

Can a mobile health payment platform reshape Kenya's health care system?

By Michael Seo

According to the World Health Organization, more than half the world's population cannot access essential health services due to cost. For those who can afford to pay, approximately 800 million spend at least 10 percent of their household budget on health expenses for themselves or family members.

In the US health system, a Health Savings Account (HSA) is an option on almost any high-deductible health plan. As the name explains, it is a savings account for health expenses that are portable and can carry over, as well as having a variety of tax benefits. Eligible expenses include a range of medical, dental, and mental health services. Contributions can be made by anyone, although there is a set limit.

A mobile health payment innovation in Kenya

Kenya has a mobile health wallet called **M-TIBA**. Launched in 2015, M-TIBA is a health-specific mobile payment platform. It is not an app; rather, M-TIBA works directly over a mobile phone account. The "M" stands for mobile, and "tiba" is Swahili for treatment.

M-TIBA was initially designed to encourage savings for health, and to monitor and ensure that donor funds for health services were remitted directly to the recipients. The M-TIBA platform has become a mobile health platform with over 4 million registered users. M-TIBA is a partnership between the Kenyan telecommunications provider Safaricom; the Dutch NGO PharmAccess; and CarePay, the developer and administrator of the digital health payment platform.



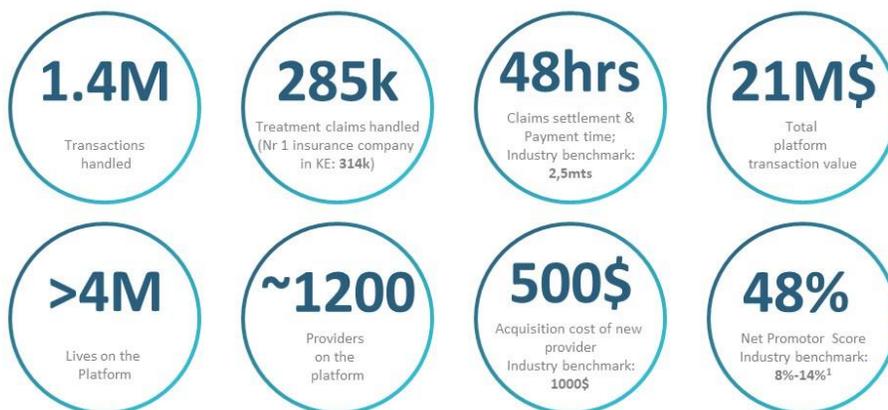
When M-TIBA was first introduced, the Pfizer Foundation, to encourage health care savings, funded an M-TIBA bonus top-up incentive. The first 100,000 users who registered and deposited Kshs 100 (about US \$1) or more per month received a monthly bonus amount of Kshs 50 for up to 12 months. The success of the program saw the extension of the bonus scheme run for three years, ending in 2018.

Since 2015:

- M-TIBA has become available in 37 out of 47 counties in Kenya.
- Members have recorded over 348,674 hospital and clinic visits.
- M-TIBA has paid to providers health care claims of Kshs 684,520,570 (approximately US \$6.78 million).
- Due to reduced paperwork and a quick approval process, providers find that M-TIBA claims are settled in less than one-third of the time of manual claims.
- M-TIBA has more than 1,200 active health care providers in the network, and an additional 200 contracted providers. ("Active" means users can pay via M-TIBA in that facility, while "contracted" means the facility is in the process of activation but it has not been finalized.)

The platform today

CarePay started as a Kenyan company that works day-in day-out to give more and more people the power to care; Today our platform does the following



1. Healthcare industry: 8%; Insurance industry: 14%

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The [Kenya Household Health Expenditure and Utilisation Survey](#) (2013) notes that households in 44 counties spend more than Kshs 63 billion (approximately US \$630 million) per year on health-related expenses, which is a major cause of financial hardship. However, the increased uptake of health insurance and government subsidies has reduced “catastrophic health expenditure,” declining in the past decade from 11.4 percent to the current 6.2 percent.

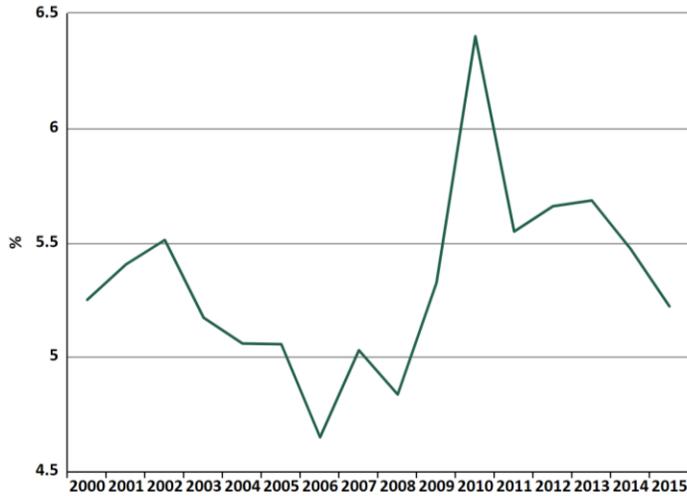
Presently, 88 percent (or 6.8 million people) are insured by the National Health Insurance Fund (NHIF), while the private sector insures 9.4 percent, and community-based insurance accounts for 1.3 percent.

M-TIBA is not insurance, so it is not a reimbursement. Rather, it’s a direct payment for health services drawn from individual account funds. M-TIBA funds can be used in any provider facility that is part of the M-TIBA network. Unlike an HSA that is restricted to health services or goods, M-TIBA can be used to pay for out-of-pocket care or to purchase public and private insurance packages. Users can also receive timely reminders to pay their premiums. The funds never expire, and there is no cap on the total funds in the account. Contributions to an M-TIBA account can be made by anyone using the ubiquitous [M-Pesa](#) mobile payment system. Like M-Pesa, M-TIBA is accessible to anyone with a smartphone or analog mobile phone.

M-TIBA channels funds for health services directly to recipients through the mobile platform. Providers submit medical claims digitally and can review patient identity, benefit eligibility, and benefit limits in real time. The verification and validation of services, fees, and recipients allows claims to be paid out as quickly as one business day. (In Kenya, claims payments typically take 45 to 120 days depending on the payer.) CarePay was granted targeted access to Kenya government systems, such as the NHIF database, for identification. The M-TIBA platform can integrate with the government systems via a smartphone app and allows CarePay agents to verify identity as well as enrollment eligibility.

The enrollment, financial, and medical data gathered is shared with the key health stakeholders (including provider networks and government) in customized dashboards and reports. According to CarePay CEO Kees van Lede, “CarePay leverages the widespread use of mobile money to improve health care inclusion – with mobile phone penetration in Kenya currently standing above 95%. The evolution and transition of a proven mobile payment solution like M-Pesa has made it easier for both users and insurers to save and pay for health care services.”

What is Kenya health expenditure as a share of GDP?



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DATE	VALUE	CHANGE, %
2015	5.2	-4.59 %
2014	5.5	-3.72 %
2013	5.7	0.44 %
2012	5.7	1.99 %
2011	5.5	-13.33 %
2010	6.4	20.22 %
2009	5.3	10.09 %
2008	4.8	-3.84 %
2007	5.0	8.17 %
2006	4.6	-8.04 %
2005	5.1	-0.06 %

From a payment platform to a health care stakeholder management system

In Kenya, Universal Health Coverage (UHC) is an essential part of the national health strategy. If UHC targets can be met, it will result in the reduction of preventable diseases and deaths as well as financial hardship linked to illness, thereby strengthening and broadening the foundation for long-term economic growth.

In a country of nearly 50 million people, more than 7 percent of the population are registered users of M-TIBA. With nearly half of all health expenditures in Kenya paid out-of-pocket, assurance of payments is critical to the stability of the health system, the solvency of providers, and the financial well-being of health goods and services recipients.

The growth of M-TIBA’s users has not gone unnoticed. CarePay has been subcontracted by PharmAccess as a technology provider for the digital enrollment tools it has on offer. This includes the mass enrollment of households to the new UHC program of the government in three of the four pilot counties (Nyeri, Kisumu and Machakos) selected for the UHC using a digital approach that also included social-economic mapping of county citizens.

At the end of 2018, nearly all 850,000 households were digitally enrolled, with some days reaching new enrollments of more than 50,000 households. The enrollment campaign is part of a four-county pilot to achieve UHC in 2019 in conjunction with the World Bank and the Kenya Ministry of Health. “This has been an incredibly important process for the country, our team, and the M-TIBA platform. It has seen us

deploying our skills and experience in managing enrollments and health scheme administration at very large scale. Using the M-TIBA platform allows us to register receipts faster and deploy real-time integrated data exchange across the NHIF ecosystem,” Mr. Kees van Lede added.

M-TIBA still has a few challenges, such as some users not always making regular payments. This occurs mostly because a huge share of the Kenyan population does not have sufficient or regular income to be able to contribute health savings frequently. Individuals face the difficult choice of basic spending needs or saving for health expenditures. The fact that the platform does not have a minimum balance or operating balance has eased the burden of saving for health care. From a staffing perspective, there is the challenge of finding skilled employees. The innovation boom in Kenya has led to a high demand for employees in the tech sector.

Broadening and scaling impact

The M-TIBA platform has the potential to become one of the largest and most comprehensive sources of health data analytics across the public and private health sectors, amongst the health care providers, patients, and payers. The applications for M-TIBA data can realign stakeholder incentives through technology and overcoming a systemic lack of trust between providers, patients, and payers. For providers, the immediacy of payment improves cash flow and financial soundness. For payers, a clearer understanding of health-seeking behavior and the mobile connection with members can improve the design of health service provision. For policymakers, data and evidence-supported decision-making can calibrate policy priorities, which can improve the efficacy, quality, and access of services for the patient.

M-TIBA as a credit assessment tool is just scratching its potential. GE Healthcare is allowing small and medium private hospitals that use M-Pesa and M-TIBA payment platforms to acquire its medical equipment on loan. Working with the Kenyan Medical Credit Fund, GE Healthcare assesses the providers’ creditworthiness based on the volume of transactions recorded on the platforms. The disintermediation of the normal loan process empowers providers, especially small and medium-sized enterprises, with the ability to acquire costly medical equipment more quickly and less expensively than with traditional bank loan financing. Qualifying hospitals can access a loan of up to Kshs 10 million (approximately US \$100,000) with a repayment period of two years.

The versatility and impact of M-TIBA’s success is more than subscriber numbers, as CarePay will soon be expanding to other health systems. In May 2019, CarePay International raised US \$45 million growth capital in a Series A funding round. The financing is intended to expand the mobile platform beyond Kenya into Nigeria and Tanzania. The Series A investors include the Dutch private equity funds IFHA-II, impact investor ELMA Investments, and the Dutch Ministry of Foreign Affairs.

Additional articles on M-TIBA

- <https://www.independent.co.uk/life-style/gadgets-and-tech/mtiba-app-kenya-mobile-health-wallet-healthcare-change-lives-a8225806.html>
- <https://www.pharmaccess.org/update/m-tiba-is-truly-leapfrogging-healthcare-in-kenya/>

Michael Seo is the Managing Partner of ReaMedica (USA) and ReaMedica Healthcare Kenya Ltd, which launched its first ANC in Mombasa in November 2018.