Health Insurance Fund PROGRESS REPORT 2020

PharmAccess Group PROGRESS REPORT 2020

Preface

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Dear friends.

The world is a different place to what it was just over a year ago. Globally, death and hardship due to the coronavirus pandemic has touched us all and ruined many millions of lives. COVID-19 has exacerbated the situation in Africa by causing rises in poverty, disrupting services, and further increasing public debt. We must find innovative ways to live up to our Sustainable Development Goals, such as good health and economic growth.

Inadvertently, the pandemic has also opened our eyes as to what that answer may be - inclusive health markets underpinned by data and tapping the full potential of technology. If we can apply the learnings from this past year to transform the way we do things, then we might be able to build back a better and brighter future.

At PharmAccess, we believe in the digitalization of health financing and delivery. We use mobile phones to place individuals at the center and use the information generated to improve primary care services. The empowerment and transparency created by such data-driven methods builds trust, so customers are open to alternative healthcare models.

With these latest advances at the core of our approach, we work with the public and private health sector and our partners to develop health solutions, such as insurance, quality standards, and investments that strengthens the

whole system, providing basic healthcare and livelihood improvement to millions of people across Africa.

Whether it be for pregnant women, rural farmers, informal workers, marginalized groups, civil servants, or chronically ill patients, in this Progress Report we set out how a good quality, low-cost sustainable health care sector might look like in Africa. We do this by sharing examples of the work we did together with our partners in 2020, including our COVID-19 response activities. We are particularly grateful for the support of the Dutch Ministry of Foreign Affairs and the Postcode Lottery as well as other funders that make our work possible. I am proud of our results and the impact we were able to make, despite the challenging working conditions caused by the pandemic.

While vaccine programs are being rolled-out globally, we remain very concerned about the situation in Africa and the limited supply of vaccines available. We continue to work tirelessly to drive long-term systemic change on the continent, so everyone can live a healthy and productive life.

Warm regards,

Monique Dolfing-Vogelenzang CEO PharmAccess Group

PharmAccess innovations through the years

2007

ACCESS TO HEALTH INSURANCE



The Health Insurance Fund, launched by the Dutch Ministry of Foreign Affairs, aims to develop inclusive health markets that provide affordable and quality healthcare for low and middle income populations.



Ministry of Foreign Affairs of the Netherlands

2010 QUALITY STANDARDS FOR HEALTHCARE



Improving healthcare in low-resource settings with standards and a step-wise methodology.

Safe Care

2016

CONNECTING LOW-INCOME FAMILIES TO HEALTH INSURANCE



i-PUSH connects low-income families in Kenya to health insurance, quality care and lifestyle support - directly through their mobile phone. i-PUSH is a joint project with AMREF, funded by the Dutch Postcode Lottery's Dream Fund.





• 2001

PHARMACCESS FOUNDATION



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

2007

LAUNCH IFHA





Launch of the EUR 50.2m Investment Fund for Health in Africa (IFHA) that invests in African healthcare businesses.

2009

ACCESS TO LOANS FOR HEALTH PROVIDERS



Medical Credit Fund provides loans to health businesses so they can grow and invest in quality.



• 2016

ACTIVIST THINK TANK ON INCLUSIVE HEALTH MARKETS



Launch of JLI, an organization fighting to use technology to grow inclusive, sustainable health systems.

joep lange institute

2015

MOBILE HEALTH FINANCING INNOVATIONS



Start of CarePay and launch of M-TIBA which provides access to healthcare and data through a health technology financing platform platform. m-tiba

DATA ANALYTICS TO IMPROVE HEALTHCARE

2019



With care bundles we digitally track patient care journeys. The data provides insights for health providers and rewards better performances.

M MCARE

2020 COVID-19 RESPONSE

ė



PharmAccess adapts its technology-driven interventions to cope with the rapidly unfolding crisis.

2019

Medicine supply chain program, Med4All, launches in Ghana.



Introduction



Twenty twenty has been a year like no other in testing our resolve to achieve universal health coverage (UHC). Over two million people have lost their lives, and many more their livelihoods as a result of the COVID-19 pandemic. The virus and containment measures have resulted in one of the worst global economic shocks in history. The World Bank estimates 71-100 million people will be forced into poverty, pushing many governments around the world to reassess their commitments to the Sustainable Development Goals (SDGs) as they battle to resuscitate their economies.

In Africa, the health sector has been dealt a harsh blow by the pandemic as financial and operational challenges have stalled and delayed many development initiatives. This amplifies the necessity to implement bold economic policies and interventions, including stronger health systems, private sector development and innovations, not only to reach those who are financially excluded but also in terms of pandemic intervention and preparedness.

Over the past year, PharmAccess has pursued working towards making inclusive health markets work. We have continued to provide loans to healthcare providers through the Medical Credit Fund (MCF) whilst many financial institutions closed up shop. In some cases, MCF restructured loans so that struggling health facilities could remain open during the pandemic. Also the Dutch Ministry of Foreign Affairs committed 7.5 million to MCF, enabling it to scale at this critical time. In Nigeria, the Kwara State Health Insurance Scheme started enrollment in September, whilst in Lagos almost 300,000 people have registered for the state's health insurance scheme. In Kisumu County, Kenya and Zanzibar, Tanzania the groundwork was laid for a real shift towards more sustainable, social insurance-based models for reaching UHC.

In these difficult times, we have seen that the countries where we work are moving to mandatory public health insurance schemes, so there is an urgent need to improve the quality of care provided, like patient safety and infection control. With that in mind, in Ghana with Med4All we are working towards developing a digital medicine supply chain for affordable, quality medicines, and SafeCare has moved to a next phase, exploring how it can expand the adoption of guality standards and certification to grow its impact beyond Africa by starting in Afghanistan and India.

Our 'affiliated' organizations, who were initiated by PharmAccess but are now governed and financed independently, have also made important progress. The Joep Lange Institute (JLI) has been advocating for digital health and responsible data use, and their work done in Cameroon on Hepatitis C is an example of how outcomebased payments for health facilities can play an important role in driving quality healthcare in the future. Meanwhile, our partners CarePay and Safaricom received recognition for their joint work on M-Tiba, with the latter ranked 7th by Fortune for companies that are 'changing the world' in 2020.

As vaccine roll out early this year has raised hopes for recovery throughout Europe and the West, the cost of financing such a vaccine in hard hit African economies as well as the complex planning and logistical operation to deliver it will mean the continent will need to wait longer before pandemic restrictions are fully lifted. We must ensure equitable access to vaccines so that everyone at risk, anywhere in the world is protected. In the meantime,

PharmAccess has implemented technology-driven interventions to cope with the rapidly unfolding crisis. More of this can be found in the following chapter 'Our COVID-19 response'.

The novel coronavirus has reinforced the need for African countries to strengthen their health systems to ensure the delivery of basic quality health care services, address the impact of COVID-19 and prepare effectively for future pandemics. PharmAccess is dedicated to strengthening health markets with digital technology so that people can access better services, lead healthier lives, and reach their full potential. Our work echoes the global call for universal health coverage, and we do this by mobilizing private and public resources, to reach those in even the most remote areas with affordable healthcare they can trust.

PharmAccess has country offices in Kenya, Tanzania, Ghana and Nigeria, and a head office in the Netherlands. In 2020, we employed a multidisciplinary team of over 200 professionals, of which 70% are based and operate in our African country offices.

Our strategic objectives

Accounting for close to 10 percent of global GDP, healthcare is of enormous economic importance. Indirectly, better health means higher productivity, which in turn spurs economic growth and development. PharmAccess takes a holistic approach to health system strengthening from financing health care providers to ensuring quality healthcare for customers.

Our strategic objectives help strengthen the system, providing basic healthcare for millions of people throughout Africa.

These strategic objectives guide us through the progress report.



Accelerate health financing, develop pre-payment mechanisms, risk pooling structures and mobilize resources.

Strengthen the guality of health services and certify clinical and business performance for healthcare providers.



Match demand and supply for more effective and efficient healthcare transactions



Increase investments into the healthcare sector by providing (digital) loans to the health sector.

Measuring impact with research, evaluation and advocacy.

At PharmAccess, a longstanding contextual analysis guides our Theory of Change, through which we aim to break the vicious cycle and work toward a virtuous cycle of quality care and trust. We believe that providing healthcare is a semipublic good where governments can meet the health needs of society. The reality remains, though, that only about half the world's population can access essential health services, which is why the private sector by default has a role in delivering healthcare. This is especially true in Africa, where the private sector already provides 50 percent of health services. Whilst businesses can deliver innovative health models that provide quality, affordable care, governments play a critical role in health sector development as only they can intervene at the required scale to organize equitable access.

The vicious cycle of demand and supply

Sub Saharan African health systems suffer from chronic lack of funding. The lack of institutionalized solidarity is demonstrated by very little formal risk pooling, and almost nonexistent income redistribution systems. So called 'free public healthcare' is often not available, the poor and most vulnerable in society are left without a supply of basic health services. For many the private sector becomes the default, and healthcare consumption is characterized by high out-of-pocket expenditures, which leads to large inequities.

The high proportion of out-of-pocket expenditure in combination with low levels of trust in the health sector also leads to low and unpredictable revenues for providers, which in turn prevents them from investing in the quality, scope, and scale of their services. Banks and investors are unwilling to invest, especially at the lower end of the market. As donor aid is often fragmented due to vertical funding streams, and government tax revenue is low due to an informal workforce, this leaves both the public and the private healthcare sector with limited or no access to the capital required for inclusive growth.

Due to lack of standards that can ensure objective measurement of the level of quality of basic healthcare facilities across the entire sector, patients and investors face uncertainty regarding the quality and reliability of health services. This uncertainty means that investors are hesitant to wager their money, and patients are not willing to pre-pay for healthcare through risk pooling. Impoverished potential healthcare consumers consequently avoid seeking healthcare. Post payment As a result, the demand for health services remains low, while the need is high. Low demand does not encourage healthcare providers to invest in the quality, scope and scale of their services.

Fragmented, limited pooling \$-

Towards a virtuous cycle

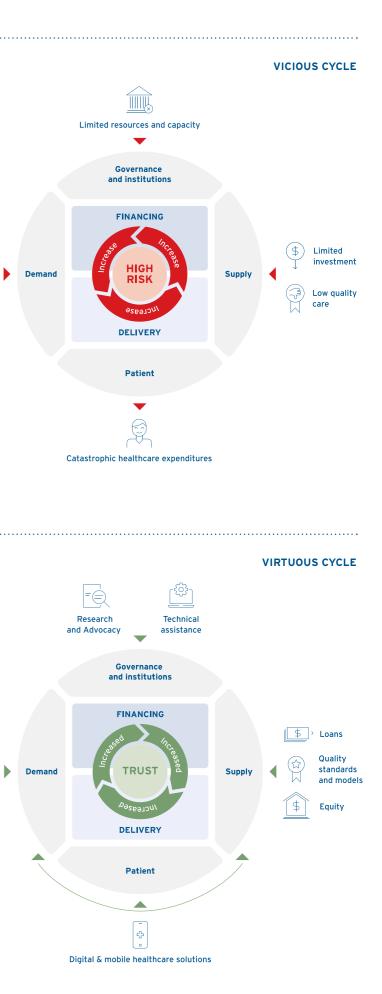
To transform this vicious cycle into a virtuous one, PharmAccess' aim is to make health markets work. Market failures need to be addressed with demand side solutions. including prepayments, cross-subsidization, and risk and income solidarity mechanisms. A stable demand can however not be realized without a reliable quality supply of health services. Therefore, the supply side also needs to be improved substantially, requiring major investments, quality standards and innovations to reduce (transaction) costs, improve effectiveness, and to work towards an enabling environment to strengthen and include the local private sector. The aim is to attract more resources and using these more efficiently and effectively, leading to an upward spiral of trust among stakeholders, including patients, doctors, insurers, investors, and governments.

Through the latest advances in mobile and technology and data analytics, we are pioneering performance-based care through digital health, by placing the patient in control of their own health through the democratizing power of mobile technology. Africa is number one in mobile payments in the world. Fragmented sources of health financing, whether that be government safety

nets, international and local remittances, or donor aid, can be unified through mobile health platforms to increase demand. What is more, people can be reached at low marginal costs and higher transparency. The data generated using such technology can be used to measure and evaluate the impact of health programs, find gaps in the provision, and share lessons Inclusive health learned with national and international governance institutions so they can improve the quality and availability of healthcare.

This builds trust in the healthcare system, encouraging individuals to invest in affordable insurance packages as well as banks to provide loans for equipment, personnel and infrastructure. Increased revenue allows healthcare enterprises to provide better health for all and relieve pressure from public health services.

insurance \$ Prepayment





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The PharmAccess approach

HOLISTIC: At PharmAccess we believe in systems strengthening, while working on interventions at both the demand and the supply side of the market. To work towards the virtuous cycle, we support the development of government led social insurance schemes, innovative financing models and aim to increase willingness to prepay for healthcare through risk-pooling mechanisms and to pave the way for investments in healthcare. With MCF to provide loans to the broad range of healthcare providers and companies in the health sector, SafeCare to develop quality standards for hospitals, and the AIGHD to conduct impact and operational research. The Investment Funds for Health in Africa (IFHA) was started to mobilize private equity to invest in private healthcare insurers and SMEs in Africa. The Joep Lange Institute advocates to promote digital health in the global health agenda. Meanwhile, CarePay has grown into an international technology company, offering a mobile health payment platform that connects individuals to clinics and to payers in an efficient and transparent manner.

PARTNERSHIPS: Partnerships are central to everything we do. PharmAccess acts as a catalyst and enables local entities to do the same. For many activities, PharmAccess works with local implementers, including the private sector, technical assistance partners, banks, Insurance and telecommunication companies, medical equipment providers and pharmacy distributors. Our partnerships with governments, including national and state health insurance agencies and regulators, are fundamental to our ambitions and the sustainability of our impact.

STARTING PRIVATE, GROWING PUBLIC: Strong partnerships are essential for making programs efficient and sustainable. Although health is a public responsibility, the private sector complements public efforts by providing innovative products and services, additional capacity, and financing for healthcare. At PharmAccess, we partner with the private sector to develop and test new approaches and initiatives to improve both healthcare financing and delivery. At the same time, we partner with the public sector to integrate, replicate and scale such innovations. Wellfunctioning public-private partnerships in health are the basis for successfully attaining Universal Health Coverage.

INNOVATE: Technology and innovation are at the core of our approach at PharmAccess. Huge advances in mobile communications and data analysis means we can create innovative solutions that transform healthcare financing and delivery mechanisms. In Sub-Saharan Africa, some 10 percent of GDP in transactions are done via mobile payments, compared to two percent in Europe and the US. Africa is number one in mobile payments in the world. Even people from the lowest-income groups are connected through simple feature phones. Mobile technology enables efficient pooling of financing and scaling of insurance at a low cost as well as providing data to improve healthcare delivery and outcomes. On the supply side, the services can be tracked to ensure quality standards at affordable prices which, in turn, increases public trust and drives demand. Information generated by electronic transactions improves transparency for all stakeholders and allows healthcare providers to better understand their customers' needs. Digital health will empower citizens to take control of their own health.

Sustainable Development Goals

The 2030 Agenda for Sustainable Development was adopted by all United Nations member states in 2015 to provide a set of goals to end poverty, protect the planet and ensure prosperity for everyone. PharmAccess contributes to these targets, with support from the Netherlands Ministry of Foreign Affairs (MinBuZa) and the Dutch Postcode Lottery, tapping into private sector potential to better healthcare in sub-Saharan Africa. Our interventions touch upon a broad range of SDGs, but we focus on Goal 3 on good health and

PHARMACCESS INTERVENTIONS CONTRIBUTE TO THESE SDGs.



NO POVERTY



- 1.3 Implement social protection systems
- 1.4 Equal rights to ownership, basic services, technology and economic resources
- **1.A** Mobilization of resources to end poverty



- **3.2** End all preventable deaths under five years of age
- 3.4 Reduce mortality from noncommunicable diseases and promote mental health
- **3.7** Universal access to sexual and reproductive care, family planning and education
- **3.8** Achieve Universal Health Coverage
- **3.C** Increase health financing and support health workforce in developing countries



- 8.2 Diversify, innovate and upgrade for economic productivity
- **8.3** Promote policies to support job creation and growing enterprises
- 8.4 Improve resource efficiency in consumption and production



Goal 8 on economic growth, by innovating with state-of-theart technology and novel partnerships to create inclusive health markets.

Each SDG has underlying targets and sets of indicators that are the backbone of monitoring progress towards SDGs. Listed underneath are the SDG's and indicators that are most relevant for the work of PharmAccess.

GENDER EQUALITY

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- **5.6** Universal access to reproductive rights and health
- **5.A** Equal rights to economic resources, property ownership and financial services
- **5.B** Promote empowerment of women through technology

GOOD JOBS AND ECONOMIC GROWTH

- 8.1 Sustainable Economic Growth
- 8.8 Protect labour rights and promote safe working environments
- 8.10 Universal access to banking, insurance and financial services



INDUSTRY. INNOVATION AND INFRASTRUCTURE

- 9.1 Develop sustainnable, resilient and inclusive infrastructures
- **9.3** Increase access to financial services and markets
- **9.5** Enhance research and upgrade industrial technologies



REDUCED INEQUALITIES

- 10.2 Promote universal social, economic and political inclusion
- **10.4** Adopt fiscal and social policies that promotes equality



PARTNERSHIPS FOR THE GOALS

- **17.16** Enhance the global partnership for sustainable development
- **17.17** Encourage effective partnerships



The coronavirus pandemic has amplified the fragility of sub-Saharan Africa's healthcare system. Most health posts, clinics and hospitals, already dealing with HIV, tuberculosis, and malaria as well as an increasing amount of non-communicable diseases, cannot withstand the onslaught of such a rapidly evolving public health emergency. They lack essential equipment like safety masks or personal protective equipment (PPE), approved test kits, and qualified staff to undertake effective triage and ensure infection control.

National lockdowns to contain the spread of the virus have been effective, but they have also created an additional barrier to accessing healthcare. The corresponding drop in patient numbers and revenue for private health facilities, which serve half of Africa's population, has meant many have had to scale down the services they provide or shut down altogether. This disproportionately affects the poorest and most vulnerable in society, further adding to their struggle to find quality healthcare that does not put them out-of-pocket.

To respond to the pandemic in Africa, PharmAccess devised a rapid deployment plan based upon our approach, which engages the public and the private sector and innovates using the latest communications technology. Our interventions in Ghana, Nigeria, Tanzania, and Kenya fall into three categories: financing health care providers, connecting doctors with patients and virus surveillance, and maintaining quality standards through effective infection prevention and control.



million COVID-19 LOANS DISBURSED BY MCF IN 2020

The Medical Credit Fund (MCF), our impact loan fund, has responded to the cash crunch faced by many healthcare providers due to increased expenditure for COVID-19 (e.g. PPE) on top of working capital expenditure, despite the fall in income. MCF has offered on average 100 new loans per month during the pandemic. In 2020, MCF disbursed \$30 million of COVID-19 loans, providing lenders with more flexible repayment terms in these challenging circumstances. Digital loan products like MCF's 'Cash Advance' that do not require face-to-face contact have an important role to play in maintaining services at such exceptional times.

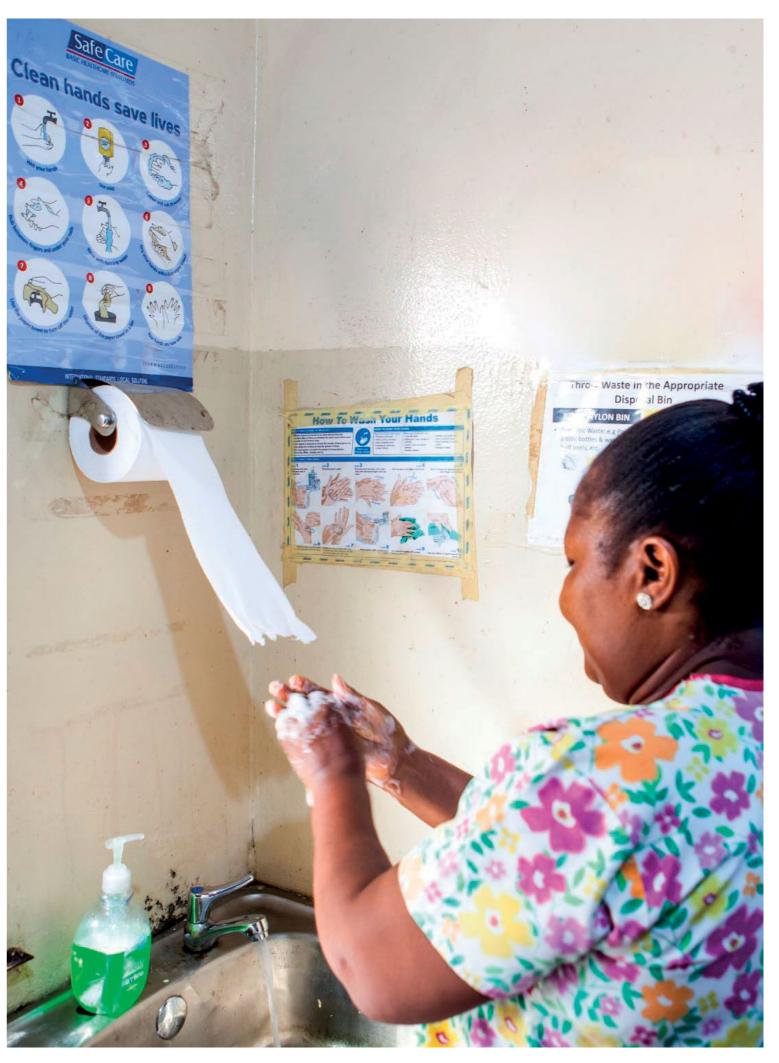
Digital solutions have also helped us bring together patients and doctors when movement has been restricted. Together with Luscii, a Dutch technology company, we implemented CovidConnect, a mobile service in Ghana, Nigeria, and Kenya. It enables individuals to assess their risks for COVID-19 and provides home monitoring and support from remote medical staff. Meanwhile, in Kenya, our MomCare service, a care analytics platform for pregnant mothers, has been adapted to cater for the pandemic. For example, free ambulances were provided during curfew hours, bed stay allowance was extended so women could arrive in plenty of time for their delivery and an SMS text service was provided to inform and increase engagement.



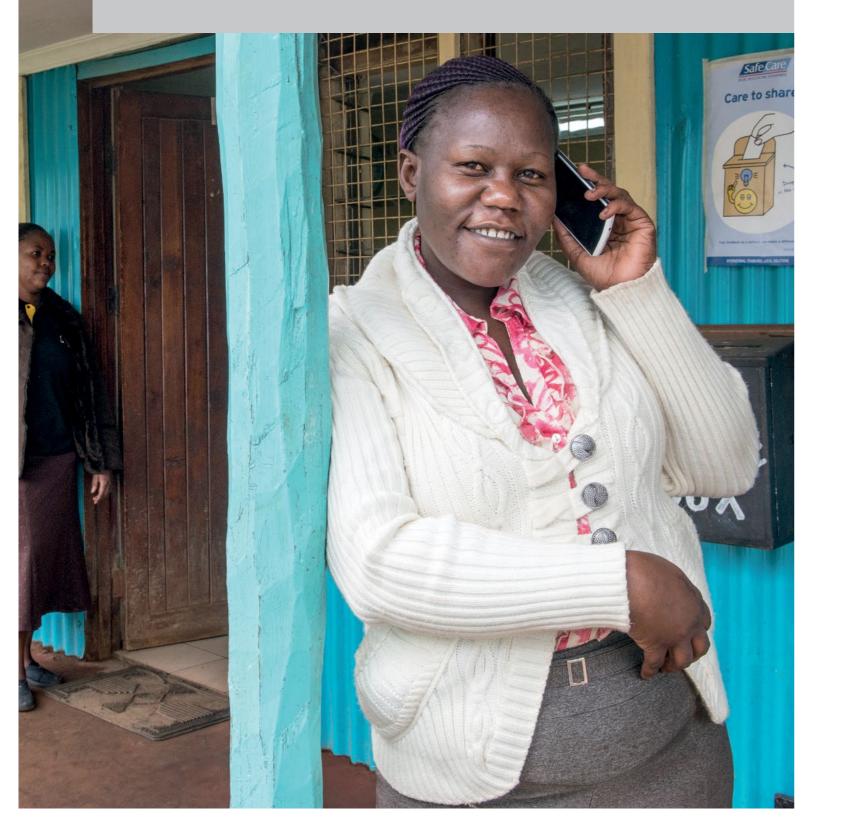
Our connected diagnostics program (ConnDx), which was used to geo-map malaria hotspots, has also been adapted to COVID-19. The new program, COVID-Dx, which uses smart phones to upload the patients' diagnosis, has increased the testing capacity of private Kenyan facilities and linked it to ongoing public efforts. The project focuses on prevention and resilient recovery, mitigating the socio-economic damages of the pandemic. In this case, mobile technology helps with early detection, finding gaps in the health market, and making sure that resources are allocated where they are needed most.

In terms of infection prevention and control, we have built on our SafeCare service, a stepwise certification process to improve quality of health. The SafeCare4Covid mobile app prepares staff and facilities in coping with the COVID-19 pandemic. The app describes an approved triage protocol, gives detailed information on prevention and control, and provides training resources. All the materials are available online. To date, SafeCare4Covid has been downloaded in 765 facilities in all our four core countries and many others, some as far afield as Peru. The app may be adapted quickly for future pandemics, conflicts, or natural disasters.

The need to build strong, data-driven, and sustainable health systems cannot be clearer. Our advocacy alongside the Joep Lange Institute has been critical in the countries where we operate in advocating for health systems to embrace digital health. By using mobile technology and digital health solutions, we can create health systems that can help with early detection and build the surveillance we need to tackle the current epidemic and prevent the next one. Building on the work done during COVID-19, Africa can bring about a positive, once-in-a-lifetime change in healthcare for its citizens.



ACCELERATING HEALTH FINANCING



CONTEXT:

11 million

IN AFRICA ARE BEING PUSHED EVERY YEAR INTO EXTREME **POVERTY** BECAUSE OF OUT-OF-POCKET COSTS

179

OF WORLD POPULATION LIVES IN AFRICA **BUT ITS SHARE OF** GLOBAL HEALTH EXPENDITURES IS LESS THAN 1%

BARRIERS

Sources: UN.org, World Bank (2016), GSMA 2019 Report: The Mobile Economy, Sub-Saharan Africa, Center for Global Development (Feb.

- 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
- The COVID-19 pandemic is likely to exacerbate the constraints on public health financing and UHC in LMICs through: (i) decline in GDP translating into a decline in government revenues, (ii) decline in external support, and (ii) additional direct health costs from the COVID response.

Mobile technology enables efficient and equitable demand side health financing approaches.











OF HEALTH EXPENDITURE IN SSA IS OUT OF POCKET

456 million



UNIQUE MOBILE AN INCREASE OF 20M **SUBSCRIBERS.** OVER THE PREVIOUS YEAR

THIS IS WHY WE ...

- Partner with public and private payers to pioneer and roll-out social 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 costs
- Empower households and individuals. based on their identified socio economic status to receive, (co)pay or save for health entitlements and to access services.
- Use the opportunity to scale up digital innovation to deliver (UHC) and to respond to the COVID-19 crisis.

Trust is the key ingredient for creating demand in the health sector and achieving universal health coverage (UHC). By showing people that their health system can provide quality and affordable care we can increase the willingness to participate in mandatory social health insurance schemes, and thus reduce the out-of-pocket costs that so often lead to financial ruin on the African continent, and around the world. PharmAccess supports such risk pooling mechanisms, where participants receive care for a pre-payment by themselves or (with) third parties such as government subsidies, remittances, employers, or donor funding. Mobile phones and technology can help reach more people at lower marginal costs, lower transaction costs, and the data generated by such technology can be used to identify gaps in and improve services, while ensuring that nobody is left out. This increased transparency and information builds trust, which is further strengthened when combined with SafeCare standards (see 'Strengthening the quality of health services'). Over the last 15 years, PharmAccess has been working with public and private partners to develop and set up social health insurance schemes in order to improve access to care and advance UHC.

Ensuring affordable, quality healthcare

Nigeria

In the last five years, Nigeria has laid down some important markers on its commitment to reach universal health coverage by the year 2030. Thirty-three states have adopted mandatory health insurance legislation, and PharmAccess has been supporting several of them - Lagos, Kwara, and Adamawa - in designing, developing, and implementing statewide health insurance schemes. In Lagos State, almost 300,000 people have been enrolled since December 2019, the majority being state civil servants, crucial for building trust amongst the general population. The Lagos State Health Management Agency (LASHMA) also intends to enroll the indigent population as well as the informal sector, such as artisans, traders, transporters, and small-scale business owners.

During the COVID-19 pandemic, in Kwara State, the Kwara State Health Insurance Agency (KW-HIA) began enrolling an initial group of 8,000 indigents to its state health insurance scheme. Here, PharmAccess also assists with planning for the inclusion of the informal sector. With the state being largely rural, most informal sector workers are farmers. Kwara is one of the poorest states and the scheme hopes to reach all 3.4 million inhabitants, reducing out-of-pocket costs and providing them with access to affordable, quality care. Meanwhile, in Adamawa State, PharmAccess has also assisted the design of the State Health Insurance Scheme.

Ghana

Ghana has one of the largest mandatory social health insurance schemes in sub-Saharan Africa. PharmAccess is supporting the National Health Insurance Authority (NHIA) to improve upon its operational efficiency, sustainability, and coverage. By supporting the rollout of the CLAIM-it app – a digital system within the provider panel of NHIA – we assist in digitizing more claims, support an efficient, transparent process, and help shape a blueprint for what UHC can look like in a 'Ghana Beyond Aid'. NHIA is a mandatory scheme, and the outcome of our collaboration has the potential of extending access to care for 30 million people throughout the country (it currently covers about 15 million).

PharmAccess has been providing technical assistance to make the NHIA a data-driven insurer and knowledge institute that capitalizes on the potential of technology to create value out of its own data (see Measuring impact with research, evaluation and advocacy). We are assisting with the analysis of three years of claims data to provide insights and generate policy briefs and research publications for management decision-making. Such data analysis provides insights into enrollment and coverage of different segments of population, including women and pregnant teenagers, a key requirement if we are to address gender equality.



Kenya

UHC is one of the Kenva government's Big Four development objectives together with manufacturing, food security and housing. After some initial delays, the UHC agenda in Kenya is moving forward with the National Hospital Insurance Fund (NHIF) as administrator and its SupaCover package as the means of mandatory coverage. To support this agenda, PharmAccess has partnered with the County Government of Kisumu (CGK) to develop and set up the Marwa Solidarity Health Scheme. The Scheme aims to demonstrate how UHC may be achieved by passing required legislation, establishing governance and financing structures, by fully digitizing administration and by introducing innovative financing models. To make sure funds were made available for indigents to purchase NHIF cover for the first year, we supported Kisumu County to set up a ringfenced fund, including government contributions for premium subsidy.

Together with KCG, NHIF and technology partner CarePay, PharmAccess has identified, registered, and enrolled 45,000 indigent households (approx. 180,000 lives) with subsidized premiums who are able to access care at 49 healthcare facilities in the County from January 2021 onwards. Another 45,000 identified indigent households are to follow later this year. Plans are already in place to start recruitment of self-joining households from the informal sector into the scheme. M-TIBA, CarePay's health payment platform, allows for the collection of healthcare utilization data from the participating healthcare providers. This data provides relevant analyses and insights concerning patients' facility selection, medicine prescription practices and disease patterns for the CGK and NHIF in order to improve their decision-making abilities. The SafeCare methodology is being applied at the participating facilities for assessments and quality improvement planning.

Tanzania

In 2018, the Government of Tanzania adopted the principles and financing structures of the improved Community Health Fund (iCHF) program that was piloted by PharmAccess in partnership with the National Health Insurance Fund (NHIF) and the local District Councils in the Kilimanjaro and Manyara regions in the north of the country. An adapted National iCHF program was introduced in 2019 and rolled out to all 26 regions of the Tanzania mainland. At the end of 2020, more than 1.3 million people were enrolled across Tanzania.

In Zanzibar, a semi-autonomous part of the country, PharmAccess has been working with the government on reforms of its health financing. Currently, healthcare services are free for all citizens, but the quality of care provided is poor and financing insufficient. To remedy this situation, the Revolutionary Government of Zanzibar (RGoZ) has requested PharmAccess to assist in digitizing and improving the administration of healthcare financing, assessing and improving the quality of healthcare facilities, and developing a healthcare financing strategy that includes health insurance. The first two initiatives have been introduced with the implementation of a digital health insurance platform (Open IMIS, which is also used for NiCHF) and the SafeCare methodology for facility assessments and quality improvement planning. In 2021, we expect to develop the new health financing strategy with the RGoZ.



Directing subsidies to the poorest socio-economic mapping

To improve the efficiency of existing funding, and to increase funds for UHC through local resource mobilization, social health insurance schemes aim to pool existing funds and ensure upfront, individual contribution - so that the costs of health risks can be spread across all communities.

Identifying the households that both can and cannot afford to contribute to their own health insurance premium is essential for designing sustainable schemes. Equipped with this data, governments, with national and regional health insurers can develop policies to ensure that subsidies and funds are channeled equitably to benefit the most vulnerable groups without crowding out contributions from those who can pay.

As part of the Kenya UHC pilot in four counties, a socioeconomic 'mapping tool' was deployed during the enrollment period to help assess socioeconomic status - e.g., wealth, gender, and education. Integrated into the mobile registration, the tool capitalizes on recent advances in machinelearning and adheres to advanced statistical methods to estimate whether a household falls above or below the Kenyan national poverty line.

After obtaining consent to use this information for allocating subsidies, community volunteers conducted interviews about poverty in the households that we registered before sharing the data with the Ministry of Health as part of an effort to help national and local governments make evidence-based decisions about

allocating health insurance premium subsidies to low-income families.

PharmAccess is investing in this approach as a standard element of social health insurance schemes. By incorporating such tools into a digital UHC enrollment process, the interviews can be performed at a low marginal cost - as household details must be gathered, regardless. Collecting the data through a tool that runs on a digital platform will also allow for the direct allocation of subsidies using the same platform that collected the information. PharmAccess has also supported partners in Ghana and Kwara State (Nigeria) to do socioeconomic mapping.

KENYA

MARWA health insurance

Eunice Adhiambo struggles to sell clothes in Nyalenda, a slum suburb of Kenya's third largest city, Kisumu. She had had a headache and fever for a few days, but on this occasion, instead of saving up to see a doctor, as a member of the new Marwa health insurance scheme, she could seek help immediately.

"I tested positive for malaria and couldn't afford to pay health bills without the cover".

Said mother-of-two Adhiambo.

Kenya has made big strides in socioeconomic development in recent years. However, work remains to be done in terms of health. For example, around one in 300 mothers die during childbirth, partly due to poor access to quality, affordable health care. Only 10% of Kenyans are covered by health insurance.

"It doesn't make sense to have mandatory car insurance and not have mandatory health insurance cover," said Prof Anyang Nyong'o, Governor of Kisumu Country.

Eunice and her family are one of 45,000 households that are enrolled into the Marwa Health Insurance Fund. PharmAccess helped the National

subsidized.

drugs and services.

The quality of the care is also essential as any successful health insurance scheme must have the confidence of its customers that they will get a return on their investment. By implementing SafeCare standards (see chapter 6) at the connected facilities means quality can be monitored and improved.



Hospital Insurance Fund (NHIF) to identify the poorest households that were eligible for subsidy with a household wealth estimation tool. As a result, Adhiambo's premium is fully

As well as helping to find and register indigent households, PharmAccess also provided support in developing new laws for the right to care as well as facilitating negotiations between the county, NHIF and the health care providers. Moreover, providers and pharmacies needed assistance to prepare for increased demand for

The Marwa insurance program is powered by the M-TIBA mobile health payment platform. As data on patients' diagnosis, treatments and visits are

analyzed, important questions around healthcare such as who is using what, commonality of diseases and disparities in care provision can be addressed further improving care.

Another 45,000 indigent households will be enrolled in 2021, and to make sure the Marwa scheme is financially achievable, the local government aims to open the program to self-paying households later the same year. If successful, Kisumu could lead the way by reaching its 1.3 million inhabitants.

In the meantime, Adhiambo will be covered and able to visit primary health care whenever it is needed. "I urge the county government to enroll more people into the cover as it is a good initiative," she said.



Unifying financing streams > M-TIBA/ CarePay

M-TIBA is a mobile health payment platform, whereby people via their mobile phone can obtain access to affordable health. It includes a mobile health wallet used by individuals and families to store and retrieve their health financing products which may include a combination of savings, loans, remittances, vouchers, (donor funded) specific benefits, targeted government subsidies and insurances. All stored in one place and readily accessible to pay for healthcare services.

M-TIBA connects clients (patients) to healthcare providers and payers (including health insurers) and facilitates the transactions in a transparent manner. It can also receive and store subsidies to help people cover future healthcare expenses e.g., through donors. Through this mobile health platform, we can put the individual at the center and enable two-way, real time interactions which can include the exchange of information with providers.

When a person uses the wallet in a clinic, the patient's claims data is uploaded to the platform (GDPR compliant). This information offers key insights to funders and payers (both public and private) about how specific target populations have been reached, but also on problems and inefficiencies that may have occurred. It generates valuable data for healthcare providers, data that better informs them on their financing and patient caseloads. Ultimately M-TIBA will help promote efficient health financing and service delivery with greater transparency.

M-TIBA was developed by CarePay and the telecommunications company Safaricom in partnership with PharmAccess. In 2020, Safaricom and CarePay were listed in the top 10 of the Fortune's Change the World list in September for the development of the platform M-TIBA in Kenya. CarePay and Safaricom are mentioned alongside companies such as Zoom, Alibaba, PayPal, and BlackRock.

DEMAND SIDE FINANCING

INCREASED ENROLLMENTS

PharmAccess develops financing models to improve access to and utilization of health services, particularly among the poor. With this we aim to accelerate the journey to Universal Health Coverage (UHC). (Mobile) technology is used to support the implementation of insurance schemes and to identify the underserved that are eligible for subsidy.

18 million people have access to health insurance via PharmAccess supported programs in 2020.

VARIOUS APPROACHES TOWARDS UHC

Nigeria

Kenva

▶ We support the Lagos State Health Management Agency (LASHMA) to implement their social health insurance scheme.

2020 enrollment: **263.000** people.

Kwara State works on improving access to care and uses our household wealth estimation tool to identify the poorest individuals that are eligible for subsidy.

2020 enrollment: 8.000 people.

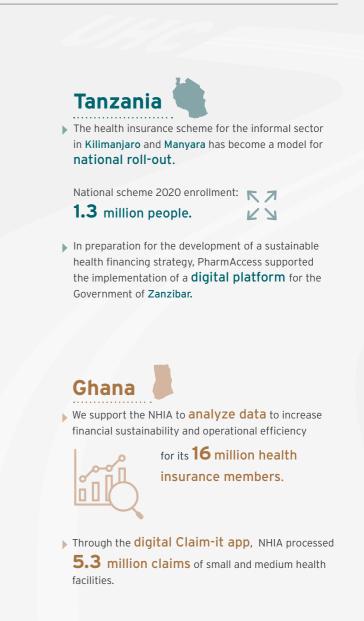
Kisumu uses the household wealth estimation tool to identify the poorest individuals eligible for subsidy.

Mobile enrollment of people from the lowest-income groups: 2.500

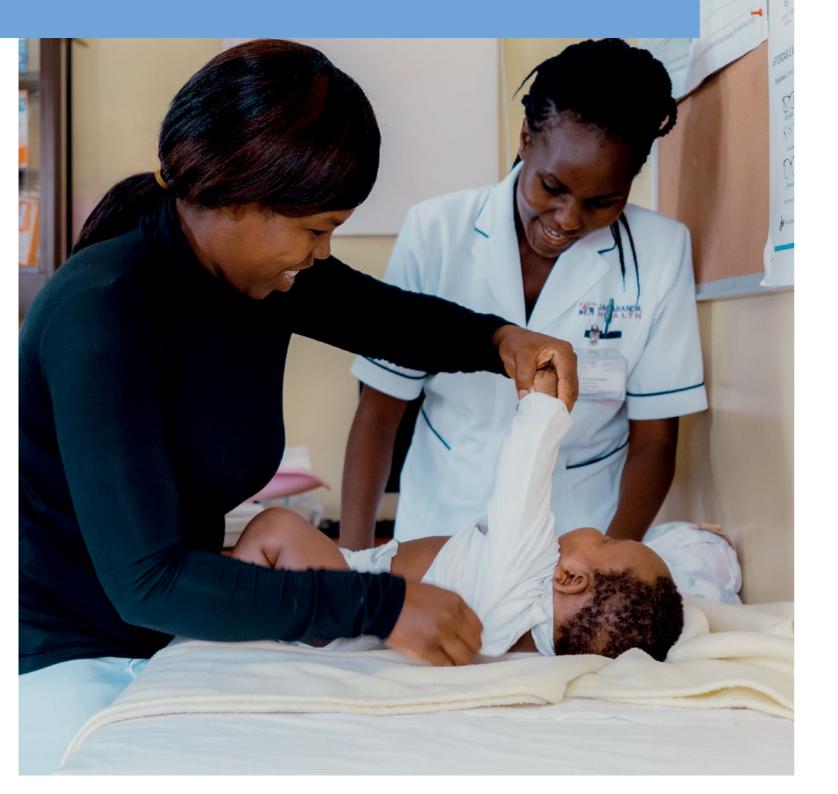
New approaches to UHC through I-PUSH.

Total enrollments: 78.000 people.

2020 IMPACT



STRENGTHENING THE QUALITY OF HEALTH SERVICES



CONTEXT:

Casualties related to healthcare

In low and middle income countries

10%

OF PATIENTS HOSPITALIZED CAN EXPECT TO ACQUIRE AN INFECTION DURING THEIR STAY.

BARRIERS

Sources: The Lancet Global Health Commission (2018), Patient safety in developing countries, BMJ (2012), SDG goal 3.8 and 2018 statistics, Delivering Quality Health Services: A Global Imperative -joint report by the OECD, World Health Organization (WHO) and the World Bank (2018)

- 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 of quality care.







DEATHS PER YEAR CAUSED BY POOR HEALTHCARE



3.6 million

DEATHS CAUSED BY LACK OF ACCESS TO HEALTHCARE

LOW QUALITY HEALTHCARE IMPLIES A HIGHER VULNERABILITY FOR INFECTIOUS DISEASES.

THIS IS WHY WE...d capacities• Develop international standard for
transparency and benchmarking purposess and data• Support facilities to improve quality and safety
with step-wise improvement programshow to• Collect data on quality of care, enabling
informed decision making by institutes, donors
and governmentCs needs
es• Build local capacity• Help facilities by providing data for decision
making on outbreaks such as COVID-19.



Some 5 million people die every year because of poor quality of healthcare, causing more deaths than from malaria, HIV and tuberculosis combined. Medication stock-outs, lack of sterilization equipment, no proper waste management, shortage of skilled midwives and other professionals; the shortcomings in hospitals and clinics in SSA are plentiful and do not compare easily with quality problems in high-income countries. And, for those who are committed to bettering their services, the challenge of enforcing quality standards in facilities can be daunting, and worse, without incentive or recognition.

SafeCare is a standards-based, stepwise certification approach which rates, improves and recognizes providers' business and quality performance, even in the very smallest clinics in the slums. SafeCare incorporates digital innovations and strategic partnerships to stimulate (cost) efficiency and effectiveness of its interventions to stimulate clinical and business performance. Qualified SafeCare assessors visit a facility for an assessment, where compliance against the

quality standards is measured. This generates an assessment report, and providers are given a tailor-made quality improvement plan to address their gaps and challenges, with transparent and achievable goals, and tools that guide them down a motivating and manageable path to improvement.

Typically, facilities develop and implement guidelines and standard operations, focusing on, for example, infection prevention measures, waste management, delivery systems and patients' rights but also on financial topics such as audit and procurement processes. The aim is to have a medically and financially healthy organization, which translates into patient and staff safety, better health outcomes and more investments and (insurance) contracting. The methodology can also be used by governments for data-driven resource allocation and can fit in a regulatory framework. In 2020, healthcare facilities participating in SafeCare receive 1.9 million patient visits, of which over half were from low to very low-income groups.

SafeCare products and services

Accredited by the International Society for Quality in Healthcare External Evaluation Association (IEEA), SafeCare has three products that evaluate a facility's performance:

- 1) SafeCare Self-Assessments, digital self-assessment tools that allow facilities to self-evaluate against a set of criteria, designed around a specific topic such as COVID-19 preparedness, pharmacy, or MNCH;
- 2) SafeCare STEPS, a quick assessment tool that rates facilities on a scale of 1 (lowest quality) to 5 (highest quality); and
- 3) SafeCare ACCREDITATION, which recognizes excellence in performance.

The three-assessment products feed into the SafeCare Quality Platform, which allows healthcare providers to use their assessment scores and benchmark against other facilities, learn about best practices and uses gamification approaches to stimulate quality improvement activities. The Quality Platform can also be accessed by third parties such as governments, investors, and banks. They can follow progress of the facilities they support and benchmark their performance against other facilities regionally and internationally. Governments can access the data for informed decision making and resource allocation. Investors and banks can access the information for investment risk reduction purposes.



SafeCare Quality Platform SafeCare Steps assessments & self-assessment

The data collected enables informed decision making and resource allocation, contracting, and pay for performance mechanisms. This boosts client, investor, insurer and regulator confidence in the motivation and capacity of healthcare providers to steadily enhance their performance. And thus, attracts the needed investments and funding to the health system. In 2020, 88% of the 875 participating facilities have improved in quality. Most were able to move from SafeCare level 1 and 2, to SafeCare levels 3 and 4. For example, Subol Hospital in Lagos, Nigeria has gone from SafeCare level 1 to level 4, which has driven patient numbers and revenue. For many facilities however, reaching SafeCare level 5 can remain a challenge as shown by the impact evaluations of AHME in Kenya (see 'Key lessons learned') and the London School of Hygiene and Tropical Medicine in Tanzania.

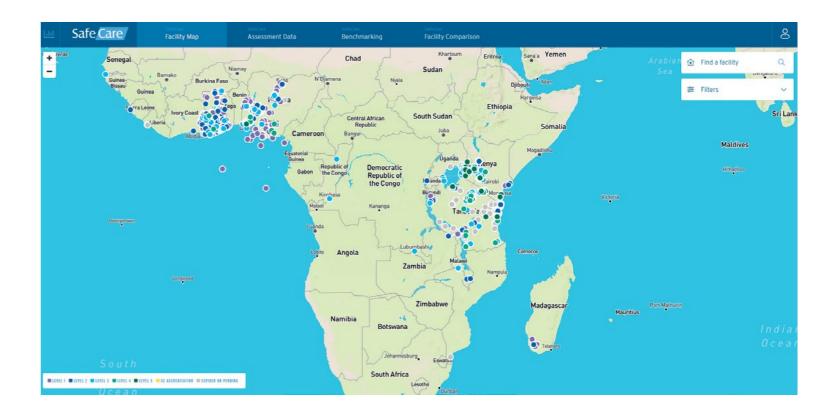
Expanding scale and deepening impact through partnerships

PharmAccess has made significant steps in licensing the SafeCare methodology (see 'SafeCare licensing') to public and private partners. We went from being an assessor of quality ourselves, to being a leader in innovative quality assurance methodology that has been institutionalized through public-private partnerships. In Tanzania, the Christian Social Services Commission (CSSC), the largest private sector (faith based) network, has been taking important steps towards sustainability, with 27 self-paying customers of their network now enrolled in SafeCare. Other new licensing contracts are for example with Pathfinder in Nigeria, CHAG in Ghana, CRS in Malawi and with Doctors for Madagascar, in Madagascar.

Complementing our licensing work, we continue through capacity building and advocacy to embed SafeCare methodology and standards-based quality approached in the regulatory frameworks. In Kenya, SafeCare was recognized as a certification body under the national quality policy for health in 2020. Other examples are Tanzania (mainland and Zanzibar), Ghana and Nigeria where our approach is now recognized as a formal certification method for healthcare quality by relevant national and local government agencies. With such clear regulations to adhere to (and enforced), healthcare facilities are more encouraged to up their game in providing quality health services.

In 2020, we also took steps to expand our work beyond the African continent. We signed a contract with MSH (Management Sciences for Health), a global nonprofit organization, to participate in a 5-year contract to build an accreditation body for the private sector in Afghanistan using SafeCare. This is an important step of sharing the experiences and expertise built in sub-Saharan Africa with other low- and middle-income countries. This builds on our overall strategy to, through partnerships, expand the impact of the use of quality standards and recognition systems. Another Asia expansion is a three-year contract with MSD for Mothers to support Manyata, a large MNCH certification program in India impacting more than 1000 facilities across the country.

Lastly, we have continued to develop the work on the Quality Platform. Currently 91 healthcare providers in Kenya and Tanzania are using the Quality Platform (Ghana and Nigeria will start in 2021), continuously through human centered design (HCD) workshops finetuning its useability and function.



<u>.hl</u>	Safe Care	SoleCare Facility Map	SaleCare Assessment Data
Total o	of 200 facilities within networ	k (filtered)	



Snapshot of Quality Platform

Integrating SafeCare in supply innovations

The digitization of SafeCare makes quality assurance and improvement more scalable and sustainable. This is further supported by its embedding within the other initiatives, which allows us to develop and test new health care delivery models that incentivize standards compliance and continued improvement. Examples are Women360 in Ghana; supply chain solutions to improve the quality of medicines (see *Med4All below*), as well as the integration of SafeCare with Medical Credit Fund products (see 'Increasing investments in healthcare'), and smart contracting opportunities for pregnant women (see 'Matching demand and supply'). Digital technology also allowed us to deploy our SafeCare4Covid service in double quick time to support facilities during the pandemic (see 'Our COVID-19 response).

Ensuring a constant supply of quality drugs: Med4All

Access to quality drugs is an essential part of delivering better health outcomes. However, in sub-Saharan Africa, the supply chain for medicines suffers from profound market failures. In Ghana, for example, the World Health Organization estimates that over 30% of the medicines are at risk of being fake or substandard. With the current efforts on curbing the spread of COVID-19 there is even less focus on routine market surveillance, making it critical to put in place a sustainable solution that improves the accessibility and quality of medicines, whilst keeping costs down.

PharmAccess has been working with the Christian Health Association of Ghana (CHAG) to set up a digital marketplace (Med4All) that connects trusted Ghanaian manufacturers and importers of medicines directly and transparently to healthcare providers in the value chain at low cost. CHAG is a network of 330 faith-based healthcare facilities, accounting for 7% of the facilities in Ghana but providing about 30% of care (6.5 million patient visits and admissions annually), particularly serving poor and remote communities. The partnership has drawn the interest of both Ghana's National Health Insurance Authority (NHIA) and the Ministry of Health. So far, a digital platform and inventory management tools have been developed and selected healthcare providers have been trained to manage, and order stocks based on demand, reducing the risks of stock-outs and waste, as well as shelf times and the cost of capital. Forecasting information is also used to pool the procurement of all CHAG facilities, enabling negotiation of better prices with suppliers. This is supported by Achmea Foundation, Helmsley Charitable Trust and Pfizer Foundation.

For the first phase (a pilot that ended in December 2020), about 40 healthcare providers and four local pharmaceutical companies took part. Med4all is now being introduced to more pharmaceutical companies and CHAG's healthcare providers in a phased approach. In partnership with the Medical Credit Fund, Med4All will pre-finance NHIA claim reimbursements to enable facilities to buy medicine stocks directly, without having to use expensive supplier credits. In partnership with Ghana's Food and Drugs Authority, a set of cost-efficient methods will be used to ensure the quality of the medicines procured on the platform.



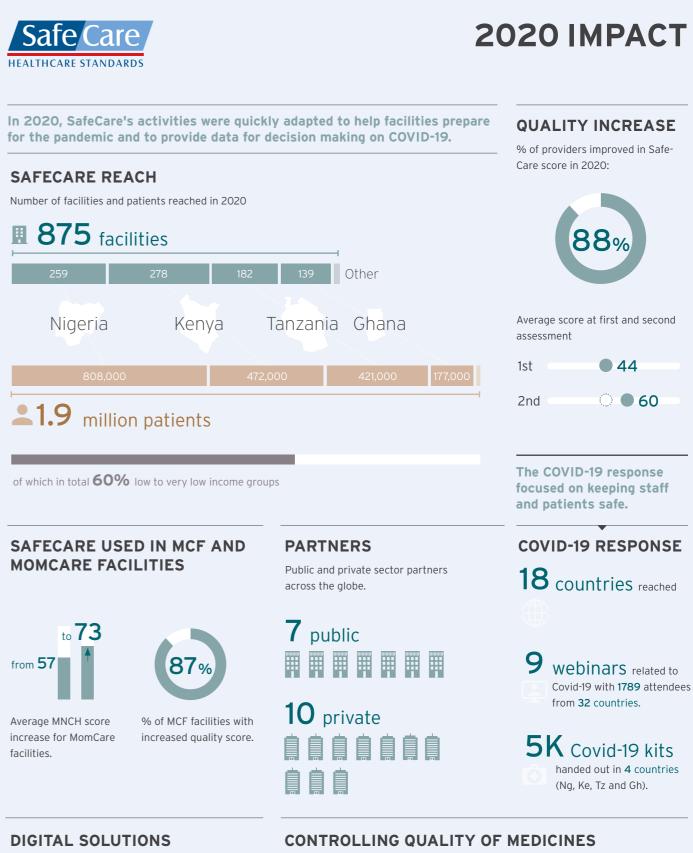


SafeCare licensing

Worldwide, almost two times more people die due to poor quality healthcare than from not having care at all. The central role of quality in building strong health systems is slowly being appreciated in the global discourse on UHC, and better measurement in resource-restricted settings is a critical part of the solution.

"The SafeCare certification will inspire confidence in patients that they will receive some standardized quality of care in CHAG facilities,"





 \mathbf{C}

From idea to proof of concept.



Fully functional Med4All platform

Number of facilities using the new digital Quality Platform for providers.



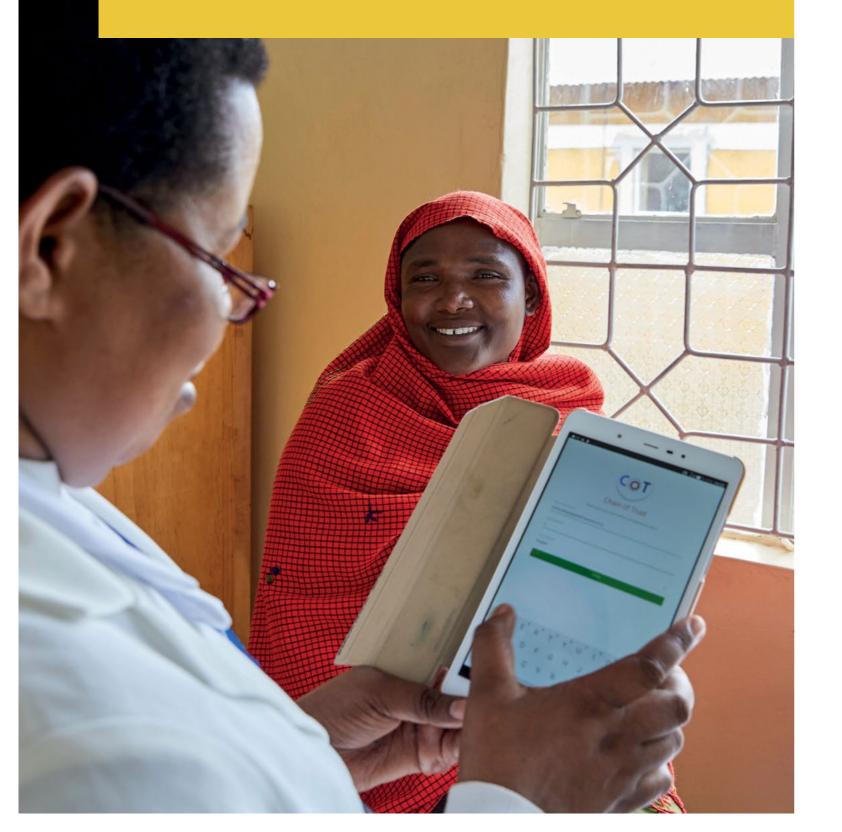
Med4All is a digital procurement platform to monitor and purchase medicines.







MATCHING **DEMAND AND SUPPLY**



CONTEXT:

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

5,1% DIABETES PREVALENCE > 62,5% UNDIAGNOSED

92% OF GLOBAL MALARIA CASES

66% **OF ALL MATERNAL** DEATHS WORLDWIDE

70%

OF GLOBAL HIV BURDEN

NEGATIVE **CONSEQUENCES OF DISEASE BURDEN** FALL MOST HEAVILY ON THE POOREST SEGMENTS OF THE POPULATION

Sources: Unicef Child Mortality Report (2019), J. Global health (2019), UNICEF Maternal mortality of hypertension in SSA, BMC Public

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.

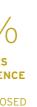
The Covid-19 pandemic is likely to exacerbate the constraints on public health financing and UHC in LMICs through: (i) decline in GDP translating into a decline in government revenues, (ii) decline in external support, and (ii) additional direct health costs from the COVID response.















THIS 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, including those on healthcare behavior, diagnosis, outcomes and disease outbreaks
- Use the opportunity to scale up digital innovation to deliver (UHC) and to respond to the COVID-19 crisis.

Mobile technology is changing the way health care is organized and paid for, especially in Sub-Saharan Africa, where 10% of transactions are done via phone payments (compared to 2% in Europe and the US). The internet informs patients and doctors, allows for new ways to diagnose illnesses, connect with care providers, and monitor health journeys. In theory, resource-restricted countries should benefit the most: for instance, technologies can bypass shortages in staff, solve logistical problems and lower the costs of care.

While the potential of innovations is clear, the short-term effect of digitization is that it reveals the gaps in how the current health system treats vulnerable groups. The data generated by mobile platforms draws a picture of fragmentation, where providers rarely work together, and patients experience significant risks and catastrophic out-ofpocket expenses when faced with severe health conditions. Many patients struggle to navigate this system, ending up with insufficient care and bad outcomes.

PharmAccess develops innovative care models that use mobile data to prioritize vulnerable patient groups and processes. In Kenya and Tanzania, we provide 'care bundles' to pregnant women and in Ghana we connect doctors to possible COVID-19 patients (see 'Our COVID-19 response'). In Kenya we identify malaria hotspots to streamline operations (see 'Research, evaluation and advocacy'), whilst in Nigeria we screen for tuberculosis, both of which are poverty-linked diseases. It is this combination of creativity in solutions and rigorous data analytics that has the best chance of identifying solutions that can be scaled or replicated.



Care bundles

Pregnancy journeys - MomCare

Some 200,000 maternal deaths occur in sub-Saharan Africa, accounting for two-thirds of all maternal deaths per year worldwide. Women do not receive the pregnancy care they need because of distance from health facilities, climate conditions like localized flooding or cultural barriers. If they can reach a hospital, the quality of care provided can be low, and the out-of-pocket costs high as most cannot afford insurance.

The MomCare bundle is designed around the expecting mother; empowering her to access the care she requires throughout her pregnancy 'journey' - no matter what complications may arise. In the first visit, the healthcare facility sets out the recommended path, which includes antenatal care and delivery. The expectant woman agrees to the care program (currently covered by a combination of social health insurance, donors, and co-payments) at the clinic directly through her mobile phone; ensuring treatment data is captured and checked according to medical protocol and her risk status.

This service is powered by an underlying care analytics platform, a set of digital tools that helps process clinical and operational healthcare data. That same powerful medium. supports the mother throughout the pregnancy journey outside of the clinic, providing care information, appointment reminders, and giving her a voice in care satisfaction and outcome reporting. This transparency builds trust. And the valuable data collected during each touch point of the journey helps care providers to mitigate risks for their patients, moving towards better health outcomes for mother and child. This approach has been critical during the ongoing pandemic (see 'Our COVID-19 response').

To date, we have enrolled over 25,000 women in 42 clinics. in Kenya and Tanzania, of which 18,000 in 2020 alone. The data-driven approach supports providers to continuously measure and improve the quality of their services. In addition, the predetermined costs of the care bundle offer a reliable income to the care provider that is often lacking. This can be used to invest in his or her business. Care bundles also enable alternative financing models that place the patient center-stage. Piloting is ongoing to financially reward healthcare providers for providing a set of adequate outcome-driven services over time, thereby incentivizing quality, patient centered care. Bringing value-based care one step closer to reality.

Moving toward evidence- and value-based care not only helps clinics spend their time where it counts; it also helps payers, insurance, donors and policymakers make more informed decisions. With near-real time data, the impacts of investments and interventions become clear and fully transparent, which appeals to payers, whether they be international donors or private.

The impact of policies or programs and how they affect outcomes can be tracked between clinics, regions, risk and income groups almost from the point of implementation. This allows for a more efficient organization of health plans and programs where learnings and innovations can be evaluated and scaled (or discontinued) much earlier than previously thought possible.





Non-communicable diseases - hypertension and type 2 diabetes

The same care analytics platform that underpins MomCare can be adapted for other healthcare conditions such as HIV/AIDS, or even non-communicable diseases (NCD). Sub-Saharan Africa is currently undergoing a health transition, and increased globalization and urbanization leads to a higher prevalence of NCDs, such as hypertension (48%), obesity (20%) and diabetes (5.1%). To effectively address this requires innovative ideas supported by detailed epidemiological data.

For our work on hypertension and diabetes, PharmAccess and partners registered 1,626 patients from a clinic serving an impoverished community in Kenya on a mobile-based NCD management platform. Patients received devices to measure their own blood pressure or blood glucose levels at home and could relay their measurements to their healthcare provider on a mobile phone application (AfyaPap). In addition, through the app, patient support groups were created, and health education messages were shared.

The majority of patients (75%) used this model of care, which was further supported by doctors who actively set up teleconsultations with high-risk patients that needed extra support. Patients who measured their blood pressure at home and participated in peer support groups had a 18% higher likelihood of controlled blood pressure compared to those who measured but did not participate in peer support groups. Additionally, dietary risk factors such as unhealthy food consumption defined by high sugar and salt intake reduced substantially during follow-up among the patients who participated in peer support groups and home-based self-measurements.

As patients become more involved in their own care, they tend to manage their health better. Our findings provide crucial evidence on the value of patients' engagement for self-care through technology-driven approaches and peer support groups.

Connected diagnostics

The ongoing coronavirus pandemic has uncovered new opportunities for more patient-centered health care as provision moved from 'onsite' to remote only. Digital care models had not been fully appreciated before, but now many clinics found cell phones to be the only way to keep track of their patients' health. As experts in digital health, we have been able to support clinics with patient information (e.g., lists of high-risk patients to reach out to), financial solutions (e.g., room to purchase more hypertension drugs in one visit to reduce the need for travel) and digital tools (e.g., home measurement of blood pressure).

'Connected Diagnostics' (ConnDx), the use of smart phones to diagnose patients and channel funds conditional to the diagnostic result, allows you to upload rapid diagnostic test results into the cloud and target payments using mobile health platforms such as M-TIBA. In Kenya, we identified

hotspots of malaria in semi-real time and could indicate which people suffered most from this disease (gender, age, geolocation, socio-economic status). We recorded and quantified over prescription behavior of doctors, performance of lab technicians and how patients vote with their feet with respect to visiting certain providers and certain (rush) hours and did this in semi-real time. This information could be used for significantly improved targeting of funds to the poor in the context of UHC. Moreover, it provided essential information for markedly improved management of malaria patients service delivery.

When the pandemic struck, we quickly adapted our technology to identify coronavirus hotspots, so interventions could be put in place to disrupt transmission (see section 'Our COVID-19 response'). This shows that no matter what the ailment, diabetes, hypertension, malaria, tuberculosis, HIV, dengue, schistosomiasis, or COVID-19, if diagnostics are digitizable, ConnDx can play a role in identifying patients, targeting interventions, and bringing together private and public sector capacity and funding streams to respond accordingly. ConnDx also allows for 'horizontalizing vertical funds' while keeping track of the specific condition the vertical fund is interested in, critical if we want to reach UHC by 2030.

Screening for tuberculosis in Nigeria: MATS

In Nigeria, PharmAccess has developed a mobile application for tuberculosis screening (MATS) that 'matches' suspected TB patients with healthcare providers. It is estimated that over 70% (86% in children) of tuberculosis cases are currently missed annually due to wrong diagnosis, poor notification, inadequate access to health and inefficient linkages between healthcare centers. Many of the groups who are at a higher risk of TB disease are amongst the most vulnerable in society.

PharmAccess collaborated with the National Tuberculosis and Leprosy Control Programme (NTBLCP) and the Institute of Human Virology Nigeria (IHVN) to design a Mobile Application for Tuberculosis Screening (MATS). The app increases the efficiency and referral process of active in-facility and community-based screening for tuberculosis (TB), including door-to-door contact tracing. After secure registration, the app asks users if they have a cough, weight loss, a HIV diagnosis etc., and sends data back to healthcare providers.

Patients were found actively and separated safely for diagnosis and treatment (FAST strategy), which was not the case before, a crucial part in any TB screening campaign. Over 360,000 people were screened in 280 days, and research shows that identification of new TB cases was three-fold higher using MATS (10.8%) versus using paperbased system (3.5%). Hence, rolling out this approach nationwide could have significant impact on a country that has the highest TB burden in Africa.

MATS provides real-time information to DOT providers (average screening time is 1-3 minutes), project staff and implementing partners through a backend web application when presumptive cases are identified. The information allows for the rapid identification and management of TB patients, which is essential not only for treatment, but for controlling drug resistance. The application has also been integrated with a poverty assessment application for the Lagos State Health Scheme.



TANZANIA

MomCare

In a dusty farm in the Manyara region of northern Tanzania. Basilisa Augustino cleans up the cattle house. Two months before, her husband left her seven months pregnant, and now she has to look after her two children, whilst taking care of herself, the household and the third one on its way.

"I was so worried about being alone," said Agustino, 31, concerned about the safety of her unborn child. During her previous pregnancy, she did not start her antenatal care visits early enough resulting in an operation, a chance that she does not want to take again.

Every year, roughly 300,000 women die worldwide as a result of a preventable complications during a pregnancy, and sub-Saharan Africa accounts for 66 percent of these deaths. In Tanzania, roughly one in 200 pregnancies end with the death of the mother.

Most of these deaths could be avoided with proper medical care, which is often inaccessible due to distance, financial, seasonal climate or cultural reasons. Women who pay for antenatal care outof-pocket have to weigh up those costs against food, clothes, shelter, and the needs of other children in the family.

"Those who have no insurance, they come late. Maybe they come once. There are some who come at the ninth month. Then they deliver. If there is a problem, you will diagnose later," said Coletta Kimario, who has worked 20 years as a nurse in North Tanzania.

MomCare, a digital care program, aims to change that by covering a pregnant woman's full journey of care. The product draws upon well documented interventions such as timely antenatal care visits, assisted deliveries, and enforces clinical guidelines essential for keeping mothers and babies healthy.

Women registered with MomCare know that they are entitled, for example, to an ultrasound. They understand exactly what they can expect from their provider and are encouraged to report on each medical experience and outcome, which will help improve quality and allow for value-based care.

"I was given a bar of soap as a gift, which I used to wash my children's clothes. The soap was not the motivation for joining the program, but rather the service," said Augustino, when she thinks back to her first clinic visit with MomCare. It clearly stuck out for her as a differentiating factor.

Mobile technology also allows for better communication between mother and doctor. The technology sends triggers to both doctor and patient to enhance their interactions and ensure that

every step in the nine-month journey is addressed according to clinical guidelines, reducing the possibility of complication on the birthing table.

As a result of the program, in one year, the percentage of skilled deliveries in Tanzanian clinics that started working together with MomCare almost doubled, as well as a 1.5-fold increase in the average number of checkups mothers received.

MomCare has not only increased the trust within the system to deliver quality, affordable care, but supported the behavioral change that Tanzania has been witnessing over the past decade, where more women are visiting health care facilities, seeking assisted births by skilled practitioner.

Back in Basilisa's home village, she prepares food She wants her children to find the dinner ready when they get back from school, illustrating the critical role she plays in their life. MomCare allays her fears that she might leave them as orphans.

"Since joining this program, I am hopeful for my safety," said Augustino.

Watch Basilisa Augustino's personally shot video by using the QR-code or by clicking here.



Treating hepatitis C a health impact bond

In Cameroon, around 200,000 people are chronically infected with Hepatitis C (HCV) and many of them suffer from serious and lifethreatening consequences, such as HCV-related liver disease or liver cancer. Most do not know they are infected and if they do are unable to pay out-of-pocket for diagnostics, consultations, and treatment.

PharmAccess, in collaboration with local partners, is piloting a new Hepatitis C treatment model in Cameroon, using a phased pay-forperformance instrument. It combines Hepatitis C treatment using new antivirals with an impact investment approach, whereby the care provider is only paid once the patient is cured.

A care platform designed by PharmAccess registers patients (usually referred from gastroenterologists or blood banks), tracks their health data e.g., adherence to one pill a day for three months, and after a final viral load test to confirm a negative HCV status another 12 weeks later, sends an automated payment request to the pavor.

"In a project like this it is about demonstrating that treatment can be successfully implemented with a high cure rate in a resource-restricted setting," said, Prof. Roel Coutinho,

former infectious disease director of the National Institute for Public Health and the Environment (RIVM) in the Netherlands and now working at PharmAccess.

First phase results showed that of the 161 Hepatitis C-infected patients 96 % were cured, which is similar to high income countries. The program was conducted through five specialized clinics in Yaoundé, the results were independently validated, and quality checks conducted by an independent organization.

Despite COVID-19 disruption, phase two was launched in August 2020 building on the lessons learned from phase one with the aim to set up scalable HCV treatment programs.

It is financed through a trial version of an innovative performance-based financing structure, or health impact bond. Direct costs are financed through an impact lender (Joep Lange Institute) who takes the upfront risk and will be repaid through fixed outcome payments for each cured patient provided by an outcome payor (Achmea Foundation).

There is one obstacle, however, that still needs to be overcome - HCV treatment is very costly – in the West it runs into tens of thousands of euros for a 3-months treatment. In this project

we use generic antivirals for 1% of the price paid in high-income countries and we can cure a patient for 1300 Euro. We are now looking for new outcome payers to expand the project.

"In the ideal scenario, governments or health insurance companies would pay for this treatment as outcome payor. It drives a costbenefit analyses and it shows that treating HCV infected people before they have symptoms pays off. This serves as an example of performance based financing to improve health financing systems,"

said Coutinho

MATCHING **SUPPLY & DEMAND**

PharmAccess uses digital innovation to match demand and supply. New models can completely change healthcare financing and facilitate better, patient-centered care. Care bundles have been developed for two groups with high health cost per head: patients with non-communicable diseases and expectant mothers.

PROVING THE MOMCARE CARE BUNDLE AT SCALE

MomCare supports expectant mothers throughout their pregnancy **journey**. With the collected data maternal care services can be adapted to reduce risks and improve health outcomes.



MOMCARE REACH

Kenya

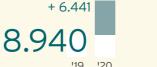
Growth in **#** of participating mothers

are key.

+ 11.701

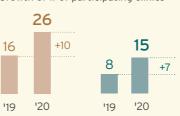
'18 '19 '20 4.371 high risk mothers enrolled in 2020, of which 2.195 teenagers.

Tanzania



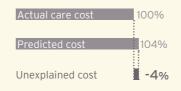
1.819 high risk mothers enrolled in 2020, of which 841 teenagers.

Growth of # of participating clinics



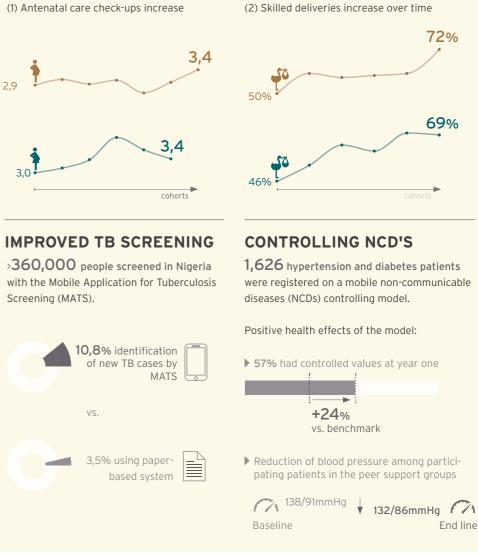
COST PREDICTION

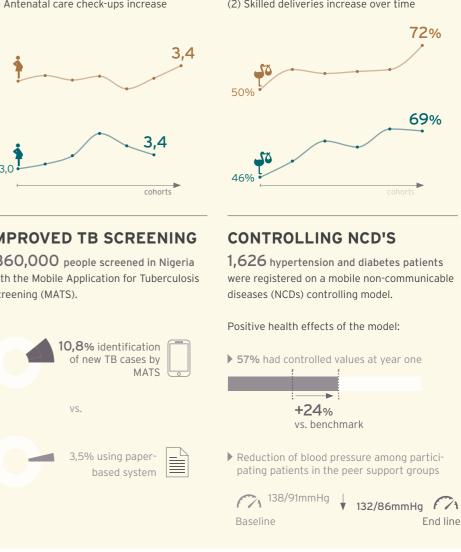
High accuracy for predicted Mom-Care costs in Western Kenya.

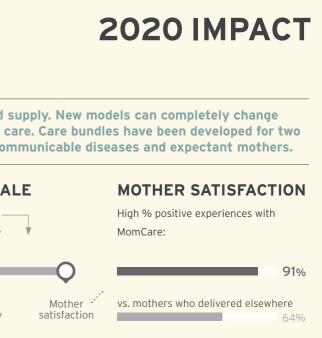


(1) Antenatal care check-ups increase









IMPROVED PREGNANCY JOURNEYS

To reduce maternal and newborn morbidity, pregnancy check-ups and skilled facility deliveries

INCREASING **INVESTMENTS IN** HEALTHCARE

\$

CONTEXT:

Dire supply shortages:

Sub-Saharan Africa suffers from a lack of quality healthcare.

THE REGIONAL DENSITY OF **MEDICAL HIGH TECHNOLOGY EQUIPMENT IS THE LOWEST** IN THE WORLD.

SUB-SAHARAN AFRICA HAS

> **OF THE WORLD'S HEALTH PROFESSIONALS SERVING** 11% OF THE WORLD'S **POPULATION.**

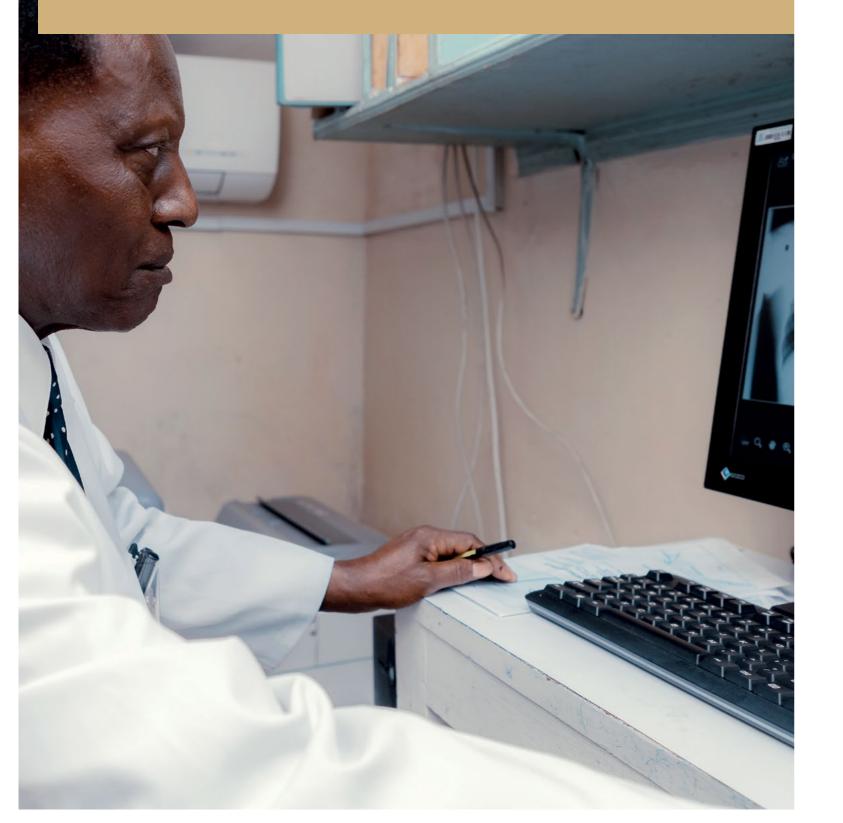
> > BARRIERS

IFC (2008): Business of McKinsey & Company strengthen Africa's health systems Worldbank (2009) WHO (2017): Global atlas

• 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

The private health sector in Africa is suffering from chronic under investment. Investors need to be triggered in to providing loans to the sector.











\$25-\$30 billion

INVESTMENT IS NEEDED TO MEET ITS HEALTHCARE DEMAND

> OF HEALTHCARE IN AFRICA IS **PROVIDED BY PRIVATE SECTOR** FACILITIES

THIS 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
- Mobilize additional funds, emergency loans and focus on digital lending to address the economic crunch the private health sector is facing due to COVID-19.

In sub-Saharan Africa, healthcare providers struggle to obtain financing to grow their businesses and hence improve the quality of care they deliver. This is partly due to banks with limited knowledge of the health sector, high collateral requirements and the difficulty in assessing credit risk for these health micro-, small- and mediumenterprises (MSME). As over 50% of Africa's population is served by the private health sector, this can have a significant impact on reaching universal health coverage.

The Medical Credit Fund (MCF), is a loan impact fund which helps health MSMEs access loans so they can buy equipment, expand their facility, pay bills, remunerate staff, or as seen recently, to pay for personal protective equipment and other coronavirus containment measures. Essentially, this avoids clinic closures and ensures not only that smaller businesses are financially included, but also that people with lower income, who these clinics often serve, can continue to have access to good quality healthcare.

In 10 years, MCF has disbursed some USD 100 million in local currency loans to over 1,800 healthcare providers, of which 22% are female entrepreneurs (see 'Empowering female entrepreneurs'). These loans were not only to the private sector, but also to not-for-profit and faith-based organizations. The repayment rate has been 96% leading up to the pandemic and 94% during, providing further proof of our lending model that has mobile technology at its heart. The clinics that are supported by MCF have around 365,000 visits per month across the six sub-Saharan countries.

In 2020, MCF disbursed 1,440 loans with a total loan volume of around USD 35 million (60% more than in the same period in 2019). And despite the closure of most financial institutions in the wake of the pandemic in Africa, at least for new loans, MCF has continued to provide over 100 loans per month, the same as before the pandemic (see 'Our COVID-19 response').

As part of the PharmAccess Group, MCF offers a unique combination of loans and technical assistance. The latter includes linking clinics to SafeCare (see 'Strengthening the quality of health services'), to improve the quality of care delivered, as well as providing business support such as training of staff through business courses like we have in



Kenya and Nigeria. Providing capacity building is crucial for improving the treatment of major diseases such as HIV/ AIDS, and non-communicable illnesses like diabetes or hypertension, as well as for strengthening essential primary care services that provide the foundation for health systems everywhere.

MCF's 'Cash Advance' product has proven very popular over the last year, allowing a collateral-free digital working capital loan in Kenya with flexible repayment terms and short processing times. We have also developed new financial products. One such product provides cash upfront to Kenyan healthcare providers based on outstanding insurance claims. This gives the necessary working capital to cover shortages due to overdue payments from health insurers. In 2020, MCF piloted several digital loan products in Kenya, Tanzania and will soon do the same in Ghana.

There is still very little appetite from African commercial banks to lend to health MSMEs while the demand for loans is high. Therefore, MCF is setting up a new fund in order to continue providing the necessary financing for healthcare providers. The Dutch Ministry of Foreign Affairs has committed EURO 7.5 million to support the launch of 'MCF2' in 2021, and we expect to raise an additional €75 million in private & public capital. We project that the MCF2 fund will have disbursed a cumulative €450 million to healthcare MSMEs by 2030.

Supporting healthcare providers directly



MCF is the first and only impact investing initiative dedicated to providing loans combined with technical assistance to health MSMEs in sub-Saharan Africa. From the start, MCF has had a mandate to co-lend and share risks with local financial institutions. Despite a solid track record - we have had 19 financial partners and USD 22.6 million in loans outstanding with them in 2019 - MCF has also encountered obstacles in getting banks to disburse funds. Collateral requirements remain an obstacle that MSMEs must overcome to qualify for bank loans. In Kenya, which holds the largest share of the portfolio, a continued interest rate cap has further reduced the banks' appetite to lend to MSMEs.

Recognizing this challenge as well as the unmet demand for loans, MCF decided in 2016 to start also lending directly to health MSMEs to better address the demand from our customers. While a large part of the portfolio remains held with financial partners, 90 percent of disbursements were made through direct lending in 2019. We intend to increase the proportion of direct loans, and MCF2 will further build on the success of MCF with a focus on digital loans (see below). Following-up on the pilots that have been done in 2020, we plan to launch several new digital loans in Tanzania, Kenya, and Ghana in 2021.

Delivering fast, effective digital loans for primary care

Small loans can make a big difference to clinics in the countries we work, but these loans also face a high bar for approval. While collateral is a major barrier for MSMEs, small loans present a challenge for banks - in that issuing small loans can be costly and time-consuming. To perform due diligence, a loan officer must understand a customer's needs, circumstances, and liabilities. The earnings on these loans are limited, but the administrative burden remains the same regardless of loan size. As a result, most banks prioritize larger loans to corporate clients or investments in capital markets.

The healthcare providers often need short-term loans to cover expenses like rent, salaries, and medicines. These smaller loans are critical given the frequent and lengthy delays of health insurance payments. To address this, MCF has developed a digital loan product called 'Cash Advance'. A short-term loan facility, the product uses the mobile money revenues of healthcare providers to secure and repay loans. Through Cash Advance, MCF can offer loans as small as USD 100 regularly because of the streamlined process. Moreover, Cash Advance loans are convenient for the smaller healthcare providers, typically the providers of primary care, as no collateral is required and administrative procedures are limited.

MCF launched the product in 2016, processing 11 digital loans in that year. In 2020, 1,135 Cash Advance loans have been disbursed with an average amount of USD 18,000 (equivalent in KES). Total Cash Advance disbursements stand at USD 30 million, with approximately USD 21 million disbursed in 2020. Around 70 percent of clients enter into repeat loans, indicating high customer satisfaction. With increasing mobile and digital adoption across Africa, digital lending products like Cash Advance can accelerate the lending process and offer capital to more providers across the region. We have partnered with Philips Foundation and other donors to develop similar products in other countries, starting in Tanzania and Uganda.



KENYA

Empowering female entrepreneurs



Female entrepreneurs in Africa are often dependent on others to secure capital. They control fewer assets than male entrepreneurs. High interest rates discourage them from applying for loans while a lack of collateral can mean they have less access to loans than men, affecting their capacity to invest.

"I work in male dominated field, and that's hard work. But I also have been lucky when I started this journey. My father supported me, and I had some financial resources that I could save during my previous job. Thanks to my father I could access my first loans to build a business as he was able to provide the required guarantees," said Salome Njere Chira who runs five hospitals under the name Radiant Group in and around Nairobi, Kenya. In 2017 Medical Credit Fund first introduced Cash Advance, a digital short-term loan that can be accessed at affordable interest rate and that does not require collateral security. This eliminates the gender bias that female entrepreneurs face when accessing credit. Since the introduction of the Cash Advance product, our client base sees more and more female entrepreneurs. To date we provided 978 loans to female owned businesses across four African countries.

Chira is a qualified nurse but, in her profession, she soon felt disappointed with how nurses were undervalued. Moreover, she saw the capacity and resources at government facilities falling short.

"I wanted to start a hospital myself where I could nurture the relationship between patients and nurses, so patients get the 'wow' effect when they come in," she said.

Her five hospitals currently have a 372-bed capacity. Radiant Group of hospitals has pharmacies, operational theaters, ambulances and offer a wide range of specialties from gynecology to orthopedics. Most patients come from middle- and low-income groups.

"I have been able to keep my prices affordable so I can welcome people that previously weren't able to get good quality care," said Chira. MCF offered Salome to participate in one of its healthcare management courses at Strathmore business school. MCF's digital loans enabled her to buy medical equipment when opening some of her operation theaters. Other loans were used to fill a staff salary gap and to purchase medication and commodities, including those that are needed to respond to the COVID-19 outbreak. One of Salome's hospitals currently handles COVID-19 patients, as infections in the area are again rising.

"I often try to pay back my loans even faster than needed. Instead of strict requirements, MCF looks at what is there, how your payments have been. And it is very fast. For Kenyan banks you need a minimum of 90 days but at MCF, you make an application today and you can receive it the same day!"

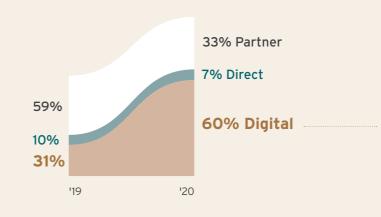
MEDICAL CREDIT FUND

TOTAL FIGURES SINCE INCEPTION



DIGITAL LOANS CONTINUE TO GROW

Yearly loans disbursed by loan type (% of total volume)

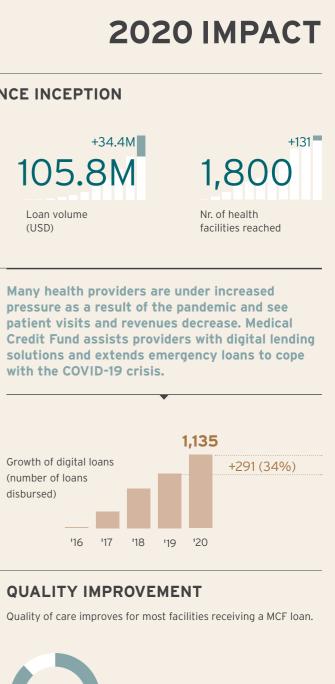


REPAYMENT RATE REMAINS HIGH



PATIENTS REACHED

 - 365 thousand patients reached through MCF
funded facilities per month
59% of patients visiting the MCF beneficiary
facilities and pharmacies come from low to very
low income groups



87% of MCF funded facilities increased their quality score

FEMALE ENTREPRENEURS

of female entrepreneur loans since start of digital loan product



Sub-Saharan Africa has the secondlargest female SME finance gap (17 %, \$42 billion). Collateral requirements are a major constraint*. MCF's digital loans do not require collateral.

* MSME Finance Gap - IFC 2017.



IMPACT RESEARCH **AND ADVOCACY**



AFRICA ASUL II M GENERATES LESS THAN 1% DESILT NONGLARD





Sources: Elsevier (2018): Africa generates less than 1% of the world's research; data analytics can change that. Mo Ibrahim Foundation (2020): COVID-19 in Africa: a call for coordinated governance improved health structures and better data

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

Research and evaluation requires long feedback loops, while organizational budgets focus on short-term results

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.

51-1-00









AFRICA'S DATA COVERAGE **ON HEALTH OUTCOME INDICATORS** IS BELOW

30%



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

THIS 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 and evaluations

Since the beginning, PharmAccess and its partners have been innovating in health insurance, quality standards. credit provision and data analytics/research. Our continued advocacy and partnership building is critical to stimulate and support replication and scaling of these innovations so they can reach the millions of people lacking appropriate health care solutions.

Evidence-based work is at the heart of our approach, hence our investment in independent research to evaluate and improve our products and services. Our own operational research has been published in peer-reviewed scientific papers, policy briefs, case studies and disseminated through workshops and conferences. Increasingly posting on social

media has meant we could engage the next generation of thinkers to tackle the challenges of inclusive health care in Sub Saharan Africa.

In 2020, the coronavirus pandemic stole all the headlines and delayed our projects through closure of universities and the halting of international travel. Despite the challenges, we still provided powerful new insights in achieving quality health care for all. Moreover, COVID-19 inspired a whole new set of research and learning activities. We established a unique public-private connected diagnostics solution in Kenya (see section 'Our COVID-19 response). And, we adapted ongoing research quickly to address COVID-19 e.g., through financial and health diaries (see 'Financial diaries').



Key findings (highlights)

Poor guality care is a significant cause of mortality and morbidity worldwide. It results in a lack of trust from patients and hampers the empanelment of clinics in insurance agencies, which could secure them clients and reduce the financial risk for patients, fueling a vicious circle of low demand and poor supply. Our research found that improvements in care quality measured using the SafeCare standards over an 18-month period were related to significant increases in patient numbers and staff in 491 facilities studied in Tanzania, Ghana, Kenya, Nigeria, amongst other countries. These facilities were of public, private, and faith-based ownership and were dispensaries, healthcare centers and primary hospitals. The results underline how providing quality care translates into better business performance, which in turn incentivizes facilities to stay on the path to better quality.

Staying on the topic of quality of care, our research in Tanzania used SafeCare data to analyze how well-prepared primary and secondary private healthcare facilities were to respond to pandemics. We looked at infection prevention and control, patient and staff safety, hand washing and personal protective equipment. Our research found that most facilities were grossly under-prepared in the event of a pandemic. By coincidence, when COVID-19 hit Africa in April 2020, we already had information on the gaps in the health system needed to react guickly to the rapidly progressing pandemic. The data from our research in Tanzania was critical in informing the design of our SafeCare4Covid app, free of cost and globally available for healthcare providers with practical support on COVID-19 protocols in low-resource settings. Data generated from app users also allows policy makers to plug gaps e.g., the CDC (UK) funded a small number of health facilities in Kenya.

In Nigeria, as in other sub-Saharan African countries, informal medicine vendors are an important provider of health services for rural and low-income populations, even for households who are covered by insurance. Patent and proprietary medicine vendors (PPMVs), as they are known, are rarely included in insurance schemes therefore adding to households' out-of-pocket health expenditures. In addition, they also often provide lower quality healthcare. Our published research shows that to reach UHC, the position of PPMVs within the primary healthcare system and within health insurance schemes needs to be reconsidered and quality management systems require further development. Essentially, excluding PPMVs could undermine our efforts to reach UHC. Therefore, we are exploring how to involve such vendors through SafeCare, MCF and a new malaria ConnDx proposal.

Inadequate, inefficient, and slow processing of claims are major contributors to the costs of health insurance schemes, undermining their sustainability. In Ghana, we researched the preparedness of the Christian Health Association of Ghana (CHAG), which serves almost a third of the population, to implement a digital mobile health insurance claims processing software (CLAIM-it) that increases efficiency. We found that even though health care facilities were keen to use the software because of its better functionality and capability compared to existing tools, in effect it would be challenging to implement the switch to such software due to lack of equipment, trained staff and access to intranet and internet. As a result, we will work together with partners to provide computers, internet access and train staff.

Finally, last year saw a major review of our Medical Credit Fund (MCF) in Kenya, by SEO Amsterdam Economics. It showed that health SME's were struggling to secure loans from banks, especially during COVID-19, and that MCF helped to fill that gap. In making a success of it, MCF lead the way for other banks to follow in health care financing. Furthermore, the report noted that MCF loans not only contributed to good investment and growth e.g., by buying better equipment and boosting the services they offered, but that the regular contact with clients ensured that funds were used for the intended purposes. Secondly, bettering SMEs business practices e.g., record-keeping and budget, meant an increased likelihood of receiving another loan. Importantly, MCF could help SME's grow beyond a certain threshold whereupon they could apply for funds from commercial banks. On noting areas to improve, the evaluators suggested that MCF could do better to target still smaller SMEs, who even with the right support, do not qualify as borrowers.

Two further evaluations were completed by the London School of Hygiene and Tropical Medicine as well as University College Berkeley on our SafeCare initiative. More details on the outcome of those studies can be found in 'Key lessons learned' section.

MEASURING IMPACT WITH RESEARCH, EVALUATION AND ADVOCACY | 55



Financial diaries during the COVID pandemic

It was, in the end, chance that led to potentially one of the most important studies supported by PharmAccess in 2020. Researchers from the Amsterdam Institute for Global Health and Development had started a baseline socio-economic survey for our access to health insurance program initiative for low-income women (i-PUSH, funded by the Dutch Postcode Lottery) in Kakamega County, west Kenya in December 2019, but when COVID-19 arrived three months later, it had to be delayed.

"At first we were disappointed, but then we realized that extending the baseline into the epidemic would provide a unique insight into how rural communities in Africa cope with such catastrophic events, since they were in a lock-down, and importantly how they

could prepare for them in the future,"

Through detailed weekly financial and health diaries, the researchers found that household cash inflow went down from KES 3.835 (€30) a week in the five-week period before the lockdown in March to KES 2,701 (€21) five weeks later - a 33% drop. At first, families saved money on education, largely due to school closures, and transport costs, which had escalated as bus owners increased ticket prices to cater for less customers. But a few months later people began to cut back on food expenses as income from work and monetary support from social networks

The government initially responded by cutting taxes, but this had little use for those who were working in the informal sector. A cash sum of KES 8,000 (€63)

to the most vulnerable in society, thanks to the popularity of mobile money in Kenya, was made available to support the elderly and orphans with transfers twice a month.

The conclusions of the research will be crucial in understanding the impact not only of the virus itself, but also of the containment measures and their indirect effects on livelihoods and access to health care. This will help states better allocate limited resources to maintain equality and equity amongst citizens in times of crisis, crucial in countries like Kenya.

i-PUSH, which connects low-income women and their families to health insurance and quality care, officially launched in the study area in

Advocacy

Our advocacy has focused on creating an enabling environment and policy change for innovations, private sector participation and scaling of our successful interventions in digital financing, health insurance and quality improvement in Ghana, Nigeria (Lagos and Kwara States), Tanzania and Kenya (Kisumu County). These countries have adopted UHC, where governments, in spite of budget constraints, have expressed commitment to partly subsidize health insurance for poor people. This commitment marks a shift in the way that healthcare is financed for millions of underserved populations. The need for greater domestic ownership in financing for health is not only about government financing but also highlights the importance of individual contributions to augment the public efforts to achieve UHC.

The strength of our advocacy lies in the quality of our relationships. Over the years, PharmAccess has built unique expertise in bringing diverse partners together. Whether it be public or private, national or global, patients or provider,



advocacy is critical in building these partnerships to create an enabling environment for the development of inclusive health markets, emphasizing the benefits of using private sector capacities and investments, and the digitalization of health financing and delivery. We also use the capacity of the public sector and the international community to bring our interventions to scale.

In 2020, the COVID-19 pandemic had a big impact on our advocacy activities, as in person meetings, physical events and international travel were not possible for a large part of the year. Nevertheless, while staying in line with national Covid-19 protocols, our staff in Nigeria, Ghana, Kenya, and Tanzania, continued to drive advocacy and stakeholder engagement essential for testing, implementing, and scaling our initiatives to achieve impact (see 'Kwara State Health Insurance box'). A large majority of our advocacy activities were moved online.

Building partnerships

The Netherlands Ministry of Foreign Affairs

The Netherlands Ministry of Foreign Affairs (MoFa) has been a committed and long-term funder of PharmAccess. It has led the way in the policy dialogue on the 'Aid and Trade Agenda', and its embassies have been instrumental in providing political leverage and strategic advice in the countries where we operate:

- MCF launched a new partnership with 7.5 million Euro support from MoFA, to continue the supporting private healthcare provision in sub-Saharan Africa.
- We participated in strategy dialogues at MoFA, including sharing lessons on digitalization of health financing and delivery at its International Economy Week.
- We collaborated with the embassies and MoFA in hosting a number of events such as the PharmAccess Research on Health Financing and Delivery, the National SDG Day and the launch of Kwara Health Insurance Scheme and the digital COVID service in Ghana, Nigeria and Kenya.

Private health sector

In all our advocacy efforts, we always seek to include the private sector. In sub-Saharan Africa, the private sector provides 50% of health services. Engaging them in this digital era boosts innovations in health, complements the services of the public sector and contributes to access to better care and increased coverage.

- We collaborated with Africa Health Business and FMO to connect African and Dutch health entrepreneurs at the Annual World of Health Care held by the Dutch Task Force Health Care.
- We built partnership with Luscii (Dutch IT company) to implement a digital Covid service in Ghana (UGMC and MOH); Nigeria (Federal Medical Centre, and Kenya (Kisumu County and Maseno University). The initiative in Ghana was recognized as a national response for Covid case management.
- At the Global Intelligent Health Summit, PharmAccess shared the SafeCare digital quality tools. This summit brought together global experts on AI health from

pharma, biotech, medtech, health delivery, technology companies and investors.

 We participated in the conferences of the Netherlands-African Business Council, Kenya Healthcare Federation and Lagos State to share lessons on health financing, quality and PPPs.



Government and public sector agencies

Government ownership is critical for creating enabling environment for scaling and providing funding to ensure that the poorest get served (see 'box on Ghana NHIA'). PharmAccess builds partnerships at local, state, and national level to facilitate health insurance and ensure that health facilities deliver care according to agreed standards. We have strengthened public sector collaborations on healthcare digitalization in the following ways:

- In Nigeria, Kwara and Lagos began the roll-out of the health insurance scheme, illustrating the need for health systems strengthening to address COVD-19 and achieve UHC.
- In Tanzania, we collaborated with the office of the President to hold a session at the Health Summit on scaling health insurance for all. We signed a partnership agreement with Zanzibar to support UHC.

- In Nigeria, we held a high-level event with the Governor of Lagos and the Federal Minister for Works and Housing on the future of health care via digital technology and health insurance.
- We hosted a summit with the CEOs of national health insurance agencies in Ghana, Nigeria, Kenya, and Tanzania to share their strategies in coping with the implications of COVID-19 on UHC.
- We established a partnership with the Kisumu County Government and NHIF to develop a health law and insurance for indigents.
- We served on the Technical Working Group on Health Financing and Delivery of Ghana's Ministry of Health. Ghana through its Beyond Aid agenda is strengthening its capacity to rely on domestic resources and the private sector to pursue sustainable development.

JLI and international institutions

Together with the Joep Lange Institute (JLI), we engaged I-DAIR (International Digital Health & Artificial Intelligence Research) on the digitalization of health financing and delivery. PharmAccess and JLI have also become core members of two global digital health coalitions. The Transform Health Coalition unites organizations and institutions across sectors who are committed to achieving UHC by harnessing digital technology and data to benefit all, including women and young people. The Digital Connected Care Coalition (DCCC), which we co-initiated with Philips and Dalberg, brings together over 20 cross-disciplinary organizations to form a networking-and-action-platform to support efficient partnerships for the digital transformation of health for UHC in LMICs. We also strengthened our collaborations with institutions such as the Global Fund, IFC and the World Bank through joint events such as:

- Hosting panel discussion at the UN World Data Forum, with speakers from Kisumu (Kenya) County Government, NHIA Ghana, WHO-AFRO, the Global Fund and Global Financing Facility (GFF).
- Speaking at the World Economic Forum Panel "Seizing Digital Opportunities for Health Financing" during the Prince Mahidol Award Conference.
- Partnering with the Lancet and Financial Times Commission on Governing Health Futures, PharmAccess Nigeria and other partners organized the Youth Consultation on Digital Health and Technology, themed "Growing up in a Digital World."

Recognition

Our work received some important recognition in 2020, through global awards and citations, which is crucial for strengthening thought leadership and building credibility needed for scaling our successful interventions. Some of these included:

- MomCare won the Commonwealth Digital Health Awards in the Maternal and Neonatal category.
- SafeCare was recognized as a member of the Million Lives Club (MLC); an initiative which celebrates innovators benefitting the lives of over 1,000,000 people living on less than \$5 a day.
- The Medical Credit Fund was selected to the ImpactAssets 50 list for the 6th time, giving it the status of 'Emeritus Impact Manager'.
- Safaricom, together with CarePay, was ranked on the Fortune's Change the World Top 10 List for our joint work on M-TIBA, joining the list of companies such as PayPal, Alibaba and Zoom.





GHANA

Trust driving change in insurance policy

Trust is an important factor in advocacy, and PharmAccess has nurtured a substantial amount in its work with the National Health Insurance Agency (NHIA) of Ghana through supporting its ambition as a data-driven health insurer. Now, the relationship has gone one step further, in a first for the national insurer.

organization with our claims data because of the trusted relationship we have built over the years with achieving universal health coverage.

Ghana has firmly established its

one of the first sub-Saharan African insurance scheme in 2003. In 2020

contribute premiums), operational processing and compensation and inadequate population coverage.

Using data-based insights have proven Creating value from data will support the NHIA in improving its decisionmaking on long-term sustainability,

care, mobilizing additional resources

Three years of NHIA membership data (2017-2019) has already been analyzed. The key insights have been shared with NHIA management and board and key stakeholders including the Ministry policy development.

The policy briefs serve as tools for valuable learnings as a global public good with other countries embarking on the UHC 2030 Agenda.

NIGERIA

Building sustainable institutions

On September 4, 2020, Kwara State in Nigeria launched a new, statewide health insurance program, allowing residents to access quality and affordable health care, welcome news at a time when the novel coronavirus pandemic has taken so many lives around the world.

"The launch at a time of global health emergency and dwindling resources Dr. Bunmi Jetawo-Winter, Executive Secretary of the Kwara State Health

Kwara is amongst the poorest states in Nigeria, so out of pocket health

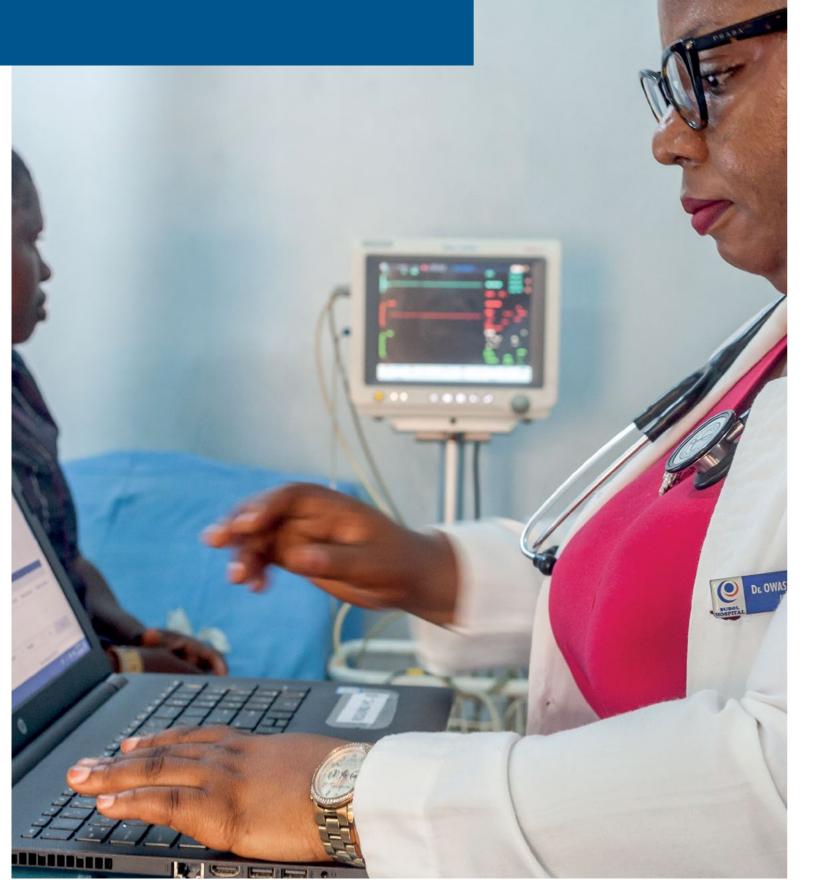


The work started in 2007 with a subsidized community health insurance pilot for lower income communities private partnership between the Kwara State government, PharmAccess, public and private healthcare providers and the Health Insurance Fund.

Whilst building the capacity of the fledgling insurance body, PharmAccess supported the state to introduce a legal insurance, primarily for the poor.

PharmAccess has helped to sustain the political momentum between old and new administrations to design and and take ownership of their health insurance scheme.

KEY LESSONS LEARNED



PharmAccess has always placed research and learning central to our way of working, in order to adapt, improve and innovate our products and services, implementation strategy and impact. Where external evaluation has taken place, we have taken onboard suggestions on how to better run our initiatives.

The London School of Hygiene and Tropical Medicine study in Tanzania, and the UC Berkeley impact evaluations of the African Health Markets for Equity program in Kenya, has taught us that most facilities working with SafeCare start by improving structural guality, such as stock management systems, patient rights, and staff job descriptions. This translates into improvement from SafeCare level 1, to SafeCare levels 2 and 3. However, many facilities struggle to improve process quality, like adherence to clinical guidelines and clinical audits, needed to reach SafeCare level 4 and 5. Process quality is essential for ensuring better health outcomes for patients, so we learned that although scaling SafeCare to new facilities is important for transparency on quality of care data, close engagement with existing SafeCare facilities remains key to steer facilities on their journey towards excellence. Towards this end, we have invested in digital technology through the Quality Platform to increase and deepen the interaction with the facilities. using peer to peer learning, benchmarking, and gamification as drivers for increased change.

The Medical Credit Fund learned that for local African banks, providing small loans for health MSMEs is financially unattractive. The administrative burden for due diligence, analysis and collateral registration is the same as for large loans, but with less return. With its digital loans, MCF can cut administrative costs considerably as they can be approved and disbursed through algorithms and no collateral is needed. Another lesson we learned is not to become over reliant on partnerships with local banks. Over the years, some bank partners decided to invest in other, more profitable segments and stopped lending to SME's. Other banks got into financial trouble or were unwilling to let go some of their strict and high collateral requirements. To overcome these challenges MCF moved to direct lending, in combination with its already existent blended finance model, in which development finance is used to mobilize private capital. In the future, reliable mechanisms for raising local capital to avoid making loss due to currency fluctuations will be a critical part of any sustainable lending model.

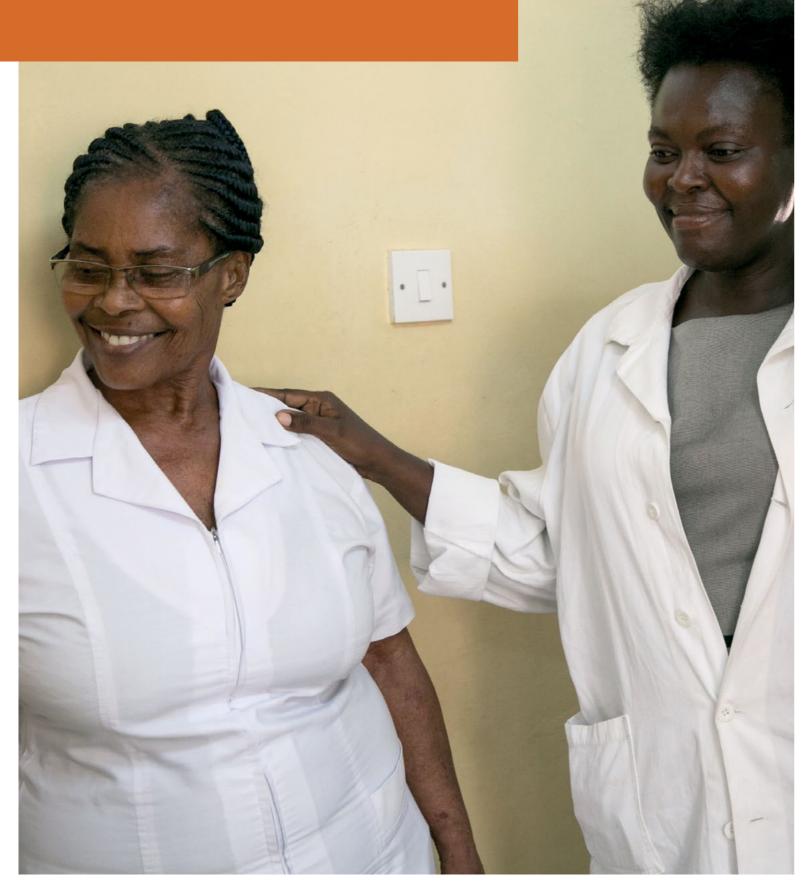
In our work with 'care bundles' and developing digitalized patient journeys, we learned the need to empower patients, health workers, officials and funders to work with data. Currently, data shows that available healthcare funds such as tax money, insurance contributions and peoples own out-of-pocket spending are often distributed according

to volume, or healthcare activity, and not spent where it counts most: where most lives can be saved. In many sectors around the world, mobile connections are used to improve markets, processes, and supply chains by providing detailed, personalized, timely information. Healthcare payers, governments, and people themselves can use similar data insights to channel money to individuals who are unable to pay for care and/or those who are at high risk and need additional care. Likewise, funds can be allocated to health facilities that have a proven track record in providing quality services and address patient risks. Therefore, rather than only building the technology and analyzing data, the challenge is to demonstrate the benefits of datadriven, scalable healthcare models.



Strong and long-standing collaborations are fundamental to the quality of our advocacy and program implementation. We have learned that these strategic partnerships require years of investments, cross-cultural understanding, trust, solidarity, and accountability. Trust is built by showing consistent and good results to our partners before moving to the next, potentially bigger project, and this is crucial for demonstrating that we prioritize the country's needs above all else. We have also learned that supporting partners sometimes beyond our mutually agreed goals creates trust and builds their organizational capacity to deliver better outcomes. At PharmAccess, we are constantly learning, and evolving in digitizing health sector financing and guality standards. Above are some of the lessons we learned, but we share many others in the research, policy papers and webinars we give every year so that others can also learn from our findings.

PREPARING FOR THE FUTURE



The COVID-19 crisis is a wake-up call, a reminder that resilient healthcare systems are essential for economic and social prosperity, and international security. It has demonstrated that health is a global responsibility that requires cross-sector collaborations for universal health coverage. It has also driven wide-spread acknowledgement that digital technology and data form a core pillar of healthcare, with effective innovations being deployed for prevention, infection control and mitigating spread, including track and trace apps, telemedicine, symptom trackers and dashboards as well as tools to build capacity and improve delivery.

In the wake of COVID-19, an opportunity has emerged for African countries to build stronger, more resilient data-driven healthcare systems which are better prepared for the next pandemic and can deliver basic quality healthcare for all citizens. The increasing penetration of mobile technology and digital platforms in Africa will be key for fast-tracking health system transformation, allowing all individuals to be digitally connected, covered and empowered to access care. Technology provides real-time data, thus ensuring transparency in the delivery, utilization and costs of care to guide decision making for patients, healthcare providers and aovernments.

This has proved vital during the crisis when it has been critical to both address the outbreak and to commit resources to other healthcare needs. PharmAccess will continue to capitalize on digital technology to improve the financing and delivery of health care. For example, we will further develop smart contracting and performance based care interventions for mother and child healthcare and HIV, expanding services to support vulnerable socioeconomic groups. With lifestyle diseases, on the rise in Africa, we will also develop digital services for NCD care as well as platforms and tools, including online health information to empower people to take better informed decisions about their health and healthcare.

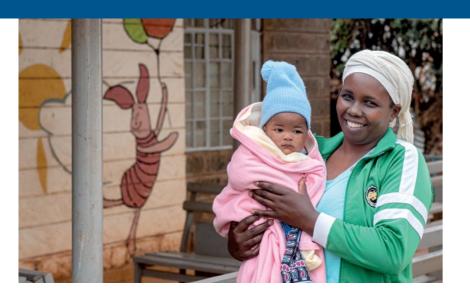
Given the limited and fragmented nature of healthcare funding in the countries that we support, and with donor funding on a downward trend, mobile technology also brings the opportunity to combine scarce funding sources while reducing transaction costs. By increasing efficiency and transparency, it can ensure that more marginalized individuals are covered while paving the way to implement new pay for performance models which generate data to guide governments in resource allocation. In the years ahead, we will support the integration of vertical programs into a more horizontal and integrated healthcare programs to ensure access and continuity of care for all patients.

Further investments in healthcare quality remain crucial, with poor quality of care now causing more global deaths than a lack of access to care. We will continue to scale our approach to improve quality of care through SafeCare and MCF, which proved critical throughout the pandemic. MCF's flexible and digital loans have offered much need support for health SMEs during the crisis with SafeCare helping to ensure infection prevention and control, while prioritizing staff and patient safety in clinics. Going forward, we will continue to use digital technology and data to improve the quality standards of healthcare facilities as well as share our expertise and lessons learnt with new countries. MCF will focus on digital lending to health SMEs, enabling them to overcome the requirement of a collateral security that impedes their access to financing.

In the years to come, PharmAccess, and the Joep Lange Institute will continue to work with key partners and coalitions on global health diplomacy and the digitalization of health financing and delivery. The impact of technology has been demonstrated on the African continent, but the global health community and funders are yet to embrace its value. Through our joint advocacy efforts, we will promote thought leadership, share lessons learned, publish research results, initiate policy dialogue, and build partnerships to accelerate the role of digital technology in UHC.

As we continue to demonstrate the value and impact of our initiatives, we will also focus on strengthening public and private partnerships to create an enabling environment for scaling. We will advocate for increased government spending on health, including contributions toward social health insurance schemes, which is needed to sustainably finance UHC. The use of (digital) poverty mapping to segment the populations and target subsidies efficiently will be critical. While supporting the implementation of digital tools, we will also provide technical support to ensure that African countries can create more value out of the data that they generate. We will provide data analytics training to national health insurance agencies, ministries of health and clinics so that they can better leverage data to inform their own decision making. We will also further strengthen local capacity in areas of policy and legislation, governance and leadership, and research.

HISTORY AND AWARDS



How it started

In 2001, after founding PharmAccess, the late Joep Lange sought to bring groundbreaking HIV drugs to hardto-reach parts of Africa. Back then it was thought to be impossible and teaming up with the private sector was frowned upon. Partnering with Heineken, he initiated HIV treatment workplace programs for their employees and dependents based in

and beer to every remote corner of Africa, it should not be impossible to do the same with drugs."

"If we can get cold Coca Cola

Joep Lange, 2000

Africa; many other companies followed. This showed that not delivering HIV treatment in Africa was a political choice, not a logistical barrier, blazing a trail for international action.

Since then, PharmAccess has gained worldwide recognition for its contribution to the global health agenda, demonstrating that the private sector is a key partner in the road to UHC - the sector fills a gap where public services are strained. By leveraging its strength, health systems can become more inclusive and financially sustainable.

2010

> MCF awarded G20 SME Finance Challenge Award

2014

- > 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
- Selected as model for leapfrogging access to care by the World Economic Forum

2015

> SafeCare finalist for OECD DAC Prize for taking Development Innovation to Scale

2016

> Dutch Ministry of Foreign Affairs refinances the HIF for 7 years



Ministry of Foreign Affairs of the Netherlands

2016

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

POSTCODE

2017

> M-TIBA wins Financial Times/IFC Transformational Business award

2020

- > SafeCare joins One Million Lives Club
- > MomCare Commonwealth award for digital transformation in MNCH
- > The Medical Credit Fund selected as 'Emeritus Impact Manager' on the ImpactAssets 50 list
- > Safaricom, together with CarePay ranked on the Fortune's Change the World Top 10 List for their joint work on M-TIBA

PARTNERS

Amsterdam Institute for Global Health and Development (AIGHD) · Investment Fund for Health in Africa (IFHA) · Joint Commission International (JCI) · Access Bank (Nigeria) · 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) · Agencie Francaise de Developpement (AFD) · Aidsfonds · AMREF Health Africa · AmsterdamDiner Foundation · Association of Private Health Facilities in Tanzania (APHFTA) · AstraZeneca · Banc ABC (Tanzania) · Bill & Melinda Gates Foundaton · Boehringer Ingelheim · Calvert Impact Capital · CarePay Ltd · Center for Advanced Hindsight · Centers for Disease Control and Preventon (CDC) Foundation · Children's Investment Fund (CIFF) · Christian Health Association of Ghana (CHAG) · Christian Social Services Commission (CSSC) · Council for Health Services Accreditation for Southern Africa (COHSASA) · Credit Bank (Kenya) · Delta State Government · Department for International Development (DFID) · Duke University · Dutch Ministry of Foreign Affairs · East Africa Healthcare Federation (EAHF) · ELMA Foundation · Enabel/Wehubit BE) · Entrepeneurial Development Bank (FMO) · Equity for Tanzania (EFTA) · European Investment Bank · FACTS · FDOV · FHI 360 · Fidelity Bank (Ghana) · First City Monument Bank (Nigeria) · Food and Drug Authority (Ghana) · Gertrude's Cildrens Hospital · GFA Consulting Group · Ghana National Health Insurance Agenda (NHIA) · Ghana National Health Insurance Scheme (NHIS) · Gilead Foundation · GIZ (DE) · Grofin · GT Bank (Kenya, Uganda) · Health Facilities Regulatory Agency (HEFRA) · Heinekin · Helmsley Trust · Henry Jackson Foundation · Human Development Innovation Fund (HDIF) · Hygeia International Consortium for Outcome Measurement (ICHOM) · International Federation of Health Plans · International Finance Corporation (IFC) · International Society for Quality in Health Care (ISQua) · Joep Lange Institute (JLI) · John Martin Fondation · Kenya National Hospital Insurance Fund (NHIF) · King Baudouin Foudation United States · Kisumu Medical and Education Trust (K-MET) · KNCV Tuberculosis Foundation · Kreditanstalt fu 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 · Management Sciences for Health (MSH) · 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 Postcard Loterij · Noguchi Memorial Institute for Medical Research (Ghana) · Ogun State Government · OmniBank (Ghana) · Overseas Private Investment Corporation (OPIC) · Palladium · Pfizer Foundation · Pharmaceutical Socity of Ghana (PSGH) · Philips · Population Services International (PSI) · Populaton Services Kenya (PSK) · President's Emergency Plan for AIDS Relief (PEPFAR) · Republic Bank (Ghana) · Safaricom · Sanofi · SBM Bank (Kenya) · 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 · Total Impact Capital · UK development finance institution (CDC) · Unilever · United States Agency for International Development (USAID) · University of Ilorin Teaching Hospital · World Bank Group World Bank Group/IFC/Health in Africa (HiA)

P H A R M A C C E S S G R O U P



Health nsurance Fund





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