Since 2013, the start-up mPharma has been trying to build an infrastructure and a drug monitoring system to connect patients, hospitals and pharmacies. The objective is to enable doctors to know the exact location and availability of medicines in real time, and patients to have better access to medicines.

One of the greatest modern day success stories in global health has been the reduction in the yearly price of branded HIV/AIDS drug prices from a high of $10,439 in 2000 to $347 by 2011. During the same period, the introduction of generic drug treatments dropped a year’s worth of treatment to about $61, as shown in the graph from Doctors Without Borders (figure). With financial support from organizations like the Global Fund, PEPFAR and the Clinton Foundation, more than 5 million patients in Sub-Saharan were on treatment by 2011.
While a lot more work needs to be done to ensure that 100% of HIV/AIDS patients in Africa get on treatment, the achievement thus far has been nothing short of spectacular and highly commendable. At mPharma, we are inspired by this story everyday. It shows that when different stakeholders in the healthcare ecosystem come together with a singular vision, miracles can be created. We are using the lessons learned from this achievement to re-imagine how pharmaceuticals are procured, prescribed and dispensed in Africa.

What is mPharma?

mPharma is a prescription drug manager for providers and payers in Africa. We manage the drug inventory for providers and design drug benefits plan for payers. mPharma currently operates in 3 African countries (Nigeria, Ghana and Zambia), serving close to 20,000 patients each month across a network of over 70 hospitals and clinics in Lagos, Warri, Port Harcourt, Benin, Aba, Accra, Kumasi, Cape Coast, Lusaka and Ndola. mPharma aims to build the data intelligence and retail layer to support the future of African healthcare.

If CVS Health, QuintilesIMS and McKesson2 had a baby, it would be called mPharma. mPharma is building a more scalable version of CVS Health in Africa using the Airbnb model. This model enables mPharma to create a tightly coupled pharmacy monolith (on a continent that has a highly fragmented pharmacy retail market) with leverage over pricing, distribution and reimbursements.

mPharma has developed supply chain software that enables us to implement vendor managed inventory for independent healthcare providers in Africa. mPharma takes over inventory procurement of retail and hospital pharmacies while remotely running pharmacy operations using proprietary technology infrastructure. This entails using data we generate through our software to forecast demand, and commanding lower pricing from suppliers (distributors and manufacturers) due to aggregated and predicted volumes across hospitals and retail pharmacies in our network.

mPharma supplies drugs to all pharmacies on consignment. Thus, revenues are based on actual drug sales to patients, and not what we supply to hospitals on a timed basis. This creates a disruptive business model for hospitals and pharmacies because it is different from the traditional “pay for supplies” model that distributors offer. This model improves working capital and cash flow for hospitals and pharmacies.
A better supply chain model for improving availability and accessibility

The drug supply chain in Africa is built on a “Push” data model. This means, distributors have to wait to receive a purchase order from providers before supplying drugs to them. The Push model is built on siloed data systems between distributors and providers. As a result, both parties are unable to forecast demand which leads to frequent stockouts.

A “Pull” model is based on an integrated data system that gives distributors real-time access to anonymized patient level dispensation data from providers. Instead of waiting for a provider to send a purchase order before supplying drugs, a distributor can use the dispensation data they receive to set appropriate re-order levels. A new purchase order is automatically triggered when the stock reaches the reorder level and prompts the distributor to supply drugs without needing the input of the provider. The financial interests of the provider are aligned with that of the distributor if the stock is provided on a consignment basis. This enables the distributor and provider to create a tightly coupled monolith that can aggressively negotiate prices with pharmaceutical manufacturers.

We need to rethink how patients pay for healthcare whether through government backed insurance programs or innovative payment models for out-of-pocket expenditures

Better Payment models for Improved Patient Access

According to the WHO, for every $100 spent on healthcare in Nigeria, $23 is financed by the government, $2 through private payers and an overwhelming $75 through out of pocket expenditure. Approximately 90% of the African patient population is paying out-of-pocket for services. The affordability of medications for out-of-pocket patients has been linked to behaviours that have further exacerbated chronic conditions. Research shows that adherence to treatment can be
influenced by inability to finance the treatment specifically targeting drugs for non-communicable and chronic diseases (e.g. oncology, cardiovascular treatments). mPharma aims to create a program that bridges the gap between financial constraints and non-adherence, ultimately increasing both patient adherence and patient wellbeing. By spreading the cost of a drug over a long period of time for patients that are creditworthy, mPharma aims to minimize the influence of cost on medicine use (figure).

We need to rethink how patients pay for healthcare whether through government backed insurance programs or innovative payment models for out-of-pocket expenditures. We cannot improve and guarantee access to innovative treatments if we don’t fix the cost structure for delivering healthcare. According to the Aon 2018 Global Medical Trend rates Survey, the Middle East and Africa saw the 2nd highest net growth rate in medical costs at 7.6% compared to the global average of 5.4%. This growth is due to a rise in the incidence rates for non-communicable diseases. This trend will only get worse if we don’t take a more proactive approach to reducing the cost of drug treatments. At mPharma, we plan to play a small role in ensuring each patient gets the drug they need irrespective of their socio-economic status. Especially with Mutti, offering available high-quality medications (e.g. oncology, cardiovascular treatments...usually high-cost drugs) at affordable prices to the patients.

Footnotes:

2 CVS Health is the largest pharmacy chain in the US. QuintilesIMS is the leading provider of insights and analytics for companies in the healthcare industry. Mckesson is the biggest pharmaceutical distributor in the US.
3 https://cvshealth.com/thought-leadership/cvs-health-research-institute/cost-biggest-barrier-medicatio
n-adherence