



Unlocking the challenges of medicine distribution in Africa: Insights from Ghana and Zimbabwe

On 11 September 2024, the African Constituency Bureau for the Global Fund organized a meeting that brought together stakeholders from across the African continent to discuss the evolving challenges in supply chain systems for HIV, Tuberculosis (TB), and malaria health products, and explore opportunities to strengthen Africa's health supply chains, which come under Global Fund grants. The African Constituency Bureau is a technical resource center for the two African Constituencies – Eastern and Southern Africa (ESA) and West and Central Africa (WCA) – represented at the Global Fund. Charles Boguifo, former President of the Côte d'Ivoire National Pharmacists Council and first Vice President of the Country Coordinating Mechanism (CCM), moderated the meeting. Representatives from Ghana, Zimbabwe, the Global Fund, and supply chain expert Prashant Yadav, an Affiliate Professor of Technology and Operations Management at INSEAD, also participated.

Boguifo opened the forum by emphasizing the importance of efficient supply chains in ensuring access to affordable medicines. "The procurement of medicine and its availability for the population at a good cost is essential for delivering adequate healthcare," he stated.

Zimbabwe grappling with low domestic financing and capacity gaps

Newman Madzikwa, Director of Pharmacy Services at Zimbabwe's Ministry of Health and Child Care, gave a candid assessment of the country's medicine distribution system, which heavily relies on coordination between the Ministry of Health and the private sector. Despite these collaborative efforts, Zimbabwe faces several challenges that threaten the long-term sustainability of its health system.

Madzikwa identified low domestic financing as the biggest obstacle. "The elephant in the room is low

domestic financing, which really puts us in a difficult position of depending to a large extent on external funding,” he said. Although international donors, such as the Global Fund, provide crucial financial support, this reliance on external funding undermines Zimbabwe’s ability to build a self-sufficient health system. As donor funding decreases, the country risks struggling to maintain the flow of essential medicines.

Madzikwa also highlighted the limitations of Zimbabwe’s supply chain, pointing to inadequate infrastructure and weak data management systems. He explained that tracking products from procurement to the last mile remains a challenge, causing stock imbalances and expired medications. Without a comprehensive system to monitor the flow of medicines, inefficiencies in the distribution network leave gaps in healthcare delivery.

To tackle these issues, Zimbabwe is working to increase its use of digital technologies. “We are implementing GS1 technology and standards to improve tracking and minimize counterfeit products,” Madzikwa explained. GS1 (Global Standards 1) develops and maintains international standards for business communication, widely used in supply chains for barcoding, tracking, and managing products. This system would provide better visibility of medicines across the supply chain, from procurement to distribution in healthcare facilities. He also emphasized the need to tighten control over the illicit supply chain, especially as counterfeit medicines continue to flood African markets.

Madzikwa further acknowledged the ongoing issue of poor domestic waste management, particularly in handling expired medicines and counterfeit products. Zimbabwe’s limited ability to safely dispose of medical waste poses environmental and health risks. Madzikwa stressed the importance of enhancing waste management capabilities through investments in incineration and waste processing, calling it a critical priority for the country’s future.

Ghana battling currency instability and fragmented procurement systems

Paul Senyo Gawu, Deputy Director of Procurement at the Stores, Supply and Drug Management of the Ghana Health Service, emphasized the country’s impressive efforts to decentralize its supply chain operations. Ghana operates a three-tier health system that spans regional, district, and facility levels, enabling flexible decision-making and distribution at the local level. Despite this strong structure, Ghana still encounters significant challenges that hinder its ability to deliver medicines effectively.

One pressing issue is currency instability. Ghana’s currency, the cedi, has experienced extreme volatility in recent years, complicating procurement contracts for the government and local suppliers. “Our vendors keep coming back to us for price revisions due to the unstable exchange rate,” Gawu explained. The depreciation of the cedi against stronger currencies like the U.S. dollar has forced constant renegotiations of contracts, often delaying the procurement process.

This instability particularly affects the supply of medicines, as vendors demand immediate payment to

mitigate losses from fluctuating exchange rates. Consequently, some suppliers struggle to meet their obligations, causing delays in the delivery of essential medicines. This situation not only increases the cost of medicines for the government but also threatens the availability of life-saving treatments for the population.

To address these challenges, Ghana has streamlined its procurement process by implementing firm-wide contracting arrangements and automating its supply chain systems. Gawu reported that Ghana introduced an automated logistics management information system (LMIS) that improves visibility of stock levels, procurement orders, and shipments. This system enables healthcare facilities to plan their supply needs in advance and avoid stockouts. However, the fluctuating exchange rate still undermines procurement efficiency, prompting calls for further reforms.

Ghana also faces the challenge of fragmented procurement systems. While the Ghana Health Service manages a large portion of the country's health facilities, procurement is not fully centralized. "Various separate entities handle procurement, which creates challenges in controlling the supply plan," Gawu noted. This lack of centralization results in slow coordination between different agencies and suppliers, leading to inefficiencies in the overall supply chain.

To combat this issue, Ghana aims to centralize its procurement processes further to reduce delays and enhance coordination. "Our goal is to establish a single procuring entity so we can streamline operations and capitalize on any efficiency gains," Gawu said. By centralizing procurement, Ghana hopes to minimize delays caused by fragmented systems and leverage its buying power to secure better deals from suppliers.

Global Fund partnering for improved supply chains

Marasi Mwencha, head of the supply chain team at the Global Fund, tackled key challenges and opportunities in improving global health supply chains. He recounted the journey of the Global Fund's supply chain team, stating, "In 2016, we defined our supply chain vision for the first time," which emphasized the importance of this strategic direction. This vision paved the way for significant initiatives, including a comprehensive roadmap launched in 2021 to guide future investments and improvements in supply chain systems.

Mwencha highlighted five critical objectives from the roadmap aimed at accelerating access to quality-assured health products. These objectives focus on increasing advocacy efforts, professionalizing capabilities across the supply chain, enhancing digitalization and data availability, improving access to health products beyond facilities, and ultimately fostering resilience through country-led stewardship.

Despite these initiatives, Mwencha pointed out persistent challenges. "Our audits indicate that we need to improve governance, strategy, and sustainability of our investments," he stated. He also addressed the pressing need for better warehousing, waste management, and distribution systems, as well as improved

visibility and reporting through information systems.

While investments in health products have been substantial, supply chain systems have historically lagged. “We need to do more to sustain these investments,” Mwencha asserted. He noted that recent funding cycles have increased investment in system improvements, but much work remains.

Mwencha shared success stories from various countries, showcasing innovative solutions that have enhanced supply chain performance. For instance, in Ethiopia, outsourcing distribution has improved product availability to 92%. In Ghana, introducing an electronic logistics management information system has significantly boosted visibility for health facilities.

Mwencha emphasized the importance of collaboration. “There will be no improvement unless we have sustained investments in supply chains,” he urged. He called for collective advocacy to ensure that every country invests a minimum of 3.5% in supply chain systems alongside health products. He further reiterated the necessity of sharing knowledge and best practices across nations. “The way we collaborate, and exchange ideas will be key to ensuring that our investments meet expectations and build resilient health systems,” he indicated.

Margaret Mundi from the Kenya Coordinating Mechanism (KCM) Secretariat raised the issue of waste management, highlighting its frequent neglect in discussions about health supply chains. “Waste management, especially regarding expired products and medical waste like syringes and needles, often gets overlooked as though it’s not a critical part of the supply chain. But this is a major health hazard,” she emphasized.

Mwencha acknowledged this gap and reaffirmed that waste management is a core focus in the Global Fund’s strategy moving forward. He noted that the \$84 million investment in waste management infrastructure addresses the widespread need for better disposal systems, particularly due to the increased waste from vaccination campaigns and medical treatments.

Prashant Yadav: The need for streamlined supply chains and regional production

Prashant Yadav, Affiliate Professor at INSEAD, brought a global perspective to the discussion, offering innovative ideas on how African countries can improve their supply chains. Drawing an analogy from the biological world, Yadav explained that resilient systems, like E. coli bacteria, rely on effective feedback and feed-forward loops to respond to challenges. “In supply chains, this means we need real-time data sharing between manufacturers, national supply agencies, and healthcare facilities,” he said.

Yadav emphasized the need to simplify supply chain structures. “Simple, streamlined supply chains perform better than those with too many layers,” he explained, noting that systems with fewer intermediaries tend to have higher availability of medicines and fewer stockouts. Yadav also advocated for

regional production of medicines and health products to reduce dependency on global supply chains. However, he stressed that this strategy would only be successful if African countries build robust procurement and distribution systems.

Conclusion

As the meeting concluded, it was clear that Africa's health supply chains face a complex web of challenges, spanning financing gaps, currency instability, fragmented procurement systems, and inadequate waste management. These issues are not isolated, but deeply interconnected, making it critical for stakeholders to adopt a holistic and unified approach. The participants recognized that overcoming these obstacles will require more than just patchwork solutions—it will demand coordinated efforts at both national and regional levels, backed by sustained financial investments and strong political commitment.

The discussions during the meeting served as a clarion call for unified action, emphasizing that resilient and efficient health supply chains are essential for improving healthcare delivery across the continent. Collective advocacy, investment in governance reforms, and the professionalization of supply chain management emerged as key strategies for moving forward. By addressing critical areas such as waste management, digital infrastructure, and financial sustainability, African nations can strengthen their supply chains, ensuring that essential medicines are consistently available and that healthcare systems are equipped to respond to future public health challenges. In doing so, Africa can build a foundation not just for immediate improvements, but for long-term health security and independence.

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