 13th 2020
- Perelis, Daniel Querub – Director, IBT Group – Oct 21st 2020
- Perrone, Giulia - Regional Manager, Latin America and the Caribbean, TGF – Dec 21st 2020
- Pratt, Abigail – Program Officer, BMGF – Nov 9th 2020
- Rakhmanova, Nilufar – Chief of Party, FHI360 – Dec 21st 2020
- Reinhard-Rupp, Jutta – Head, Merck Global Health Institute – Dec 8th 2020
- Sahu, Suvanand - Deputy Executive Director, Stop TB – Dec 11th 2020
- Sarnoski, Sara – Associate Strategy Officer, BMGF – Nov 9th 2020
- Schaper, Paul – Executive Director, Global Health Policy, MSD – Dec 8th 2020

- Seiter, Andreas – Global Lead, Private Sector, Health, Nutrition and Population, World Bank – Nov 5th 2020
- Serutoke, Joseph - Regional Manager Middle East and North Africa, TGF – Dec 17th 2020
- Shargie, Estifanos - Senior Specialist, Public Health Impact Evaluation, TGF – Feb 12th, 2021
- Siddiqui, Mozammil - Senior Manager, Strategic Innovation, New Investors Hub Asia Pacific, Middle East and Africa, GAVI – Nov 9th 2020
- Stallworthy, Guy – Global Lead for Private Provider Engagement, BMGF – Nov 9th 2020
- Stojanovik, Stefan - Senior Fund Portfolio Manager for PNG, TGF – Dec 16th 2020
- Summers, Todd – Consultant, BMGF – Nov 9th 2020
- Thome, Beatriz – Specialist, Impact and Evaluation, TGF – Dec 18th 2020
- Van Son, Chansuay – Focal Point, Dutch Foreign Trade and Development Cooperation – Dec 17th 2020
- Wandwalo, Eliud – Head of TB, TGF – Nov 4th 2020
- Weber, Urban - Head, High Impact Asia Department, TGF – Dec 7th 2020
- Wells, William - Senior TB Technical Advisor, Infectious Disease Division, USAID – Nov 4th 2020
- Wignall, Steve – Project Director, FHI360 – Dec 17th 2020
- Win Htat, Han - Deputy Country Director Programs Division, PSI Myanmar – Dec 18th 2020
- Wijnroks, Marjike - Chief of Staff, TGF – Dec 14th 2020
- Yassin, Mohammed - Senior Disease Advisor, TB /Lead of Indonesia, Bangladesh, India, Myanmar, TGF – Oct 30th 202

Case Studies

Thailand

1. Creac'H, Philippe – Thailand FPM, TGF – Nov 5th 2020
2. Huszar, Anthony – Former Program Director, Fleming Fund, Thailand – Nov 23rd 2020
3. Khan, Shahid – Thailand Program Officer, TGF – Nov 5th 2020
4. Lee, John – Chairman, Principal Capital Group – Nov 24th 2020
5. Sirinirund, Petchsri – Co-Chair, Indonesia CCM – Dec 1st 2020
6. Yassin, Mohammed – Senior Advisor, Tuberculosis, TGF – Oct 30th 2020s

Indonesia

1. Akmed, Heny – Country Lead, Stop TB Indonesia – Dec 17th 2020
2. Baswedan, Samhari – Executive Secretary, Indonesia CCM – Dec 1st 2020
3. Hatem, Tomas – Indonesia FPM, TGF – Nov 9th 2020
4. Private Investor (asked not to be named) – Fund Manager, Large Private Investor – Nov 6th 2020
5. SariH, Justina – Private Sector Policy Lead, Health Policy Plus Indonesia – Nov 10th 2020
6. Thabrany, Hasbullah – Chief of Party, ThinkWell, Indonesia – Nov 12th 2020
7. Yarrow, Kristina – Country Director, Health Policy Plus, Indonesia – Oct 29th 2020

Kenya

1. Githuka, George - Head, National Malaria Control Program – Nov 6th 2020
2. Hillstrom, Scott – Founder, The Healthstore Foundation and Child and Family Wellness Clinics, Kenya – Dec 10th 2020
3. Kimuu, Peter - Senior Programme Officer Global Fund Unit, National Treasury – Nov 5th 2020

4. Langat, Bernard - Programme Director HIV, TB, Malaria and NCDs, AMREF Kenya – Nov 13th 2020
5. Muigai, Faith - Regional Director, Safe Care Program, Pharm Access Foundation - Dec 7th 2020
6. Ndirangu, Meshack - Country Director, Amref Health Africa -
7. Ngugi, Catherine - Head, National STIs Control Program – Nov 10th 2020
8. Obita, Walter – COO, The Healthstore Foundation and Child and Family Wellness Clinics, Kenya – Dec 10th 2020
9. Ochero, John – Kenya FPM, TGF – Oct 27th 2020
10. Onyango, Elizabeth - Head, 5 – Nov 5th 2020
11. Rogo, Khama – Lead Health Specialist (retired), World Bank – Oct 23rd 2020
12. Thakker, Amit - Chairman, Kenya Healthcare Federation – Nov 6th 2020
13. Wamuhu, Sylvia - Director Franchise and Partnerships, Population Services Kenya – Nov 24th 2020
14. Williams, Akinyi – Executive Director, The Healthstore Foundation and Child and Family Wellness Clinics, Kenya – Dec 10th 2020

South Sudan

1. Ayour, Gabriel – Defense and Military Attaché, South Sudanese Embassy – Nov 23d 2020
2. Muriuki, Job – Fund Portfolio Manager, TGF – Nov 12th 2020
3. Mwase, Cynthia - Head Africa and Middle East Department, TGF – Dec 7th 2020
4. Nashaya, Karin - Program Manager, HIV and TB Programs, UNDP South Sudan – Dec 6th 2020
5. Oromo, Francis – Assistant Professor of Pathology, University of Juba – Dec 18th 2020
6. Osoro, Patrick - Specialist Public Health and M&E, TGF – Nov 10th 2020

South Africa

1. Barton, Iain - CEO Clinton Health Access Initiative and formerly Executive Vice President, Healthcare at Imperial Logistics – Nov 4th 2020
2. Berdnikov, Maxim – South Africa FPM, TGF – Oct 23rd 2020
3. Biddulph, "Biddie" Burnett – CEO, CareConnect, South Africa – Dec 2nd 2020
4. Chetty, Morgan – Chairman, Southern Africa Health Federation – Nov 6th 2020
5. Coovadia, Anuschka - Partner, 2 – Oct 23rd 2020
6. Engelbrecht, Beth – Emeritus Head of Department, Department of Health, Western Cape Province, South Africa – Nov 30th 2020
7. Kruger, Lizeth – National Clinic Manager, Dis-Chem Pharmacies, South Africa – Nov 6th 2020
8. Mapham, William – CEO, Vula Mobile, South Africa – Nov 3rd 2020
9. Njuguna, Micheal - Specialist Health Product Management, High Impact Africa 2 Department, TGF – Nov 2nd 2020
10. Noach, Ryan – CEO, Discovery Health, South Africa – Nov 17th 2020
11. Roos, Jan – Head of Pharmacy Practice, Clicks Retailers, Ltd. – Dec 9th 2020
12. Toussaint, Lynda – CEO, Unjani Clinics, South Africa – Nov 4th 2020
13. Wrigglesworth, Rachel – COO, Clicks Retailers, Ltd. – Dec 9th 2020

India

1. Asokan, RV – Doctor, Indian Medical Associate – Jan 9th 2021
2. Cunliffe, Richard – India Senior FPM, TGF – Nov 4th 2020
3. Faizan, Dawran – TB Fund Manager, India, TGF – Nov 6th 2020

4. Kalottee, Bharati – Project Director, Global Fund-Akshay Project, India - Jan 9th 2021
5. Kumar, Sunil – State TB Officer, Kerala State – Nov 28th 2020
6. Nair, Kavitha - Senior National Consultant, RNTCP, WHO India - Nov 28th 2020
7. Pillai, Anand – Registrar, Global Institute of Public Health – Nov 30th 2020
8. Rakesh, Kumar – STEPS, Private Sector Project – Nov 30th 2020
9. Simwaka, Bertha – HIV Fund Manager, India, TGF – Nov 5th 2020
10. Sreejith, Dr. – Private Physician, Kerala State – Dec 19th 2020
11. Swamickan, Reuben – Division Chief, USAID – Nov 28th 2020
12. Vijayan, Shibu – Global TB Director, PATH – Nov 24th 2020
13. Vijyayakrishnan, Dr.– Private Doctor, New Delhi – Nov 25th 2020

Annex B: Glossary

All definitions are from the WHO report, "Private Sector Landscape in Mixed Health Systems," which was published December 2020.

Private health sector: "Private health sector is defined as all non-state providers of health services, which includes for-profit (both formal and informal) and not-for-profit (NGOs, faith-based organizations, community-based organizations), domestic or international entities. As such, the private health sector is heterogeneous and can include providers who are unqualified or underqualified."

Service delivery: Service delivery "involves provision of effective, safe, good quality personal and non-personal health care. These services may include primary, secondary, or tertiary care. Service delivery may involve physical interaction between a patient/client and a health care provider, and also includes 'virtual' health services such as digital health and telemedicine."

Health service providers: "Health service providers may be trained (pharmacists, doctors, nurses, and midwives) or informally trained; may work on their own or in institutions and may provide health care or other health products such as drugs and contraceptive supplies. This document focuses specifically on health service providers who directly interact with service users and supply them with health care services or medicines. Two additional groups of actors have important roles but are not considered here as part of the private health sector: intermediaries or third-party organizations, such as insurance authorities, or civil society organizations; and donors, who play an important role in financing health programs and influencing health policy indirectly."

Mixed health systems: Mixed health systems are health systems "in which health-related products and services are provided by the public and private sectors from a wide range of health service providers."

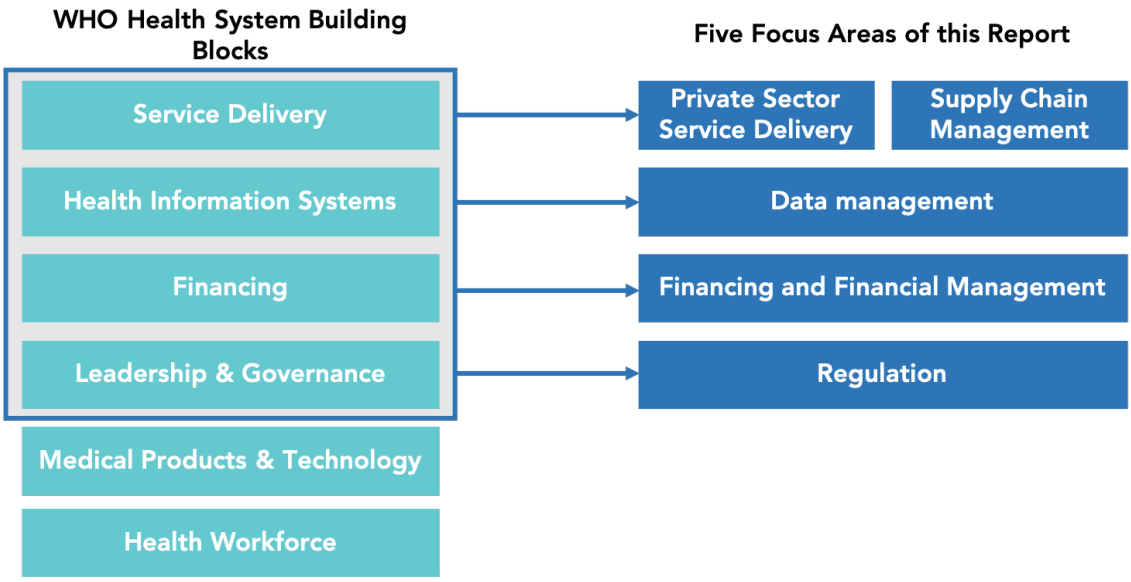
Private sector engagement: Private sector engagement (PSE) refers to "a partnership between the public and private sectors to achieve a specific goal," direct interaction between the state actors and the private sector, as well as private to private collaborations that are properly regulated. In general, there are three broad categories of private sector engagement: including private actors in developing public health policy; development of ownership and contractual arrangement; and influencing behavior of private sector actors.

Public Private Partnerships: Public Private Partnerships (PPPs) are "a long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance." PPPs encompass a wide variety of arrangements and vary in the scope of services covered in the health care sector. A critical element of PPPs is the sharing of risk between the private party and the government, which depends upon the level of capital committed by the private party, length of partnership, provision for renegotiation, and the structure of payment mechanisms.

Public-Private Mix: Public-Private Mix (PPM) "encompasses diverse collaborative strategies such as public-private (between national disease programmes and the private sector), public-public (between national disease programmes and other public sector care providers such as general hospitals, prison or military health services and social security organizations), and private-private (between an NGO or a private hospital and the neighborhood private providers) collaboration." PPM is commonly used for some disease areas such as tuberculosis.

Annex Section 1

Figure A1: Mapping the 5 Focus Areas of this Report to the WHO Health System Building Blocks



Annex Section 2.2

Why do patients pay out-of-pocket when free or low-cost public services are available?

High patient spending and care-seeking behavior reflect patients' willingness to pay OOP to receive care from private facilities, even when free or subsidized public services are made available. A systematic review comparing the quality of private and public outpatient care across LMICs in Africa and Asia concluded that patients indicated a preference for private providers who consistently offered shorter waiting times and more personalized, respectful and convenient care (Berendes et al 2011). Another systematic review of 102 studies found that PS facilities offered shorter waiting times, better hospitality, increased time spent with doctors, cleanliness of facilities, longer and more flexible opening times and better availability of staff (Basu et al 2012).

Wait times are a particularly large factor in patients choosing the PS. In Ghana, wait times in the public sector were found to be one to two hours longer than in the PS; in Mexico wait times at ERs exceeded 24 hours in some cases; and in Nigeria, pregnant women specifically cited longer waiting times as the key reason for seeking care from private providers (La Forgia and Correa 2018; Basu et al 2012). Convenient times and short waits are valuable to the poor who need to leave their farms or workplaces to seek healthcare and play a significant role in determining where these patients will seek care.

Additionally, in some cases private providers are more reliably stocked with medicines. For example, in Uganda, 85 percent of private facilities were found to stock WHO essential drug, quinine, for malaria compared to only 53 percent of public facilities (Buregyeya et al 2017).

The evidence is clear that the PS plays an important role in care delivery globally. Engaging with the PS could expand the patient population who need diagnosis and treatment for the three diseases. The recent focus on PSE by the WHO, GAVI and others reflects a growing appreciation of the PS's role in global health. This section has outlined both the scale and role of the private sector globally as well as reasons why patients seek private care. The next section will look at the current scope and role of the private sector in the delivery of services for the three diseases, as well as potential for expansion within each, and specifically examines the benefits to the GF and how it aligns with the Strategic Operational Objectives.

Annex Section 2.3

Examples of private sector engagement for treatment and control of the three diseases

Box A2.3.1: Private Sector Pharmacy Use in TB Care

Pharmacies are often an underleveraged aspect in TB control, despite the fact that patients often seek care initially from pharmacists. Engaging with private pharmacies can help to improve case detection, notification, and treatment initiation. Pharmacies can also be used for medicines distribution, e.g. in South Africa, private pharmacies distribute free medicines to public patients on behalf of government. Opportunities to engage pharmacies can take form in a variety of programs, including training pharmacists on TB symptoms and testing, as well as establishing improvements in referral mechanisms. In Cambodia, over 1,000 private pharmacies signed up to participate in de facto accreditation from the government, requiring government supervision and regular training, resulting in a tenfold increase in referrals to the MOH in four years (Path 2011). In India, the RNTCP partnered with more than 75,000 pharmacists in four states; 15 percent of subsequent referrals were found to be positive for TB and were started on a treatment regimen (Sharma et al 2019).

Box A2.3.2: CFW Shops, Kenya

In Kenya, the Health Store Foundation runs Child and Family Wellness clinics (CFW n.d.) that address the health needs of low-income people in rural areas and slums with a micro-franchise model. Clinics are owned by nurses with at least 5 years of experience (CFW n.d.). These trained workers treat the diseases that cause 70 to 90 percent of deaths and illness in their communities, including malaria, and served 6 million patients between 2000 and 2017. The small shop concept is built upon a retail format which offers diagnostic services, treatment, and medications.

The CFW model incorporates the key elements of successful franchising: uniform systems and training; careful selection of locations; and most importantly, strict controls on quality backed up by regular inspections. Franchisees are incentivized to follow standards and must follow quality standards to keep the franchise.

Box A2.3.3: ADDO, Tanzania

In Ghana and Nigeria, representatives from national regulatory agencies screen malaria medicines at wholesale and retail outlets and penalize providers for counterfeit medicines. In Cambodia, regulators visit outlets to conduct post-market surveillance and are legally empowered to close outlets that stock poor-quality medicines (ACTwatch Group 2017). Recently, the MOH of Tanzania, where the PS treats between 25 and 36 percent of malaria cases, expanded the Accredited Drug Dispensing Outlet (ADDO) program introduced in 2003, as well as the provision of subsidized QAACTs to private facilities for children under the age of 5. ADDO seeks to improve access to affordable and quality pharmaceutical services in areas where there are few or no registered pharmacies. Shop owners and dispensing staff receive training, incentives and regulatory enforcement to follow quality standards. After nationwide scale-up in 2016, over 9000 shops and 19,000 dispensers received training, and 60 percent of all pharmacies in Tanzania were ADDO accredited (WHO 2019b).

Box A2.3.4: Engaging Informal Providers for Malaria Control, India

The Malaria Elimination Demonstration Project (MEDP) was an innovative PPP between the Indian Council of Medical Research (ICMR), Government of Madhya Pradesh (GoMP) and the Foundation for Disease Elimination and Control of India (FDEC-India), which was established by Sun Pharmaceutical Industries Ltd. as a not-for-

profit entity. It focused on focused on strategies including vector control, surveillance, case management, and capacity building in 1233 villages in the Mandla tribal district of Madhya Pradesh. Using this approach, in 15 months a reduction in malaria cases was observed at district level by over 80 percent and by approximately 90 percent in blocks with high transmission. The project demonstrated that elimination can be accomplished with improved stewardship, proper financial and operational controls, effective case management and vector control strategies (Lal et al. 2019). Expanding to other areas of the country, from 2018 to 2019, India saw a 24 percent reduction in malaria cases (Lal et al 2019). The engagement of local providers ensures that partners and governments are building towards long-term sustainability.

Box A2.3.5: Data Generation for Malaria and COVID-19

Increasing access to information provides opportunities for better accountability and can facilitate decision-making for national policy. The ability to gather, integrate, and analyze data is both an enormous challenge and opportunity to change how governments work, facilitate citizen empowerment, and strengthen transparency and accountability (RBM AIM 2019). Data from the private sector often remains hidden, yet the Health Finance Coalition (HFC) and Malaria No More are demonstrating the utility and real-world benefits of adapting and shifting blended financing to elucidate hidden data, while providing relief to providers in the context of COVID-19 (HFC 2020a). The double burden of COVID-19 and malaria for private providers in rural and economically impoverished regions makes them especially vulnerable to the economic disruption of lock-down measures, potentially undermining decades of progress achieved with the three diseases. HFC seeks to stabilize private health capacity in sub-Saharan Africa, recognizing the importance of the PS when screening and treating febrile symptoms–essential for both malaria and COVID-19 (HFC 2020a).

Table A2.3.1 summarizes the key IT innovations for healthcare pertaining to the three diseases. These digital tools offer a means of tracking patients, managing healthcare, ensuring patients and developing integrated information systems; generate reports for providers on patients; and, generate data on provider performance. These investments hold promise for revolutionizing healthcare delivery both generally and for the three diseases as they exploit the incentives in the private sector for quality services and harness the profit motive of commercial providers.

Table A2.3.1: Key IT Innovations Within the Three Diseases

Name	Countries Served	Collaborators Funders	Function(s)	Involves HIV/TB/Malaria	Source
Alodokter	Indonesia	Sequis Life, Indonesia's National Health Insurance Scheme, MoH, and public providers	Mobile application providing fully integrated patient pathway, including appointment booking, e-consultations, and payment services; Competitor with Halodoc	No	Rayda 2020
Curis	Philippines	Microsoft, PwC, National University of Singapore, Singtel, Novartis, and Allied World Healthcare (AWH)	Digital platform that uses patient reported data, flags potential health issues and provides referrals	No – but has potential to do so	Novartis 2018
eMpower	India	IBM, Global Fund, India HIV/AIDS Alliance	Tablet-based application that connects patients to health facilities,	Yes – designed to serve patients with HIV and TB	Global Fund 2019a

			streamlines reporting and monitors provision of services		
Fionet	Worldwide	Fio Corporation, Gates Foundation, Global Fund, Kenya's MoH, National Health Laboratory Service, Ivanhoe Mines, Ministere de la Sante	AI powered platform that integrates diagnostics, data and cloud services. Works with a mobile rapid diagnostic test (RDT) reader, and other third-party tests/laboratory instruments	Yes – utilized by Kenya's MPHS for the malaria control program	Fio Corpora-tion n.d.
SMS for Life	Kenya, Tanzania, Ghana, the Democratic Republic of Congo, and Cameroon	Greenmash, SMS for Life, Swiss Tropical Public Health Institute, Novartis	SMS technology that tracks malaria specific-commodities to avoid stockouts. Additionally, the technology streamlines the reporting of administered tests and treatment. Incentivizes participation by crediting airtime after each successful response	Yes – tracks malaria specific goods	Novartis n.d.
Greenmash eVoucher	Tanzania	Greenmash and Population Services International	SMS technology that distributes electronic vouchers that act as medical subsidies	Yes – technology was designed to subsidize HIV services (and cervical cancer & child health)	Green-mash n.d.,a
Halodoc	Indonesia	UOB Venture Management, Indonesia's National Health Insurance Scheme, MoH and public providers	Mobile application providing fully integrated patient pathway, including appointment booking, e-consultations, and payment services; Competitor with Aldokter	No	Rayda 2020
Integrated TB Information System (ITIS)	Philippines	PhilHealth-accredited hospitals, ENHANCE, USAID/TB, Philippines NTP, and Philippines Department of Health	Philippine's national electronic TB case notification system and database. In 2019, the notification rate remained as low as 30% in private- and public-sector hospitals	Yes – TB notification system	Stop TB Partners-hip 2018
M-Jali	Kenya	Amref Health Africa, county governments of Kenya	Mobile application that allows community health workers to collect data and instantly share it with the public-sector and health facilities	No	Amref n.d.

M-Tiba	Kenya	PharmAccess, Safaricom and CarePay	Mobile credit and savings account for healthcare expenditures; Governments, donors, and insurers can also provide insurance and e-vouchers through the application.	No	Pharma-Access 2015
Nikshay	India	Private and public-sector providers, MoH, among others	India's electronic TB case notification system. Considered widely successful and has reportedly helped achieve a 29% increase in case notifications in two years	Yes – TB notification system	WHO 2018a
Project ECHO	Worldwide (operating in 40 countries)	University of New Mexico Health Sciences Center, Centers for Disease Control and 30,000 other organizations	Videoconference technology that connects providers in rural areas with a team of specialists for peer consultations	Yes – initiatives in HIV and TB, including laboratory capacity building	Project Echo n.d.,b
Telenor Health Insurance	Pakistan and Bangladesh	Telenor Pakistan and MicroEnsure	Provides users with the option to enroll in Sehatmand, a short-term healthcare insurance plan	No	Telenor Pakistan n.d.
Vula Mobile	South Africa	Shuttleworth Foundation, SAB Foundation, MoH, Advertising partners, private- and public- sector providers, Sanofi	Mobile application that enables information exchange among doctors and pharmacists, as well as patient referral between doctors	Yes – HIV is one of the specialties served	Vula Mobile n.d.
Zenysis	South Africa and Rwanda	Global Fund. Networking HIV/AIDS Community of Southern Africa (NACOSA), Rewanda Biomedical Center, Zenysis Technology	Platform that integrates programmatic and finance data systems to better access the impact and cost effectiveness of service delivery programs. Currently, a part of a Global Fund-sponsored pilot.	Yes – designed for the three diseases.	Global Fund 2019b

Annex Section 2.4

Table A2.4.1: GF Country PSE Initiatives and Links to the Operational Objectives

Country	Type of Engagement	Link to Global Fund Operational Objectives
Ghana	Supply Chain	Support countries to use existing resources more efficiently and to increase domestic resource mobilization; Attract additional financial and programmatic resources for health from current and new public and private sources; Strengthen global and in-country procurement and supply chain systems
India	TB/ Notification	Strengthen data systems for health and countries' capacities for analysis and use; Strengthen and align to robust national health strategies and national disease specific strategic plans
Indonesia	Telehealth/ TB	Implement and partner on market shaping efforts that increase access to affordable, quality-assured key medicines and technologies; Strengthen data systems for health and countries' capacities for analysis and use
Kenya	Pharmacy/ TB	Support countries to use existing resources more efficiently and to increase domestic resource mobilization; Implement and partner on market shaping efforts that increase access to affordable, quality-assured medicines
Mekong Delta	RSSH/malaria	Support countries to use existing resources more efficiently and to increase domestic resource mobilization; Strengthen community responses and systems
Myanmar	Payer/ HIV, TB and malaria	Improve effectiveness in challenging operating environments through innovation, increased flexibility and partnerships
Nigeria	Payer/ RSSH, HIV,TB	Improve effectiveness in challenging operating environments through innovation, increased flexibility and partnerships
Philippines	Notification, Payer/TB	Strengthen data systems for health and countries' capacities for analysis and use; Strengthen community responses and systems
South Sudan	Procurement and supply chains/ TB, HIV	Strengthen global and in-country procurement and supply chain systems
Ukraine	Harm Reduction/HIV	Introduce and scale up programs that remove human rights barriers to accessing HIV, TB and malaria services; Support sustainable responses for epidemic control and successful transitions

Source: Global Fund 2020.

Box A2.4.1: Supply Chain in South Sudan

The private sector is often contracted in South Sudan to bridge gaps in financial systems and supply chains. For example, the Global Fund has engaged with the private sector to disperse payments to healthcare workers (Osoro 2020). The government can take six months to process payments and will often not honor past earnings. To keep healthcare workers employed, the Global Fund's principal recipient, UNDP, has contracted Eco Bank to deploy their transfer agents via motorcycle and distribute cash to healthcare workers in rural areas (Osoro 2020). Additionally, the Global Fund and the World Food Programme often utilize the UN Air Wing and contract charter air flights to deliver medical supplies to rural regions. Motorcyclists are also hired to distribute medical supplies and food from airstrips to villages (Osoro and Muriuki, 2020).

Annex Section 2.6

Table A2.6.1 Summary of Social Health Insurance Systems, Nature of Coverage, and Extent of HIV, TB and Malaria

Country	Social Health Insurance	Inpatient/ Outpatient	Providers		Malaria Coverage	TB Coverage	HIV/AIDS Coverage
			Public	Private			
Benin	SHI – for civil servants	IP – limited / OP	X		X	X	Covered for Pregnant and children under 5
Cambodia	Nat'l. Soc. Sec. Fund (NSSF) - Civil Service - formal sector; Health Equity Fund (HEF) – poor	OPD/IP	X	NSSF	TGF covers co-pays	NSSF covers hospitalization	HEF covers PLHIV
Cameroon	SHI- Developing a more singular NHI scheme	OP	X	X	X	Prevention covered; Diagnosis co-pays; Treatment DOT's and MDR-TB covered	Prevention for Pregnant and Children under 5 covered; Diagnosis Co-pays other than Children under 5; Treatment Co-pay
Chad	SHI – for civil servants	OP	X		X	X	X
Colombia	Mandatory Contributory; Subsidized insurance for low income	OPD/IP	Multiple Insurers contract	Multiple Insurers contracts	Broad benefit package	Broad benefit package	Broad benefit package
Cote d'Ivore	SHI – for civil servants	IP/OP	X		X	X	X
Gambia	SHI- NHI (like Ghana)	IP – limited /OP	X		X	X	X
Georgia	Near Universal; high income (1.2%) use PHI	OPD/IP	X	Mostly private	No coverage	No coverage	No coverage

Ghana	Legally mandatory	IP/OP	X	X	X	X	AIDS testing; ARVs excluded
Guinea	SHI	IP – limited /OP	X		X	X	X
India National Health Insurance	Income-targeted national insurance scheme (PM-JAY + Anush Bayam);	IP/OD Limited	IP under PM-JAY	Largely private contracts	No coverage	PM-Jay covers IP TB services; MRTB covered	No coverage
Indonesia	Mandatory (JKN), subsidized scheme for poor	IP/OPD	X	hospitals 63% private; PHCs ~ 50%	Some JKN coverage	Some JKN coverage	Some JKN coverage
Jordan	SHI - civil service, Royal medical workers; some poor, 60+ & children	IP/OP	X	X	N/A	No coverage	Free Medication
Kenya	4 Schemes: 1) NHIF -formal and some informal sectors, 2) Linda Mama: pregnant women and infant up to 6 mon.; 3) Public secondary students; 4) Civil Servants	IP/OP	X	X	Screening covered; Linda Mama: malaria prophylaxis	Screening.; prescription drugs,	Linda Mama - HIV screening and ARV in soc. ins.
Kyrgyz Rep.	Mandatory universal (SGBP)	IP/OP	X	X	N/A	SGBP: TB drugs & free inpatient care	Limited ART coverage
Lebanon	Social Insurance – Civil, service/ military; formal sector mandatory	IP/OP	X	X	N/A	X	X
Mali	SHI – for civil servants	IP except for Malaria /OP	X		X	X	Pregnant and Children

							under covered; Treatment covered
Moldova	Mandatory SHI	IP/OP	X	X	N/A	X	X
Morocco	Mandatory (AMO) - civil service & formal sector; subsidized SHI for poor (RAMED)	IP/OP	Co-pays for IP; RAMED no co-pay	Co-pays for IP; RAMED no co-pay	N/A	X	No clear benefit package
Myanmar	SHI pilot rollout in 2021/2	OP	X	X	Donors financed three diseases reimbursement		
Nigeria, National	National for formal sector	IP/OP	X	X	Lab testing	Unclear benefit package	Lab testing; inpatient care
Lagos State, Nigeria	Universal	OPD/IP	X	X	X	X	X
Philippines	Universal-National Ins. Scheme	IP/OPD limited	No-copay	Some co-pay	X	DOTS; No MDR TB	X
Rwanda	Rwanda's Social Security Board: RAMA-formal sector; CSR informal sector	OPD/IP	RAMA & CSR; co-pays	RAMA; co-pays	X	X	X
Sierra Leone	SHI - SLeSHI	IP/OP	X		X	X	X
Thailand	SHI for formal sector; Universal Program; Civil Servant Program	OPD/IP	All; civil servants	SHI & Universal Program	X	X	ARV covered
Togo	SHI – for civil servants	OP	X		X	X	X
Tunisia	SHI - formal sector, civil service (CNAM). (FMAP) for poor	OPD/IP	FMAP; 85%beds public	CNAM	No specific benefit package for FMAP and CNAM	No specific benefit package for FMAP and CNAM	No benefit package for FMAP and CNAM

*Data in table only represents Anush Baya, the national health insurance; excludes state programs.
Sources: See Box A2.6.1 below.

Box A2.6.1: Sources for Table A2.6.1

Abu-Zaineh et al 2013; Akhnif et al. 2019; Alhassan et al. 2016; Amaya et al. 2014; Ammar 2003; Arfa 2013; Arfa et al. 2017; ASSOCHAM/KPMG 2019; Blanchet et al. 2012; Chen 2018; Cotlear et al. 2015; Dalaba et al. 2014; Eibl 2017; El Jardali et al. 2014; Fenny et al. 2018; HalasaRappel et al. 2019; Hamadeh 2020; Hennicot 2020; Hone et al. 2016; Ibraimova et al. 2011; ICF 2020; Ingun et al. 2015; Jakah et al. 2018; Jongudomsuk et al. 2015; Khetrapal et al. 2019; Kolesar et al. 2020; Lamprea et al. 2016; Lupieri et al. 2020; Matheur et al. 2016; Mbau et al. 2020; Ministry of Health 2016; Montagu and Chakraborty 2019; Mossialos et al. 2017; Munge et al. 2018; National Health Authority n.d.; National Health Insurance Scheme 2020; NHIF n.d.; NHIF 2015; Obermann et al. 2018; Oh et al. 2018; Okoroh et al. 2018; Onyeji 2020; Pasumbal 2018; PH4 2020; Prinja et al. 2017; Rawabdeh et al. 2018; Richardson et al. 2017; Sieverding et al. 2018; Sriram et al. 2020; SSA n.d; Suchman 2018; Thin et al. 2019; Turcanu 2012; Vargas 2017; Vian et al. 2015; Vincent et al. 2020; Vogler et al. 2019; WHO 2014; Yassoub 2017; Zhao et al. 2020

Financing Tools for Reaching KPs, AGYW and Women

Two prominent tools are social marketing and vouchers, which are often used in tandem to increase demand for services while simultaneously expanding access through reducing costs to users. Box 2.6.2 discusses a third model, social franchising, which often but not always involves some form of subsidy. Lastly, mobile payments platforms, which are often used to deploy vouchers and manage healthcare spending.

Social Marketing: "Commodity social marketing" uses commercial marketing techniques to create demand for products with high public health value, such as contraceptives, mosquito nets and malaria medicines. Distribution can occur through for-profit channels, such as pharmacies, shops, drug-sellers, bars, etc., usually at a subsidized price. An examination of commodity social marketing found some positive examples of its effectiveness in increasing the use of health commodities, including condoms. For example, a number of studies identified positive results from contraceptive programs, and one on contraceptive and HIV/AIDS behavior change in Colombia, Mozambique, South Africa and Uganda. However, some studies did not find evidence that such efforts were more effective than other health interventions (Montagu et al. 2016). In Kenya, DFID has supported a social marketing program for long-lasting insecticide treated bed nets (LLINs) since it began in 2003. Subsidized LLINs are sold through social marketing channels in rural areas of endemic, epidemic prone and seasonal transmission counties. The program focuses on the general population in targeted areas. The subsidy can be in the form of vouchers or price subsidies at source of the LLINs in the market. It includes a small fee to the user aimed at creating a sense of ownership without hindering access. The nets are distributed through community-based organizations (Kenya Case Study).

Box A2.6.2: Social Franchising

Social franchising uses a network of private providers contracted to provide services under a common brand. Under this model, franchising methods are used to achieve social goals. It can promote rapid scaling up of service delivery points by building upon pre-existing infrastructure. One study noted some positive experiences, including in Myanmar, where franchised delivery of TB care led to an increase in diagnosis and treatment (Montagu et al. 2016). There are examples of social franchising in several African countries as well, including broader networks focusing on family planning and reproductive health services and others offering general healthcare services. While one study found that evidence for social franchising as a quality improvement tool was limited, preliminary results suggested the model holds promise (World Bank 2011).

Social franchising offers considerable flexibility in terms of structuring payments. In some cases, social franchises allow providers to charge market rates for their services; in other cases, vouchers or other forms of discounts are

offered to specific segments of the population. This can improve access to services when cost is a barrier to seeking care.

Vouchers: Vouchers are a form of financing given to a defined population for a specific service, to be redeemed at specific providers typically for particular products or services. Funded by donors or governments, vouchers are distributed as a credit in paper or electronic form. They have the potential to be an efficient subsidy to targeted populations. For example, a cost-effectiveness analysis of a competitive voucher scheme in Nicaragua compared the scheme to the absence of vouchers and found that it led to treatment of 92% of common STIs compared to 15% in the absence of vouchers and was cost-effective from a societal perspective as the cost to cure an STI with vouchers was below the average treatment cost without a voucher (Montagu et al 2016, citing Borghi et al 2005).

Through the vouchers, the program signaled to medical staff the risk status of patients and used a highly effective treatment protocol (combining presumptive treatment, laboratory tests, clinical diagnosis and effective antibiotics), reaching a higher proportion of the populations with the highest STI rates (Borghi et al, citing Gorter et al. 2000). Formative research had found that sex workers were reluctant to use government STI services due to associated stigmatization. The scheme accordingly included treatment in private or NGO clinics to encourage the utilization of STI services. The scheme resulted in 1,543 consultations and 1,205 follow-up visits, with 577 STIs cured (including syphilis, trichomoniasis, chlamydia and gonorrhea) and 71,300 condoms distributed, compared to an estimated 85 cases and 1,396 consultations in the absence of the scheme.

***Mobile Payments*:** Safely transmitting money for healthcare payments can be challenging in LMICs. Health subsidies in particular are prone to fraud and compensating both referrers and providers can be a complicated task (Greenmash n.d.,a). To mitigate these risks and challenges, Greenmash and Population Services International (PSI) partnered to create an application to disperse vouchers electronically (Greenmash n.d.,a). Utilizing SMS and its proprietary, the Mango platform, Greenmash launched an eVoucher system to "create, distribute, redeem, and track" vouchers (Greenmash n.d.,a). Boxes 2.6.3 and 2.6.4 describe other relevant existing technologies that have digitized healthcare payments from patients to providers, providers to suppliers, and MOHs to patients to providers.

Box A2.6.3: M-Tiba, Kenya

M-Tiba is a mobile health wallet, created in Kenya in 2015 as a collaborative effort between PharmAccess, Safaricom and CarePay. Since its launch, approximately, 280,000 unique individuals have accessed treatment in 1,421 facilities through the platform (PharmaAccess 2015). M-Tiba can safely distribute subsidies, while also providing lines of credit and savings accounts for healthcare expenditures. Additional health finance products can be added to M-Tiba by donors and private insurers (PharmaAccess 2015). M-Tiba is also working to link their platform to Kenya's national insurance scheme. These private and public stakeholders can monitor how their funds are spent, introducing transparency in the healthcare system. This data provides insights into healthcare costs, quality of care and accessibility. If these analytics are effectively leveraged, they can be used to design improvements in service delivery.

Registering for M-Tiba and maintaining a savings account are free services for users. However, there is a transaction fee for transferring funds to another M-Tiba account (M-Tiba n.d.,b). M-Tiba rapidly captured a large customer base by providing incentives. The first 100,000 enrollees were rewarded with a 12-month Personal Accident cover worth 8,000 KShs and a bonus 50 KShs a month for 12 months once 100 KShs had been deposited.

Box A2.6.4: Halodoc, Indonesia

Halodoc is an Indonesian mobile application that offers customers a one-stop-shop for healthcare services. The application offers in-person appointments, e-consultations for approximately US$3 and payment services (Rayda 2020). Additionally, providers can order medical supplies and conduct referrals through the application for a small commission fee (Rayda 2020). The platform allows for telemedicine to reach patients in rural areas. Nearly 80% of Halodoc's customers lives "outside of major cities." Prior to the COVID-19 pandemic, Halodoc had 12 million monthly users and 22,000 affiliated doctors (Rayda 2020). Due to the pandemic and resulting strains on hospital capacity, the Indonesian government has recommended that patients use telemedicine applications such as Halodoc to seek care (Rayda 2020). As a result, Halodoc experienced a 700% increase in revenues from April to June (Rayda 2020) (Koh 2019).

Alodokter is a good example of a medical technology that is backed by venture capital and utilized by the public sector. As of 2019, Alodokter had raised US$100 million from venture funding, respectively (Koh 2019).

Digital payment systems may be leveraged by the GF in certain contexts to easily and safely distribute monies, while maintaining patient privacy. These payments can be made directly to providers, or to patients through vouchers. Electronic systems have many advantages, including rapid distribution of payments as well as greater transparency in spending allocations and lesser opportunities for fraud by keeping a permanent record of expenditures, a large improvement over paper-trails.

Low Cost Private Insurance, Services and Mobile Payments: Tools for Reaching KPs AGYW and Women

Initiatives that combine financing and service provision offer a means to ensure access for citizens to information and care because financing is assured. Two recent examples of for-profit investments that target low-income populations whose profiles align with KPs and those at the bottom of the pyramid include Clínicas de Azucar in Mexico (see Box 2.3.7), which offers case management for low-income diabetes patients and could be adopted to target the three diseases, and Telenor in Bangladesh. Telenor works through Grameenphone, offering a range of health service options to cellular subscribers under the name "Tonic:" (1) Tonic Daktar charges clients per minute to call a doctor, (2) Tonic Discounts offers lower prices at certain hospitals, (3) Tonic Cash provides cash coverage for certain hospitalizations, and (4) Tonic Jibon that offers tips via SMS, web and Facebook to help members improve their health (Telenor 2016). Together over 5 million low-income subscribers are covered. The model offers a possible arrangement for partnering with a for-profit that targets vulnerable populations and can work with governments to improve identification, notification and treatment for the three diseases. They are, effectively, mission driven for-profits whose objectives align with the Global Fund and could offer another means to reach vulnerable populations.

Annex Section 2.7

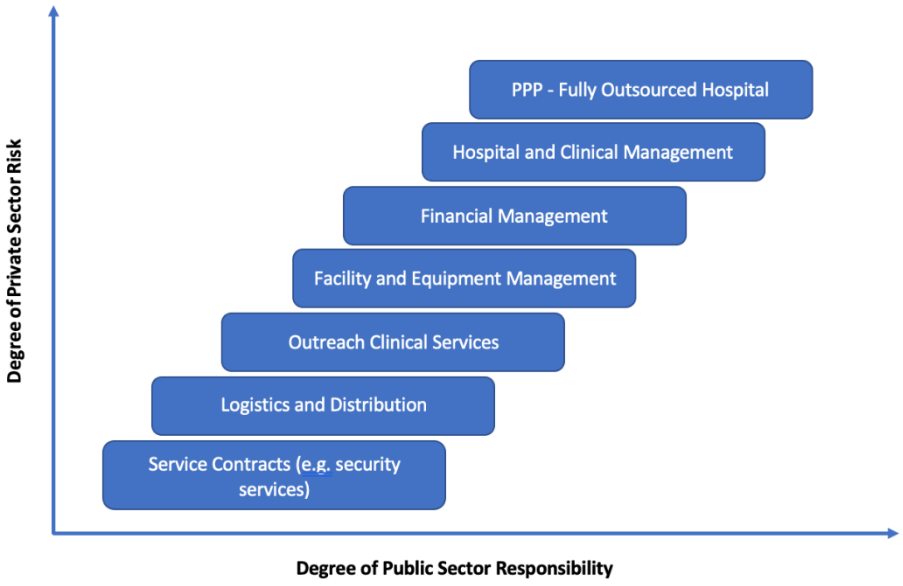
Contracting with the Private Sector and Supply Chain

Governments can contract virtually any aspect of payment and delivery of healthcare, from hiring security guards to protect hospitals, to privatizing public laboratories to hiring a private contractor to run an entire part of the public system, hospital or primary care network. By definition, public-private contracting is a mechanism for a public financing entity to procure a defined set of health services from a private provider (Loevinsohn 2008). Contracting of private sector services can improve efficiency and accountability by allowing governments to focus on their core competencies. Such contracting can also help to improve incentive structures and accountability mechanisms (Das and Hammer 2014; Service Delivery Indicators; Lewis and Pettersson 2009).

Such contracting of private sector services is increasingly common, both in developed and developing countries. OECD countries rely on private entities to provide many services across healthcare, education and infrastructure (OECD 2011). Primary care is mostly delivered by the private sector in developed countries and paid for by a mix of public and private funding (OECD 2020; Devaux 2013). If managed well, contracting can also be an effective tool even in fragile and post-conflict states to provide essential services while retaining state sovereignty (OECD 2010).

The range of contracting options is summarized in Figure A2.7.1 below. Simple service contracts for laundry, security or food service are common across LMICs, and virtually all of the more complicated forms of contracting in the figure are in use. For example, India uses financial management contractors in its national health insurance system for the poor, called Rashtriya Swasthya Bima Yojana, (La Forgia et al. 2019); Suriname outsources the bulk of its clinical care in outlying areas to a private sector provider (PAHO 2020); and São Paulo, Brazil has PPPs in 30 public hospitals operated by private sector operators that have functioned for 20 years (Harding and La Forgia 2009).

Figure A2.7.1: Continuum of Contracting



As the complexity of contracting increases, up the steps of Figure A2.7.1, the responsibilities and roles of the public sector become more challenging, requiring better tools ranging from data systems to enforcement processes to decision making around politically sensitive issues that trade off public health and political pressures, such as closing down private facilities for health or safety violations. One of the risks is that the enthusiasm for contracting out runs the ability to manage it. For example, if a particular technical area is comprehensively outsourced, governments may lack the topical knowledge necessary to make informed decisions about how to manage that outsourcing contract. This debate about insufficient state knowledge due to outsourcing has been revived during the COVID-19 pandemic (Collington 2020).

There is evidence that contracting may be an effective model of service delivery, including for HIV, TB and malaria services. A comparison of 134 GF grants (functionally similar to many contracts) across countries and disease components found that, controlling for other factors, grants led by nongovernmental PRs were 16.7 percent more likely to receive the highest GF rating (A), and 16.8 percent less likely to receive lowest ratings (B2/C) compared to government PRs following a two-year implementation period (Loevinsohn 2008; Radelet and Siddiqi 2007). The authors concluded that the result "does not suggest that the Global Fund should have a bias against programmes with government recipients, but rather that it should encourage countries to facilitate programmes with non-government actors alongside government programmes" (Radelet and Siddiqi 2007). Furthermore, a review of 15 NTPs across various country settings involving private sector providers increased case detection rates while successfully treating 90 percent of TB cases (Lonnroth et al. 2006). In seven of the 15 initiatives, NTPs interacted directly with the private sector; in the remaining eight, the national programs relied on a non-profit intermediary. All but one of the initiatives relied on "drugs-for-performance contracts" whereby drugs were provided free of charge to private providers by the national program, and subsequently distributed free of charge by private providers to patients in accordance with national guidelines governing TB diagnosis and treatment protocols.

The theoretical advantages of contracting service delivery include creating a greater focus on achievement of measurable results, overcoming "absorptive capacity" limits of government health care, tapping into the greater flexibility of the private sector and allowing governments to focus on other roles for which they are uniquely positioned to carry out, such as regulation and standard setting among others (Loevinsohn and Harding 2004; Preker and Langenbrunner 2005).

Contracting elements of service delivery has long been considered as a means to improve coverage and reach the health-related SDGs, and there is evidence that this approach is effective. Loevinsohn and Harding (2004) reviewed comparisons of contractor performance to that of government provision of the same services – focusing on primary health care and nutrition – and found that in all observed instances, and across country contexts, contractors outperformed their public sector counterparts (see Box A2.7.1 for an example).

Box A2.7.1: Sehatmandi, a Pay-for-Performance Model in Afghanistan

Due to the challenging circumstances in the country, health service delivery in Afghanistan requires a unique approach. The "System Enhancement for Health Action in Transition" (SEHAT) was a project that utilized a contracting model to support primary and curative service delivery between 2013 and 2018. While the project was successful in expanding delivery of services, it was not without its limitations. Building on the lessons learned from the SEHAT project, in 2018 the Sehatmandi system was created, which subsequently established a Performance Management Office (PMO) as well as a prespecified set of criteria that enabled performance monitoring and comparison, and helped to ensure transparency. Payment under the new system is divided into both lump sum and pay-for-performance components pegged to eleven key services (e.g. antenatal visits) and

adjusted by province to account for differences in the cost of service delivery. The lump sum payments are determined via a competitive bidding process, while the pay-for-performance component is allocated via HMIS reporting by providers (monitored by a third-party auditor). The objective is to allow providers the flexibility to determine the most efficient and context-specific methods to deliver services. Comparing Sehatmandi to its predecessor reveals that in 2018-19, under Sehatmandi, the volume of service delivery of seven of the key services increased by a greater margin than in 2017-18 under SEHAT. Similarly, the Sehatmandi providers increased their volume of service delivery by a greater margin than the non-Sehatmandi (primarily donor financed) providers operating in the same provinces. The presence of the third-party monitoring entity helps to ensure that the increase in delivery of services is legitimate, and not the result of inflated reporting by providers. Critically, the expansion of these key services has not reduced the volume of delivery for other non-key services, nor has it contributed adversely to quality. Initial evidence from Sehatmandi indicates that not only is pay-for-performance contracting possible in conflict settings, but it may even be preferable to other modes of delivery. Source: Andersen et al. forthcoming.

Box A2.7.2 summarizes some of the key issues in preparation to contract out tasks and services. Once services are contracted, government's role is to oversee contractors, ensuring delivery of services and managing risks, discussed in Section 2.7 of this report. Box A2.7.3 outlines the risks for the public sector when contracting services.

Box A2.7.2: Issues to Consider in Preparing for Contract Negotiations

- What is the goal of the contract?
- Does the government have the capacity to provide this function or service in-house? If so, can it do it more cost-effectively than contracting the service or function?
- What is being contracted out?
- Are there local providers or contractors able to provide this function or service or does the government need to look outside the country?
- When do the services need to be completed or the goods delivered?
- What quality of goods or services is required?
- What are the best payment terms for this type of contract?
- What are the performance indicators and how will results be measured?
- Who will monitor performance?
- What rights are needed with regard to performance, monitoring, enforcement, etc.?
- What are the non-financial risks of the contract to the government and to the contractor?
- What will be the payment mechanism?
- What is the level of risk inherent in this payment mechanism to both the government and the contractor?
- What government capacity is needed to oversee the contract?
- How and by whom will disputes be mediated or arbitrated?
- Does the government wish to build into the contract an element of capacity development or would it be better to negotiate a separate contract for this?
- What government capacity is needed to oversee the contract?
- How and by whom will disputes be mediated or arbitrated?
- Does the government wish to build into the contract an element of capacity development or would it be better to negotiate a separate contract for this?

Source: OECD 2010.

Box A2.7.3: Types of risk after a contract has been agreed

- **Payment risk:** the risk associated with government's ability and commitment to pay
- **Demand risk:** the risk associated with consumers' ability and willingness to pay for services
- **Regulatory risk:** the risk of changes or failure to change regulations (e.g. refusal or inability to change fees or tariffs when costs increase)
- **Foreign exchange risk:** the risk of local currency depreciation and devaluation

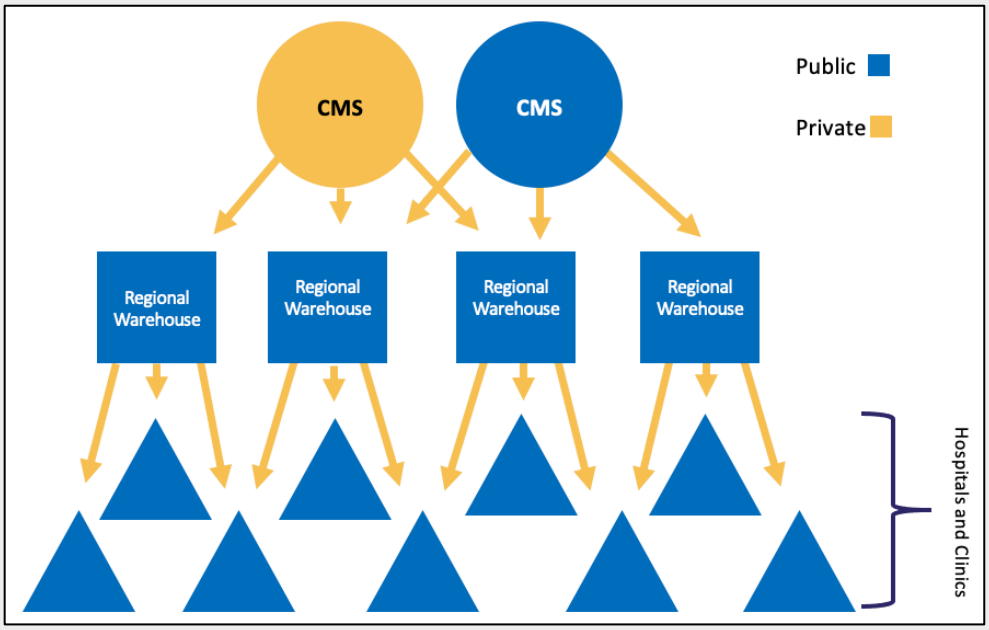
- **Performance risk:** the risk of properly delivering services or operating an asset and meeting performance standards
- **Political risk:** the risk of a change in government that could alter the project
- **Security risk:** the risk of harm to project staff or assets due to security problems

Source: OECD 2010.

Despite the challenges associate with contracting, there are ways of mitigating risk and ensuring successful outsourcing. Many contracting roadmaps and manuals exist to guide contracting out. Contracting is not simple and governments need to anticipate complexities— ensuring contractor performance, preventing the process from being corrupted, ensuring competition, anticipating changes in circumstances (e.g. contractor does not deliver), ensuring contract enforcement, ensuring resources and sustainability. These functions represent a very different set of functions for the public sector and inevitably will require continuous training and coaching to ensure up to date oversight and management capacities, and to safeguard that staff departures do not undermine performance.

Box A2.7.4: Ghana's Hybrid Supply Chain

Ghana utilizes a hybrid model, which engages both the public and private sectors to manage its medical supply chain, presented in the Figure below. Historically, Ghana had a single government Central Medical Store (CMS) and the entire supply chain from there to individual facilities was public sector. In January of 2015, the CMS in Accra burned down, with the loss of US$27 million worth of GF and USAID financed supplies.



With an urgent need to re-establish the supply chain, the GF and USAID turned to the private sector, and hired Imperial Health Services (IHS) to provide central warehousing on an interim basis. By late 2015 the decision was taken to extend this contract, linking its renewal with the three-year grant cycle. In addition to the IHS warehouse facility for donor-funded supplies, a smaller government CMS was established for domestically-funded supplies.

Prior January 2015, a good National Supply Chain Master Plan had already been developed. It just hadn't been implemented, so the GF used that and focused on certain key parts, including "last mile" distribution.

Transportation from both the private and government warehouses in Accra to publicly run regional warehouses is done by the private sector, specifically IHS. Regional warehouses also buy some of their supplies directly from

private sector wholesalers. Five private sector partners are then responsible for the "last mile" logistics to transport supplies from the regional warehouses to public hospitals and clinics across eight regions.

Prior to 2015, there had been poor visibility on stock needs, so stock outs would occur at clinics while stock was available at regional or central warehouses. Therefore, it was identified as critical to invest in an integrated Logistics Management Information System (LMIS). A single network solution is used, supplied by Resolve, an IHS sister company. The LMIS data are managed by a team from consulting firm Chemonics.

Financial remuneration for private partners is linked to performance: e.g. supplies the percent of health facilities supplied in a timely manner.

The plan was met with initial pushback from the public sector, who rather wanted the GF to purchase trucks for the government to distribute products itself. However, a lot of stock outs occurred because of poor availability of government-owned vehicles due to fuel shortages or use for other purposes.

Apprehension on the part of the government about working with the private sector was assuaged by the GF and USAID's willingness to assist in the negotiations.

The regional governments in Ghana have sufficient autonomy to tender. The GF team began by assisting with tenders for third-party logistics (3PL) services for last mile distribution in regions that were more open to the idea. Positive results led other regional authorities to do the same.

Prices have come down with each tender with increased competition and reduced uncertainty for both sides and they have now plateaued at lower, market rates.

The GF and USAID has used Chemonics to help manage the funds, but government officials have always been part of the evaluation process. Supplies now reach facilities regularly and on a timely basis, making drug stock outs much less frequent.

Now that deliveries are more reliable, far less stock needs to be warehoused. There is a monthly fee per palette for warehousing. At the start, IHS warehoused 3,300 palettes at a monthly cost of US$2 million. This has dropped to 800-900 palettes resulting in a 60% cost saving of US$1.2 million monthly.

Governance remains an issue. To date, while government has been involved, the process has been largely driven by the GF and USAID and government doesn't yet have the capacity to manage this supply chain in the absence of these partners. A new government Logistics Management Unit is being set up funded by the GF and USAID with the intent to steadily transition this fully to government funding over a three-year period.

Annex Section 2.8

***Accreditation*:** Quality accreditation or certifications of institutional providers, eg. hospitals and clinics, helps ensure the facility's safety and ability to meet basic standards of care and ongoing compliance with national regulations. In a study of eight African countries, all require private hospital facilities to be licensed and inspected, and Kenya, Uganda, Zambia and Zimbabwe also require private primary care facilities to be licensed (Doherty 2015). Accreditation of hospitals is standard practice in most OECD countries. National and other international accreditations provide some degree of standards, but they are uneven. Accreditation (as opposed to licensing) is voluntary. Recently a PharmAccess initiative called Safecare, an affordable, supportive process for reaching different levels of accreditation (see Box A2.8.1), has taken hold in several African countries, and recently expanded to Asia.

Box A2.8.1: SafeCare Accreditation

Safecare, a PharmAccess initiative, is an independent accreditation body that recently rolled out a rigorous pathway to accreditation with defined steps. It offers technology-enabled tools to help increase quality, particularly in small facilities with limited budgets. SafeCare is creating standards for healthcare quality in LMICs. These standards cover several diseases, including HIV, TB and malaria. After an evaluation, SafeCare supports healthcare facilities in improving their services by extending loans, expert consultancy, and digital management tools. Since 2011, when the initiative was founded, SafeCare has implemented standards in 800 healthcare facilities across six sub-Saharan countries" (Johnson et al. 2020).

Governments requiring accreditation as a condition for reimbursement under social health insurance is increasingly common in LMICs, (eg, Thailand, Kenya, Malaysia, Philippines). This conditionality of insurance payments on quality is modifying private provider practices in a positive way (Montague and Goodman 2016).

Kenya instituted a Checklist to accredit private and public facilities for participation in the National Health Insurance system as a basis for regulation and quality assurance (Kenya Case Study). Prior to efforts to improve implementation, a study identified the following problems faced by Kenya: the growth of unregistered clinics and laboratories, poor facility inspection, unregistered persons (including 'quacks') providing health care, health professionals misrepresenting their qualifications and cases of medical malpractice and negligence. To be effective, these regulations need to be both well-designed and carefully implemented. Most importantly, they require effective government capacity to design and enforce regulations that achieve public objectives and protect society and consumers (Doherty 2015 citing Muthaka, et al. 2004).

Laboratory accreditation programs exist in a number of countries, and have reported positive effects in some, but evidence is mixed on the quality impacts (Montagu and Goodman 2016). The issue is of importance to LMICs, but no systematic efforts have been made to introduce and ensure adherence to laboratory accreditation that improves performance at scale.

The presence of legislation and regulation does not guarantee effective implementation and enforcement. Regulatory authorities may lack the financial and human resources capacity to do their jobs effectively. Additional challenges can include issues with the underlying design of the laws and regulations, as well as the interactions and influence of stakeholders as the policy is developed (World Bank 2011; Doherty 2015).

Annex Section 3

The following piece is a full-length version of section 3 with additional analysis.

As part of its strategy, the GF is working towards maximum impact on the three diseases as well as building resilient and sustainable systems for health, and all four Strategic Objectives are relevant. The work of the GF is based on principles of partnership and country ownership; thus, governments will need to determine whether and how they will work with the PS through their own national strategies. As detailed in the landscaping section, there are numerous areas of existing and potential PSE that could assist countries and the GF in the fight to eradicate the three diseases and bolster RSSH more broadly. This chapter considers general and GF-specific barriers to PSE.

3.1. General Barriers: The Main Challenges that Countries Face in Working with the Private Sector

The level of engagement between the government and the PS varies across countries and depends on a myriad of factors related to country income, the sophistication of the healthcare system, and governments' abilities and willingness to contract. The PS's ability and willingness to respond to government tenders depend on:

1. The maturity of the PS in the local market, which ranges from highly- to under-developed (see Table A3.1.2).
2. Whether any past experiences of contracting with government have been positive or negative.

Additionally, there are some common, recurring barriers that affect mobilizing, regulating and managing the PS for service delivery.

Soft Barriers: The WHO has documented the long-standing tensions between public and private sectors (WHO 2018a). These psychological and cultural barriers include differences in perceptions and behaviors that reflect a bias towards public provision. In some cases, the public sector:

- Fears privatization and is concerned that PSE may divert public resources.
- Fears losing control generally as well as control over of medicines and commodities.
- Is uncomfortable with companies that profit from health services and is wary of price gouging.
- Lacks understanding on how a range of business models work and what companies need to be sustainable, including a grasp of labor and equipment costs, and risks.
- Lack capacity in institutional mechanisms such as contract management to work with the PS.

Further, the image of the PS's investment is typically assumed to be upper- and middle-income groups rather than lower income groups, though the PS is diverse and, as outlined in the landscape section, all income segments are target markets. Additionally, there are growing local PS innovations, which are opportunities for governments to grow their local PS, which can have a positive economic impact. Having better knowledge, including champions for PS engagement in Government and in CCMs can lead to positive collaboration. Successful examples have been seen in GF country programs as well as government initiatives. The different incentives of government and the PS are a barrier, but with effort and investment by both sides, these barriers can be overcome. Numerous examples are described in this report and the country case studies.

Mobilizing: Notwithstanding the above, country health strategies are starting to include PSE. For instance, in reviewing the HIV segments of 30 national health strategies, the GF TERG Chair found that "almost all had a strong PSE element to them and that this was common across differing country income levels. Yet, many were vague on how to operationalize it, demonstrating a lack of understanding of what to do." (Carlson 2020).

Fragmentation: The highly fragmented nature of the PS, with providers ranging in size from sole practitioners to chains of clinics, pharmacies and hospitals, raises practical questions on how to engage. Further, widely variable levels of quality of care, difficulties in assessing the quality of individual providers and the general absence of data make identifying potential partners time consuming and challenging to promote evidence-based decisions and to scale-up efforts (WHO 2020a).

Regulating: Weak or no regulation is a barrier to engagement. Laws and regulations are needed to ensure confidence and trust in the system. Adequate contracting regulations and enforcement capability are often lacking.

3.2. General Barriers: Risks and Limitations for the Private Sector in Working with the Public Sector

The PS itself also faces challenges in working with the public sector. PS incentives, objectives, timelines, language and organizational cultures differ from the public sector.

Delayed Payments and Cash Flow Issues: A significant barrier for the PS is unpredictability of government actions, and unreliable compensation for goods or services provided by the private sector. Delayed payments were the single biggest barrier that IFC has observed among PS health providers contracting with government (Cleaton-Jones 2020).

Non-payment of financial obligations leads to a serious breakdown in trust and can lead to business decisions not to work with the public sector.

Administrative Costs: The administrative burden that comes with working with the public sector, such as reporting requirements, paperwork, details of activities and evaluations are costly for private entities. PS players also struggle if government makes frequent changes to the rules governing collaboration. However, there are ways to reduce costs and create incentives for private providers: In India, electronic systems were introduced to accelerate TB notifications which reduced costs and increased notifications, while still facilitating PS compliance with reporting requirements.

3.3. Global Fund Specific Barriers: Main Challenges that the GF Faces in Working with the Private Sector

The GF's approach has been very successful with its country driven model and focus on reaching KPs through CSOs in the absence of government commitment or resources. Engaging more with the PS presents the opportunity to build further on what has been accomplished, but will need support at senior level, as well as changes to policy and operations to bring about a cultural shift such that the PSE is considered as one of the approaches when developing programs.

Policy: GF policy does not prohibit PSE, but it also does not provide guidance for engaging with the PS to maximize impact. in December 2020, the GF Private Sector Constituency of the Board issued a statement indicating, "the private sector should be part of the GF's strategy at both the global and local efforts to tackle the three diseases" (The GF PSC 2020).

As discussed in section 2, there are several examples where the GF is already engaging with the PS, but these innovations have been opportunistic and have taken place in an ad-hoc manner. Although there are not specific guidance or policies on PSE at this time, some CCMs and governments have engaged with the private sector, with support from the GF.

Knowledge dissemination: As we have highlighted before, there is tacit knowledge in the GF on how to work with the PS, but these examples have not been written up as good practices and there is currently no knowledge exchange program on PS. There are concrete examples (India-Kenya exchange) where such knowledge exchange led to the Kenya CCM adopting elements of the successful India PPM program. Scaling up creative initiatives across the organization is challenging in the absence of a structured system to share successes or failures across countries. Lessons are not always shared across the partnership or borders, and interesting models and experiences are lost. It is often difficult to systematically expand good initiatives across multiple countries.

Cross cutting (scaled) Partnerships: In the current structure, multi-country partnerships are not clearly owned or invested in. External Relations have developed a number with partners, but these are complex and time consuming to deliver.

Currently, these need buy-in from each FPM and the GMD, which takes considerable time. For example, the low-cost Last Mile Initiative with Coca Cola took four years to bring to market. GF backing was not enough and a labor-intensive effort by consultants was needed to knock on doors at the MOH in different countries to gain support. Global partnerships need to have country-level impact and are an important part of additional resources at the country level to engage the private sector.

Fragmentation: Contracting with many small providers is impractical for the GF. However, there are multiple models to draw upon as discussed in the Landscaping Section that could be examined and lessons learned can be compiled. This can be challenging to do within the span of a three year grant and possibly the GF should work on this at the global level with its partners, who might be able to assist.

Moving beyond ideology may be challenging. To do so will require having PSE open as a possibility for programs and measuring its impact in terms of improved outcomes. Such results will be important for Governments and CCMs to be able to consider as they are important in this process.

Setting the right conditions, both externally and internally, is needed to respond to several of the challenges outlined above. Table A3.1.1 presents some possible solutions.

Table A3.1.1 Possible Approaches to Reducing Barriers to PSE

External	**Enabling Environment**: Support the creation of the right conditions for increased participation of the PS in GF country programs; identify the relevant regulatory issues and policies to promote PSE at the country level; consider stronger PS inclusion in CCMs. Coordinate with technical partners such as StopTB, RBM, UNAIDS, USAID and the World Bank in creating the enabling environment at country level. This may require strategic initiatives that give continuity beyond the three-year grant cycle.
	National Priorities: Support the inclusion of the PS in national health strategies where countries see the value
	Dialogue: Open dialogue with governments about possible barriers, possible solutions and opportunities to promote better understanding
	Capacity Building: Build capacity in public sector oversight and regulatory bodies to be able to enforce regulations and manage contracts effectively

Internal	**GF Policy**: Craft a PSE framework that identifies the core components leading to positive, transparent and accountable PSE. The framework should be clear about what the GF can in practical and operational terms promote at the country level and the implications for PSE engagement within the three year funding lifecycle. Importance of catalytic funding to support PSE – either from the GF or other partners is also key.
	Knowledge Exchange: Establish a knowledge exchange arrangement; conduct further research and promote information sharing on PSE models across GF countries, demonstrating positive and negative lessons; incentivize FPMs to share success stories and disseminate publicly. Collaborate with technical partners to provide advice to CCMs on how PSE could help accomplish their objectives.
	Tools: Provide staff options and ideas on PS approaches and provide tools, including funding, and flexibility;
External and Internal	**Advisory Group**: Create a technical group to advise GF management, its Board and other oversight bodies on options, benefits, and drawbacks of PSE across the GF
	Fragmentation: Work through professional and industry associations, eg., health federations in Africa that the World Bank helped set up for exactly this purpose, and mission driven non-profits to aggregate fragmented providers to allow contracting of small for-profits
	Piloting: Encourage experimentation and creative ways to reduce the burden of the three diseases; reward successful examples and promote conditions for scale up through special grants that exceed the three-year grant cycle; measure performance and partner with others to increase investment in the PS space.

Table A3.1.2 Categorization of Private Sector Healthcare Markets

	Degree of Formality	Regulatory Environment	Degree of Provider Fragmentation	Nature of Investment Activity	Country Examples
Under-developed market	Informal providers dominate	Unregulated, ineffective and unsafe care	Highly fragmented	Little to no investment activity	Afghanistan Chad Myanmar South Sudan
Moderately developed market	Mix of formal and informal providers with substantial gaps in processes	Some oversight and accountability for quality	Moderately fragmented	Limited formal investment activity	India Indonesia Kenya Philippines Senegal
Highly developed market	Formal providers	Effective systems for ensuring quality and outcomes	Efficient scale, some competition and integration across the continuum of care	Presence of international companies and investors	Colombia Romania South Africa Thailand

Source: Adapted from IFC.