



PharmAccess Group

Progress Report 2017

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Preface by CEO

Dear friends,

The world has never changed so fast and it will probably never change slowly ever again. It is a truly inspiring and exciting time.

Khama Rogo, Lead Health Sector Specialist at the World Bank recently noted that it used to be that Africa looked towards richer countries for solutions. Now Africa looks towards the mobile phone for opportunities for development and progress. His sentiment couldn't be more apt. The potential that the mobile phone and other digital technology holds cannot be overstated. Mobile technology is disrupting virtually every industry. It is creating transparent business models that drastically cut transaction costs.

Crucially mobile phones also make the individual count. A person with a mobile phone is a person with a voice. With a simple piece of technology in their hands, those who were typically excluded can participate in the types of services and exchanges that many of us take for granted.

This is the potential that we at PharmAccess are excited to harness. We believe that technology can help solve the challenges that we see in the healthcare sectors in Sub-Saharan Africa, such as a lack of investment and a lack of transparency around quality of supply and to deliver on the Universal Health Coverage ambitions.

In 2017 we saw the fruits of our cornerstone activity – M-TIBA, a collaboration between the telecom company Safaricom and Carepay, an IT company. M-TIBA embodies our vision of how you can do business differently to make inclusive healthcare markets work by using technology.

M-TIBA is a mobile health platform that people can access through a mobile phone to pay for care when they need it. This technology provides a departure from an out-of-pocket approach that risks impoverishing people in their times of need, and instead offers a pre-payment savings and insurance model. It also collects data and provides insights into quality of care, and analysis of health market trends. Furthermore, the platform connects the key players in the health ecosystem: Governments, private sector investors, donors, healthcare providers and participants who need access to affordable and quality care. The platform was launched in Kenya in 2016 and by the end of 2017 it reached almost a million people. By end of 2017, 1867 healthcare facilities were included in the healthcare delivery model, which offers better care to over 2.5 million patients per month.

2017 also saw our attentions focused on the continued operational excellence of the implementation of SafeCare – the first and only internationally accredited clinical standards tailor-made for basic care providers in resource-restricted settings. Through the expansion and development of SafeCare in 2017, PharmAccess not only incentivized improving care, but we illustrated that a sector previously deemed risky and un-bankable can be a safe bet for investment. The quality assessments and certifications offer a sign post to investors and show them which services are ready for improvement and growth. These assessments also empower patients to make informed decisions about their care. By end of 2017, 1867 healthcare facilities were included in the healthcare delivery model, which offers better care to over 2.5 million patients per month.

The Medical Credit Fund also played an innovative role in connecting the dots and making sure that the healthcare providers that are striving to improve their services can access credit. A digital short-term loan was developed that issues automatic repayments through the healthcare-providers' mobile revenues earned through M-PESA, without formal collateral requirements or administrative burden. The fund disbursed a total of 730 loans in 2017 to Health SME's and it plans to increase both the size and number of loans further in 2018, while maintaining the excellent historical repayment rate of 96%.

All of this work would not have been possible without collaboration with our highly valued partners as well as the continued support and commitment of the Dutch Ministry of Foreign Affairs, the Nationale Postcode Loterij and many other donors and investors, for which we are very grateful.

Finally, I would like to take this opportunity to thank our former CEO Onno Schellekens for his visionary leadership from 2003 throughout 2017. Onno made an invaluable contribution to the vision of the organization and built it to where it is today. I became CEO in May 2018 and it is an honor to take on this mantle. I am inspired by the great challenge of leading the organization towards the next step in which we will foster the initiatives that we know work and trial new technologies and models that we think can transform healthcare in Sub-Saharan Africa. In 2018, as ever we will focus on driving investment into health while improving access to services and raising standards in the quality of care people receive.

Monique Dolfing-Vogelenzang
CEO PharmAccess Group

Message from outgoing CEO Onno Schellekens

2017 was my last year as the CEO of PharmAccess and looking back, I am pleased to report that through the implementation of a new digital strategy, the organization was able to show that mobile technology can improve access to better healthcare, particularly for low-income groups. We were able to harness the major transformations that we see all around us and use the simple mobile phone to make health insurance a possibility for everybody.

But with all of this change, we did not lose sight of our vision or our roots. We continued to reject the idea that exclusion from healthcare is an inevitable consequence of living in poorer countries. And we proved through our work and partnerships, that there are vast opportunities to drive investment and make inclusive healthcare a reality in Sub-Saharan Africa.

I am happy to pass on the leadership of this ambitious organization to the new CEO of PharmAccess, Monique Dolfing-Vogelenzang (effective of as of May 2018). Monique has played a pivotal role in the organization since joining in 2008. She has worked to make PharmAccess a front runner in global health, pioneering market-based solutions for better healthcare.

In my new role as CEO of CarePay International, I will focus on using technology to scale up the use of the mobile health wallet. In addition, I will focus on unlocking investment capital to enable CarePay International to fully seize the potential of this technology and enable access to health insurance for everybody.

PharmAccess Group Foundation Supervisory Board Letter

2017 has been an incredible year for PharmAccess and we have collaborated with some of the most innovative organizations in sub-Saharan Africa to strengthen our agenda on digital health. We have tested, developed and expanded market-based digital innovations that have the potential to transform the financing and delivery of health care in sub-Saharan Africa. M-TIBA, a digital health exchange developed by PharmAccess, Safaricom and Carepay, is one such innovation, rapidly expanding access to better healthcare in countries like Kenya and earning the consortium the 2017 FT/IFC Transformational Business Award in Health.

We also continued to stimulate a new approach for development cooperation in the form of public private partnerships. We have implemented standards that have contributed to increasing trust in the healthcare system and reducing investment risk and transaction costs in Africa. The financial support of the Dutch Ministry of Foreign Affairs has enabled us to mobilize additional resources - at the end of 2017 the Health Insurance Fund's original funding achieved an overall leverage factor of approximately 3.5 (including committed capital) from local governments, donors, investors, local banks, private clients and member contributions for the premium.

We are encouraged that private healthcare providers are increasingly able to finance quality improvements and deliver better services. Increasing numbers of healthcare facilities are participating in the SafeCare program and are showing improved quality of care levels. Many of those facilities are accessing loans through the Medical Credit Fund in partnership with local banks. The

local banks are showing more confidence to lend to the private health sector, evidenced by their increased risk participation in the loan portfolio of 45%.

Over 1.3 million people have enrolled in health programs that PharmAccess has either set up or supported with technical assistance. Based on the lessons learned from the Kwara community health insurance scheme, 17 states in Nigeria have developed state health insurance laws.

In addition to expanding our digital agenda and driving investment in, and access to, better healthcare the organization also implemented important structural changes as well as overseeing the departure and recruitment of key personnel. By the end of November 2016, the incorporation of the new entity the PharmAccess Group Foundation (PGF) and installment of the PGF Supervisory and Executive Board were concluded. The statutory responsibility for all PharmAccess group entities (i.e., Stichting PharmAccess International, Stichting Health Insurance Fund, Stichting Medical Credit Fund and Stichting SafeCare) is vested with PGF, represented by its Executive Board (statutair bestuur) under the supervision of one Supervisory Board, the PGF Supervisory Board. The first meeting of the Supervisory Board of the PGF took place on 16 December 2016, followed by quarterly Supervisory Board meetings in 2017.

To ensure the efficiency of its work, the Supervisory Board has established several standing committees (e.g. HIF committee, MCF committee, Remuneration Committee, Audit Committee), which prepare proposals



and issues to be dealt with at the Board's plenary meetings. The committee chairpersons report to the Supervisory Board on their committees' work at the subsequent Board meetings.

After ten years of service, Wilfred Griekspoor left the Supervisory Board at the end of 2017. He was succeeded by Lidwin van Velden who has built extensive experience in financial markets, asset management and risk management, and therefore contributes an important added value to the Supervisory Board. The Supervisory Board would like to express its appreciation to Wilfred Griekspoor for many years of loyal support.

It is expected that a second new and female Supervisory Board member will be appointed in the course of 2018 due to the fact that Kees Storm will be leaving the Supervisory Board as per end of 2018.

In April 2018, the Supervisory Board unanimously decided to appoint Monique-

Dolfing Vogelenzang as new CEO of PharmAccess Foundation. We are very pleased that she has agreed to accept the position of CEO. Her significant industry knowledge, strong management experience and institutional tenure with PharmAccess and its colleagues, donors and partners across the globe make her uniquely qualified to lead the organization into the future. We would like to thank Onno Schellekens for his invaluable contributions in building PharmAccess and shaping its vision and we look forward to seeing our partner organization CarePay International grow globally under his leadership as well.

We would like to thank the staff, partners and our committed donor the Dutch Ministry of Foreign Affairs for their support and efforts towards the results that we have achieved in 2017!

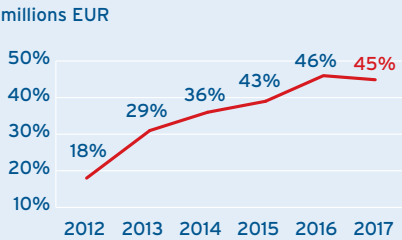
Max Coppoolse
Chairman of the PGF Supervisory Board

2017 at a glance

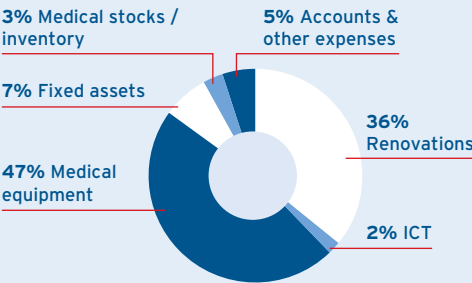
ENABLING HEALTH INVESTMENTS

Access to capital, combined with our technical assistance, is empowering healthcare providers to grow their business and improve the quality of healthcare services for their patients.

Risk sharing between Medical Credit Fund and banks



Type of investments financed through loans



By the end of 2017

1,777 loans for healthcare providers were disbursed through our partner banks

256 digital loans

USD 33,371,135 in disbursed loan amounts

96% historical repayment performance

RESEARCH AND IMPACT EVALUATION

Scientific and operational research by international and local researchers is an integral part of our work. Advocating for policy change starts with proof of principle.

Research output up to 2017 includes:

84 peer-reviewed scientific publications*

63 grey literature and reports

6 PhD theses

17 MSc theses

49 case studies, and research and policy briefs

DEMAND-SIDE FINANCING

Increased financial protection for patients is improving access to healthcare through products such as health insurance and mHealth wallets.

1,3 million people were enrolled in PharmAccess supported health programs in 2017

62% of enrollees were women and children

Top 3 reasons for visits (M-TIBA data only)

- 1. Upper respiratory infections
- 2. HIV / aids
- 3. Pregnancy

CARD

In Tanzania almost **half a million people** are enrolled in one of two insurance programs that PharmAccess has set-up with the Tanzanian National Health Insurance Fund (NHIF)

DIGITAL TECHNOLOGY AS AN ACCELERATOR

M-TIBA is a digital platform for inclusive healthcare that directly connects patients, providers, and payers.



Just over **800,000** users on the digital platform, over 450 clinic digitally connected.



M-TIBA was awarded the 2017 Financial Times/ IFC transformational Business Award in Health

SETTING AND RAISING STANDARDS

The SafeCare standards for resource-limited settings enable benchmarking and form the basis for quality improvement plans.

Clinics using SafeCare are:

67% private

23% NGO / faith based

10% public



715 local assessors trained to implement the methodology

IMPROVED SERVICES



Access to life-saving treatments and better care increases clients' trust in and utilization of healthcare.

Results at clinical level

59% of clinics perform more lab tests

58% of clinics perform more HIV tests. Every month, **223,285** people are tested for HIV

50% of clinics perform more malaria tests. Every month, **668,371** people are tested for malaria



39% of clinics have more family planning sessions. Every month, **91,713** people attend family planning



2,277,281 patients have access to improved care



248,423 immunizations per month

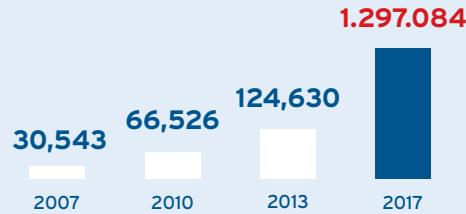
CAPACITY BUILDING

Human resources are key to building effective health systems.

Professionals trained on business and quality improvement



Enrollees with access to care



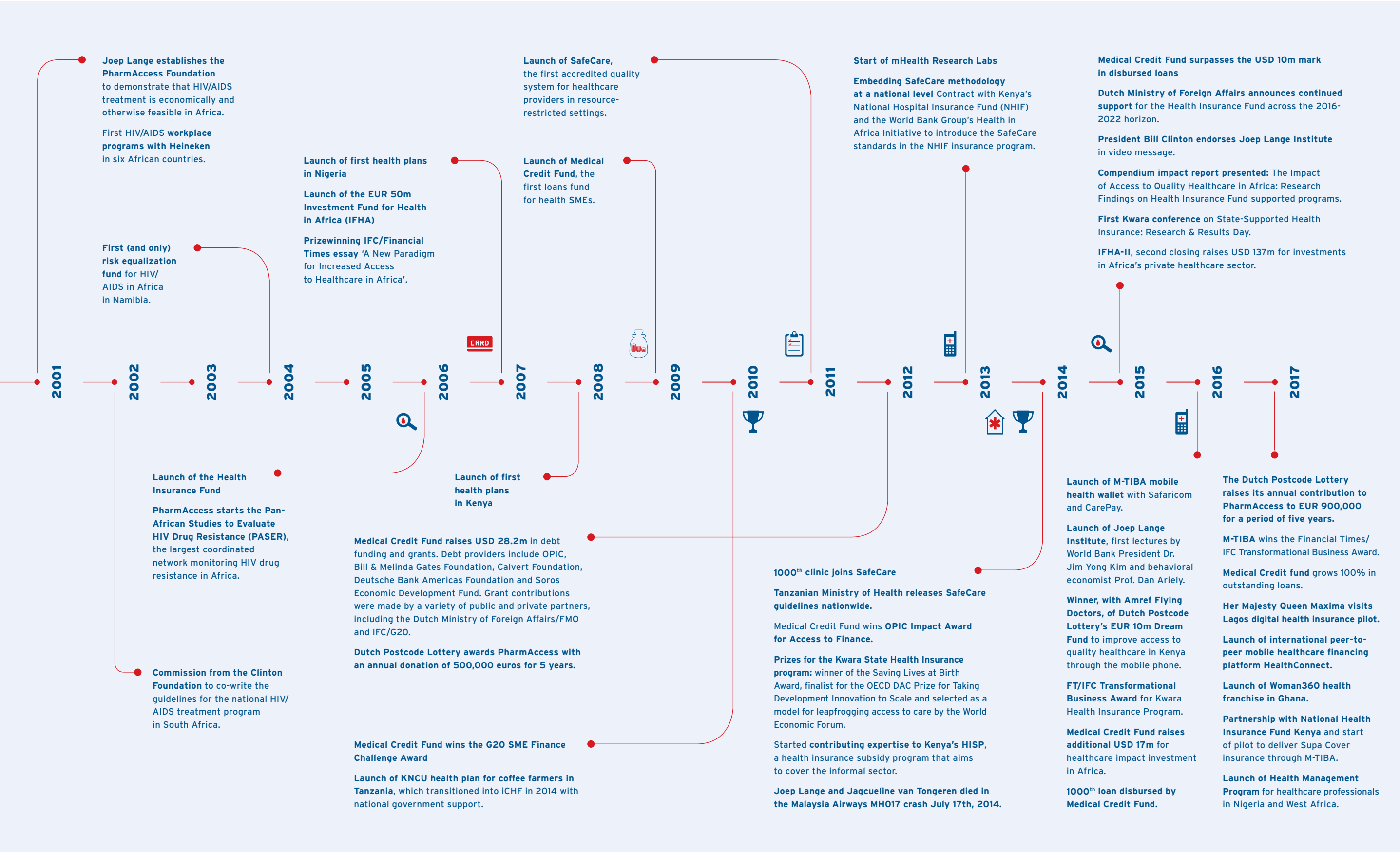
Clinics that received a loan through MCF employ a total of **16,336** staff members

757 jobs were created in MCF clinics

Clinics using the SafeCare standards



Timeline of highlights 2000-2017



1. Introduction

“To those who regularly visit sub-Saharan Africa, the pace of change is indeed astonishing, and there are many reasons to be optimistic about the region. We should, however, also realize that very little has changed for the poor in rural settings, and that the lives of those who left for urban slums are extremely difficult. To include these groups in the ‘great escape’ from poverty is the big challenge ahead.” Joep Lange, July 2014

An estimated sixty percent of total health expenditure in sub-Saharan Africa is paid for out of pocket. With only a small minority of Africans covered by health insurance, many families are pushed into poverty when they suffer financial catastrophe due to high out of pocket expenses for healthcare. Supporting the rural and urban poor in their “great escape” from poverty therefore depends significantly on reducing the high risks and costs that are associated with healthcare. Since the private health sector provides a considerable proportion of healthcare in sub-Saharan Africa, developing the private sector is critical to improving access to quality healthcare services and stimulating economic development. At the same time, the unprecedented rise of mobile technology is transforming African economies and offers the potential to revolutionize healthcare and reach people who until now have remained structurally excluded.

PharmAccess aims to support the development of inclusive health markets to increase access to affordable and quality healthcare for low- and middle-income populations of sub-Saharan Africa. To this

end the PharmAccess Group (hereinafter referred to as PharmAccess) is introducing innovative financing mechanisms such as health insurance, and standards to assess and stimulate improvement of the quality of care delivered (SafeCare). PharmAccess leverages donor funding to reduce risks and decrease other barriers to investments, paving the way for sustainable public and private investments in health. The Medical Credit Fund (MCF), also part of the PharmAccess Group, collaborates with local financial institutions to stimulate investments in the private health sector. PharmAccess is developing and implementing a range of digital products and services in collaboration with CarePay to strengthen the effectiveness of these interventions. CarePay was established in 2015 with an initial investment from the M-PESA Foundation and the Investment Fund for Health in Africa (IFHA) to develop, manage and own a mobile health payment platform. Furthermore, PharmAccess collaborates with the Joep Lange Institute (JLI) and local researchers to conduct research into strategic interventions and advocate for those that are successful.



Establishment of PharmAccess and the Health Insurance Fund

When Professor Joep Lange (1954-2014) founded PharmAccess in 2001, the objective was to turn groundbreaking scientific research on triple-combination drug therapy into action by bringing HIV/AIDS treatment to the people who needed it most. PharmAccess joined forces with private companies such as Heineken to set up workplace programs for their employees and dependents. These schemes proved that treatment in Africa was feasible and that the delay in delivering treatment was a political choice. This helped to lay the foundation for large-scale international action: today, more than ten million people living with AIDS have access to life-saving drugs.

At the time, private companies, the Dutch Ministry of Foreign Affairs and PharmAccess realized that much more needed to be done to provide the people in Africa with access to better healthcare. They formed a working group to discuss the possibilities of including the private sector. This led to the foundation of the Health Insurance Fund in 2006 and the signing of a contract for EUR 100 million with the Ministry of Foreign Affairs. The Health Insurance Fund contracted the PharmAccess Foundation as its implementer and AIGHD/AIID to conduct impact and operational research.

The Health Insurance Fund introduced an alternative to the then existing health development approach by strengthening private sector capacity to ensure improved access to quality care for low- and middle-income groups.

The strategic objectives guiding the 2016 -2022 interventions to make inclusive health markets work are:

1. Develop private pre-payment mechanisms, risk pooling structures, and mobilize resources for organized demand.
2. Strengthen, benchmark, and certify clinical and business performance of healthcare service suppliers.
3. Improve efficiency, effectiveness, and transparency to better match demand and supply of healthcare transactions.
4. Mobilize capital into the private health sector.
5. Conduct research on the various implemented strategic interventions and advocate those that are successful.

The Investment Fund for Health in Africa (IFHA), initiated by PharmAccess, the Ministry of Foreign Affairs and the Dutch private sector (multinationals), complements the Health Insurance Fund.



The Theory of Change underpinning the PharmAccess Group approach is focused on breaking a vicious cycle of low trust, inadequate access, high risk, low demand and low quality supply that exists in healthcare in sub-Saharan Africa. PharmAccess aims to transform this vicious cycle and turn it into a virtuous cycle of trusted inclusive health markets through private sector development that benefits low- and middle-income groups. Technological innovation is at the heart of our Theory of Change. It is an enabler that has the potential to disrupt financial and administrative transactions by drastically reducing costs and time while continuously providing real-time data to give full transparency which can improve performance.

On a solid base of local and international public private partnerships, and with the support of many international development stakeholders including the Netherlands

Ministry of Foreign Affairs, this integrated approach is continuing to attract international attention. Most recently, M-TIBA and CarePay won the 2017 FT/ IFC Transformational Business Award in the category Achievement in Sustainable Development, with a focus on Health, Wellness and Disease Prevention. In 2016, the Kwara State Health Insurance Program also won this award, in the category Achievement in Sustainable Development, with a focus on Maternal and Infant Health. Earlier awards include a G20 prize for innovative financing presented by President Obama, two finalist positions in the OECD DAC Prize for Taking Development to Scale and an OPIC Impact Award for Access to Finance.

By end of 2017, PharmAccess employed a multidisciplinary team of over 234 professionals, 71% of whom are based in Kenya, Tanzania, Ghana and Nigeria.

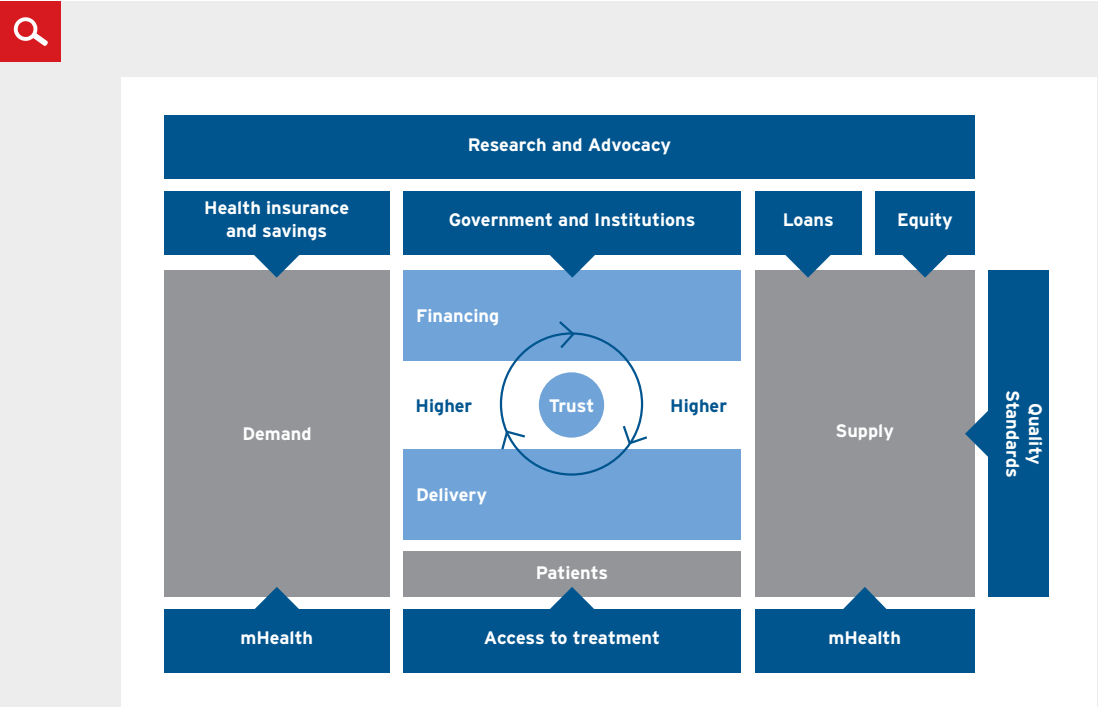


Figure 1.

Vicious cycle

Today the role of the private sector in the delivery of a public good like health services is undeniable. In Africa it accounts for approximately 50% of healthcare provision. At the same time, healthcare is a sector where governments play an important role as only they can intervene at the required scale to enforce financial synergies, risk pooling, advice and regulation. However, in many countries in sub-Saharan Africa the capabilities of governments to finance, regulate and enforce health policies are limited. As a consequence, large parts of the population, especially those at the bottom of the pyramid, are on their own. Low quality and uncertain availability of health service delivery discourage families and individuals to prepay for health. Therefore, they pay out of pocket when they need care.

The high proportion of out of pocket expenditure in combination with low levels of trust in healthcare provision results in low and unpredictable revenues for healthcare providers, which in turn keeps them from investing in the quality, scope and scale of their services. The resulting limited exchange and high transaction costs mean that investors and banks are generally not willing, or only at very high interest rates, to invest, especially to the lower end of the market. This means the healthcare sector has limited or no access to the capital required for inclusive growth. As a result, the market is stuck in a vicious cycle of low demand and poor supply.

This situation perpetuates as a vicious cycle of low and unpredictable demand, low and uncertain quality of supply, and totally inadequate investment. The cycle is fueled by persistent low trust and high (perceived) risks, and stifles the development of properly functioning and inclusive health markets.

2. The mobile revolution

Sub-Saharan Africa is undergoing a considerable change in political, socio-economic and technological landscapes. Now home to 1.2 billion people (up from just 477 million in 1980), Africa is expected to grow by 42 million people per year. This growth provides market opportunities but at the same time increases the pressure on governments to cater to the public needs of all these people, especially in fields like health and education.

In addition to rapid population growth, the world is witnessing a mobile revolution that transforms every facet of our daily lives as well as our economies. Sub-Saharan Africa is no exception, some 540 million smartphones are expected to be in use in sub-Saharan Africa by 2020, and the internet connection penetration rate is expected to grow to 93 per cent. This level of connectivity can empower people. It changes the way people can access information and make decisions about their daily lives. It is this mobile revolution that PharmAccess wishes to harness and apply to the struggling health sector in sub-Saharan Africa.

Mobile technology is based on a user-centric, peer-to-peer exchange of information and money – an approach radically different to the way people currently interact with the healthcare sector. Mobile exchanges produce data. Increasingly, data is becoming a currency in itself because it provides insight into real-time societal trends and preferences. When mobile technology is integrated into healthcare, data on mobile phone users can produce insights into health trends, which can be used for more effective treatment and policy formulation.

Data and direct exchange can also be used to transform not just what we know about health but how people access services. Through mobile phones, people can for example be reminded to take their medicine regularly, be encouraged to save money for future treatment, or even be reached before they become ill.

Crucially, mobile phones also make the individual count. In societies with massive informal sectors and systems which exclude citizens from formal registration processes, individuals from low socio-economic groups are often simply invisible. Mobile phones change this. A person with a simple mobile phone contract is a person who has a voice and can participate in the types of services that many take for granted. This is because mobile phones have made it possible for organizations and individuals not to rely solely on the government to enforce rights related to exchange. Thanks to technology allowing prepayment, for example, mobile operators do not have to fear defaulting customers. This lowers the operators' investment risk and explains why they dare to invest large sums in expanding their networks into very remote areas. Consumers on the other hand, have come to trust mobile telephony and mobile payment services because they have not been disappointed in getting value for money, each time they purchase even a small amount of airtime.

The transformative potential of the mobile phone is therefore vast. Capitalizing on the mobile money revolution in Kenya, PharmAccess has already taken steps to prove this potential. In 2015 Safaricom, CarePay and PharmAccess introduced

a digital transaction and administration platform for healthcare, called M-TIBA. The platform enables M-TIBA users, through a mobile health wallet, to pay for healthcare services using an innovative blend of insurance and saving options. Different payers can pay into the wallets: individuals can set aside money for their own care; affluent family members can send healthcare remittances to their relatives; and donors can directly channel payments into the wallets of people who need it most.

The healthcare providers that accept payments via the health wallet are also connected to an IT platform: every time the wallet is used by a patient at a healthcare facility, medical and financial data is collected in real time. This creates full transparency on access and quality and empowers the people connected to make conscious decisions on when and where to seek care. Aggregating the data of patients in data dashboards moreover provides unique insights to healthcare providers and payers in costs, utilization and quality of care that can be used to make healthcare better and more cost-efficient. The mobile data connection enables a direct two-way communication with the participants, enabling engagement with participants before they fall ill and paving the way for new healthcare service and business models.

The health wallet was introduced to the mass market in Kenya in 2016, branded as M-TIBA (M stands for mobile, TIBA means treatment in Kiswahili). By the end 2017, just over 800,000 people and over 450 healthcare facilities were connected, and the numbers are growing by the day. Its



scale and data value has attracted a growing number of public and private partners, including the National Hospital Insurance Fund (NHIF), institutional donors, banks and private insurers. The technology is now also being used in Nigeria and Tanzania to pilot a mobile health insurance model.

PharmAccess believes that the mobile health wallet holds the key to democratizing healthcare through a “basic mobile health contract”: an agreement between an individual with a mobile health wallet, a network of contracted healthcare providers, and financial commitments from payer(s), so every connected individual can access services when and where needed. This can be in the form of insurance or an alternative structure. PharmAccess's ambition is to have 100 million people using a mobile health wallet by 2025.

3. Organized demand for healthcare

“As NHIF gears up towards universal health coverage, M-TIBA can help us to reach low-income groups who up to now were excluded from health insurance schemes.”

NHIF CEO Mr Geoffrey Mwangi

Applying mobile technology to health insurance improves targeting of users, transparency of healthcare utilization, efficiency of administration and interaction between insurer, healthcare providers and clients.

PharmAccess has been developing pre-payment mechanisms and risk-pooling structures for low-income groups in Africa since 2007. Over the years, over two and half million people have been covered by the programs that has been set up with local public and private partners. The PharmAccess approach, which harnesses partial subsidies for low-income groups, continues to generate considerable international attention.

While the insurance programs continue to cover a growing number of people, PharmAccess is encountering challenges in building them in a sustainable, efficient and

cost-effective way. Targeting individuals and households who are eligible for some kind of financial support (e.g., premium subsidy or specific healthcare benefits) has proven to be difficult and inefficient due to cumbersome processes. In addition, obtaining accurate and timely data on healthcare utilization and costs has traditionally been burdensome and the cost of administration in relation to the premiums make it challenging to form an appealing business case for local health insurers. Understanding and improving the quality of medical services has been very difficult. In short, administering health insurance programs for low-income groups has often proven to be costly, challenging and unrewarding.

The mobile revolution in sub-Saharan Africa, however, has changed the game. The near ubiquity of SIM cards and access to mobile phones means that it is now possible to reach almost everyone directly through their phones. The potential for increasing access to care is huge. The mobile health platform, initiated by PharmAccess together with Safaricom and developed by CarePay, makes it possible to directly connect people to an insurance cover or some other form of demand-side financing for healthcare on their phone, whether it's a smart phone or an inexpensive feature phone. In addition, the platform allows for efficient and (near) real-time collection of healthcare utilization and transaction data, with significantly



The road to Universal Health Coverage

Including the private sector is essential for the realization of Universal Health Coverage (UHC). While many African governments have committed to roll out financing and service delivery reforms towards the goal of Universal Health Coverage, providing quality care and coverage for all of their citizens remains a challenge.

When implemented well, insurance reforms can fundamentally change how revenue for health is raised and pooled or re-distributed across the population, as well as how revenue is managed and translated into improved service delivery. Such reforms, however, require a sufficient supply of quality healthcare, as well as significant financial resources, organizational and administrative capacity to implement efficiently and effectively at scale.

As public-sector infrastructure is still building up in these areas, African governments increasingly include the private sector to complement their own efforts. The mobile revolution now provides opportunities to ease administration, increase scale, efficiency and effectiveness and reduce costs. Through the building of trust the platform helps to stabilize national health systems thus contributing to the Health Systems Strengthening objective of Dutch development policy and bringing health insurance within reach of many more people.

lower costs for administration and much improved information flows.

A focus area in 2017 was demonstrating the capabilities and potential of the mobile health platform to health insurers and governments in Kenya, Nigeria and Tanzania.

3.1 Kenya

During a significant period in 2017, PharmAccess programs suffered delays and challenges as a result of the Presidential election and subsequent re-run. This has hampered its ability to go into the field and implement projects. PharmAccess expects to make up for lost time in 2018.

In April 2017, PharmAccess strengthened the partnership with Kenya's National Hospital Insurance Fund (NHIF). With over 5 million beneficiaries, NHIF is the largest

health insurer in the country. Currently, PharmAccess is piloting M-TIBA (the mobile health platform) with the NHIF's Supa Cover aimed at the informal sector. This provides NHIF with near real-time insights into crucial data such as clients' and healthcare providers' profiles and healthcare utilization, as well as costs and quality of care.

The SMILES program with the Gertrude's Children's Hospital enables people living in Nairobi's slums to access essential healthcare at very low cost to themselves at a number of Gertrude's private outreach clinics and referral hospitals. Over 60,000 people were covered by the end of 2017. Of this group, 56% have used M-TIBA to pay for care, with 4,468 treatments per month on average. The initial success of this collaboration has encouraged new commitments.

IN 2017



Almost 1.3m people were enrolled in health programs that PharmAccess has either set up or structurally supports with technical assistance (of which **> 60%** in digital programs).

62% are women and children.
3% of the total money/value of benefit on mHealth wallets is coming from national remittances.



Gertrude's Smiles (Nairobi, Kenya)

Gertrude's Children's Hospital (GCH) is the leading pediatric facility in East Africa. In December 2015, PharmAccess secured a grant from Gilead Sciences to finance specific benefits (HIV, TB, Malaria, MNCH and hepatitis B) for the informal settlements areas. Gertrude's Hospital Foundation (GHF) agreed to finance the primary care services for these participants.

In April 2016, the Smiles program started with some 12,000 participants (including 2,400 HIV patients) and by the end of 2017, the Smiles program had grown to over 60,000 participants.

The Smiles program introduced some innovations:

- The participants of the Smiles program received healthcare benefits in their M-TIBA wallet rather than mobile money. M-TIBA allows them access to the outreach clinics and to selected referral facilities.
- The combination of funding from Gilead and Gertrude's Hospital Foundation is a rare example of vertical funding and horizontal funding working seamlessly together, while specified aggregated utilization information was provided to each of the funders. One objective of the Smiles program was to demonstrate how such combined financing may function.
- The data collected through M-TIBA allowed GCH to better understand the dynamics of

its outreach program and to use this as management information for its operations.

- Due to the granularity of the utilization data, it was possible to develop new information products to track individual healthcare usage, provide easy to use feedback to doctors (on their mobile phones) and to identifying areas of improvement.

These innovations led to significant efficiencies and improved access to healthcare.

- By pooling health risks across a general population of the informal settlements the average cost of care per participant (including the original HIV participants from the in 2015 piloted Sunshine program) was less than US\$ 15 per annum (see figure 1 for monthly costs per wallet and per participant in Kenyan Shilling).
- By combining the vertical (specific benefits) and horizontal (general benefits) funding in M-TIBA's wallet, the cost of administration per participant was less than US\$ 1.50 per annum.

Apart from the efficiency gains that M-TIBA provides to a program such as Gertrude's Smiles, there are also advantages to the digitalization of benefits management and data collection. Firstly, by providing the benefits in M-TIBA's wallet on their phones, participants were given the 'rights' to access healthcare services at Gertrude's outreach clinics. Once the M-TIBA wallet is opened by a participant, medical, laboratory and pharmacy staff at the clinics fill in consultation, test and treatment details for each visit.

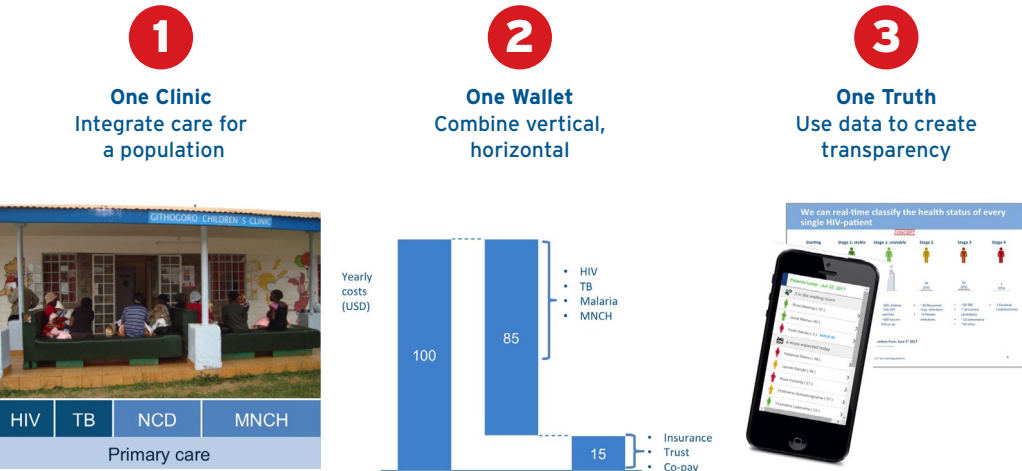


Figure 2. Case study, Proof of principle for combining funding streams

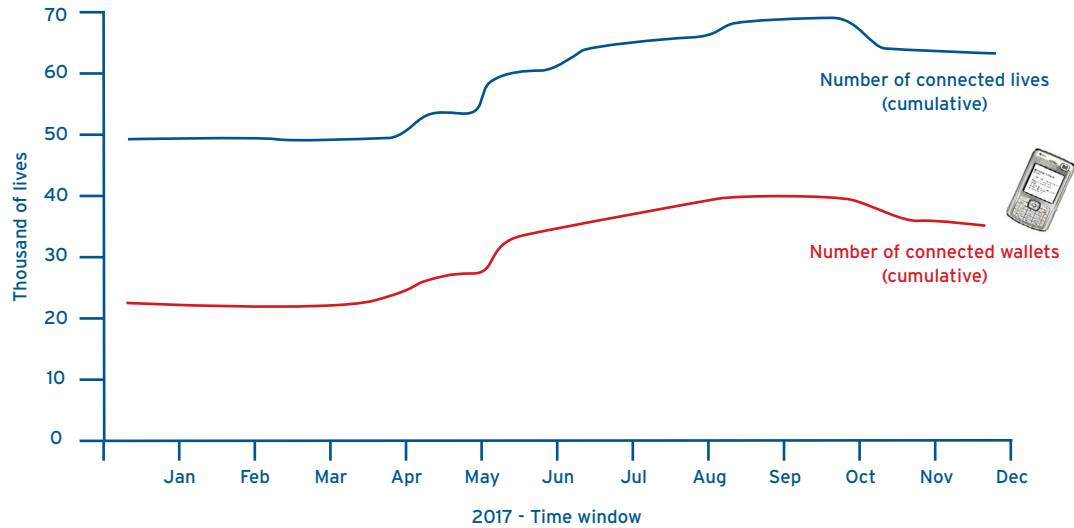


Figure 3. Smiles, giving 60,000 people access to care through their phone

The pilot project with NHIF within the Gertrude’s SMILES program in the informal settlements of Nairobi showed the many operational issues that occurred when combining NHIF Supa Cover with M-TIBA, such as cumbersome registration processes, difficulties regarding capturing healthcare utilization data under NHIF Supa Cover, sharing aggregated data with NHIF using online and mobile dashboards, and identification of eligible households. Based on this experience CarePay and PharmAccess have been working to digitalize NHIF services in order to make them more efficient.

3.2 Nigeria

In Nigeria, PharmAccess is working with the Lagos State Government to design and develop the statewide mandatory **Lagos State Health Insurance Scheme**. In October 2017, CarePay and PharmAccess started a proof of concept, offering digital health insurance for 150 families at two healthcare facilities. The package and conditions for the pilot are the same as for the Lagos State Health Insurance Scheme. The digital aspect generates additional insights into the identification and registration of poor households as well as healthcare utilization data. October

31st 2017, her Majesty Queen Máxima of the Netherlands visited the digital health insurance pilot in her capacity as the United Nations Secretary-General’s Special Advocate for Inclusive Finance for Development (UNSGSA). Since this visit, the Governor of Lagos State, PharmAccess, CarePay and the healthcare providers have continued the pilot program with considerable success.

In Kwara State, the **Kwara State Community Health Insurance Scheme** has helped build a stronger, cost-efficient healthcare system. International recognition for the program includes the Financial Times / IFC Transformational Business Award and the OECD DAC Prize for Taking Development Innovation to Scale. Impact evaluations show significant improvements in healthcare utilization, health outcomes and financial protection in target communities. PharmAccess is now providing advocacy and advisory services for the transition into a statewide insurance, with the technical support of the World Bank Group/IFC’s Health in Africa Initiative. An amended health insurance bill has been signed into law by the Kwara State Governor and PharmAccess has supported the design and planning of the Statewide Health Insurance Program.

As in Lagos, PharmAccess expects the formal inception of the insurance program to take place in 2018.

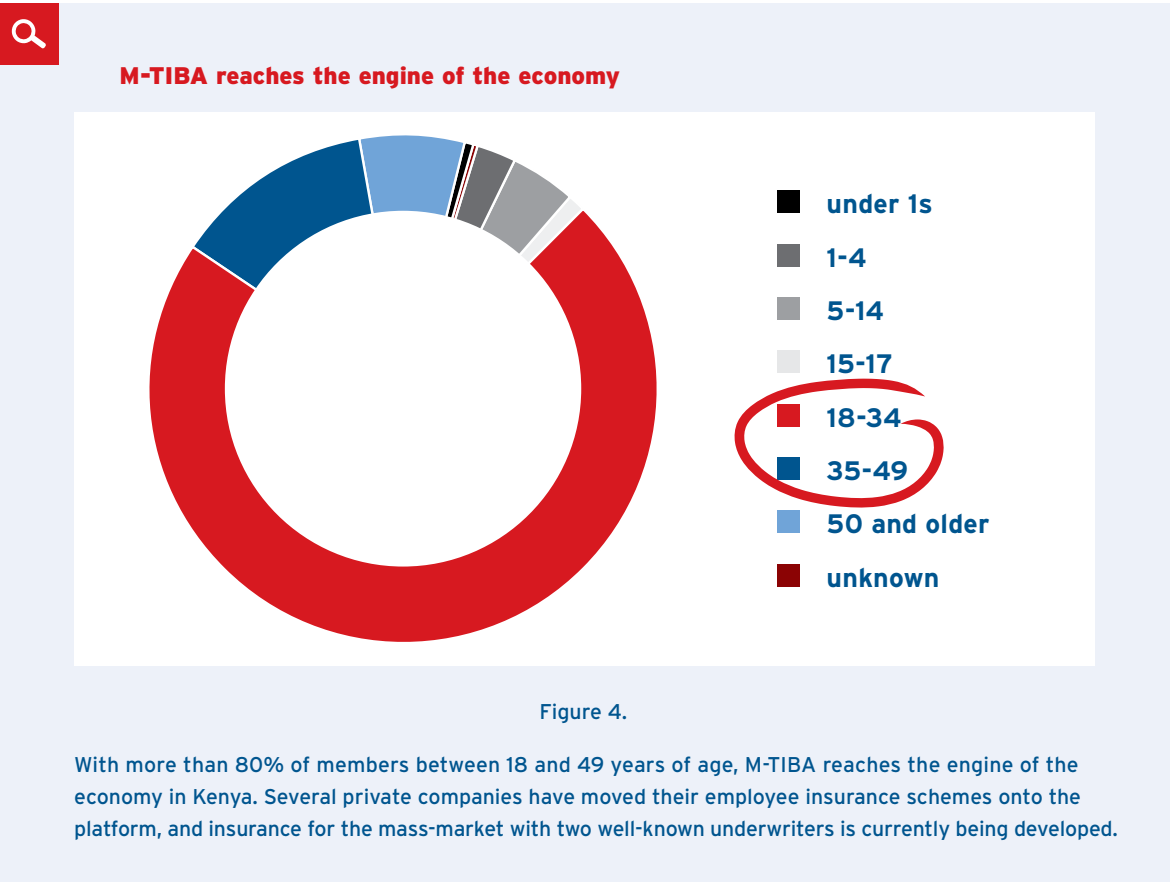
3.3 Tanzania

In Tanzania, almost half a million people are enrolled in one of two insurance programs that PharmAccess set up with the Tanzanian National Health Insurance Fund (NHIF): the

improved Community Health Fund (iCHF) and Tumaini la Mama. Tumaini la Mama, funded by the German Kreditanstalt für Wiederaufbau (KfW), supports maternal and neonatal health. Since the launch in August 2016, the program has been rolled out in two southern regions of the country (Lindi and Mtwara), and over 200,000 women have enrolled in a full NHIF membership package from the first antenatal visit to six months after delivery.

iCHF, launched in partnership with the NHIF and district councils in Northern Tanzania, is a voluntary, public-private health insurance scheme. The premium is 100% locally funded in equal measure by enrolled households and the Government of Tanzania. iCHF aims to increase access to quality healthcare for people in the informal sector, mostly rural and low-income groups. Both private and public facilities are included in iCHF and facilities receive support for quality improvement. By the end of 2017 more than 225,000 people had access to care through iCHF. All 14 districts in the Kilimanjaro and Manyara regions have introduced the program, with the Arusha region to follow in 2018. Significantly, the government of Tanzania sees iCHF as a building block for creating a mandatory insurance scheme for the entire country, an important step towards universal health coverage.

Digitizing the iCHF scheme is an area of focus going forward. Although it has a large pool of enrollees, iCHF still lacks an efficient IT platform. PharmAccess and CarePay are currently running a proof of concept to test the mobile health platform for iCHF transactions in both public and private





Partnership with Amref - Innovative Partnership for Universal Sustainable Healthcare

After winning the Dutch Postcode Lottery's Dream Fund in 2016, PharmAccess and AMREF joined forces in the innovative Partnership for Universal Sustainable Healthcare (i-PUSH). This partnership leverages mobile technology in Kenya to directly connect low-income women of reproductive age and their families to healthcare financing, quality care and knowledge about a healthy lifestyle.

The program is built around three digital tools:

- Through the use of M-TIBA, the program provides low-income women and their families with access to finance through Supa Cover.
- These women are enrolled by community health workers who are trained through a mobile training tool called LEAP on reproductive, maternal, newborn, child and adolescent health.
- The community health workers collect actionable health data at community level through a digital tool called M-Jali.

After a period of planning and preparations the roll-out of the program was kicked off in December 2017 at Kayole Hospital in Nairobi, where PharmAccess digitally enrolled the first women on a NHIF cover.



clinics. This includes digital enrollment and re-enrollment, full transparency of data on a provider level and data handling, a mobile health wallet and patient tracking applications.

3.4 Ghana

Similar efforts are underway in Ghana, where PharmAccess is working with the IFC/ World Bank Group under the African Health Markets for Equity (AHME) program to identify poor households who are eligible for a premium waiver in the **National Health Insurance Scheme (NHIS)**. It is also in discussion with NHIS on how best to apply (certain modules of) the digital health platform.

3.5 Key results

At the start of 2017, PharmAccess aimed to register 1 million users on the digital health platform in Kenya. However, during the course of the year we switched our focus from the quantity of registration to quality. Although signing up new users to the platform went very well (reaching just over 800,000), the number of users who were actually saving and paying for healthcare via their mobile wallets remained limited.

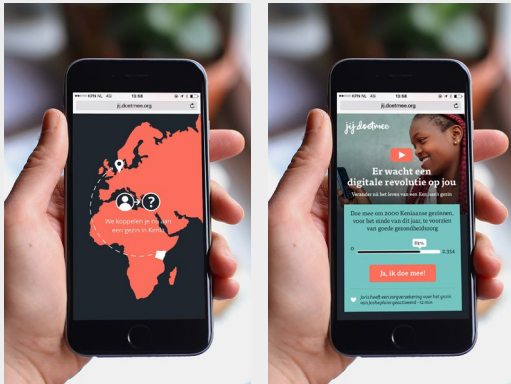
Therefore, it was decided to shift incentives for field agents from the sign-up process towards encouraging savings. This change lead to a higher level of savings on average.

In addition to our ambitions in Kenya, PharmAccess aimed to enroll a total of 900,000 people into health insurance programs across four countries. By the end of 2017 a total of almost half a million enrollees had been reached. Almost all enrollees came from two health insurance programs with the National Health Insurance Fund (NHIF) in Tanzania, namely iCHF and Tumaini la Mama (64 percent of the total target). In Nigeria, dependence on local (political) decision-making means that the statewide health insurance programs in Lagos and Kwara are not yet operational. In Kenya, PharmAccess managed to make a start with NHIF on a pilot within the Gertrude's Smiles program. The general elections prevented PharmAccess from implementing other programs with NHIF. It is expected to catch up again in 2018. In Ghana, discussions are ongoing with the National Health Insurance Scheme (NHIS) and private insurers on how best to apply (certain modules of) the digital health platform.



Direct donations

After a soft launch during the Amsterdam Dinner in June, in October 2017 PharmAccess started piloting HealthConnect in a small scale social media campaign. HealthConnect is an application running on M-TIBA that enables individuals overseas to directly provide a year of health insurance cover for a Kenyan family. In future, this offers the possibility to tap into the huge reserve of remittances that are sent from the diaspora to family members in Africa.



FT/IFC Transformational Business Award

In June 2017, M-TIBA won the **Financial Times / IFC Transformational Business Award**, which recognizes groundbreaking, long-term private sector solutions to key development issues.



M-TIBA at the Universal Health Coverage Forum in Tokyo

In December 2017, PharmAccess was invited by the World Bank to display M-TIBA in the Business Unusual: Innovating for Health Systems of the Future showcase at the **Universal Health Coverage Forum** in Tokyo, Japan.



Her Majesty Queen Maxima visiting Lagos State Health Insurance Scheme

In November 2017, her Majesty Queen Máxima of the Netherlands visited the digital pilot of the **Lagos State Health Insurance scheme** in her capacity as the UN Secretary-General's Special Advocate for Inclusive Finance for Development.





Tracking individual patient journeys and clinic performance

PharmAccess has developed blue prints for high-value patient journeys such as HIV and maternity care. From May 2017, the first cohort of M-TIBA participants reached the milestone of 1 year of enrollment. Using M-TIBA data, PharmAccess can track individual patient journeys and give real-time feedback to patients, providers and payers.

In the Smiles program, where all healthcare was registered in M-TIBA, it was possible to analyze the quality of the journeys these participants made through the healthcare system. Especially for people living with HIV and for pregnant women, the M-TIBA data gives cues for how and when care is inconsistent with guidelines. Because all data is linked to individual patients, it is possible to discern patterns and link behavior with a rudimentary assessment of health outcomes.

Over the course of 2017, PharmAccess partnered with Gertrude’s Children Hospital and four maternity clinics to improve analytical models, but also to develop tools to give insights back to medical staff and patients. In May, a mobile app was launched at Gertrude’s that alerts medical staff to patients having missed critical drugs or tests, making the barrier for taking action as low as possible. In the second half of 2017 the focus has been on pregnant women, testing and developing the application in two maternity clinics in informal

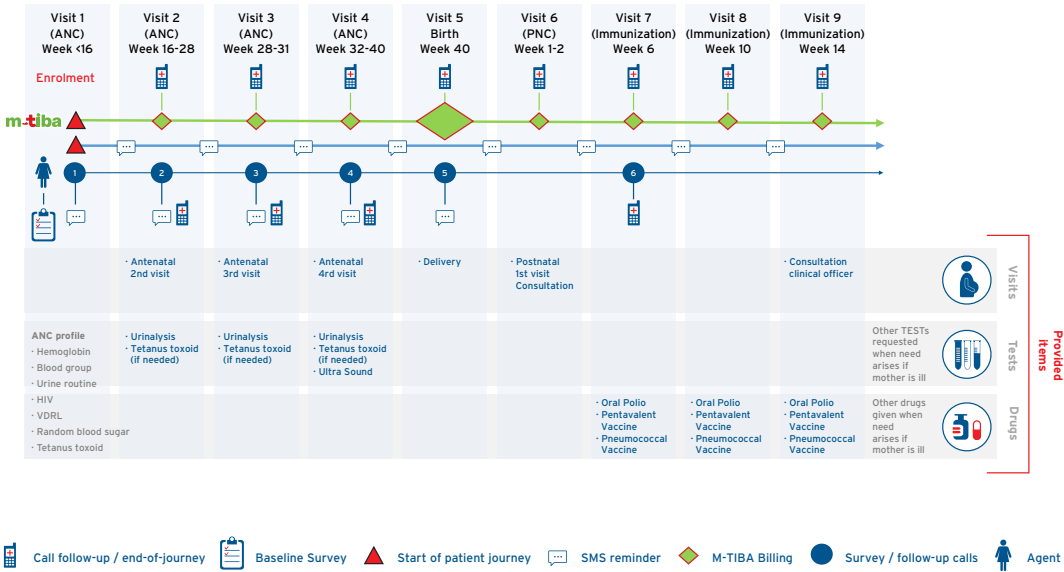


Figure 5. Mother journey map (illustrative)

settlements in Nairobi. Pregnant women are now enrolled in a digital service that includes an educational app on the pregnancy journey, SMS reminders for appointments and SMS surveys to capture patient satisfaction. Providers are supported in adherence to protocols and benchmarked against each other and other clinics in the PharmAccess databases.

On a parallel track, PharmAccess has developed standards for measuring the health outcomes of these journeys, in close collaboration with ICHOM (International Consortium for Health Outcomes Measures). As a next step, pregnant women will be tracked across different providers and start using the ICHOM standards to assess differences in health outcomes.



4. Strengthening healthcare supply through quality standards

Many healthcare providers in sub-Saharan Africa lack sufficient qualified staff, functioning supply chains or even basic resources like power or water. How can PharmAccess create actionable data that identifies scale, scope and (gaps in) quality of services, and use it to motivate and support clinics in improving their quality? How can PharmAccess select the right providers for its programs, whilst leveraging digital technology?

The healthcare sector in sub-Saharan Africa has a shortage of institutions and standards to ensure objective measurement of the quality of services. SafeCare addresses this gap: using internationally recognized standards (ISQua) and a stepwise recognition process, the methodology measures complete performance of a healthcare provider including organizational management and processes, clinical quality and safety. This allows for benchmarking of performance and certification of quality of care.

The SafeCare standards, developed in formal collaboration with Joint Commission

International (JCI) and the Council for Health Service Accreditation of Southern Africa (COHSASA), are the first and so far only internationally accredited clinical standards tailor-made for basic care providers in resource-restricted settings. In January 2017, the SafeCare standards were officially reaccredited by ISQua for a period of 4 years (until January 2021).

Transparency on the quality of care and care delivery is crucial to break the vicious circle of poor demand and supply. The effect will be felt on all sides of the system: patients need to know what quality of care they can expect at a certain facility. Investors need data on quality and risks to assess the medical, financial and accountability risks when considering long-term investments. Insurance companies can use the data to implement pay-for-performance and determine which providers their customers can use. Another important effect will be that the data on quality and risks will assist governments and donors in their choices on how to best allocate their scarce resources to improve quality and lay the groundwork for a regulatory framework. The health wallet M-TIBA, which was scaled in Kenya in 2017, provides its users with access to providers that are benchmarked in terms of their performance and have long-term quality assurance systems in place. Last but not least, it is important that the data collected on the size, scope and quality of healthcare providers is shared with and institutionalized at different stakeholders to allow for these objectives to succeed.

In principle, all healthcare providers selected for PharmAccess products and programs go through SafeCare certification or otherwise

need to demonstrate that they have an alternative, similar quality assurance system in place.

4.1 Selection of facilities and partners

The facilities participating in PharmAccess programs are recruited mostly through partner organizations that PharmAccess works with, such as the Kenya Medical Education Trust (KMET), Population Services Kenya (PSK) and Marie Stopes Kenya (MSK). Many of these facilities provide services in furtherance of the National Hospital Insurance Fund (NHIF) or have previously benefited from loans from the Medical Credit Fund. The providers for the M-TIBA health wallet were contracted in Kenya, an important new recruitment driver. A steadily increasing number of independent public and private facilities are also signing up to the program. In 2017 services were still mostly financed through donor funding made available by the United States Agency for International Development (USAID), the Department for International Development (DFID), the Bill and Melinda Gates Foundation and the Dutch Ministry of Foreign Affairs. In some cases facilities are also self-financing their participation. In addition, there has been an increased interest from private provider networks such as Penda Health and Aga Khan.

Assessments are done by qualified SafeCare surveyors, mostly employed by partner organizations. The SafeCare standards cover the full range of clinical services and management functions and are available on the website www.safe-care.org. Adherence to standards is measured by scoring criteria: the measurable elements of the standards.


SafeCare uses its information system housed in the African database (AfriDB 2.0) to capture program data, review and approve results, and analyze information. All of this is implemented by the country teams and partner organizations.

4.2 Partnerships

PharmAccess through SafeCare is the trusted partner of four African governments, supporting them in formulating, focusing and coordinating their quality improvement and recognition efforts. This is also particularly relevant for creating a regulatory framework which harnesses private providers.

- In Tanzania, the government has adopted the SafeCare standards and methodology as the national system for stepwise certification towards accreditation. The Memorandum of Understanding (MoU) was renewed in 2017 for another five years and the methodology is described in the Health Sector Strategic Plan (HSSP IV, 2015-2020) of the Ministry of Health, Community Development, Gender, Elderly and Children.
- In Kenya, the NHIF recognizes SafeCare methodology to be used for quality assurance in contracted facilities.
- In Ghana, PharmAccess helped develop the roadmap for the national Healthcare Facilities Regulatory Agency (HEFRA) to regulate and incentivize healthcare quality in an institutionalized approach.
- In Nigeria, PharmAccess is supporting Kwara, Ogun and Lagos States to develop institutionalized quality assurance institutes using SafeCare approaches. Lagos State will use the SafeCare standards as an

IN 2017



By the end of 2017, there were **1,867** clinics in the SafeCare program.

466 clinics were digitally connected.

92% of the healthcare facilities improved their SafeCare score.

17 partner organizations were licensed to use SafeCare

empanelment requirement for providers to be eligible for membership of the mandatory statewide insurance scheme - an important step towards the development of an incentivizing structure for quality.

SafeCare is also continuing to expand its network of private partners including the Association of Private Hospitals in Tanzania (APHFTA), KMET, Population Services International (PSI), Mary Stopes International (MSI), the Society for Family Health (SFH) and FHI360. Operations are also ongoing in Uganda through a partnership with the Uganda Healthcare Federation (UHF) and Programme for Accessible Health Communication and Education (PACE), which aims to build a sustainable model in which UHF will be the licensed partner for a national roll-out of the SafeCare methodology. In Nigeria, private partners included PurpleSource Healthcare Ltd and DrugStoc.

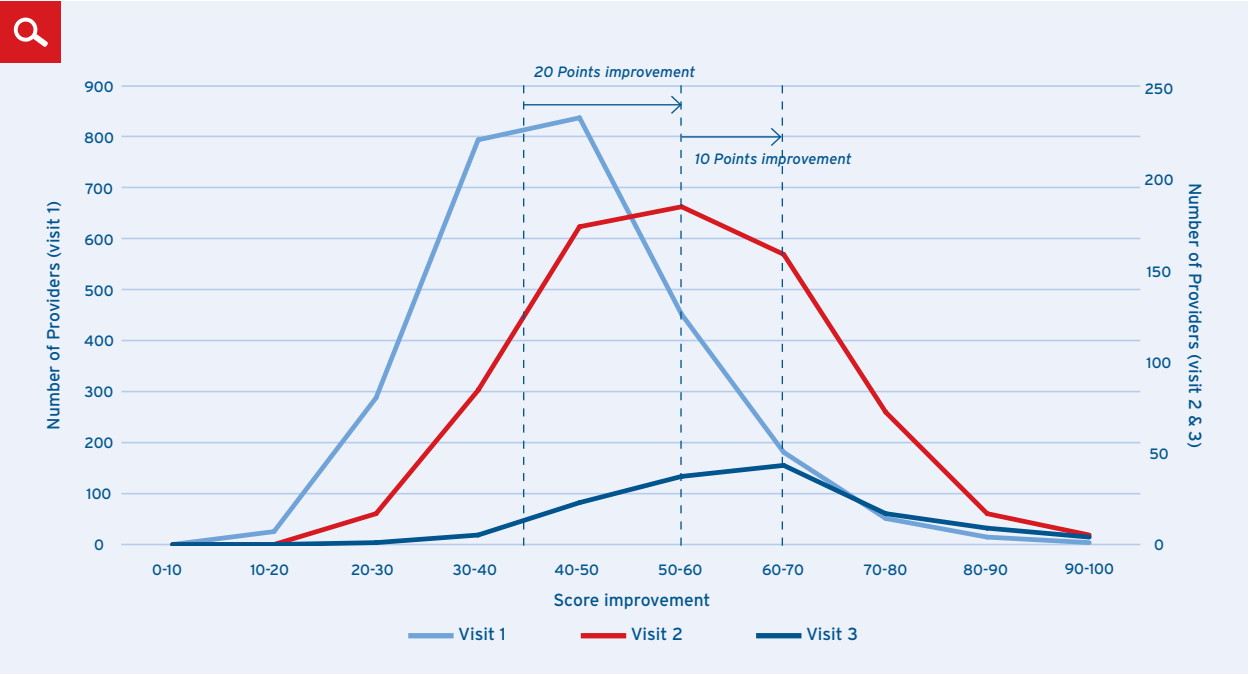


Figure 5. Score improvement of providers overtime - improvement in score between SafeCare visit 1,2 and 3 (data till end 2017)

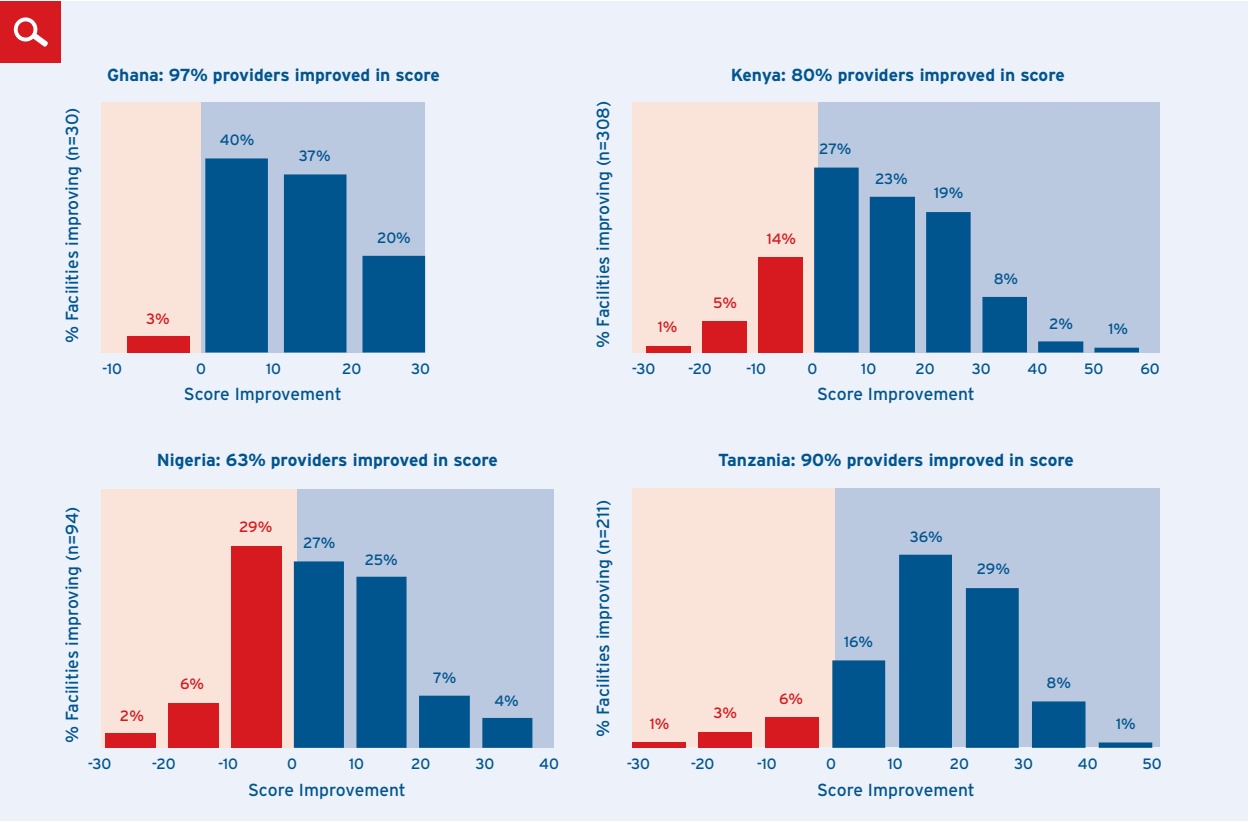


Figure 6. Score improvement per country - improvement highest in Ghana, lowest in Nigeria (data till end 2017)



4.3 Improving operational excellence and digitizing quality improvement

The cost of the program and the willingness to pay for the services by providers or external (non) donor parties remained a challenge in 2017. Throughout the year the SafeCare approach has proven to be a successful, scalable model for benchmarking and recognition of quality. However, it became evident that the process needed to improve in terms of cost efficiency and the provision of a better business proposition for participants. As most governments in the countries PharmAccess works in have now adopted a national standard-based recognition approach, PharmAccess decided to re-strategize SafeCare, with the aim to move towards a self-financing product or products at a smaller scale. As a consequence, PharmAccess expects the number of participating providers per country to plateau in 2018.

A new version of AfriDB 2.0 (the software system that supports the assessment methodology) allowed for better monitoring of the surveyor efficiency. PharmAccess also introduced a system where providers that have not made much progress after repeat assessments or that are on M-TIBA but have not yet had any wallet transactions, are monitored remotely rather than through onsite visits. The quality officer liaises remotely with the provider through email, phone or, very frequently and efficiently, through WhatsApp messaging. This approach has led to cost savings and staff efficiency, with the majority of additional staff being reallocated to project manager positions for new digital projects that were started in 2017. A second important focus

has been the re-strategizing on Safecare, developing a self-financing business model including the use of digital solutions to allow for more real time data capturing and a risk-based assessment process.

With the scaling of the M-TIBA platform, the number of providers participating in PharmAccess programs has increased significantly. However, the M-TIBA transactions are still limited at a large proportion of the clinics. This has delayed the process of including a SafeCare assessment fee in a “connection fee” for M-TIBA and hampered the ability to set demands for quality of care provision. A key lesson has been that the scaling of M-TIBA would have benefited from the strategic and careful agreement between partners on the type and distribution of facilities contracted onto the system. This lesson will be incorporated into the scaling up of the platform in Tanzania and Nigeria. At the same time, digitalization provides huge opportunities for remote quality monitoring and smart feedback tools on quality to care providers, and the fact that many facilities have been connected was important for the engagement of the NHIF. In 2017 PharmAccess started working on a SafeCare rating tool that allows for a comprehensive assessment to be executed within one day. This assessment would be linked to a quality improvement plan. This tool enables more efficient delivery of service and scaling, without compromising the SafeCare principles and methodology. PharmAccess aims to translate the data collected by this tool into an online “google maps” of healthcare provision, where stakeholders can pay a fee to access information on the scale, scope and quality of services.



Spotlight on Jacaranda

Jacaranda Health aims to provide high-quality, patient-centered maternal and reproductive health services in low-resource settings. As such, Jacaranda builds private maternity clinics in peri-urban areas. In 2017, a Jacaranda maternity hospital in Nairobi became one of the first facilities in Africa to achieve Level 5 SafeCare certification.

Jacaranda embarked on the SafeCare journey to increase visibility and demand for better quality in health service delivery and to prove that at the community level, one can lead and deliver services that positively transform the community. It was the mission of the Chief Medical Officer to drive this vision of quality improvement forward and create a strategy to build buy-in at the front line level. A core team from all departments led by the quality manager reviewed the SafeCare standards and identified the gaps. Assignments were developed with weekly SafeCare meetings to discuss progress towards goals. An internal quality checklist was developed for each department so that ongoing internal quality assurance would build a culture of continuous quality improvement. The hospital manager was responsible for ensuring this was implemented. Assigning work to key roles strengthened accountability. The team approach allowed for a shared distribution of work so that the effort did not depend on one person. Having a champion at the management level drove the process, ensuring the team met its goals and timelines. Executive leadership buy-in and support allowed for the team to have time to strategize and implement, allowed for resources to be available to address gaps and set the pace for quality as an organizational priority.

“The SafeCare recognition is really a stamp of validation that helped set the organization apart from other health facilities and demonstrated that the organization functions at a superior level. I believe quality is reflective of doing the right thing at the right time – with the ultimate goal of achieving optimal outcomes. Indeed, for me it has always been clear that higher patient satisfaction, better clinical outcomes and fewer complications would translate into higher volumes of patients and greater revenue generation. I believe Jacaranda has proven that high quality and sustainability go hand in hand.”

Faith Muigai – then Chief Medical Officer at Jacaranda Health, now Regional Director SafeCare



Measuring what matters most

PharmAccess works with the **International Consortium for Health Outcomes Measurement (ICHOM)** to explore how the principles of value-based healthcare can be applied in low- and middle-income countries.

A first pilot was implemented in Nairobi, tracking 200 women through different stages of pregnancy, up to the second post-natal care visit at six weeks after giving birth. Participants join M-TIBA and receive five short surveys on their phone, covering both clinical and mental health questions. The surveys help flag issues like incontinence or post-natal depression, but also satisfaction with care, even after the patients have left the clinic.

Preliminary data shows a more than 90% completion rate of the survey and has resulted in actionable data for clinicians. So far, for example, 78% of participants had a complete antenatal profile test. This insight forms a solid basis for analyzing quality. Are the remaining 22% indeed not getting a full risk assessment? And if so, why not and how can this be improved?

At an aggregate level, the data also allows for benchmarking, showing providers how they compare to others in areas like adherence to protocol, patient satisfaction and even patient outcomes. When collected at scale, the combination of M-TIBA and patient-reported outcomes generates invaluable insights that can drive informed policy-making on a health systems level.



Spotlight on Anton Memorial Hospital

Anton Memorial Hospital is a primary healthcare facility owned and managed by Dr Ebenezer Owusu-Asiamah (Medical Doctor) and his wife Mrs Jane Owusu-Asiamah (Nurse Educator). They took over the Anton Memorial Hospital in 2011 as a clinic and have grown the business into a hospital. The business is located in Alajo, one of Accra's most densely populated low-income suburbs. The hospital operates with 68 personnel, including four medical doctors, five physicians, three registered nurses and a laboratory technician. The hospital has three wards, holding a total of ten beds. Anton Memorial Hospital has progressed from level 1 in 2012 to level 3 in 2017.

"I was still teaching at the nursing school when a friend passed away, leaving behind a clinic that needed to be run. So, SafeCare came at a time when we had no experience with organization whilst the Medical Credit Fund helped us with an initial loan to get things running. SafeCare helped us organize our documentation, get equipment and acquire the right staff. At first, our main challenge was making sure that our staff followed through on the changes. In order to do this, we wanted to make sure our staff understood the importance of care. This way, improvements are more likely to be maintained. Which is why we set up a quality team that regularly monitors our staff. In terms of organization, the SafeCare library has provided us with clear guidelines on how to formulate certain documents like company policies, human resource documents and job descriptions. These organizational changes have also helped us financially. Because an orderly clinic makes clients feel at ease and will eventually lead to more clients coming in."

- Jane Owusu-Asiamah, Operations Officer

PharmAccess expects the information to be available free of charge to patients, for the provider it will either be free or be possible to be accessed online for a small fee. PharmAccess also aims to strengthen the partnership with JCI, by developing a SafeCare "Gold" label for recognition of excellence.

In 2018, PharmAccess will among others support the Pharmacist Council of Nigeria under the IntegratE project. This entails using SafeCare to develop standards and a tiered accreditation system for medically qualified patent and proprietary medicine vendors.

4.4 Key results

Overall most targets for 2017 have been achieved, with 92% of providers improving their score (even though monitoring and improvement visits have been reduced), overshooting targets by 31%. The total number of facilities included is slightly below target, mostly due to the fact that in mid-2017 enrollment of new providers onto M-TIBA was paused, leading to a total of 466 digitally connected providers. Also, the digital transactions have proved to be challenging. Whilst 20% of M-TIBA participants are saving, the amount they have saved is low. Therefore, savings are

infrequently used when people need care, and if used only for limited services and transactions. Attempts to drive this from a provider driven digital approach have been unsuccessful or financially inefficient. PharmAccess expects this to significantly improve in 2018 thanks to partnership with national insurance programs on the platform. The Gertrude's program has shown that if all or many patients visiting the hospital are using the wallet, with fully financed health packages in the wallet, the system is operational and provides full insight into the cost and quality of services delivered. Therefore in 2017 PharmAccess

has focused on the partnership with NHIF and its SupaCover with M-TIBA. If the SupaCover is offered through the M-TIBA wallet, then all financial transactions of most patients at the provider are captured.



Women 360

Woman360 is a franchise for high quality antenatal and delivery services in Ghana. It was initiated by the Embassy of the Kingdom of The Netherlands, Resolve Medical Services, Airport Women's Hospital, Teamscope, MSA Worldwide, Total Impact Capital, Eversheds and PharmAccess, with support from the Dutch Ministry of Foreign Affairs.

Franchising may not be a new concept in industries like the airline, oil, gas and food sectors. However, it is a relatively novel development in the health sector. PharmAccess as an interim franchisor has licensed a company as a Master Franchisee to operate the Woman360 franchise in Ghana. The franchise has a threefold vision to first reduce maternal mortality, utilize the abundant human resources in the health sector and attract domestic and foreign investment into the health sector.

In 2017, PharmAccess worked on the final preparations and the launch of "Woman360" as a Franchise business in Ghana. Woman Resolve Network, a newly set up private Ghanaian company, signed a Master Franchise agreement for the coming 5 years, with a contractual obligation to expand the franchise network to at least eight decentralized Woman 360 health centers (spokes) and two Woman360 Referral Centers (hubs). The remaining time of the project will be used to strengthen to franchise business and attract additional investments.



"Woman360 creates the opportunity to meet the demand of middle-income women who are willing to pay for better services for health, which improves overall health in Ghana." According to Dutch ambassador Ron Strikker



5. Enabling health investments

PharmAccess works with African financial partners to lower investment risks and mobilize capital into the private health sector. Mobile technology is helping to accelerate this access to credit even further.

In 2009, PharmAccess set up the first and only dedicated fund providing loans to small- and medium-sized health enterprises (SMEs) in Africa: the Medical Credit Fund (MCF). Health SMEs often lack a credit history, adequate bookkeeping and accounting systems, financial performance records and sufficient assets to serve as collateral. As a result, many of them are unable to secure formal bank loans and

struggle to purchase modern equipment or even pay for basic repairs. The MCF mitigates risks for financial institutions in order to bridge this gap.

In 2017, a total of 730 loans has been disbursed, a significant growth compared to the 268 disbursed the year before. Several loans have been disbursed in Uganda, the sixth country of investments, and MCF organized scoping missions to Senegal, Cameroon and the Ivory Coast. Discussions are underway with potential partners to start operations in Francophone West Africa.

There is a noticeable increase in interest among financial institutions to finance

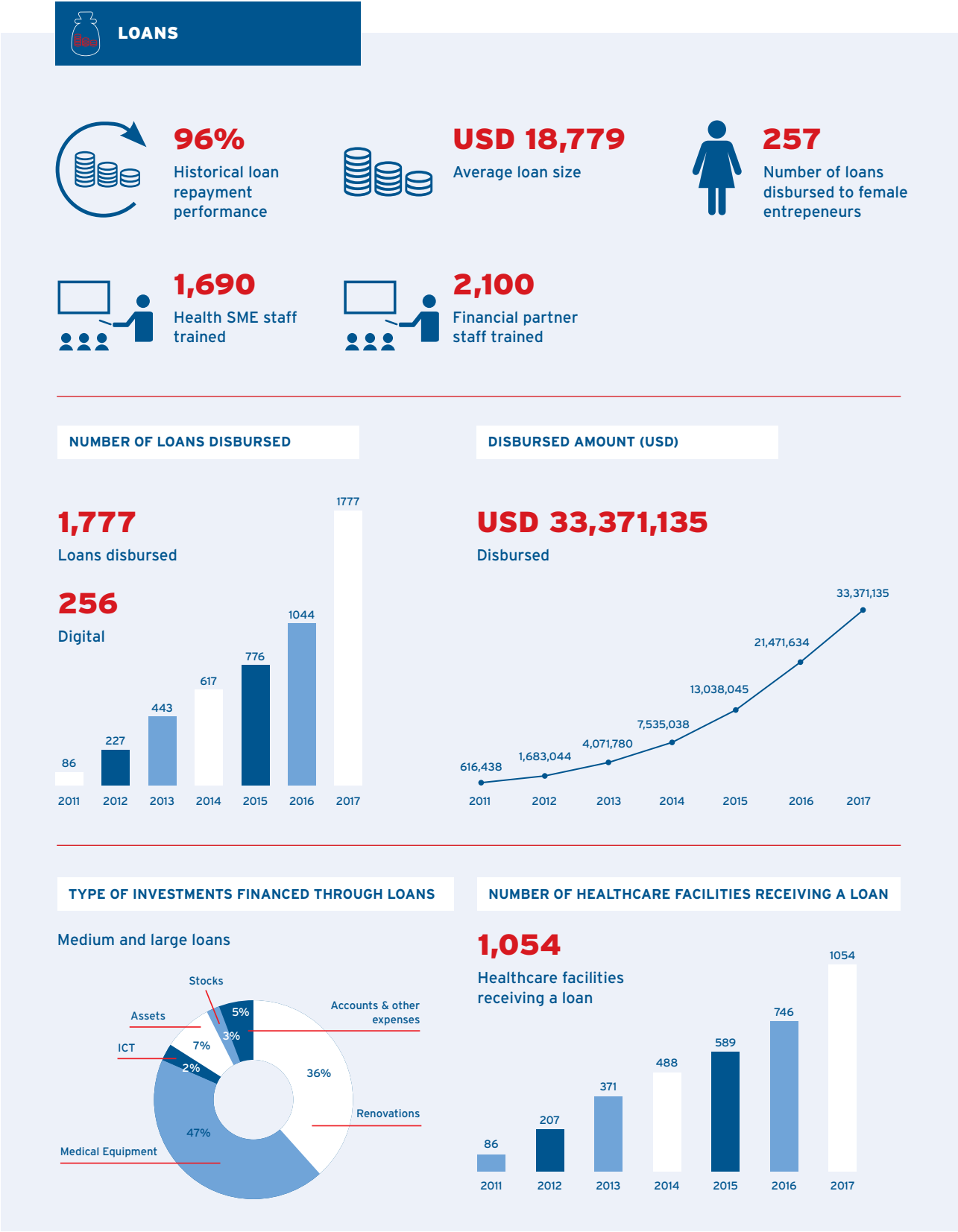


Figure 7.

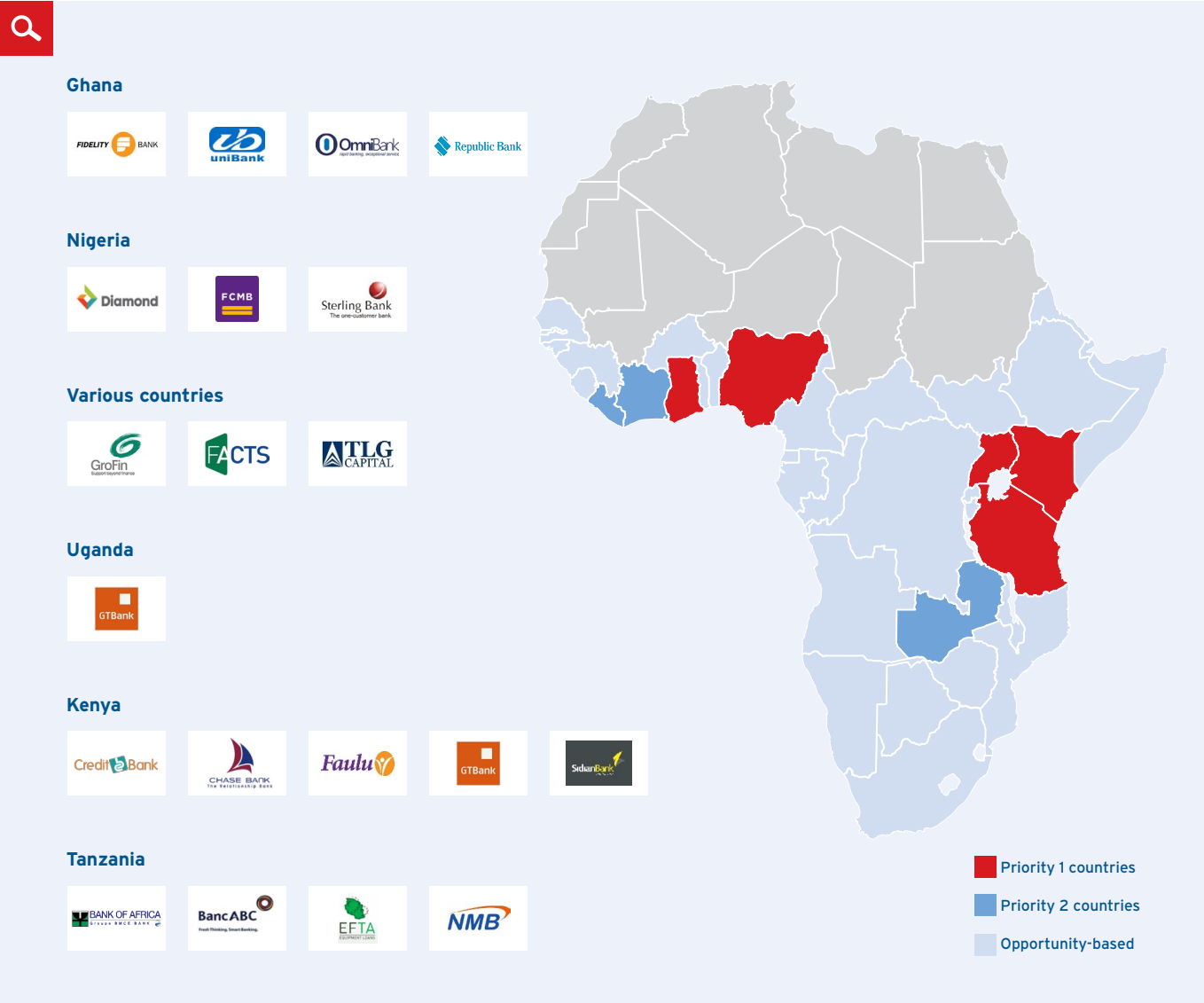


Figure 8. Medical Credit Fund countries and financial partners

Spotlight Cash Advance

The privately-owned facility Ruai Family Hospital offers general out-patient and in-patient services, theater services, child welfare services, antenatal care, screenings for chronic diseases and family planning. It has 16 staff members and serves around 300 outpatients per month. So far, it has received three cash advances.

"I applied for a loan of KES 9 million from a local bank to complete a construction project," CEO Maxwell Okoth explains. "But I had to stop due to the grueling credit approval process. Now, instead of applying for one big loan, I can take out four Cash Advances of KES 2.5 million each. It is satisfying to know that I can diversify my business stepwise without heavy loans from the bank or extra costs such as legal fees or valuation."

SMEs establish a financial track record and become bankable, develop their business acumen and improve the quality of their healthcare services. The quality as measured by SafeCare standards has improved in 77% of the healthcare facilities.

5.1 Expansion to USD 2.5m loans

Over the years, a growing demand for larger and more flexible loans was observed. In 2015, the Dutch Good Growth Fund and Pfizer Foundation provided support for the Medical Credit Fund to prepare for an expansion of its mandate. This, in combination with a loan from Calvert Foundation, allowed the Medical Credit Fund to reduce the investment risk for follow-on investors and to further catalyze impact investments.

In 2016, the Medical Credit Fund raised an additional USD 17 million from OPIC, the Calvert Foundation, and two private investors. This was followed in June 2017 by a new financing round from both public and private sources. New investments from the CDC Group (the UK's development finance institution), International Finance

Corporation (IFC), the French development finance institution Agence Française de Développement (AFD) and three private investors brings the fund to more than USD 40 million.

The Medical Credit Fund's new mandate allows for loans of up to USD 2.5m – a significant step up from the previous USD 350,000 ceiling – and for partnerships with non-bank financial institutions. It also opens up financing for other players in the healthcare sector, like suppliers of medicines and equipment, and enables partnerships in new countries.

5.2 Innovative loan products

Following and anticipating opportunities in the market, MCF continues to develop and test innovative financing solutions, including:

- **Receivable financing:** In Ghana, the Medical Credit Fund developed a loan product to address the working capital shortages that many healthcare providers deal with as a result of long turnaround times in insurance claim reimbursement under the National

health small and medium-sized enterprises (SMEs). In 2017, six new financial partners were signed up, ending the year with a total of twenty. MCF's strong partnerships have led to integrated loan products such as Sidian Bank's Tabibu loan in Kenya, uniBank's uniHealth loan in Ghana and Diamond Bank's Mediloan in Nigeria. The

solid repayment performance is prompting banks to take an increasingly large share of the funding and repayment risk, a sign that PharmAccess is helping to build a healthier investment climate for health SMEs.

By combining the loans with its technical assistance program, MCF helps health



Healthcare Management Program

Healthcare professionals need management skills in order to ensure a profitable business. Where doctors and nurses are generally very passionate and knowledgeable about the medical services they provide, they often lack business acumen and financial knowledge. To support healthcare professionals in improving their skills in the areas of business planning, quality management, leadership, financial and inventory management, thus strengthening their capacity to build sustainable businesses, PharmAccess has partnered with several educational institutions.

In Ghana, the Medical Credit Fund and PharmAccess provided Medical and Dental Council accredited business training for healthcare professionals. Participants obtained Continuous Medical Education (CME) points, underscoring the importance of business education as part of the healthcare curriculum for health professionals.

Strathmore Business School

In Kenya, PharmAccess joined forces with the prestigious Strathmore Business School to design healthcare management courses and hands-on support, bringing together theory and practice with the purpose of realizing lasting improvements to healthcare businesses. The courses combine the established strength of business leadership, management and entrepreneurship in combination with unique healthcare modules. The program is supported by the Dutch government's Faciliteit Duurzaam Ondernemen en Voedselzekerheid (FDOV - "sustainable business and food security") program.

The Managing HealthCare Business (MHB) curriculum is offered at two levels: a four-week Executive Course for academically schooled healthcare managers as well as an entry-level, five-day introduction course designed as a bridge to the Executive Course, for managers with a few years of experience in the field, who aspire to an advanced career in healthcare management.

So far, the program has had 119 participants, from private as well as public hospitals, in four foundations courses and two executive courses. In 2018, Strathmore Business School will launch a blended learning course on healthcare management.

"I did the Executive Course after my boss had attended and since then we have been able to reason at the same level when making decisions. The execution runs more effectively because we are both reading from the same script. The HR personnel and structures have really improved because we no longer look for culprits but instead embrace the challenges as a need to train our staff." Margaret Okiro, Hospital Manager at Siloam Hospital



Enterprise Development Centre

In Nigeria, PharmAccess partnered with the Enterprise Development Centre of Nigeria's Pan-Atlantic University to develop the Health Management Program (HMP), a four-month certificate course, which is the first of its kind in the country. The first cohort of the program began in December 2017.

The HMP covers core aspects like business, quality, policies that affect the practice of healthcare in Nigeria and the role of technology and innovation in the future of healthcare. It was partly funded with UK aid from the UK government through the TA Facility of the CDC Impact Fund.

Health Insurance Scheme (NHIS).

Healthcare providers receive a self-liquidating loan as an advance on their insurance claim.

- Pharmacy loan: For many people, the pharmacy is the first line of care when they are sick. In Nigeria, the Medical Credit Fund joined forces with Diamond Bank to offer Medi-Loan, a loan product tailored to pharmacies. Over 140 pharmacies have accessed loans valued at over USD 1.1 million in 2017 alone.
- Equipment leasing: In Tanzania, a financing collaboration with equipment leasing firm Equity for Tanzania (EFTA) opens access to more flexible debt financing by allowing private facilities to use equipment as collateral. Similar partnerships are under development in other countries.

The growing role of the mobile phone in day-to-day financial services also opens up new opportunities for innovative financing products. Mobile payment mechanisms that make risks transparent will allow the Medical Credit Fund to expand and increase loan disbursements parallel to the more traditional banking channel.

- Mobile cash advance: In Kenya, the Medical Credit Fund teamed up with CarePay to develop a short-term digital loan that issues automatic repayments through mobile revenues earned, without formal collateral requirements or an administrative burden. This allows for a low-cost and low-risk financing solution, especially benefiting smaller facilities that cater to patients at the bottom of the pyramid. This product has been very well received by healthcare providers, and the up-take of this product has exceeded expectations.
- Supply chain financing: By partnering with FACTS East Africa, a Fintech company, the Medical Credit Fund can leverage their digital platform to offer working capital solutions to the health sector in East Africa. Banks typically only offer supply chain financing to corporate customers and large transactions. FACTS East Africa's digital solution is focused on SMEs. Using this platform, the Fund can finance suppliers that provide crucial products to healthcare providers, for example medicines.

“What began as a pilot project in 2010, has to date enabled entrepreneurs in the private healthcare sector to own their tomorrow with financial facilities of KES 1.4 billion.”

Mr Chege Thumbi, CEO at Sidian Bank

5.3 Key challenges, opportunities and lessons learned

One of the strategic goals for the Medical Credit Fund is to become less reliant on donor funding over the coming years and reach financial sustainability in 2021. This means that the Medical Credit Fund needs to grow its income from loans while keeping portfolio quality high and without significantly increasing its operational (and financial) expenses. At the same time, sustainable resources are to be found to

pay for the technical assistance to the borrowers, while acknowledging that for the small ones subsidy will remain necessary.

In 2017, the Medical Credit Fund has grown its portfolio by more than 100% compared to the year before. But further growth is required to improve profitability. The Medical Credit Fund had a negative result in 2017. This was partly due to high one-off legal costs related to investor requirements. Other important factors were a loss on foreign exchange, the interest rate cap in Kenya and provisions on the exposure of the Medical Credit Fund on two of its financial partners who are facing issues. Market circumstances and the reliance on financial partners remain the most important challenges for the Medical Credit Fund.

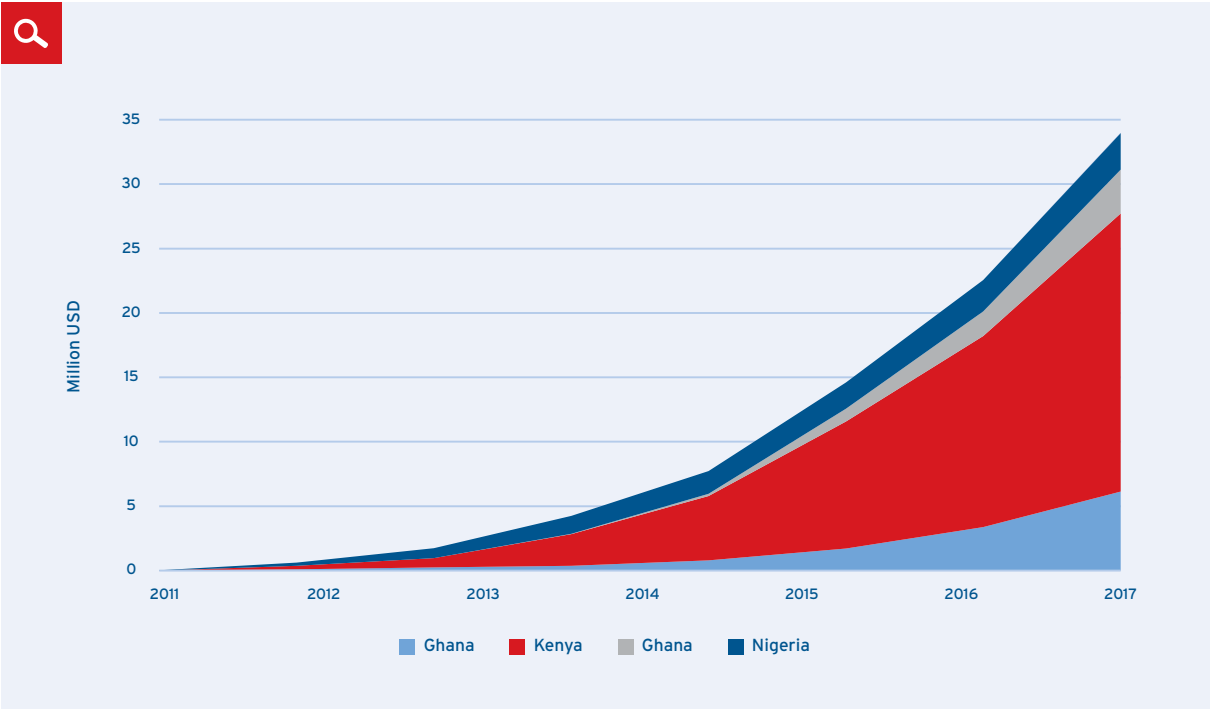


Figure 10. Capital disbursed per country (cumulative, USD)

The Medical Credit Fund will continue to respond to the consistently high demand for financing and quality improvement in the sector and develop products and partnerships to cater to this need. The expansion of the mandate of the Medical Credit Fund to provide larger loans and expand into new countries is expected to help speed up the Fund's growth and increase profitability. At the same time, digital solutions like the successful Cash Advance partnership with CarePay allow it to reach the smaller clinics, serving low-income groups in a cost-effective way.

5.4 Key results

In 2017, the Medical Credit Fund disbursed 731 loans with a value of USD 11.9m (a total of 1,777 loans to 1,054 health SMEs since inception). Compared to 2016, this is an increase of 178% for the number of loans

and 68% for the volume. While the number of loans is above target, the target for the total volume of the loans disbursed has not been reached. The Medical Credit Fund had expected that with the expansion of the mandate it would be able to grow more quickly. But the Medical Credit Fund has come to realize that larger loans also take more time to disburse with its financial partners. The average loan size disbursed in 2017 still stands at USD 19,000. This is also an effect of the success of Cash Advance and Receivable Finance Loans, which has led to a high number of small loans. The target for digitally disbursed loans was exceeded, as a result of the success of Cash Advance in Kenya. The repayment performance and percentage of risk borne by financial partners are relatively stable and in line with targets.

6. Operational research and impact evaluation

Without in-depth research into its programs, how can PharmAccess assess what works and what needs adjustment? PharmAccess use scientific proof of principle to improve approaches, maximize impact and advocate successful programs to scale.

Research has always been an integral part of PharmAccess’s approach, with a focus on scientific impact evaluations and operational research methods. Over the year 2017 PharmAccess has continued working on and expanding its international network of renowned research partners, including:

- The London School of Hygiene and Tropical Medicine continued its impact evaluation of the SafeCare program in Tanzania. The project has two main aims. The first aim is to gain insight on how the quality of facilities has changed in the SafeCare program. Results from the analysis of existing data were presented in early 2017. The second aim of the project is to measure the impact of SafeCare with a randomized controlled trial in 240 facilities across Tanzania.

- As part of the African Health Markets for Equity (AHME) project, Professor Paul Gertler, from the Haas School of Business at Berkeley University, performed baseline analyses of 851 treatment and 829 control facilities in Kenya. Key baseline parameters with respect to operations, services provided, clinic finances and reimbursement have been analyzed and presented. In addition, household surveys on 1,161 treatment and 966 controls were performed and preliminary results shared with respect to demographics, infrastructure, assets, clinic experience, and representativeness in comparison with a national sample.
- The Center for Advanced Hindsight carried out multiple experiments on user savings behavior and provider uptake of the digital health platform M-TIBA.
- Cumulative results of Amsterdam Institute for Global Health and Development (AIGHD)-supported research on PharmAccess programs have been compiled into a 2017 part-II summary booklet following the 2015 report “The Impact of Access to Quality Healthcare in Africa”.
- The AIGHD research related to the HIV Test and Treat project in Shinyanga and Simiyu Regions in Tanzania supported by PharmAccess Tanzania and will actually start in 2018. This project has attracted additional funding from TransGlobalHealth and TB-Reach and allows for PhD programs of two Tanzanians and one Nigerian candidate.
- Poverty mapping: Safaricom data on phone behavior and M-PESA data on mobile phone supported transactions



combined with recent Kenyan Bureau of Statistics household survey data (2016) will be used to develop algorithms that predict poverty of Kenyan individuals. Similar activities are ongoing in Ghana with Ministry of Health & Social Protection proxy means test data and mobile phone data from MTN. Both projects are in a preparatory stage with respect to securing official permits.

- Institut Européen d'Administration des Affaires (INSEAD): preparatory exchanges have taken place with INSEAD with respect to (operational) research on possible digital supply chain interventions by PharmAccess. Such projects were under development in 2017 in Ghana (in collaboration with CHAG) and Kenya (in collaboration with University of Nairobi).

Some of the key articles produced in 2017 include:

- The impact of subsidized private health insurance and health facility upgrades on healthcare utilization and spending

in rural Nigeria. Gustafsson-Wright et al, published in the International Journal of Health Economics and Management;

- The effect of health insurance and health facility-upgrades on hospital deliveries in rural Nigeria: a controlled interrupted time-series study. Brals et al, published in Health Policy and Planning;
- The Dynamics of temporary loss of enrolment status in the Kwara State Community Health Insurance Program (KSCHIP), North-Central, Nigeria. Akande et al, submitted to the Journal of Health Services Research & Policy.

Interesting research opportunities that were explored in 2017 include an impact evaluation of iCHF as well as of the Lagos State Health Insurance Scheme and a closer study into medicine supply chains in Kenya. Co-funding for research was secured from sources such as the Joep Lange Institute, London School of Hygiene and Tropical Medicine, NWO Wotro, and the Achmea Foundation.

IN 2017



23 academic articles submitted and other high level (policy) papers produced.

8 new operational research and impact evaluation activities established

16 case studies, 2-pagers, briefs, brochures, videos and infographics produced.



Poverty mapping Kenya

By linking mobile phone data and transaction data (e.g., from Safaricom) with household consumption data (e.g., Kenyan Bureau of Statistics) PharmAccess would like to develop an algorithm that can determine the poverty status of individuals based on their mobile phone behavior. At present, poverty maps can only provide the average level of poverty for an area (per district or province in developing countries or within city districts in some world class cities). Identifying the poverty level of individuals could be utilized for determining who qualifies for conditional cash transfers; effective allocation of subsidies under National Health Insurance Programs; and, identifying potential recipients of grants from international donors.

On the two poverty mapping projects, for both Ghana and Kenya, the key focus in 2017 was, and for 2018 will be, to get a formal agreement in place, including legal structure and clear roles and responsibilities (e.g., who has access to the algorithm, what legal structure is required to guarantee privacy and access to those who need it, and how does one ensure the highest ethical standards are adhered to when developing and using the algorithm). Once this is in place, inception workshops will be organized and PharmAccess can start assigning the development of the algorithm to pertinent researchers. Additionally, a broader discussion should take place on the future of participant identification based on mobile phones (including issues related to GDPR, privacy, ethics, intellectual property of data), as with the rise of smartphones a whole new horizon is being explored.



Understanding behavior to drive better decision making

A group of behavioral economists led by Professor Dan Ariely at Duke University's Center for Advanced Hindsight, is conducting research on M-TIBA to test and understand what can make people who live below the poverty line start saving and prepaying for health, and how to empower people to make better health decisions. During the course of 2017, key objectives of the team included applying behavioral economics insights to:

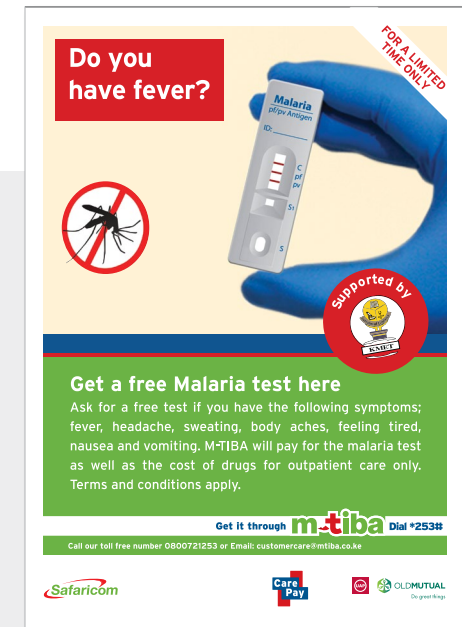
- increase user savings on M-TIBA, with a particular focus on the number of first time and repeat transactions on the M-TIBA platform;
- determine the most effective agent scripts for increasing enrollment AND saving on M-TIBA;
- increase M-TIBA clinic utilization; and
- determine the optimal design of an international peer-to-peer co-funding platform.



Connected diagnostics

If we can ensure that doctors only get paid for the services or drugs they prescribe if their patient tested positive for a certain condition, this could help address some of the most pressing problems in global health today, such as over-prescription of drugs and antimicrobial resistance.

In Samburu County, Kenya, PharmAccess conducted a pilot to prove that it is possible to diagnose and treat rare diseases like brucellosis in scarcely populated areas with few clinics, using point-of-care rapid diagnostic tests and a simple mobile phone. Of the 2,350 people screened, 322 had a fever. These people received a transport voucher in their M-TIBA wallet to get tested for malaria, brucellosis and typhoid. Those who tested positive received a treatment voucher. SMS text messages were used to follow up with patients and send adherence reminders. The pilot found a 6.5% prevalence rate for Brucellosis, compared to reported 0.2 - 2.2% in county records, indicating the potential of Connected Diagnostics to identify rare



diseases in people with fever. Moreover, only 1 malaria case was detected (0.3%, versus reported 2.6% in county records) indicating the potential of Connected Diagnostics to reduce over-diagnosis and over-prescription.

The next step is a test & treat malaria campaign in Kisumu County, Kenya. This will test 7,000 people and aims to build proof-of-concept for a low cost, effective and transparent means of treating malaria. Preparatory work was performed in Q3 and Q4 of 2017 in collaboration with KMET and FIO-Canada.



Harvard Business School case study

The prestigious Harvard Business School developed a case study on PharmAccess, M-TIBA and leveraging digital technology in the developing world. This case study has already been used as part of the curriculum of a course at, among others, Duke University. The authors also adapted the case study into an academic article that was recently published in the Health Policy, Management and Innovation (HMPi) journal. The journal highlights the experience of our organization with private-sector health delivery.

7. Advocacy

Advocacy is critical for the promotion of dialogue, strategic partnerships, and policy change on the digitalization of health financing and delivery in sub-Saharan Africa. It also contributes towards the development of the capacities of local partners and communities for private sector development in healthcare innovations. Collaboration with the Joep Lange Institute and the PharmAccess Communication Team also ensures that advocacy is based on research, experiences and the lessons learned from the initiatives of the PharmAccess Group.

Over the year 2017, several significant partnerships were developed to facilitate our work. These are:

- The MCF formalized partnerships with the UK Development Finance Institution (CDC), the International Finance Corporation (IFC) and Agence Francaise de Developpement (AFD). These important collaborations extended the mandate of the MCF to provide larger loans to health SMEs.
- Through the partnership with the World Bank Group's Health in Africa Initiative, 17 Nigerian states, including Kwara and Lagos have adopted laws that make

health insurance mandatory. The law commits the states to devote 1% of their income to subsidizing care for low-income families.

- Lagos State Government, the Health in Africa Initiative, the MCF and PharmAccess are collaborating on the development of health SMEs through a public-private partnership model. This collaboration supports the Lagos state health insurance scheme, financial inclusion and employment creation agenda by providing investments to the private health sector.
- PharmAccess also entered into partnership with Palladium on a USAID integrated health project to support the financing and delivery of maternal and child health care in Nigeria.
- Through partnership with Lagos State, the Carepay digital platform was introduced in Nigeria, the most populous country in Africa. Lagos State is planning to launch a statewide health insurance scheme, based on digital technology.
- In Kenya, PharmAccess also entered into an agreement (MoU) with NHIF to support the digitalization of health financing and delivery for Universal Health Coverage (UHC).

In 2017, PharmAccess Group, in collaboration with its partners, strengthened its position as a thought leader and shared information with diverse stakeholders on the digitalization of health financing and delivery and private sector development. PharmAccess Group and its partners co-organized and/or made keynote presentations at over 20 strategic conferences and expert meetings in Africa,

the Netherlands and beyond, including the following:

- One of the highlights was the visit of the Queen Maxima for Inclusive Finance for Development to Nigeria. October 31st 2017, Queen Maxima visited a digital health initiative of PharmAccess and partners in Lagos and held discussions with the Vice President of Nigeria, the Governor of Lagos State, the Minister of Finance and the Governor of Central Bank of Nigeria about the need to promote mobile payments and digital technology.
- At the Economist Summit on Innovating Economies held in Nairobi, Bob Collymore (CEO Safaricom), highlighted M-TIBA as an example of how the strong partnership between PharmAccess, CarePay and Safaricom has led to a successful innovation for healthcare in Kenya.
- M-TIBA was awarded the 2017 Financial Times/IFC Transformational Business Award in Health. This is the third time (2008 and 2016) that PharmAccess Group has won the award, demonstrating how its public-private partnerships for health financing and delivery is stimulating a new approach for development cooperation.
- PharmAccess, Joep lange Institute and the Health in Africa Initiative, supported by the Dutch Ministry of Foreign Affairs, organized a symposium on "Transformative Innovation in Healthcare Financing and Delivery in Africa in the Digital Age". The symposium offered the partners the opportunity to learn from each other's experiences and insights on the topic of transformative innovations in African

healthcare financing and delivery in the digital age.

- In Ghana the Women 360 Maternity Franchise Initiative was launched, with the Netherlands ambassador to Ghana as the guest speaker. It is the first franchise initiative involving the private healthcare sector for the middle class in Africa.
- At the National Health Excellence Award in Nigeria, the organizers established the PharmAccess Innovative Healthcare Service Provider of the Year in recognition of PharmAccess' role in promoting healthcare innovations in Nigeria.
- PharmAccess collaborated with African Health Care Federation to set up the Health Care Federation of Ghana to promote growth of the private health business through the sharing of best practices, transfer of business models, and opening of new opportunities.



IN 2017

In 2017 PharmAccess participated in **29** conferences & expert meetings (as speaker or co-organizer).

2 awards/ recognitions were received by PharmAccess

In 2017 **8m USD** has been raised from national/ international funders (incl. 6m USD for PEPPFAR)



Joep Lange Institute (JLI)

JLI promotes a digital agenda for global health innovation to make health markets work for the poor. JLI believes that funding and involvement by both the public and private sectors are critical to this transformation. Using its unique position of bridging different worlds geographically and across sectors, JLI aims to change the discussion from one focusing on obstacles to what steps can positively effect change. Together with a close network of influencers, activists and partners, JLI promotes its vision and ambition through three roles: 1) in dialogue with other transformative thinkers, we aim to re-shape global health; 2) Promising solutions are tested in practice, to prove their real-life efficacy. Innovative research projects are carried out by partner organizations, with our support; and 3) JLI provides a platform for potential change-makers to shape the agenda, testing promising innovations, and advocating for policy change to create a new, equitable health infrastructure.

Key activities

- *The Noordwijk Series: towards a reinvigorated HIV/AIDS response:*
Over the past year, JLI has facilitated a total of seven conferences focusing on specific issues currently facing the global HIV response. Chaired by Mark Dybul, JLI convened scientists, policy makers, activists and donors to discuss solutions to a set of five core challenges: primary prevention, quality treatment, finance mechanisms, HIV community involvement and human rights. The outcomes and recommendations of these meetings will be presented during an official preconference in the AIDS2018 program on 22 July, as well as during other JLI activities and events during and around AIDS2018 (23 - 27 July).
- *Center for Advanced Hindsight: Joep Lange Chair Dan Ariely and his team at the Center for Advanced Hindsight (CAH) have been exploring how to help people in Kenya take better health and financial decisions. Currently, Dan Ariely and his team are engaged in multiple implementation research projects in Kenya together with PharmAccess. Concretely, the team is working to help make the M-TIBA health wallet more effective by discovering ways to encourage users to set funds aside for healthcare.*
- *Innovative financing for Hepatitis C treatment in Cameroon:* The JLI is supporting the development of an innovative financing mechanism to realize scaled Hepatitis C treatment in Cameroon. PharmAccess is executing this program in close collaboration with its local partners. At the moment, the implementation team is focusing on collecting relevant data needed to design the most appropriate financing mechanism, such as a Development Impact Bond, for the setting. Once the mechanism has been developed, the team will be looking to receive commitments from all required parties and put the mechanism into practice.

- *Chair and Fellows Program:* In 2015, the Professor Joep Lange Chair and Fellows Program was set up by JLI. This program receives support from the Dutch Ministry of Foreign Affairs. It brings together experts from different backgrounds and geographies to collaborate on research that will help drive change in the field of global health. This multidisciplinary approach is echoed in the unique rotating character of the Chair, which will welcome up to five (partly concurrent) professors from different fields of expertise in five years. The first two Chairs were announced in 2016: Dan Ariely, world-renowned behavioral economist from Duke University, and Mark Dybul, former Executive Director at the Global Fund to fight.



Investment Fund for Health in Africa (IFHA)

The Investment Fund for Health in Africa (IFHA) is continuing to make significant capital investments into private healthcare across Africa. IFHA has recently set up an East African hospital and clinic chain with the International Finance Corporation. This chain will increase the access to high quality and appropriate care for their target populations, using improved business practices and economies of scale. In the first half of 2018, IFHA will also be making significant investments in South Africa in care provision and distribution to further diversify its geographical profile. IFHA-II, IFHA's second fund, is expected to be fully invested over the next 18 months.



8. The way forward - strategic direction 2018 and beyond: 'A basic mobile health insurance contract for everybody'

The year 2017 was a year of innovation, of collaboration and of challenging the status quo. Since our inception, PharmAccess has rejected the idea that exclusion from healthcare is an inevitable consequence of living in poorer countries and has proved through its work that there are numerous opportunities to make inclusive healthcare markets work. Digitization is a new and unprecedented one. In 2018 and beyond PharmAccess will continue to execute its digital strategy and to work with partners to improve the quality of healthcare and increase the number of people who can access it.

Ensuring that the health sector is an appealing and realistic investment option is vital, and mobile technology will be an enabler for this. The CarePay platform (branded M-TIBA in Kenya) is an important element of this strategy. The platform connects payers, providers and individuals. It allows for money and data transfer between these actors. The platform has the power to improve healthcare financing, quality of care, and analysis of health market trends and consumer needs. The years 2016 and 2017 marked the launch and initial growth of these digital platforms. PharmAccess devoted significant efforts to support the incubation and growth of M-TIBA, including brokering funding, designing and testing programs, strategic development, international expansion, and impact maximization. CarePay will focus on the continued development of software and expansion of operations.

The enabling of, or connecting to, (risk) pools for care will be a significant focus for PharmAccess in the coming years. These

pools for care are essentially inclusive funds that will help it achieve its ambition of 100 million people having access to basic healthcare through the use of a health wallet by 2025. Pools for care are a method for sharing risk and for insuring that the individual can move from struggling to pay for healthcare at the time of immediate need, to a more sustainable pre-payment approach. This not only benefits the individual who needs care but will ensure that health markets are attractive to the private sector and continue to grow and improve. Building on the achievements and lessons learned in 2017, PharmAccess will support the generation of these inclusive funds with a public-private approach.

PharmAccess aims to channel and/or harmonize existing funds and attract additional funding. These funds include both private or public donor funds, often disease specific, as well as national health insurance funds. Also, participants can make payments for care, depending on their socio-economic status and payment capacity. A range of new partnerships with global funders and donors will therefore be developed in 2018.

Besides attracting funding flows to the pools for care, focus will be placed on increasing value from data in these pools - be it for the benefit of the fund managers and payers by creating additional transparency to guide allocation decisions, or for the benefit of the provider to support treatment decisions and receive feedback on overall performance. The right data-engine set-up and data collection functionalities need to be in place to realize this, both at CarePay and at PharmAccess.

By studying the vast amount of data now accessible via mobile technology, we have the opportunity to identify, develop and test targeted approaches to improve individuals' health-related decisions. Mobile health platforms can also be used to develop digital health services for chronic conditions, with a focus on self-management. In Africa, unhealthy lifestyles are leading to a rapidly growing number of people with chronic conditions such as hypertension, diabetes, kidney failure and heart problems. If all the people in Africa with hypertension were to be treated according to current guidelines there would not be a doctor left to treat patients with HIV. So there is an urgent need to do things differently. First, we need

to engage people in a healthier lifestyle. Healthy living can save lives. It can prevent people from becoming a patient and it can revert chronic conditions like diabetes, removing the need to take drugs. Second, we need affordable and scalable service delivery models for people who already have a chronic condition. In 2018 focus will be placed on using the mobile health platforms to reach people in their daily lives, before they become a patient.

In 2018, SafeCare will work on further improving the operational excellence of SafeCare and the development of a sustainable business model - this is a necessary condition for advancing the





quality agenda in the PharmAccess focus countries. In addition, SafeCare will collaborate increasingly with the Joint Commission International (JCI) to work on a new label for excellence targeting better performing healthcare providers. By positioning a joint high value excellence brand, PharmAccess wants to stimulate aspiring providers to improve their quality. Another area of development will be the digitization of real-time quality monitoring of participating healthcare providers.

The Medical Credit Fund plans to continue to grow its portfolio by 100 percent, spurred by its expanded mandate to enter new countries and finance larger loans. With expansion, the Medical Credit Fund will be able to help more SMEs build a financial track record and become bankable, develop their business acumen, and improve the quality of their healthcare services.

In all of this, the design and set-up of the data flows should conform to the European legal framework and international standards regarding privacy and data usage. Supporting these efforts is the development of new digital procurement functionality and the increased access to capital through digitization of processes and proliferation of capital products by the Medical Credit Fund.

Every project and partnership that will be embarked upon going forward will be guided by the strategic objectives of PharmAccess established in 2016 to make inclusive health markets work, as follows:

1. **Develop private pre-payment mechanisms, risk pooling structures, and mobilize resources for organized demand.**
2. **Strengthen, benchmark, and certify clinical and business performance of healthcare service suppliers.**
3. **Improve efficiency, effectiveness, and transparency to better match demand and supply of healthcare transactions.**
4. **Mobilize capital into the private health sector.**
5. **Conduct research on the various implemented strategic interventions and advocate those that are successful.**

PharmAccess believes these objectives combined will deliver attractive and truly inclusive health markets that operate with high standards of care for everyone.

9. Annex

Key Performance Indicators 2017	Realization
Develop private pre-payment mechanisms, risk pooling structures, and mobilize resources for organized demand	
Number of enrollees in health insurance programs	486.391
Re-enrollment % in health insurance programs	20% ¹
People connected to M-Health wallets	810.693
% of M-Health wallets with savings	16% ²
Average savings amount per M-Health wallets (local currency) -Average savings amount per saving	32 KES 90 KES
% of tot. money/value of benefit on MHealth wallets from national remittances	3%
% of tot. money/value of benefit on MHealth wallets from international remittances	3% ³
Strengthen, benchmark, and certify clinical and business performance of healthcare service suppliers	
Number of clinics in the SafeCare program	1.867
% of healthcare facilities improving SafeCare score	92%
Number of partner organizations that are licensed to use SafeCare methodology	17
Number of facilities digitally connected	466
Improve efficiency, effectiveness, and transparency to better match demand and supply of healthcare transactions	
Development and/or implementation of mobile tools to support patient journeys	6 ⁴
Mobilize capital into the private health sector	
Average number of monthly digital transactions per connected healthcare facility	14
Volume of disbursed loans (USD)	11.899.501
Number of disbursed loans	733

Key Performance Indicators 2017	Realization
Number of digitally disbursed loans (cash advance, receivable financing)	256
Repayment performance (using PAR 90 as criterion)	96%
Average % of repayment risk borne by financial partners	45%
Conduct research on the various implemented strategic interventions and advocate those that are successful	
New operational research and impact evaluation activities established	8
Academic articles submitted and other high level (policy) papers produced	23
Produce case studies, 2 pagers, briefs, brochures, videos and infographics	16
Disseminate (internally and externally) and monitor audience reached	15
Initiate new larger scale research and grow PAG research network internationally	2
Support local research capacity building (country offices as well as local research partners)	3 (>25 individuals)
Recruit complementary research funding through third parties (JLI, others)	5
# partnerships, agreements & MoUs,	7
# conferences & expert meetings (speaker or co-organizer)	29
# awards/recognitions received by PharmAccess Group	2
Fundraising	8,147,809 ⁵

¹ Based on Tanzania data since Kenya NHIF is the 1st year, too early to track re-enrolment

² Based on My Health Funds only

³ Claim cost share of people in international program from approved Smiles claims in 2017

⁴ HIV tracker Kenya, Pregnancy tracker Kenya for patients and for clinics, TB screening app Nigeria, Women 360 referral app Ghana, Triage app together with ALMANACH Tanzania.

⁵ Including USD 6 million from PEPFAR

Partners

We would like to thank our partners, donors and investors for their support and effort towards the results that we have achieved in 2017.

Strategic partnerships

- African Air Rescue (AAR)
- African Health Markets for Equity (AHME)
- African Population and health Research Centre (APHRC)
- Amref Health Africa
- Amsterdam Institute for Global Health and Development (AIGHD)
- Association of Private Health Facilities in Tanzania (APHFTA)
- Banc ABC (Tanzania)
- Bank of Africa (Tanzania)
- CarePay Ltd
- Center for Advanced Hindsight
- Chase Bank (Kenya)
- Christian Health Association of Ghana (CHAG)
- Christian Social Services Commission (CSSC)
- Clinton Health Access Initiative
- Council for Health Services Accreditation for Southern Africa (COHSASA)
- Credit Bank (Kenya)
- Delta State Government
- Diamond Bank (Nigeria)
- Duke University
- East Africa Healthcare Federation (EAHF)
- Equity for Tanzania (EFTA)
- FACTS
- Faulu (Kenya)
- FHI 360
- Fidelity Bank (Ghana)
- First City Monument Bank (Nigeria)
- Gertrude's Children's Hospital
- GFA consulting group
- Ghana National Health Insurance Agenda (NHIA)
- Ghana National Health Insurance Scheme (NHIS)
- Grofin
- GT Bank (Kenya)
- Health Facilities Regulatory Agency (HEFRA)
- Hygeia
- International Consortium for Outcome Measurement (ICHOM)
- International Society for Quality in Health Care (ISQua)
- Investment Fund for Health in Africa (IFHA)
- Joep Lange Institute (JLI)
- Joint Commission International (JCI)
- Kenya National Hospital Insurance Fund (NHIF)
- Kisumu Medical and Education Trust (K-MET)
- KNCV Tuberculosis Foundation
- Kwara State Government (Nigeria)
- Lagos State Government (Nigeria)
- Lagos State Government Health Facility Monitoring and Accreditation Agenda (HEFAMAA)
- London School of Hygiene and Tropical Medicine
- Marie Stopes International (MSI)
- Marie Stopes Kenya (MSK)
- Ministry of Health in Kenya, Nigeria, Tanzania and Ghana
- National Microfinance Bank (Tanzania)
- Ogun State Government
- OmniBank (Ghana)
- Philips
- Population Services International (PSI)
- Population Services Kenya (PSK)
- Republic Bank (Ghana)
- Safaricom
- Sidian Bank (Kenya)
- Society for Family Health (SFH)
- Sterling Bank (Nigeria)
- Strathmore Business School (SBS)
- Tanzania National Health Insurance Fund (NHIF)
- TLG Capital
- UniBank (Ghana)
- University of Ilorin Teaching Hospital
- World Bank Group/ IFC/s Health in Africa (HiA)

Public investors and donors

- Agence Française de Développement (AFD)
- Centers for Disease Control and Prevention (CDC) Foundation
- Department for International Development (DFID)
- Dutch Ministry of Foreign Affairs
- Entrepreneurial Development Bank (FMO)
- Human Development Innovation Fund (HDIF)
- International Finance Corporation (IFC)
- Kreditanstalt für Wiederaufbau (KfW)
- Overseas Private Investment Corporation (OPIC)
- President's Emergency Plan For AIDS Relief (PEPFAR)
- United States Agency for International Development (USAID)
- UK-aid
- World Bank Group

Private investors and donors

- Achmea Foundation
- Aegon
- Aidsfonds
- AmsterdamDiner Foundation
- Bill & Melinda Gates Foundation
- Calvert Impact Capital
- Deutsche Bank
- ELMA Foundation
- Gilead Foundation
- Heineken
- Henry Jackson Foundation
- M-PESA Foundation
- MSD for Mothers
- Nationale Postcode Loterij
- Pfizer Foundation
- Rockefeller Foundation
- Shell
- Soros Economic Development Fund
- Unilever

PharmAccess
FOUNDATION

Health
Insurance
Fund



SafeCare
BASIC HEALTHCARE STANDARDS

PHARMACCESSGROUP

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