Annual Report 2018

Health Insurance Fund

Contents

Preface by CEO

Dear friends,

Building inclusive, sustainable health systems, grounded in trust and solidarity, is a long-term endeavor – but the poor can't afford to wait. Through the advent of innovative solutions and mobile technology, what took us decades in the past to achieve can – and should – be done much faster. The ambition to make this a reality is what drives us at PharmAccess. We strive to make inclusive health markets work. That the previously excluded can get access to affordable care. That, even in the most remote areas, people can trust the quality of care they receive. We believe that with political will, public-private partnerships and by using mobile and digital technologies, healthcare in Africa can be transformed in the interest of its people.

Today, at least half of the world's population does not have full coverage of essential health services with 5 million people a year losing their lives due to poor quality health services. A stark reminder that there is a long road ahead to achieving universal health coverage (UHC) by 2030. However, in 2018 we have seen a promising push by governments for launching and scaling national, regional or state-level health insurance across a growing number of African countries, which has set the foundations in place to work towards universal access for healthcare for millions of people.

For me personally, 2018 was the year in which I took over the role of CEO of the PharmAccess Group; a great honor and responsibility. It has been an exciting and informative first year, during which I had the chance to meet and exchange thoughts with so many of our partners and stakeholders on potential innovative and sustainable solutions to improve the lives of people in low and middle-income countries.

For PharmAccess, 2018 was the year our new digital strategic direction set out in 2017 was fully established with the reallocation of people and funds. Resulting in new partnerships, the launch of new interventions and the refinement and further expansion of our core approach on demand side financing, access to capital for healthcare providers and standards for benchmarking and improving quality of care.

The re-launch of the Kwara Health Insurance Scheme in Nigeria was a particularly proud moment. Kwara's commitment to achieving UHC dates back to 2007 with the launch of the Kwara Community Health Insurance Scheme. Working in partnership with the state and Hygiea HMO 370,000 people received health insurance cards and were able to access health services when they needed. For some this was the first time they had owned an official card with their name on it. Suddenly they were somebody. As a highly commended program, the power of health insurance became clear. However, with a paper-based system, processes were inefficient and costs and barriers for (re-)enrolling were high.

Today, mobile technology changes everything. The cost and time to administrate programs are significantly lowered and it no longer takes months to enroll 100,000s of individuals and their families, now it takes only days. Mobile health payment platforms like M-TIBA enable unification of the fragmented sources of health financing, and we are now able to support households directly through their mobile phone, based on their identified socio-economic status, to receive, (co-)pay or save for healthcare entitlements. Transparent, efficient and empowering, and in turn consumer powered healthcare will result in better healthcare.

Also, the potential for scaling impact and lowering costs across interventions from the delivery of care, access to loans and the implementation of quality standards have increased as a result of digital technology. With Medical Credit Funds digital Cash Advance, where 1000's of facilities across Kenya have accessed a loan to invest in healthcare services directly to their mobile phone within 48 hours. A process that used to often take months. The digitalization of SafeCare's quality rating and improvement process is being piloted and rolled out, further incentivizing quality improvement. Pilots to track and monitor patient journeys digitally, collect their feed-back and to fund healthcare facilities based on the delivered value of care are being implemented. In addition, large amounts of data can be used to make informed decisions on where to allocate which resources.

However, scaling solutions for reaching UHC can only be achieved if we work together. Which is why partnerships continue to be the key to our approach. Our commitment to finding and working with partners ranging from State governments and NGO's to telco's to pharma has resulted in the expansion of our resource mobilization team and new partnerships including The Global Fund to Fight AIDS, Tuberculosis and Malaria.

All of our 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.

Health is wealth, and progress towards Universal health coverage will also contribute to inclusive and sustainable economic growth. The road may be long, but I am confident when digital innovations and political will are combined the potential for reimagining healthcare systems within sub-Saharan Africa are unprecedented.

Monique Dolfing-Vogelenzang
CEO PharmAccess Group

2001

Joep Lange establishes PharmAccess to demonstrate that HIV/Aids treatment is feasible in Africa

2003

Launch first Risk Equalization Fund for HIV/AIDS

Is it impossible to cover an HIV/AIDS patient for only €1,90 per month? The Vitality daycare, a basic medical fund in Namibia, showed the way

2007

2007

Launch of the EUR 50.2m Investment Fund for Health in Africa (IFHA) that invests in fast-growing healthcare companies in sub-Saharan Africa

2007/2008

AWARD

States in Kenya and Nigeria launch their first Health Insurance scheme with support of the Dutch Ministry of Foreign Affairs and a public-private partnership including PharmAccess

HEALTH INSURANCE

Health Insurance Fund

Launch Health Insurance Fund

How can access to quality care for low and middle-income families in Africa be improved? Learn more about our approach on page 9.

2009

ACCESS TO LOANS

MEDICAL CREDIT FUND AFRICA

Launch Medical Credit Fund

With a lack of trust between health SMEs and banks, how can health SMEs grow their business and invest in quality? Learn more on page 36.

2010

QUALITY STANDARDS

SafeCare HEALTHCARE STANDARDS

Launch Safecare

With international care standards out of reach for most health facilities in Sub-Saharan Africa how can quality be improved? Discover how SafeCare strengthens healthcare supply on page 24.

AWARD

MCF awarded G20 SME Finance Challenge Award

Tanzanian Ministry of Health releases SafeCare guidelines nationwide

2014

AWARD

MCF wins OPIC Impact Award for Access to Finance.

Kwara Health Insurance program awarded:

- Finalist for the OECD AC Prize for taking Development Innovation to Scale
- Saving lives at Birth Award
- Selected as model for leapfrogging access to care by the World Economic Forum

2015

MOBILE HEALTH FINANCING INNOVATIONS

m-tiba

Launch M-TIBA

How can mobile reshape healthcare? Read about how digital and mobile technology is increasing demand for healthcare on page 15.

2016

Winner, with AMREF, of Dutch Postcode Lottery's EUR 10m Dream Fund

PRAGMATISM, SCIENCE AND ACTIVISM

JOEP LANGE INSTITUTE

Launch Joep Lange Institute

Discover how research and advocacy is an integral component to our approach on page 46.

2016

Ministry of Foreign Affairs of the Netherlands

Dutch Ministry of Foreign Affairs refinances the HIF for 7 years

2017

AWARD

M-TIBA wins Financial Times/IFC Transformational Business award

Partnership with National Health Insurance Fund Kenya

2018

Diabetes and hypertension care pilots launched in Kenya with special partners

Kwara state, Nigeria, launches mandatory health insurance for all using mobile to enroll the population

SMART CONTRACTING

Mother and child digital tracking programs begin in Kenya and Tanzania. Read how smart contracting is not only tracking a mother's journey but HIV/AIDS, hypertension, diabetes and malaria patients on page 33.

‘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.

Introduction

The 2030 Sustainable Development Goals has put universal health coverage (UHC) firmly on the political agenda. Whilst, mobile technology has transformed African economies and a lack of infrastructural legacy provides a launch pad for technological solutions to leapfrog development in the health sector.

Fundamentally, though, fractures in the healthcare system still exist. Where a system of low trust and high risk leads to a cycle of low-quality care, low demand and inadequate access. Healthcare is mostly post-paid, and too few investments into the system are made. Supporting the rural and urban poor in their “great escape” from poverty therefore depends significantly on reducing the risks and costs that are associated with healthcare.

Our Theory of Change underpinning the PharmAccess approach focuses on breaking this vicious cycle and transforming to a virtuous cycle. Where we aim to support the development of inclusive health markets to increase access to affordable, quality healthcare for low and middle-income populations in sub-Saharan Africa.

Technological innovation is at the heart of our Theory of Change. It is the enabler that is showing the potential to disrupt financial and administrative transactions by reducing costs and time. Whilst data can enable us to focus on creating value based health systems.

The PharmAccess Group (referred to as PharmAccess) develops innovative financing mechanisms such as health insurance, standards to assess and stimulate improvement of the quality of care delivered with SafeCare. Whilst the Medical Credit Fund drives more money into the system with loans to clinics to stimulate growth and encourage new ways of financing healthcare. PharmAccess develops and implements a range of digital products and services in collaboration with technology company CarePay, to strengthen the effectiveness of these interventions.

On a solid base of local and international public private partnerships, and with the support of many international development stakeholders including the **Dutch Ministry of Foreign Affairs**, this integrated approach is continuing to attract international attention. 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 2018, PharmAccess employed a multidisciplinary team of 176 professionals, 60 in Amsterdam, 50 in Kenya, 29 in Nigeria, 20 in Tanzania and 17 in Ghana.

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 where it was unavailable. 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 laid the foundation for international action.

At the time, multinational companies, the Dutch Ministry of Foreign Affairs and PharmAccess realized that much more needed to be done to provide 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 creation of the Health Insurance Fund in 2006 and the signing of a long-term partnership with the Dutch Ministry of Foreign Affairs. The Health Insurance Fund contracted 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 also including and leveraging private sector capacity to ensure improved access to quality care for low- and middle-income groups.

After a positive evaluation of the first funding term by the Boston Consulting Group in 2015, the Ministry of Foreign Affairs renewed the partnership with the Health Insurance Fund in September 2015 for the period of 2016-2022.
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 providers

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 interventions and advocate those that are successful.

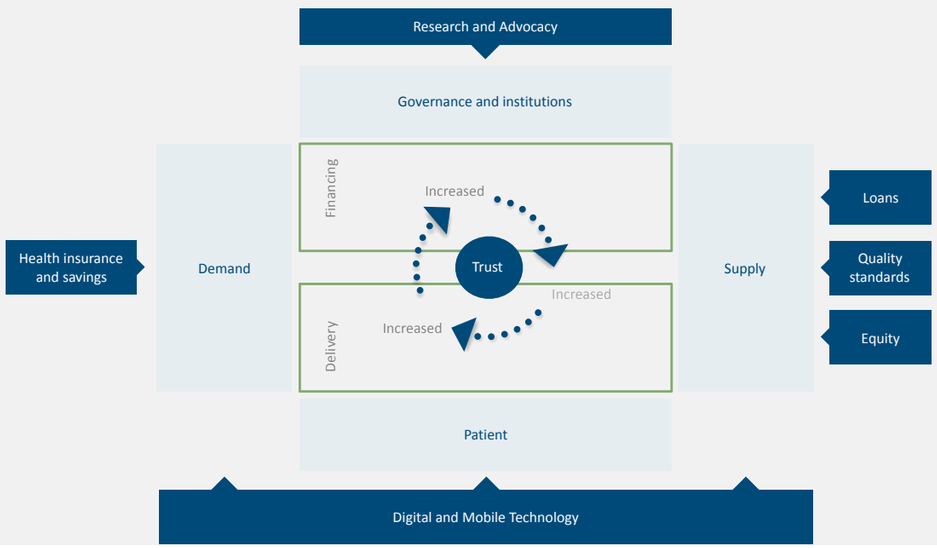
Moving towards a virtuous cycle

The provision of healthcare should ultimately be a public good. Where governments meet the health needs of its society. The reality though is, according to the WHO, at least half of the world's population cannot obtain essential health services. Which is where the private sector can play a role in the delivery of health services. In Africa private health services account 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 the 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. As a result, 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.

PharmAccess aims to break the vicious cycle of low trust, inadequate access, high risk, low demand and low-quality supply that exists in healthcare in sub-Saharan Africa. PharmAccess believes that we can transform this vicious cycle and turn it into a virtuous cycle of trusted inclusive health markets, thereby leveraging private sector development that benefits low- and middle-income groups. These inclusive health markets have increased utilization and sustainable financing. Health outcomes are improved and people trust the system. With the opportunities that digitization and digitalization brings, we believe we can accelerate and further scale our work.



Opportunity of digital technologies for healthcare in Africa

Sub-Saharan Africa is undergoing a considerable change in political, socio-economic and technological landscapes. It is now the second most populous continent with annual growth expected to be 42 million per year. This growth provides market opportunities but at the same time increases the pressure on governments to cater to the public needs all of these people, especially in fields like health and education.

Meanwhile, globally digital and mobile technologies have transformed every facet of our daily lives as well as our economies.

Sub-Saharan Africa is no exception with 634 million unique mobile subscribers expected by 2025, the internet connection penetration rate expected to grow to 93% and as of December 2018 there were 395.7 million registered mobile money accounts.

If digital and mobile technologies can make the difference in healthcare anywhere in the world, it is in Africa. By levering mobile phones and digital technologies, our goal is for every individual to have affordable access to healthcare in the most cost effective way.

ORGANIZED DEMAND FOR HEALTHCARE

1 NO POVERTY · 3 GOOD HEALTH AND WELL-BEING · 5 GENDER EQUALITY · 8 DECENT WORK AND ECONOMIC GROWTH · 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE · 10 REDUCED INEQUALITIES

CONTEXT

~100mln

People are being pushed into extreme poverty because of out-of-pocket costs

36%

of health expenditure in SSA is out of pocket, compared to **22%** in the rest of the world

Poorer households bear the greatest burden of catastrophic health expenditure and impoverishment

BARRIERS

- Most developing countries lack institutionalized solidarity mechanisms, and the total per capita health spending is very low
- Healthcare financing sources are highly fragmented, and the system suffers from distrust issues
- Quality challenges and uncertain availability of health service delivery discourages people to pre-pay for health

Mobile technology enables efficient and equitable demand side health financing approaches

THAT IS WHY WE…

Partner with public and private payers to pioneer and roll-out health insurance schemes specifically for low income groups

Use mobile technology as an enabler to create public-private risk pools for healthcare at low transaction cost

Empower households and individuals, based on their identified socio economic status to receive, (co-)pay or save for health entitlements, and to access services

Source: WHO factsheet on UHC (2019) , Challenges in Financing Universal Health Coverage in Sub-Saharan Africa - Oxford Research Encyclopedia (2018) , Xu, K. et al., "Protecting Households from Catastrophic Spending", Health Affairs 26(4) (2007)

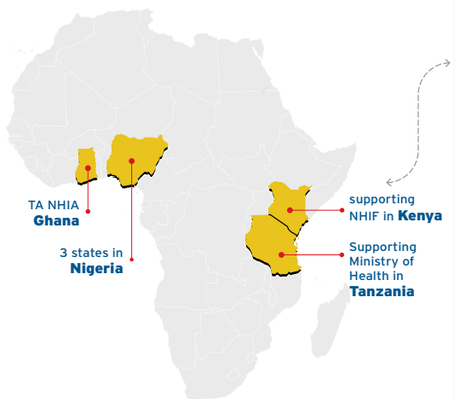
Together with public and private partners, we support in the design and roll-out of universal health coverage programs, with expertise and digital solutions

Programs supported by PharmAccess

UNDERSTANDING AND ASSESSING HOUSEHOLD WEALTH

To examine the poverty status of individual households, we link mobile phone, consumption and transaction data to determine who qualifies for health insurance subsidies.

Example visualization of our collected data



m-tiba

Making healthcare more inclusive with a **digital health wallet**

>3,000,000
People reached

1,000
Clinics connected

HEALTH CONNECT PLATFORM

Allows people to easily transfer money straight into the digital health wallet of people in need.

546 supporters

8,177* beneficiaries (families)

** including matching contributions from two corporate donors to cover **7,522** families with health insurance*

* Source: https://oxfordre.com/economics/abstract/10.1093/acrefore/9780190625979.001.0001/acrefore-9780190625979-e-28

Organized demand for healthcare

In most African countries, healthcare financing is characterized by high levels of out-of-pocket expenditures. In Nigeria for example, 75% of healthcare was paid out-of-pocket in 2016 . Out-of-pocket payments disproportionately affect low-income groups as they lack alternatives to pay for healthcare.

Exposing them to risks from catastrophic health expenditure and not accessing the care when they need it only when they can afford it. In addition, out-of-pocket payments are inefficient for patients and healthcare providers alike as it requires individuals to find and borrow money in the spur of the moment. Current healthcare financing is highly fragmented, and the system suffers from significant distrust issues.

Prepayment, risk pooling and demand-side financing are mechanisms that help to reduce out-of-pocket expenditures for healthcare, while also enhancing demand for and quality of healthcare services. Since 2007, PharmAccess has been developing pooled approaches and demonstrating, with African partners, that health insurance is an effective approach for covering healthcare expenses of low-income groups. These programs showed that low-income groups are willing to participate in health insurance and resulted in increasing numbers of people accessing better healthcare. Putting the power to purchase care in people's hands, will in turn also result in better care. The public discourse about healthcare financing in many African countries now also includes public-private health insurance approaches.

The road towards Universal Health Coverage

The Sustainable Development Goals, and particularly the mandate to achieve Universal Health Coverage (UHC) by 2030 worldwide, have spurred many governments to aspire towards health insurance for all. UHC has created urgency to healthcare financing and has changed its dynamics in various African countries. PharmAccess actively supports the drive towards UHC in a number these countries with expertise and digital solutions, namely::

1. We partner with public and private payers to pioneer and roll-out health insurance schemes specifically for low income groups

2. We use mobile technology as an enabler to create public-private risk pools for healthcare at radically reduced transaction cost

3. Mobile health payment platforms enable unification of the fragmented sources of health financing into a single wallet. We support households and individuals based on their identified socio-economic status to receive, (co-)pay or save for health entitlements, and empower them to access healthcare.

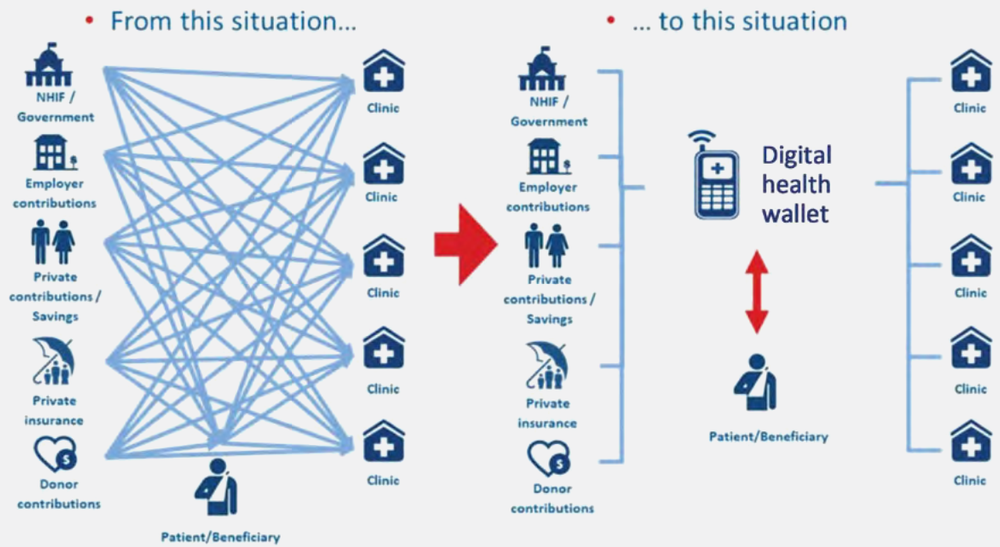
In 2018, we made considerable progress working with regional government

[1] https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS (accessed 25 June 2019)

partners towards achieving UHC for their citizens. In Kenya, PharmAccess supported the government's UHC pilot by registering nearly all inhabitants of three counties using the mobile platform. In Tanzania, the iCHF model developed with the public insurer and district councils in the North of the country is now being introduced across regions. In Nigeria, we supported state-level UHC initiatives with technical assistance and a mobile payment platform pilot.

A digital health wallet

Developed in partnership with technology company **CarePay** and telecommunications company **Safaricom**, the digital health wallet is the principle enabler of healthcare financing, particularly health insurance, at scale. It connects payers, such as insurers, donors, governments, public and private healthcare providers and individual users so that they can transact with each other in real-time. With real-time connection, time to settle an insurance claim is reduced from an average of 3 months to 48 hours. Users can save and receive money and benefits for healthcare in their wallets, healthcare providers can use the system to bill for healthcare services and receive payments, and payers can use it to track healthcare utilization and expenditures in real-time. First launched in Kenya as M-TIBA the platform is now supporting the enrolment of populations in states in Nigeria.



Kenya: UHC pilot in four counties

During his inaugural speech in 2017, President Uhuru Kenyatta promised to achieve UHC for the nation within 5 years. The government has also recognized the role of public private partnerships and the private sector in the successful financing and delivery of UHC2. The **National Hospital Insurance Fund** (NHIF) was assigned to be the implementer of UHC. In order to test the approach four pilot counties were selected by the government.

PharmAccess, in partnership with CarePay, was contracted by NHIF to organize and expedite the registration of all households of three of the four pilot counties: Kisumu, Nyeri and Machakos. Using M-TIBA, mass household registrations were completed in a period of four months. Starting in Kisumu in August, PharmAccess and CarePay registered over 1.5 million lives by the end of 2018.

At the end of 2018, the Government of Kenya transitioned the UHC pilot to free healthcare at public facilities. PharmAccess and CarePay continue to track utilization of healthcare at selected public facilities to help inform our partners on the route towards achieving UHC in Kenya.

[2] https://www.businessdailyafrica.com/analysis/columnists/NHIF-reforms-plan--will-help-deliver-universal-health/4259356-5065610-fo8wamz/index.html

Placing women at the center of UHC with i-PUSH

After winning the **Dutch Postcode Lottery**'s Dream Fund in 2016, PharmAccess and **AMREF** joined forces in an initiative called the Innovative Partnership for Universal Sustainable Healthcare (i-PUSH), which uses mobile technology to connect women on a low-income and of reproductive age and their families to health insurance and better quality care in Kenya.

2018, was the first full year of implementation with 13,262 women and their families in Nairobi and Kakamega counties enrolled with the NHIF health insurance and connected to 27 health facilities undergoing SafeCare quality improvement plans. These women were digitally enrolled by trained Community Health Workers. Another aspect of the program is to understand the behavioral barriers to saving for health.

"Step by step we learn to save for insurance"

Meet Tabitha Ahono

Tabitha, lives with her husband and two children aged 1.5 and 4 in a one-room home in a small slum in the north of the Kenyan capital Nairobi.
"Health insurance has greatly improved our lives. That way I got sick regularly while I was broke and could not go to a clinic. But now with health insurance, treatment is automatically reimbursed".
A year ago, Tabitha's youngest son had a fever, vomiting and diarrhea for two weeks. "Because he lost a lot of weight and things got worse and worse, my husband took out an expensive loan so that we could go to a clinic for treatment. Because of this, we had major financial problems that gave us a lot of stress. Fortunately, these kinds of worries are now behind us".
As part of the program, Tabitha's health insurance premium is reimbursed from the Dream Fund of the Postcode Loterij in the first year. "This allows us to use the health insurance immediately while we learn step by step how to save for next year's premium. I check if I have paid the premium for the month of June, for example, so that I have a clear overview and know how much we still have to save."

Nigeria: statewide health insurance

Since 2007, PharmAccess has been supporting the development of health insurance to finance and deliver affordable and better health care in **Kwara and Lagos States**. Today, 17 states in Nigeria have adopted laws to implement mandatory state health insurance, where the State Governments commit to pay for the poor and vulnerable people.

In July 2018, Kwara State officially launched its mandatory health insurance scheme for every resident. The scheme seeks to pool resources from the formal and informal sectors for healthcare. It also allocates Government funds to subsidize premiums of the poor and vulnerable in society. Kwara State Government is currently working to establish the institutions required to manage operations and funds for the insurance scheme to become operational.

Lagos State Government officially launched the Lagos State Health Insurance Scheme (LSHS) in December 2018. It is a significant step towards universal health coverage for the over 20 million residents of the state. The PharmAccess team in Nigeria assisted Lagos State in the design process, including implementing a proof of concept with CarePay's mobile health wallet for over 12 months, proving that the use of mobile technology can create access to healthcare for even the most vulnerable citizens, as well as efficiency and transparency in scheme administration.

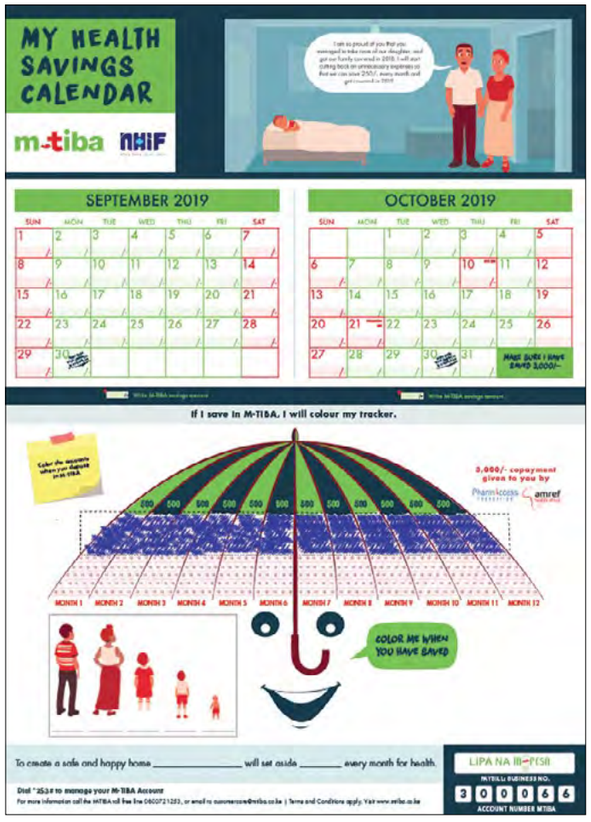
Both Lagos and Kwara State will be using the digital CarePay platform to implement and manage their health insurance schemes. PharmAccess, with support from amongst others **The Global Fund**, will provide technical assistance to both States during the implementation of the scheme.

Tanzania: roll-out of iCHF

Launched in 2014 in partnership with the **National Health Insurance Fund** (NHIF) and district councils in Kilimanjaro and Manyara, improved CHF (iCHF) was designed to increase access to better healthcare for (mostly) rural and low-income groups in Northern Tanzania. By 2018, 200,000 people had enrolled in iCHF and were paying 50 percent of the premium with the remainder being paid by the government of Tanzania.

Subsequently, the Government of Tanzania invited PharmAccess to participate in the Health Financing Technical Working Group of the Ministry of Health to draft of the National Health Financing Policy. In May 2018, the government announced its intention to introduce iCHF nationwide. The iCHF model forms the foundation of the newly launched Single National Health Insurance and enables the provision of health insurance cover for low-income households. The roll-out of iCHF to other regions has commenced in 2019.

PharmAccess has agreed a one-year transition plan with the two northern regions where iCHF was initially developed and demonstrated, with all operational activities transferred to regional authorities by the end of 2019.



Increasing health savings through behavioral interventions

Making paying for (co-)premiums easy and attractive is crucial in order to consistently include the informal sector in health insurance. Together with the team of world-renowned behavioral economist professor Dan Ariely of the **Center of Advanced Hindsight, Duke University** and the **Joep Lange Institute**, we are experimenting with approaches to reduce friction to enroll and pay for insurance by low-income groups.

Experiments showed that by simply having people practice making a deposit on M-TIBA four times in a row increased the number of savings for health insurance from 14 to 48 percent.

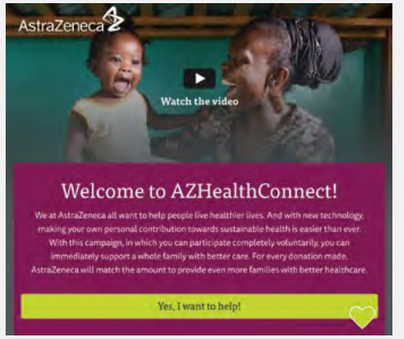
In addition, distributing a personalized calendar with an illustrated story about a health event and embedding so-called 'nudges' to save for health insurance increases the number of people saving consistently over time from 14 to 54 percent.

In the coming years we plan to further test approaches and interventions that are informed by behavioral insights that can support the uptake for health insurance among vulnerable groups, such as low-income women in Africa.

Direct Giving

Inclusive health insurance requires solidarity payments that help those who struggle to pay their premiums themselves. PharmAccess has developed peer-to-peer funding opportunities between individuals who can afford to pay the health insurance premiums (mostly in the West) of those who cannot.

HealthConnect operates a peer-to-peer donation platform supporting low-income Kenyan families with premium payments for health insurance. Two social media campaigns were tested in 2018, including the current campaign 'Geef de Toekomst'. These campaigns created proof of concept and helped to expand the approach to employee engagement programs. A corporate partnership with **AstraZeneca** was launched targeted at 6,000 employees across Sweden, the UK and USA. A further scale-up to 64,000 employees is planned for 2019. HealthConnect also initiated a partnership with a German social start up, the direct donation platform SpreadGood.de.



To reach potential donors in the US, we are working together with the Joep Lange Institute and with the Centre for Advanced Hindsight of Duke University to develop an attractive donation proposition tailored to the American market.

Digitizing claims submissions in Ghana

The Claim-It App is a digital claims system for small healthcare providers that improves claims submission and simplifies claims processing for the **National Health Insurance Scheme** (NHIS). With support from PharmAccess, the National Health Insurance Authority (NHIA) set up and deployed the Claim-It App at 255 healthcare providers that are members of the **Christian Health Association of Ghana** (CHAG) network. The information collected provides insights on health seeking behavior, prescription patterns and the financial performance of healthcare providers.

Understanding and assessing household wealth

Understanding households' socio-economic status identify is important in targeting specific premium subsidies for health insurance. Accurate and cost-effective methods to assess household wealth are a key driver to support the achievement of UHC.

In Ghana and Kenya, PharmAccess has supported the national governments to collect data on poverty levels based on short household questionnaires to (potentially) use this data to allocate subsidies. In Kenya, the data collected in 2018 has led to in-depth insights in poverty status in the UHC pilot counties.

However, data collection is time-consuming and expensive. We believe that valuable information regarding income levels lies in mobile phone behavior data (e.g. airtime usage, mobile money transfers). In the coming years we aim to work together with telecom operators (such as Safaricom in Kenya), national governments, and researchers to develop tools that assesses household wealth based on mobile phone behavior data.

Strengthening supply of quality healthcare

Each year, more than USD25 billion is invested on combating diseases in lower and middle-income countries (LMICs), yet the approximately five million individuals whom lose their lives due to poor quality health services each year[1] are more than the deaths attributable to HIV, Malaria and Tuberculosis combined[2].

To create transparency on the scale, scope and quality of care, PharmAccess, in collaboration with the **Joint Commission International** (JCI) and **COHSASA**, developed SafeCare: a practical methodology that can track, acknowledge and certify incremental quality improvements. SafeCare standards are ISQua accredited and integrate local solutions that meet the challenges of developing countries.

Transparency on the quality of care and care delivery is crucial to break the vicious circle of poor demand and supply. The effect is 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. Data on clinical quality, gaps and challenges will also 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.

SafeCare offers a clear, objective view of a facility's current scale, scope and quality of clinical services, provides a detailed improvement plan to guide it on its quality improvement journey, and benchmark it against others of a similar size nationally and internationally. The transparent, achievable goals in each quality improvement plan keep the process both manageable and motivating and for every quality level in the SafeCare journey that is achieved, a Certificate of Improvement is awarded.

1 2018 statistics

2 https://www.who.int/tb/areas-of-work/tb-hiv/en/

SafeCare
HEALTHCARE STANDARDS

1 NO POVERTY · 3 GOOD HEALTH AND WELL-BEING · 17 PARTNERSHIPS FOR THE GOALS

CONTEXT

Casualties related to healthcare

5 million deaths per year caused by poor healthcare

3.6 million deaths caused by lack of access to healthcare

Poor quality of care is a structural barrier to achieving UHC

sources: The Lancet Global Health Commission (2018) / Patient safety in developing countries, BMJ (2012) / SDG goal 3.8 and 2018 statistics

BARRIERS

- LMIC governments have limited capacities to perform inspections
- Shortage of objective standards and data on healthcare quality
- Healthcare providers struggle how to improve quality

To achieve UHC, healthcare in LMICs needs improvement. Improvement requires transparency on quality of care.

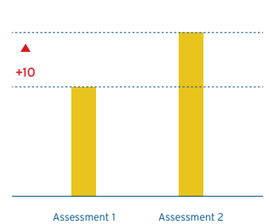
THAT IS WHY WE...

- Develop international standard for transparency and benchmarking purposes
- Support facilities to improve quality and safety with step-wise improvement programs
- Collect data on quality of care, enabling decision making by institutes, donors and governments
- Build local capacity

SafeCare inspires and helps to improve the quality and safety of healthcare services, despite the resource constraints facilities may face.

IMPROVEMENT IN HEALTHCARE QUALITY

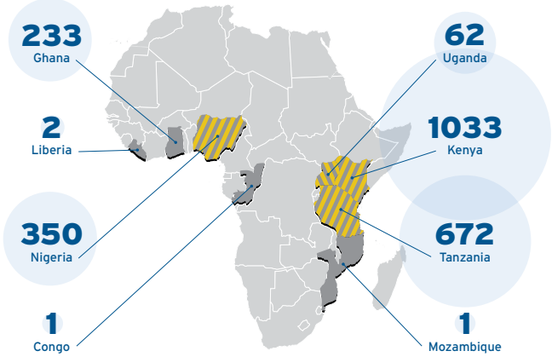
83% of the facilities that use SafeCare show an incremental improvement in healthcare quality between the first and second assessment.



"Since we've improved our quality, customers have gained trust in our facility and we've seen a 40% increase in patients."

Pharis Yikobera, Arafa Dispensary, Dar es Salaam

FACILITIES USING SAFECARE



2,354 Active facilities

4,606 Assessments

762 Assessors trained

3.8 million Patient visits per month (self reported by clinics)

Developing a sustainable business model

Since its launch in 2010, 2,354 facilities had been assessed using the SafeCare standards and worked on quality improvement plans. 2018, was the year the foundation for a SafeCare that is market driven and sustainable were put in place. The aim was to:

1. Reduce cost and increase efficiency and impact of the assessment and improvement process
2. Better align with government initiatives on quality improvement
3. Utilize platform technology to create innovative approaches towards quality improvement and new business models for more sustainable financing of SafeCare.

Based on extensive market research and modeling, SafeCare has been focusing on developing two distinct products to meet the needs of different market segments.

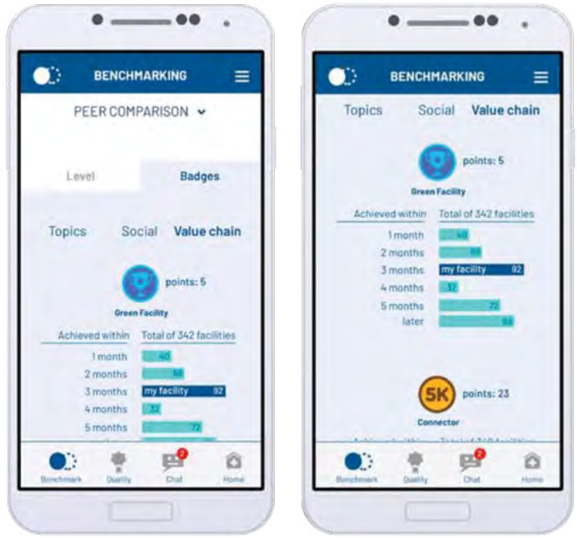
The first is **SafeCare (rating)**: an automated assessment and rating tool to provide a quick, cost effective assessment and improvement plan for facilities to set out priorities for quality improvement based on needs and risks. The use of the tool is geared towards partner organizations and companies that would receive a licensing agreement for use of the standards and software. These partners have an interest in paying to know what is good, and what needs improvement and see the added value of comparing their facilities to other networks, or identify new facilities to contract with. The picture below describes the modules of SafeCare licensing.

The second product is **SafeCare Gold**, which provides healthcare facilities with a comprehensive package for quality improvement and recognition of excellence. Facilities achieving excellence will be part of a 'Gold membership', which will entitle them to special benefits including awards and marketing. These facilities will also serve as centers of excellence for peer-to peer learning. SafeCare Gold will be facilitated by PharmAccess geared at mid-level sized facilities, insurance companies, HMOs and investment funds.

Digitalizing quality improvement

In 2018, a strategic decision was made to focus on the use of platform technology to improve quality at the facility level, but also to provide actionable data for stakeholders in the healthcare sector. After human centered design workshops in Nairobi with partner healthcare facilities the MVP for the SafeCare platform was designed and ready to be tested.

The SafeCare platform enables healthcare professionals to track and improve their quality through real-time progress information, quality improvement challenges and best practice examples. To ensure informed policy decision-making, effective allocation of resources and sound investment the SafeCare platform will also be accessible by donors, governments, insurance companies and investors including banks.



The business of quality in Tanzania

Through the **HDIF** and **ELMA Foundation** supported Business of Quality project, the SafeCare and business support to healthcare facilities in Tanzania has rapidly scaled up in the past years. Assessment and mentoring services for more than 500 health facilities enrolled in SafeCare are provided by trained, qualified personnel; ten from APHTA, nine from CSSC, two from PRINMAT and nine from PharmAccess.

Partnering with umbrella organizations as a delivery channel to members appears to be a successful model. Facilities in the HDIF program with second assessments for 2018 improved by 47%. With 37 facilities taking a Medical Credit Fund loans.

Based on this successful roll out, the Ministry of Health, Community Development, Gender, Elderly and Children in Tanzania asked PharmAccess to mentor public and privately owned regional, zonal and national hospitals who have attained levels 3 and 4 ratings in 'Big Results Now' in order to bring them to level five. On achieving level 5 they can apply for international accreditation given SafeCare's accreditation by international bodies. PharmAccess has also developed SafeCare standards for regional referral hospitals which have been adopted by the Government of Tanzania.

Clinic story: Uhai Neema

Located along Thika Highway, Kenya, lies Ruaraka Uhai Neema hospital. Uhai Neema has been providing both in and outpatient healthcare services since 2009. The hospital had a clear goal in mind before they contacted SafeCare, which was to ensure high quality services. However, staff were not sufficiently committed, nor was the evaluation of outcomes according to any standardized indicators. Consequently, business was stagnating. It was at this time that management sought an external partner to help them unlock the hospitals business potential.

When elaborating on why they chose SafeCare to do this, Gabrielle Beaco, the CEO of Uhai Neema hospital explains: "We knew where we wanted to be, but we had no idea how to get there. SafeCare helped us to not only identify problems but offered tools to address them using clear, standardized procedures and protocols."

Elaborating on the biggest shift observed since contracting SafeCare, Gabrielle explains: "SafeCare helped us view our operations in a new light and made us see the need for guidelines across departments, including administration."

The Quality Improvement Plan was implemented stepwise to ensure maximum impact in a way that was viable both in terms of finances and human resources. These steps have helped the

hospital to achieve real, tangible change by improving both patient and business outcomes: "The changes I have personally seen, and that have been objectively measured have been major. Adhering to the new guidelines have reduced mortality and morbidity rates in the maternity ward and pediatric service. In fact, SafeCare also helped us expand these services and increase patient flows".

Seeing approximately 300 patients a day, the facility has now grown in leaps and bounds. When asked about her experience with the SafeCare methodology Gabrielle states "What makes the program exceptional is that it urges continuous improvement. We plan, act, implement, reassess, and plan again. Our initial goal was to get to SafeCare level 5, and now that we have achieved this, we are aiming for international accreditation. SafeCare have been invaluable in helping us, and I am excited to keep growing and improving our services."

Usazi Salama Project

In partnership with **AMREF** and the **M-PESA Foundation**, we strengthened care provision in Samburu County. In this project, newborns are monitored over five years across 55 public facilities. In 2018, this resulted in an over 20% increase (from 32% to 53%) in facility deliveries following investments in community education, capacity strengthening of health workers and upgrading of health facilities.

Franchising high quality antenatal and delivery services in Ghana

Women 360 Ghana

Women360 is a franchise for high quality antenatal and delivery services in Ghana. The program was launched in partnership with the **Embassy of the Kingdom of The Netherlands**, Resolve Medical Services, Airport Women's Hospital, MSA Worldwide, Total Impact Capital, Eversheds and PharmAccess with the support from the Dutch Ministry of Foreign Affairs.

The franchise has a threefold vision to; reduce maternal mortality, utilize the abundant human resources in the health sector and attract domestic and foreign investment in the health sector.

In 2018, the Woman 360 franchise further developed the concept, manuals, training curriculum and brand for Mother and Child delivery centers, based on a 'hub and spoke' model. The Woman 360 brand was registered in Ghana, attracting local investments including a master franchisee the Women Resolve Network, two contracted hub franchisees and two spoke franchisees.

Digitally pooling medical procurement in Ghana

Medicines Supply Chain Platform Ghana

In 2018, a Memorandum of Understanding was signed between PharmAccess and **Cristian Health Association Ghana** (CHAG), supported by the Food and Drugs Authority (FDA) and National Health Insurance Authority (NHIA), to develop a Digital Medicines Supply Chain platform.

The platform will connect medical suppliers and healthcare facilities, to streamline the procurement and quality control of essential medicines in Ghana's supply chain. By digitally pooling medical procurement and facilitating innovative, cost effective quality control mechanisms, it will ensure patients can access the medicines they require. This venture will be developed and piloted with CHAG's 330 healthcare facilities and aims to impact the 2.4 million individuals accessing essential medicines through CHAG.

A four-stage roadmap for stepwise implementation of the platform was developed and implementation initiated, as a result of consultations with wholesalers, supply chain initiatives and a market assessment study with the University of Ghana.

Demand Digital Market Supply

3 GOOD HEALTH AND WELL-BEING · 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE · 10 REDUCED INEQUALITIES · 17 PARTNERSHIPS FOR THE GOALS

MATCH DEMAND & SUPPLY

CONTEXT

Despite the growth in overall government spending on health, SSA still holds.....

23% of global disease burden

66% of all maternal deaths worldwide

70% of global HIV burden

5,1% diabetes prevalence > **62,5%** undiagnosed

92% of global malaria cases > **93%** of deads

Negative consequences of disease burden fall most heavily on the poorest segments of the population

Source: J. Global health. 2019, UNICEF. Maternal mortality, 2017, Healthdata.org. The burden of hypertension in SSA, BMC Public Health (2015), Diabetes in SSA - from policy to proogress, Diabetes Metab Syndr Obes (2017), WHO

BARRIERS

There is a mismatch between the demand and supply of healthcare;

- Many millions of people suffer and die from conditions for which there exist effective interventions
- Available resources are not allocated to the most effective interventions and do not reach the poor

Supporting the rural and urban poor in their 'great escape' from poverty depends significantly on reducing the high risks and costs that they face in accessing healthcare. The digital revolution offers the potential to reach previously excluded people at much lower costs.

THAT IS WHY WE...

- Create digital health payment platforms to directly connect patients with doctors and funders
- Use data for the development of bundled care packages and to track patient journeys
- Use platform data to provide insights for patients, providers and payers

Capturing and utilizing data generated on the digital payment platform with the aim of improving patient services and better health outcomes

"DIGITIZED" MOTHER JOURNEY

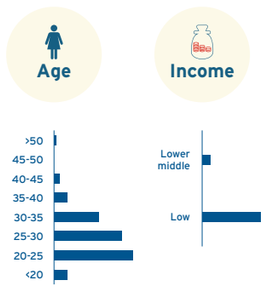
A digital application to monitor and improve provider-patient interaction along the care journey for pregnancies.

2018: Pilots in Kenya & Tanzania

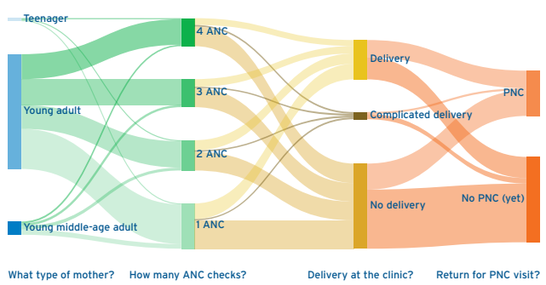
~1,000 women tracked in **4 cohorts**

Donors committed funding to scale the proof of concept to **77,000 women** in **2 countries**

WHO ARE THE MOTHERS?



HOW ARE THEIR JOURNEYS?



In 2018 we developed and tested 5 data driven trackers and support tools for individuals living with **hypertension**, **diabetes**, **HIV** and **tuberculosis**.

With **Connected Diagnostics** we performed **11,689** tests to ensure patients are only prescribed drugs if they are tested positive, helping to address global challenges of over-prescription and antimicrobial resistance.

Improve efficiency, effectiveness and transparency to better match supply and demand

By leveraging digital platforms, a better match between supply and demand becomes possible. Thanks to support from various partners, PharmAccess together with the **Joep Lange Institute**, has developed new approaches to link the two towards better health outcomes, with an initial focus on the pregnancy journey, non-communicable diseases (NCD's) such as hypertension and diabetes and Malaria. Our goal is to create transparency on the individual needs and care delivered, on interaction with the provider and the patient along their patient journey and on setting the right financial incentives to deliver better care.

For example, getting women to come to a facility sooner and with better care has both an impact on better health outcomes as well as a health economic benefit. Better management avoids high-risk pregnancies being detected too late and needing unnecessary additional treatment. To achieve this, a commitment to the full care journey is needed, not only by the provider that commits to proactively manage each step of the journey, but also by the expectant mother, to commit to come for healthcare services at the appropriate time and location.

The project, named a 'smart contract for maternity care', is an agreement between the healthcare provider and the patient on the journey needed for maternity care, and incentivizing adherence to journeys through a revolutionary digitized pay for performance approach by (private) investments. To kick-start this, when facilities and participants meet these terms and conditions, they will receive a bonus in recognition of the quality services provided. This way, the (expecting) mothers will be empowered to receive the services they are entitled to.

The smart contract is built onto three distinct but closely interacting components:

1. A health payment platform developed by partner CarePay and branded in Kenya as M-TIBA
2. SafeCare standards and certification methodology
3. The Mother Journey; a digital application to monitor and improve provider-patient interaction along the care journey for pregnancies.

Value Based Bundled Care Packages

PharmAccess has developed a digital, smart contract between providers and specific patient groups including expectant mothers, HIV/Aids patients and patients on hypertension and diabetes care and malaria patients.

CHAIN OF TRUST IN TANZANIA

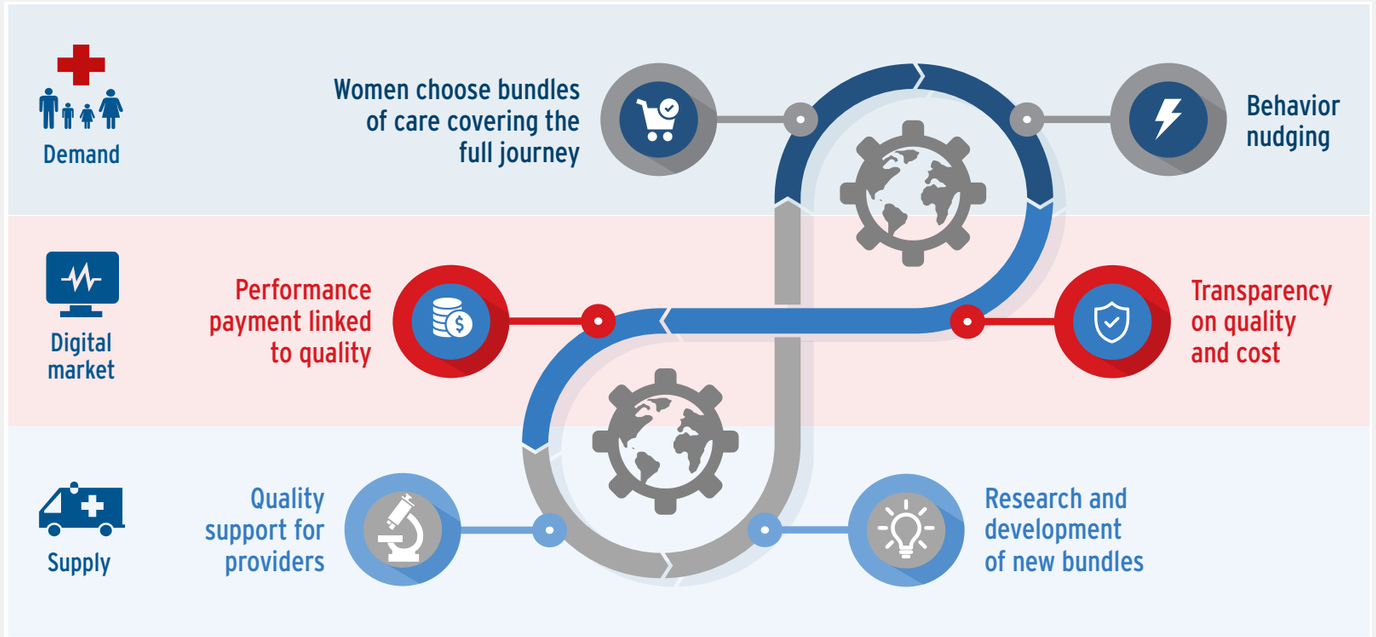
This project aims to provide proof of concept for the value of blockchain in contributing towards a transparent, performance-based financing model. The project enrolled pregnant women attending antenatal care clinics, tracking the number of visits and all investigations and procedures undertaken. The Chain of Trust platform proved its value in creating transparency and improve efficiency in tracking mother's journey and will be used for coming PharmAccess projects in the country.

This innovation is currently being funded by Elma Foundation and CIFF.

2018 PILOTS

196 women enrolled

77 women having a skilled delivery by end of 2018



TRANSFORMING FINANCING MECHANISMS WITH CONNECTED DIAGNOSTICS

If we can ensure that doctors are only paid for the services or drugs they prescribe if their patient tested positive for a certain condition, this could help address global challenges of over-prescription and antimicrobial resistance.
Building on the pilot undertaken in Samburu County, Kenya in 2017, PharmAccess, with the support of the **Joep Lange Institute** and **Achmea**, implemented a Malaria Test and Treat campaign in Kisumu County. By making treatment conditional on positive test results utilizing digitized diagnostics, cloud-based technology and M-TIBA the program is proving how malaria financing, treatment and care can be transformed.

2018 PILOTS

11,689 test performed

7 facilities performing tests

18% of tests returning positive for malaria

15% predicted cost reduction in patient costs due to prevention of over-prescription

22 million KSh (over $200,000) approximate annual saving for Kisumu County

A "DIGITIZED" MOTHER'S JOURNEY IN KENYA

The project constitutes a mother-child care package with pre-agreed guidelines and costs. When facilities meet these terms and conditions, they will receive an additional "quality" payment in recognition of the quality services provided. Implementation of the smart contract is measured and visualized through an app available to healthcare professionals and patients.
The app analyzes and visualizes M-TIBA and SMS survey data to inform doctors and providers on patients' health status, costs and efficiency of care, adherence to treatment guidelines and medical consequences.
The mother journey incorporates the use of the ICHOM (the International Coalition for Health Outcomes Measurement) indicators that were developed specifically for developing countries by PharmAccess. The long-term strategy of the project is to gradually shift from pay-for-performance to pay- for-outcomes, also known as value-based healthcare and incorporate this into the UHC approach of Kenya.

2018 PILOTS

806 women enrolled

145 women having a skilled delivery by end of 2018

This innovation builds on a previous investment from the Joep Lange Institute and the dutch Postcode Lottery, and is currently being funded by MSDforMothers, Elma Foundation and CIFF.

FINANCING AND SERVICE PROVISION MODEL FOR DIABETES AND HYPERTENSION CARE

PharmAccess channels remittances for diabetes and hypertension into wallets of those who need it most, using data insights generated by the platform to help doctors improve quality of care. We do this together with the **Joep Lange Institute**, and with **Baobab Circle**, whose Afya Pap app provides patients with healthy living advice and telemedicine contact with doctors.
The first pilot started in 2018, funded by partner **Sanofi** tested a digital service model for a limited number of patients in Nairobi. It increased access to care by giving positively screened individuals entitlements through their M-TIBA wallets for tests, consultations and treatment.

THE NINE MONTH JOURNEY

Grace, 25, pregnant

Lives in: Kisumu county, Kenya, 5km from the nearest clinic

Background: Grace and her husband are happy with the pregnancy, but they are worried. The birth of their first child had complications. Without a skilled midwife present for the birth the baby almost died. Grace and her husband have struggled in the past to pay for their healthcare and worry about the quality of the care they are receiving.

01

A community health worker visits Grace at home and enrolls her into a 'mother and baby program' that consists of the following:

- Pregnancy health insurance accessed through M-TIBA
- Information & awareness

SMS clinic visit reminder

02

First check-up at a clinic before the 12th week

Clinics are selected based on their commitment to improving quality through the SafeCare quality improvement standards.

03

Grace provides feedback on how she experienced the care she received.

04

Second check-up at home by a midwife.

SMS clinic visit reminder

05

Grace didn't turn up at her third check-up because her mother fell ill

At the clinic, an automated alert showed that she had not completed her 3rd checkup and asks the local community health worker via SMS to check how she is doing.

06

Third check-up at clinic - Grace's blood pressure is too high

She is referred to the hospital for further tests and medicines are prescribed. The hospital receives her electronic patient record right away.

07

Preparation for giving birth

She receives support from the local community health worker.

SMS clinic visit reminder

08

Fourth check-up

Thanks to the digital platform, the doctor can see Grace's past treatment for high blood pressure and prescribed medicines.

09

Grace is giving birth at the clinic

Grace arrives at the clinic and gives birth to a healthy boy, named James.

Postnatal healthcare, including vaccinations. She receives reminders via SMS.

6 weeks after giving birth

Feedback and support continues in Grace's village.

Grace sends feedback to the clinic on the care she received. This will help the clinic in implementing improvements.

MEDICAL CREDIT FUND AFRICA

8 DECENT WORK AND ECONOMIC GROWTH · 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE · 17 PARTNERSHIPS FOR THE GOALS

CONTEXT

Sub-Saharan Africa suffers from a lack of quality healthcare. **$25-$30 billion** of investment is needed to meet its health care demand

Who is providing healthcare in Sub-Saharan Africa?

50%
Private facilities (SMEs):
vital to meet the health demand

50%
of public facilities
are often under-resourced

Source: Business of health in Africa, IFC (2008), WorldBank (2009)

BARRIERS

- Private health facilities need capital to grow and improve their health services
- African banks have little interest in financing health SMEs. The health sector Is perceived as **non-transparent** and **risky**

The private health sector in Africa is suffering from chronic underinvestment. Investors need a trigger to provide loans to the sector.

THAT IS WHY WE...

- Provide access to capital to health SMEs
- Combine loans with capacity building to improve quality and to grow their business
- Partner with, and support African financial institutions with which we co-invest

Medical Credit Fund is the first and only fund dedicated to providing loans to healthcare small and medium enterprises (SMEs) in Africa.

CAPACITY BUILDING

2,174
Health SME staff trained

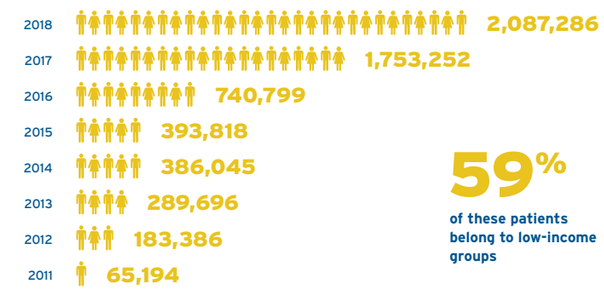
2,358
Financial partner staff trained

"I've thankfully accessed multiple MCF loans to acquire a dental unit and better manage my cash flows, especially when insurance payments are delayed".

Esther Muthoni, owner of Zamzam clinic, Kenya

MCF CLIENTS SEE THEIR PATIENT VISITS GROW

Average total number of patient visits per month



59%
of these patients belong to low-income groups

1446
Health facilities reached

2931
Loans

USD 50 million
Loans value

79%
Quality score improved

97%
Repayment performance

19
African financial partners

Enabling health investments

Without access to funds, how can healthcare providers invest in their quality and ultimately grow their business?

Small and medium sized enterprises (SMEs) in the health sector in Africa often face difficulties in accessing capital due to their lack of banking history, limited collateral and the perceived high risks of the sector.

The Medical Credit Fund (MCF) is the first and only fund dedicated to providing loans to health SMEs in Africa. Since 2009, together with local partners, MCF works to reduce investment risks for health SMEs through an innovative, integrated approach that combines financing with technical assistance supporting business and quality improvement.

Loan disbursements

In 2018, the Medical Credit Fund reached the milestone of USD 50m in disbursements since inception with the disbursement of 2,931 loans to 1,446 health SMEs in Ghana, Kenya, Liberia, Nigeria, Tanzania, and Uganda. Compared to 2017, loan disbursements were 57% more in number and 40% higher in value. Performing above market average with a historical average of 97% repayment performance, MCF proves that health SMEs are bankable and not as risky as most financial institutions perceive.

Funding

During 2018, the Medical Credit Fund closed its last round of fundraising, which started in 2015. Since inception, MCF has raised USD 52m in borrowings from 16 different parties, of which 11 parties are private and 5 parties are DFIs (Development Finance Institutions). This last closing secured a local currency financing (Kenyan Shilling) from the European Investment Bank (EIB) of USD 5m.

Relevant Economic trends and their impact

According to the World Bank, the average GDP growth rate in sub-Saharan Africa was 2.7% in 2018 against 2.3% in 2017. In 2018, MCF experienced tough market conditions in the countries where it is operating, hampering loan disbursement and portfolio performance. In Kenya, the continued interest rate cap caused banks to significantly reduce lending to SME's. In Ghana, MCF's most active partner was put under special administration by the Central Bank of Ghana. In Tanzania and Nigeria, market conditions led to many small loans but few larger investments.

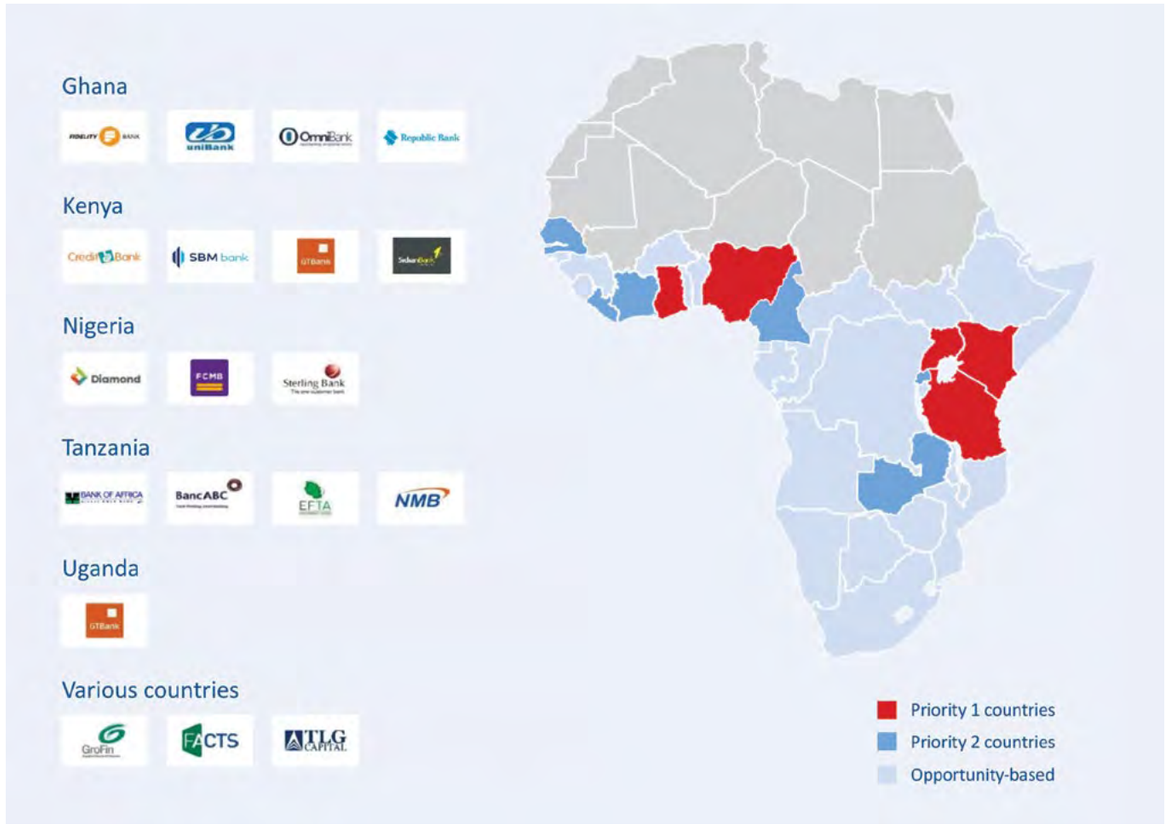
In parallel, the ongoing growth of Africa's private healthcare markets and the steadily improving interest of financial partners in investing in the healthcare sector create several opportunities for Medical Credit Fund to grow. In 2018, 2 new financial partnerships were started and existing partnerships were strengthened. Strong partnerships led to the development of more integrated loan products such as the 'Republic Medical Loan' product with Ghana's Republic

Bank and the Equipment Bundle Promotional Product in collaboration with Nigeria's Diamond Bank and JNCI, a major equipment supplier. MCF partners participate for about 46% in the funding and repayment risk of the total of USD 22m in capital outstanding by the end of 2018.

Expansion of scope

In 2018, the Medical Credit Fund explored business opportunities in multiple countries in sub-Saharan Africa, following the ambition to expand to other markets. In Uganda a total of 8 loans were disbursed in 2018 against 1 in 2017. Furthermore, Zambia, Rwanda and three countries in Francophone West Africa were explored – Cameroon, Ivory Coast and Senegal. For the latter two a market entry study will be done in 2019, supported by the CDC Group.

Financial partners



Technical Assistance

MCF provides Technical Assistance to its potential borrowers. Before the loan approval, Technical Assistance is focused on assessing the clinical and business risks of the health SME. Following loan approval, the support services aim to help the health SME grow its business and improve its quality.

Strengthening leadership capacity in healthcare in Kenya and Nigeria

Healthcare professionals need management skills in order to ensure a profitable business. Where doctors and nurses are passionate and knowledgeable about the medical services they provide, they often lack business acumen and financial knowledge. To support their business and professional development, partnerships were built with business schools in Kenya (**Strathmore Business School**) and Nigeria (**Enterprise Development Centre at Pan Atlantic University**).

Enterprise Development Center

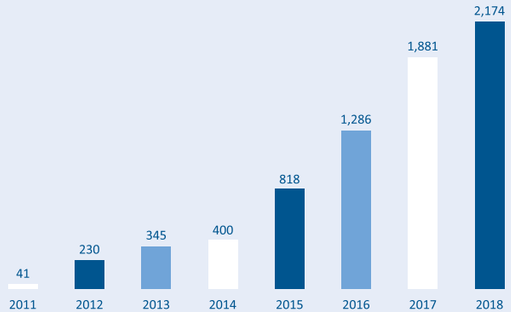
The Medical Credit Fund and the renowned **Enterprise Development Centre** in Lagos, part of the Pan-Atlantic University, joined forces to develop a health management program. The program combines the strength of business leadership, management and entrepreneurship courses with unique healthcare modules to provide deep insights into mechanisms and issues specific to the healthcare sector in Nigeria. The first cohort of 41 participants graduated in December 2018, while a second cohort of 26 will graduate in December 2019.

"In Nigeria, doctors are not taught about business in medical school and so they struggle to run profitable businesses. This program is one of the best things that has happened in the healthcare in Nigeria recent times. The Healthcare sector will remember Medical Credit Fund positively for this."

Dr. Babatunde Olujobi, Donolush Healthcare Services

CAPACITY BUILDING

NUMBER OF SME HEALTH STAFF TRAINED



2,358
Number of bank staff trained

2,643
Business assessments

1,248
SafeCare assessments

Building capacity in hospital design

Designing healthcare facilities requires specific knowledge. In evaluating construction plans of its clients, MCF realized that often local architects and engineers lack the requisite experience and knowledge.

The first, in a series of workshops, was attended by 22 architects from Kenya, Tanzania and Uganda training to develop specific skills in health facilities design as well attend a study visit to Nairobi hospital.

The workshops were organized in partnership with PharmAccess, **AMPC** (a Dutch health sector consultancy firm) and supported with funding from the **Dutch Government** (FDOV) and **CDC**.

Innovative Loan Products

Cash Advance and Mobile Asset Financing

Working capital is a prevalent credit need of African health SMEs. There is substantial time between expenses made (e.g. buying pharmaceuticals, paying salaries and rent) and getting paid, especially through insurance claims. This gap can be financed through working capital facilities.

In Kenya, the Medical Credit Fund, together with **Carepay**, developed a short-term digital loan that uses automatic repayments through mobile revenues earned, without formal collateral requirements or an administrative burden. Cash Advance loans range from KES 1,000 to 50,000 in KES. In 2018, 612 cash advances were disbursed to healthcare providers across Kenya. The knowledge gained through Cash Advance has been a trigger to develop similar products on open banking platforms.

To increase access to finance for medical equipment, MCF has launched several partnerships with medical equipment manufacturers, including **Philips** and **GE**, and distributors to share the credit risk and provide asset finance solutions. In 2018, MCF expanded the Cash Advance product to provide a specific loan to finance medical equipment purchasing: Mobile Asset Financing (MAF). The product is based on the same features and technology as the Cash Advance product and can be used for financing medical equipment such as ultrasounds and lab equipment.

"Cash Advance has changed how I manage my cash flows since a pharmacy is highly working capital intensive. In the past, I would go to my bank for an overdraft facility. I would suffer frustrations since it would take hard work and continuous physical effort get it approved. What fascinates me, is the speed of approval and disbursement of the Cash Advance which is incomparable with the bank. The digital application process and absence of paper work in my opinion is a milestone in financing to business. Further, you don't notice when repaying due to the automated repayments. This has taken away headaches of putting together instalments as is the case with normal bank loans."

Anthony Karita, the owner of Mijikenda Pharmaceuticals

ACCESS TO FINANCE SCHEME, NIGERIA

In line with Nigeria's commitment to UHC, States have embarked on implementing State-led mandatory health insurance schemes. To date, fifteen States have passed health insurance bills into law. For these insurance schemes to be successful, good quality primary healthcare services need to be available. However, the public health sector in Nigeria, especially primary healthcare centers, suffers from longstanding issues of underfunding, staff shortages, weak management and low quality of care. Thousands of primary health centers across Nigeria are hardly functional or even abandoned.

The Access to Finance Scheme seeks to increase the availability of quality care by inviting private healthcare operators to revitalize and manage the defunct public primary healthcare facilities. The private operators are offered affordable loans made available through Bank of Industry with support of MCF to invest in the facilities and further combined with a technical assistance program and a quality improvement program using SafeCare standards.

The scheme was developed by PharmAccess and MCF in collaboration with State Governments and the **Bank of Industry**. The initiative launched in **Lagos State** in July 2018 and **Delta State** in November 2018. In total 68 centers have been handed over to private operators. Several other States have shown in interest and are expected to embark on the Access to Finance Scheme in 2019.

Clinic story: Sori Lakeside Hospital, Kenya

Sori Lakeside Hospital started as a simple clinic in 1986 in a shopping center in Migori county in Western Kenya, which has around 1 million inhabitants. Since then it has relocated to a larger building and gradually grew into a hospital with 100 bed capacity, 60 staff and about 30,000 patient visits per year. Around 60% of patients in the hospital are insured through public and private health insurance programs, while 4,700 are under capitation from the National Hospital Insurance Fund. The hospital offers general outpatient and inpatient services, a laboratory and pharmacy, operating theatre and X-ray services, MCH / family planning, HIV/ Aids screening and counseling, and physiotherapy.

Sori Lakeside Hospital entered two term loans with Medical Credit Fund and Sterling Bank to renovate its infrastructure and purchase equipment and an ambulance. Now the two term loans have been paid back the hospital entered the cash advance program.

As part of the Medical Credit Fund program, the hospital entered a quality improvement program. It has improved from SafeCare level 1 in 2015 to SafeCare level 4 in 2017. The improvement can largely be attributed to the commitment of the hospital management to quality and a well-functioning quality improvement team.

"We are very grateful for cash advance which we have been getting through you. Cash Advance has enabled our facility to grow. Some of the things it has done to us:

1. **Payment of staff salaries: initially we used to have delays in paying our salaries as a result of delayed payments from our insurance companies and NHIF. With cash advances currently our staff salaries are paid in time and we do not have any back log of staff salaries.**

2. **Drugs and medical supplies: our pharmacy currently has enough drugs for our patients and enough stock at all times thanks to cash advance.**

Before the cash advance the staff motivation was low, we used to have countless stocks out and the basic operation was hectic due to lack of crucial cash flows. We believe that one can grow with Cash Advances if well utilized."

Mr. John Okeyo, Managing Director and Chairman of the Board, Sori Lakeside Hospital on his recent Cash Advance loan

Financial Partner: Fidelity Bank, Ghana

"Being the largest privately owned indigenous Ghanaian bank, the well-being and socio economic growth of Ghanaians and society at large, forms part of our strategic thrust. **Fidelity Bank** was therefore pleased to partner Medical Credit Fund (MCF) to align effort towards addressing pertinent issues in the health value chain, using innovative financing solutions.

MCFs partnership with Fidelity Bank led to development of a health-focused product and policy framework—with technical assistance attached—for healthcare providers in the private sector. Leveraging on the opportunity to innovate, a Receivable Financing (RF) product was also conceptualized and rolled out to market. The RF has so far delivered on its mandate of unlocking cash for health providers, credentialed under the country's National Health Insurance Scheme (NHIS). Its impact has been quite remarkable, promoting the all-inclusive agenda to improve quality of medical care, as well as make same affordable and accessible. Without it, most providers would be unable to restock medicines, pay utilities and sometimes salaries of employees on time.

What started as a fledgling health portfolio in 2017, grew rapidly to about 12.7M Ghana Cedis (2.5M USD) by year end 2018, with a healthy portfolio quality of 98%. Our satisfaction is hinged on the social impact this funding and technical support has had on the operations of health entrepreneurs who have been on-boarded under the partnership, as well as over 2 million Ghanaian lives touched so far.

At Fidelity Bank, we see ourselves more as Agents of Change, reshaping society and committed to improving quality of life, by providing sustainable access to finance and trusted advice. Innovation is therefore our key differentiator, constantly driving us to create value for our entrepreneurs in a sustainable manner."

Mr. Julian Opuni, MD at Fidelity Bank Ghana Limited

Medical Credit Fund Lenders

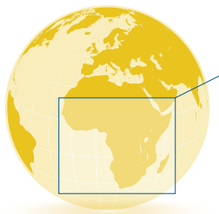
AFD Agence Française de Développement · Calvert Investments · CDC Investment works · OPIC · European Investment Bank · IFC International Finance Corporation World Bank Group

Including several private investors

RESEARCH & LEARNING

1 NO POVERTY · 3 GOOD HEALTH AND WELL-BEING · 5 GENDER EQUALITY · 8 DECENT WORK AND ECONOMIC GROWTH · 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE · 10 REDUCED INEQUALITIES · 17 PARTNERSHIPS FOR THE GOALS

CONTEXT



Limited capacity and data available on successful, cost-efficient healthcare solutions in Africa

BARRIERS

- Research and evaluation requires long feedback loops, while organizational budgets focus on short-term results
- Independent research and impact evaluation is considered a 'liability', not a strength

Sub-Saharan Africa's health challenges ask for smart, innovative healthcare solutions as well as thorough research to improve credibility and translate learnings into new interventions

THAT IS WHY WE...

- Conduct independent academic research and evaluation, made possible by long-term funding
- Facilitate access to data generated by our interventions for external scientific scrutiny
- Adopt research learnings to improve intervention quality and advocate for proven, successful models

Research & Learning is vital to improve the operations of PharmAccess, our partners, and the wider health ecosystem.

RESEARCH (as from 2007)

90 Peer reviewed publications

63 Grey literature and reports

10 PhD theses and **20** MSc theses

54 Case studies research and policy briefs

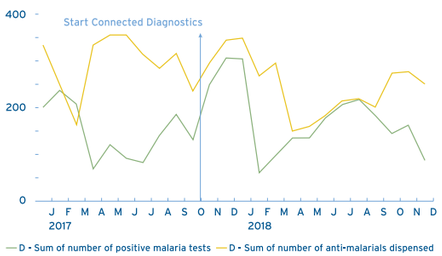
**Research articles published in The Lancet, World Development, Journal of Community Medicine and Primary Health Care and others.*

CAPACITY BUILDING

Established a partnership with **13** African academic institutes

SOME OF OUR RESEARCH FINDINGS

Malaria medicine over-prescription in Kisumu, Kenya, is up to 40%, indicating a 11-15% saving potential

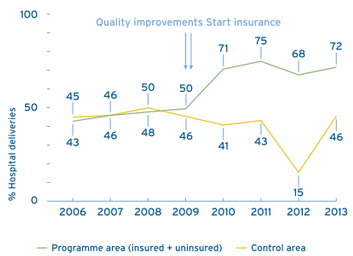


"Without insurance, households with a weak social network experience a 25% drop in food consumption after a health shock"

'Health insurance, a friend in need? Impacts of formal insurance and crowding out of informal insurance.' Elsevier, 2018.

Voluntary health insurance combined with quality healthcare services is highly effective in increasing hospital deliveries in rural Nigeria

published in Health Policy and Planning 2017



Operational research, impact evaluation and advocacy

Operational research and impact evaluation

Research has always been an integral part of PharmAccess's approach, using both scientific impact evaluation and operational research methods. To further strengthen external validation of research findings and increase the opportunity for research to be disseminated across a wider network in 2018 the collaboration with the Joep Lange Institute and Amsterdam Institute for Global Health and Diseases was further strengthened.

Areas for research in 2018 centered on the evaluation of services, tools and interventions, with attention for the full patient-provider-payer ecosystem. This work lead to, for example, 6 publications being s submitted to journals, with around 15 more articles being finalized.

Research findings were disseminated through presentations at various workshops and conferences.

Potential collaborations were sought and formed with new research partners such as **INSEAD** (around drug supply research), **World Bank** (Pay 4 Performance vs intrinsic motivation), **Kenya National Bureau of Statistics** (Income level assessment), and Africa Population Health Research Center (Income level assessment and i-Push impact evaluation).

Beyond impact evaluations and operational research, research is deeply involved in developing several new products offerings that are discussed in other parts of this report – e.g., the poverty mapping, the connected diagnostics for Malaria and the Supply Chain work in Ghana.

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.

PharmAccess conducts evidence-based advocacy to create an enabling environment for the development of inclusive health markets in sub-Saharan Africa, in collaboration with strategic partners such as JLI, private sector organizations and state governments. Our advocacy agenda aims to leverage private sector capacities and investments as well as stimulate the digitalization of healthcare financing in order to advance progress towards universal health coverage.

Selection of 2018 Research Publications

- Health insurance, a friend in need? Impact of formal insurance and crowding out of informal insurance
- Operations and roles of patent and proprietary medicine vendors in selected rural communities in Edu local government area, Kwara State, North-Central Nigeria
- Voluntary health insurance in Nigeria: Effects on takers and non-takers
- 'Improving access to finance for healthcare businesses in Africa' (case study in the context of PharmAccess participation in African Health Markets for Equity (AHME)
- 'Using mobile transport vouchers to improve access to skilled delivery'
- A risk assessment of the Medical Credit Fund as carried out by the Finance Group of the Vrije Universiteit Amsterdam

Understanding gender and the resilience to health shocks

Health shocks are an important source of risk for individuals in developing countries. In the absence of formal financial products such as health insurance or health savings accounts, unexpected illness or injury can have severe consequences. The burden of responding to health shocks often falls disproportionately on women, since they usually act as primary caregivers in households. Despite this, much research around the uptake of health insurance focuses on households instead of individuals, without considering how gender may affect individual preferences for, and access to, these products.

From 2012-2013 financial and health diaries were collected in a sample of rural households in Kenya and Nigeria. Interviewed on a weekly basis respondents were asked to report all financial transactions they had undertaken in the previous week, as well as any illnesses or other health events they and their family members had experienced. In the last years, a number of research analysis projects have studied data to understand how individuals respond to health shocks.

Joep Lange Institute

In our work to advocate our approach among the large global health community, the Joep Lange Institute is an important partner. Next to funding specific product development initiatives within PharmAccess (such as connected diagnostics , the work on non-communicable diseases and the behavioral research with the Centre for Advanced Hindsight), the focus of JLI has been on promoting the digital health agenda in the overall global health debate.

More specifically, JLI played a key role during the AIDS 2018 conference in Amsterdam, challenging the HIV community to realize the full potential of mobile technology to beat HIV and improve access to health services, thereby supporting the PharmAccess approach.

JOEP LANGE INSTITUTE

Innovative financing for Hepatitis C in Cameroon

In Cameroon, an estimated 200,000 people are infected with Hepatitis C Virus (HCV), a chronic infection which can lead to life threatening liver disease. Funded by PharmAccess, **JLI** and the **Achmea Foundation** we successfully completed a HCV treatment demonstration project with branded antivirals for 1% of the price paid in high income countries. Next, we will treat around 300 HCV infected patients identified through the blood donor system and funded through an innovative Pay-For-Performance structure. Upfront costs will be paid by an Impact Lender (JLI) and repaid by an Outcome Payer (Achmea Foundation) through fixed payments for each confirmed cured patient. Additional funding was also secured to test 20,000 HIV patients for HCV and treat HCV-HIV co-infected patients by non-specialized MDs. Both projects – if successful – will be rolled out throughout the country.

Under this structure, direct project costs will be financed through a revolving, short-term impact financing facility extended by an Impact Lender. The facility repays through fixed payments for each confirmed cured patient, provided by a donor acting as an Outcome Payor. Treatment is provided under this mechanism initially to up to 300 patients identified as Hepatitis C positive at blood banks in the Yaoundé area.


Standby
PEEEL UP
STICKERS

The way forward - The Future of HealthCare is in Africa

The ambition to achieve UHC and the unprecedented rise of digital and mobile technologies create the potential for countries to reimagine healthcare systems. Where, digital and mobile technology can empower an individual through financial protection, whilst increasing access to better quality care and both local and international financing for health. With the ultimate aim of generating inclusive and sustainable economic growth.

Fundamentally, there is an urgency. Average annual population growth in Africa is expected to be 42 million. Sub-Saharan Africa has the highest maternal mortality ratio experiencing 66% of all maternal deaths per year worldwide. WHO estimates that NCDs will rise by 27% over the next 10 years in the region, resulting in 28 million additional deaths. With the majority of the populations lacking access to health insurance they face the risk of impoverishing or catastrophic expenditures due to unforeseen and high healthcare costs. Currently, the funds available for healthcare are often fragmented and there is limited transparency on the impact.

Going forward, PharmAccess continues its work towards smarter use of funding by driving more money into the system, moving from post-payments to pre-payments, improving and creating transparency on how money is allocated and how care is delivered. More specifically, we work towards creating new ways to empower the individual, lower operational costs, reduce demand barriers, improve financial inclusion, and align the fragmented sources of funding. Better quality care is imperative to achieving UHC, which is why we continue to work on standards for benchmarking quality of care, help providers measure and improve quality of care and enabling access to loans to enhance capacity and quality. Along with our partners, we strive to pilot and scale long-term structural changes to the healthcare system.

In alignment with our strategic objectives, we will continue to:

Support the design and roll out of universal health coverage programs

2019, builds on the progress of last year with our role as a technical advisor in Nigeria, Ghana, Tanzania and Kenya continuing to support the design and operationalization of country or state wide UHC programs using digital solutions as an enabler.

In order to realize sustainable health financing that can expand healthcare coverage with both financial protection as well as quality services, financing needs come from multiple revenue sources, and efficient and equitable use of these resources is needed. Leveraging the potential of mobile payment platforms and technology can accelerate the process to effectively collect, pool and manage these different funding flows

Our commitment to understanding individuals accessing care through behavior research, income level assessment, development of schemes for the retention in health insurance schemes of the informal sector and finally elevating data insights for counties and states to better manage the costs and quality of care continues to be integral to our approach.

The notion that increased access is only impactful when quality of care is increased sees the role of SafeCare and Medical Credit Fund as integral to the realization of successful UHC programs. Moreover, we will advocate, raise awareness and convene across all players in the ecosystem to support the realization of UHC – as this can only happen via concerted action.

Innovate and scale core interventions

The combination of SafeCare and Medical Credit Fund to increase quality care has that this approach can have on the provision of healthcare in the countries in which we work.

To scale these leads us to scope new markets, such as the Ivory Coast and Zambia (MCF) and Eswatini and Congo (SafeCare). Adapting our SafeCare model to enable a licensee approach and realizing further efficiencies through digitization. Rolling out digital loans in other countries and the launch of SafeCare's digital quality improvement dashboard is just the start. Importantly, our focus remains on providing efficiencies for healthcare providers that help them to grow and provide better quality services for their patients.

Smart contracting towards better care

In order to realize UHC at affordable costs, we believe the way healthcare is delivered and financed needs to be transformed. With the individual at the center of all interventions. Following pilots across Kenya and Tanzania in 2018, we continue to test and scale tailored patient journeys for mothers and their children and patients managing non-communicable diseases. Where patient feedback home measurements, direct feedback to care providers and financial incentives to reward quality care.

Our belief that the future of healthcare lies in Africa leaves us committed to, along with our partners, continue to test, innovate and scale interventions that provide all individuals with affordable access to healthcare they can trust in the most cost effective way.

Partners

Amsterdam Institute for Global Health and Development (AIGHD) · Investment Fund for Health in Africa (IFHA) · Joint Commission International (JCI) · Achmea Foundation · Adamawa State Government · Aegon · African Air Rescue (AAR) · African Health Markets for Equity (AHME) · Africa Institute of Healthcare Quality, Safety and Accreditation (Ghana) · African Population and health Research Centre (APHRC) · Agence Française de Développement (AFD) · Aidsfonds · Amref Health Africa · AmsterdamDiner Foundation · Association of Private Health Facilities in Tanzania (APHFTA) · AstraZeneca · Banc ABC (Tanzania) · Bank of Africa (Tanzania) · Bill & Melinda Gates Foundation · Boehringer Ingelheim · Calvert Impact Capital · CarePay Ltd · Center for Advanced Hindsight · Centers for Disease Control and Prevention (CDC) Foundation · Chase Bank (Kenya) · Children's Investment Fund (CIFF) · 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 · Department for International Development (DFID) · Diamond Bank (Nigeria) · Duke University · Dutch Ministry of Foreign Affairs · East Africa Healthcare Federation (EAHF) · ELMA Foundation · Entrepreneurial Development Bank (FMO) · Equity for Tanzania (EFTA) · FACTS · Faulu (Kenya) · FHI 360 · Fidelity Bank (Ghana) · First City Monument Bank (Nigeria) · Food and Drugs Authority (Ghana) · Gertrude's Children's Hospital · GFA consulting group · Ghana National Health Insurance Agenda (NHIA) · Ghana National Health Insurance Scheme (NHIS) · Gilead Foundation · Grofin · GT Bank (Kenya) · Health Facilities Regulatory Agency (HEFRA) · Heineken · Henry Jackson Foundation · Human Development Innovation Fund (HDIF) · Hygeia International Consortium for Outcome Measurement (ICHOM) · International Finance Corporation (IFC) · International Society for Quality in Health Care (ISQua) · Joep Lange Institute (JLI) · John Martin Foundation · Kenya National Hospital Insurance Fund (NHIF) · King Baudouin Foundation United States · Kisumu Medical and Education Trust (K-MET) · KNCV Tuberculosis Foundation · Kreditanstalt fur Wiederafbau (KfW) · Kwara State Government (Nigeria) · Lagos State Government (Nigeria) · Lagos State Government Health Facility Monitoring and Accreditation Agenda (HEFAMAA) · Lagos State Health Management Agency (LASHMA) · London School of Hygiene and Tropical Medicine · Marie Stopes International (MSI) · Marie Stopes Kenya (MSK) · Medical Research Council · Ministry of Health in Kenya, Tanzania, Nigeria and Ghana · M-PESA Foundation · MSD for Mothers · National Health Insurance Authority (Ghana) · National Microfinance Bank (Tanzania) · Nationale Postcode Loterij · Noguchi Memorial Institute for Medical Research (Ghana) · Ogun State Government OmniBank (Ghana) · Oversees Private Investment Corporation (OPIC) · Palladium Pfizer Foundation · Pharmaceutical Society of Ghana (PSGH) · Philips · Population Services International (PSI) · Population Services Kenya (PSK) · President's Emergency Plan For AIDS Relief (PEPFAR) · Republic Bank (Ghana) · Rockefeller Foundation · Safaricom · Sanofi · SBM Bank · Shell · Sidian Bank (Kenya) · Society for Family Health (SFH) · Society for Private Medical and Dental Practitioners (Ghana) · Spreadgood · Sterling Bank (Nigeria) · Strathmore Business School (SBS) · Tanzania National Health Insurance Fund (NHIF) · The Global Fund to Fight AIDS, Tuberculosis and Malaria · TLG Capital · UniBank (Ghana) · Unilever · United States Agency for International Development (USAID) · University of Ilorin Teaching Hospital · World Bank Group · World Bank Group/ IFC/s Health in Africa (HiA)

PharmAccess FOUNDATION

Health Insurance Fund

MEDICAL CREDIT FUND AFRICA

SafeCare HEALTHCARE STANDARDS

PHARMACCESSGROUP

The Netherlands AHTC, Tower C4 Paasheuvelweg 25 1105 BP Amsterdam +31 (0) 20 – 210 3920
Kenya 52 El Molo Drive Off Naushad Merali Drive Lavington, Nairobi +254 (0)20 444 2120
Tanzania Skyways Building 2nd Floor Ohio/Sokoine Drive Plot No. 149/32 Dar es Salaam +255 (0)222 124 888
Nigeria 10A Ademola Close off Remi Fani Kayode Street GRA Ikeja, Lagos +234 (0)134 22 800
Ghana 5 Dakar Avenue Lagos Street East-Legon P.O. Box CT 10245 East Cantonment, Accra. +233 (0)24 374 5376
Namibia 1-3 Fouche Street Windhoek West Windhoek + 264 (0)61 419000

www.pharmaccess.org info@pharmaccess.org follow us on Twitter @PharmAccessOrg