The essential transformation of supply chains in the sub-Saharan pharmaceutical sector

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March 30 2018

In Sub-Saharan Africa, integrated technology-enabled distribution networks can increase access, enhance quality and lower the prices of medicines.

Sub-Saharan Africa’s pharmaceutical market represents a huge opportunity for private sector investors and those looking to expand global health impact. Pharmaceutical sales are projected to grow from $4bn sales in 2003 to $50bn sales in 2020. In half of all countries in Sub-Saharan Africa, only 10% of the growing population is served by social health protections. Private sector investment and innovation will be essential to meeting the demands of a population that is growing extremely rapidly and whose pharmaceutical usage is increasing steadily.

A fragmented supply chain

However, private sector pharmaceutical supply chains and retailing in Sub-Saharan Africa are highly fragmented. This fragmentation is the key factor behind patient challenges around drug pricing, quality, availability, and counterfeiting, and is largely driven by infrastructural gaps. There are numerous middle men in the supply chain, meaning there can be hundreds of different businesses in pharmaceutical distribution and retailing in a country. Ghana has over 500 businesses involved in pharmaceutical wholesale to distribute medicines, which are sold through over 700 official retailers, with an even larger informal market. Middle men in the supply chain, or sub-distributors, each add their own mark-up of around 25% to the final price of medicines. This means that despite a potentially low ex-manufacturer price, medicines in Sub-Saharan Africa are often the most expensive in the world. In Kenya, only 48% of the final private sector drug price to a patient is the manufacturer’s price, while 22% is the wholesaler margin, 21% is the retail margin, and 9% is the price of local repackaging. By contrast, wholesaler margin in the USA, an extremely consolidated market, is approximately 4% of the final patient price.

Even if patients can afford extremely high medicine prices, finding it when needed remains yet another challenge. Medicines are inevitably delayed in their journey through multiple supply chain actors towards the final patient. This problem is particularly acute in places like Mozambique, which has a large landmass and many actors working to move medicines around the country. Stocks can be delayed at storage facilities for up to 5 months, which means retailers struggle to maintain adequate stock levels.
Poor quality and counterfeit medicine

Obtaining medicine of high quality also becomes more difficult when supply chains are so fragmented. When stocks are delayed, the risk of medicines with a short shelf life being wasted or becoming ineffective increases dramatically. Retailers who need stock are less likely to insist on working with distributors who only provide drugs produced by pre-qualified manufacturers. Further, patients who cannot find the medicine they need through the formal market are more likely to be driven to the informal market, or be forced to use medicine of poor quality.

An even more serious problem than poor quality medicine is counterfeit medicine. While there are numerous complex factors that contribute to the global counterfeiting problem, a highly fragmented supply chain with multiple layers is an exacerbating factor. Counterfeit medicines are more likely to be sold through unlicensed outlets (51%) vs. licensed outlets (24%). With fake malaria and tuberculosis drugs contributing to approximately 700,000 deaths globally each year, it’s clear that high levels of supply chain complexity are unsustainable if we truly seek to improve the lives of those living in sub-Saharan Africa.

A consolidated and more efficient market

Consolidating the pharmaceutical supply chain can have a transformative impact and result in lower prices and more abundant, high quality medicine. The transformation of the Mexican pharmaceutical supply chain provides clear evidence that consolidation can be a key part of the solution. Mexico is now the twelfth largest pharmaceutical market in the world, worth $13bn, and has had great success in improving the availability of quality medicines for patients. The formerly fragmented retail landscape is now dominated by several major retail pharmacy chains, including Farmacias YZA with over 550 stores and Farmacias Guadalajara with over 1,550 stores. Large retail pharmacy chains are able to better control their stock levels and implement supply chain traceability systems that help ensure that high quality medicines are sold to patients. These pharmacy chains also use their scale to provide exceptional services to patients such as online purchasing and 24-hour emergency outlets.

The distribution market in Mexico is similarly consolidated. The four major distributors (Nadro, Casa Marzam, Farmacos Nacionales and Almacén de Drogas) hold a total market share of 58%, and are able to transport medicines rapidly and respond to fluctuating demand.

While regulators have a supporting role to play in driving down the prices of medicine and driving up their quality, they also have the power to encourage consolidation of the market. Private equity investment has already begun to lead the charge in consolidating the pharmaceutical supply chain. Leapfrog Investments is one key player active in this space. LeapFrog has invested $22m in Goodlife Pharmacy via its recently closed third fund – in which Proparco was a cornerstone investor. Goodlife’s business model, incorporating telemedicine services and a sophisticated payments platform alongside their core pharmacy offering has been a standout success story in the region. Today the retail pharmacy chain reaches over 600,000 customers across more than 20 locations in East Africa. The capital injection that Goodlife has received from LeapFrog will facilitate an aggressive expansion strategy across the region in the coming years helping to create an innovative player of real scale in Kenya and beyond. The business is transforming the way patients in East Africa find and buy medicine. A highly fragmented web of hundreds of small retailers could never replicate the impact that chains like Goodlife are having on patients.

International corporates can also play a major role in driving consolidation. This is particularly evident again in the transformation of the Latin American market. Mexican beverage and retailing conglomerate FEMSA acquired market leading regional pharmacies such as Farmacias YZA in Mexico and Cruz Verde in Chile. FEMSA has ambitious plans to grow both brands, which could expand their ability to reach vast numbers of patients with affordable, high quality medicine.

Consolidation through private equity investment and corporate M&A has proven to be a successful strategy in transforming pharmaceutical supply chains. However, there is an opportunity to take this even further. Emerging technologies that require limited capital investment can help drive
transformation, making supply chains more efficient without exorbitant cost and time commitment. Sub-Saharan Africa is one of the most exciting test cases for this in the world. Gaps in pharmaceutical regulation and long-standing infrastructural challenges do not need to inhibit the development of innovative solutions that help patients find affordable medicine. Silicon Valley startup Zipline, for example, is developing technology with the potential to be a game-changer for pharmaceutical distribution. Backed by venture capitalists including Sequoia Capital and Andreessen Horowitz, they have developed unmanned aerial vehicles (UAVs) with built-in GPS systems to deliver parachute-equipped boxes weighing up to 1.5kg. This solution is currently being used to supply blood and vaccines to rural regions in Rwanda and as a consequence patients in such underserved areas now have a much higher chance of receiving timely, quality medicine. Similarly, the Government of Malawi and UNICEF are partnering with US company, Matternet, to test the use of UAVs to reduce the waiting time for HIV testing of infants. Also backed by Andreessen Horowitz, Matternet is working with a number of international partners, including the WHO and MSF, to apply cutting-edge technology to solve supply chain challenges. As the cost of such technologies decreases over time, drones and other innovations could significantly streamline pharmaceutical supply chains and replace middle men, resulting in affordable, traceable, quality medicines for all.

The public sector will not be able to meet the rapidly increasing demands of sub-Saharan Africa alone. The current complexity of pharmaceutical supply chains drives so many of the problems that patients face in accessing timely, affordable, high-quality medicines. The private sector has a vital role to play in driving greater efficiency and transparency. Consolidation is the first obvious option and is yielding great results. Transforming business models by leveraging technology-enabled solutions is the next step and can differentiate market leaders. Those who recognize the market potential in sub-Saharan Africa and act early will not only reap financial rewards, but also contribute to saving millions of lives.

Footnotes:


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