The COVID-19 Pandemic and Access to Medicines in Africa: A Critical Review of the African Pharmaceutical Technology Foundation (APTF)

By:

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The African Pharmaceutical Technology Foundation (APTF) was established in 2023 to improve Africa’s local pharmaceutical capacity and access to technologies needed to discover and manufacture medicines. This new initiative was prompted by the vaccine inequities experienced during the COVID-19 pandemic. In this article, I highlight four critical concerns regarding the structural and operational framework of the APTF, which have the potential to undermine the Foundation's objectives and legitimacy: the misallocation of public resources due to the existence of a similar agency established by the African Union (AU), the Foundation's endorsement of BioNTech's opaque "black box" system, which conflicts with its objectives, the continental approach that

overlooks the diversity of the African continent, and the lack of a clear public accountability structure in its governance framework. Consequently, I offer preliminary suggestions on how these concerns might be addressed.

The Problem of Access to Medicines in Africa

The inequitable distribution of vaccines during the COVID-19 pandemic highlights a longstanding regional problem; the limited pharmaceutical capacity of the African continent to address its local drug needs. While other countries were negotiating with their pharmaceutical companies, stockpiling vaccines and rushing to vaccinate their populations against the deadly COVID-19 virus that was ravaging the globe, African countries found themselves at the back of the queue, waiting for extra supplies from wealthier nations. For example, as of August 31, 2021, African countries had administered only 94 million doses to the continent's population of nearly 1.4 billion. In contrast, the United States, with a total population of 332 million, had administered over 375 million vaccine doses. **[1]**.

There is no gainsaying that Africa needs to begin producing its own medicines as a matter of urgent regional health security. The current statistics are alarming. Despite being a continent of 54 countries and 1.2 billion people, Africa produces only 1% of the vaccines it administers. The remaining 99% are imported. **[2**]. The continent has approximately 375 drug makers, with most located in North Africa, tasked with serving a population of around 1.3 billion people. **[3]** In contrast, China and India, each with a population of approximately 1.4 billion, boast as many as 5,000 and 10,500 drug manufacturers, respectively. **[4]** During the COVID-19 pandemic, Africa found itself at the 'bottom of the supply chains' **[5]** and had to rely on the benevolence of foreign countries and companies for COVID-19 vaccines. **[6]**.

This heavy reliance on foreign countries/entities significantly contributes to the notable lack of access to essential medicines on the continent, a challenge that persists even beyond the COVID-19 pandemic. **[7]** It is estimated that over half of the people in Africa do not have regular access to such medicines at public or private health facilities.**[8]** Essential medicines, in this context, refer to medications that address the primary healthcare needs of a given population, and the World Health Organization (WHO) maintains an 'Essential Medicines

List’ to guide stakeholders. **[9]** In situations like the COVID-19 pandemic, when there are lockdowns and export restrictions, Africans become vulnerable to supply chain disruptions, further exacerbating this access problem.**[10]** As you may imagine, this challenge has resulted in high rates of avoidable illness and premature deaths from both communicable and non-communicable diseases, **[11]** undermining both the international right to health and the United Nations (UN) Sustainable Development Goal (SDG) for health. **[12]**

It was, therefore, a huge relief when, on December 21, 2023, the African Development Bank (AfDB) launched the African Pharmaceutical Technology Foundation (APTF) to support the industrialization of Africa’s local pharmaceutical industry to improve access to medicines in the continent. APTF intends to achieve this objective by facilitating ‘strong partnerships between local and international pharmaceutical companies and research institutions.’ **[13]** APTF envisions ‘a vibrant African pharmaceutical industry that can manufacture and innovate the pharmaceutical products the continent needs to ensure the health and well-being of all its citizens.’ **[14]** The response so far to this development appears to be positive, with goodwill messages from Germany, the Director Generals of the WHO and World Trade Organization (WTO), and the European Investment Bank. **[15]**

In this paper, I highlight four critical concerns regarding the structural framework of the APTF that could potentially undermine the Foundation's objectives and legitimacy. I also offer preliminary suggestions on how these concerns might be addressed. The concerns include the misallocation of public resources due to the existence of a similar agency established by the African Union (AU), the Foundation's endorsement of BioNTech's opaque "black box" system, which conflicts with its objectives, the continental approach that overlooks the diversity of the African continent, and the lack of a clear public accountability structure in the governance framework.

Four Critical Concerns About the APTF

While the objective of the APTF is commendable, given the dire state of pharmaceutical manufacturing in Africa, the structure and operations of the initiative raise four critical issues that may require further attention. I will examine each of these issues in the following paragraphs.

A. Waste of Public Resources

First, it is not clear how APTF is different from the other regional agencies like the Partnership for African Vaccine Manufacturing (PAVM). PAVM was established by the African Union (AU) in 2021 with a framework for action in 2022 and aims to mobilize financial partnerships, strengthen regional regulatory systems, and increase technology transfer to manufacturers on the continent. PAVM is led by the Africa Centre for Disease Control and Prevention (Africa CDC). The latest development on PAVM is the establishment of the African Vaccine Manufacturing Accelerator (AVMA), a $1 billion financial investment by the Vaccine Alliance (Gavi), scheduled to launch in June 2024. **[16]**

Both APTF and PAVM share similar objectives of promoting technology transfer and boosting pharmaceutical manufacturing in Africa, which suggests a duplication of efforts by public agencies without any framework for collaboration.

Ordinarily, having two organizations pursuing similar objectives isn't inherently problematic. As the saying goes, ‘The more, the merrier.’ However, the fact that both organizations (APTF and PAVM) have ties to the AU raises questions about the misallocation of public resources and public accountability: why should a single platform establish similar organizations instead of consolidating efforts into one? The AfDB, which established the APTF, was founded by the AU and is controlled by AU members.

Essentially, the AU established both the APTF and PAVM, yet there is no explanation in the public domain regarding the shortcomings of PAVM and the necessity for a second organization. PAVM has barely taken off. The challenge with this kind of duplication lies in the unnecessary administrative costs associated with organizing separate conferences, meetings, office infrastructure, and staff maintenance, which arguably represent a waste of public resources. PAVM held a meeting on March 9-10, 2023, and the report doesn’t show significant achievements yet. **[17]** On the other hand, APTF recently announced its own conference – the 'International Conference on Innovation, Intellectual Property, and Technology Transfer in Africa’s Pharmaceutical Sector' scheduled for March 25-26, 2024, with speakers from

across the globe. **[18]** To avoid such duplication, the AfDB should have redirected its efforts to help PAVM achieve its goal instead of establishing an entirely new organization, or at least provide reasons why another AU-based agency is needed.

APTF may address this problem by reviewing the activities of PAVM and establishing mechanisms for collaboration. Alternatively, the two bodies may focus on different aspects of the pharmaceutical development processes. For instance, PAVM could concentrate on issues regarding the early-stage development of drugs, while APTF could focus on boosting late-stage and commercialization activities in the development cycle.

B. Supporting Black Box Initiatives

Second, it remains unclear how the APTF intends to achieve its goal of fostering strong partnerships between local and international manufacturers. Several pertinent questions arise: What are the target diseases for this initiative? What types of international partners do they seek to attract? What incentives would entice international manufacturers to invest in Africa? Does this partnership involve the transfer of technology and the improvement of research capacity in Africa? Do African countries have the health systems and infrastructure to support this initiative? Are there enough local manufacturers to engage effectively with international partners? And what immediate needs do Africa’s local manufacturers have?

While it might seem premature to pose these questions given the recent launch of APTF, remarks made by the Director General of the AfDB during the launch of the BioNTech mRNA vaccine Manufacturing Facility in Kigali, Rwanda, suggest that the Foundation aims to ‘support ecosystems and partnerships for pharmaceutical companies such as BioNTech.’ **[19]**

However, it is important to note that the BioNTech manufacturing initiative has faced criticism, with some commentators characterizing it as a 'black box' lacking comprehensive technology transfer of the necessary intellectual property and know-how for manufacturing the COVID-19 vaccines. **[20]** Ayoade Alakija cautioned that the BioNTech initiative may be perceived as tokenism and a form of 'appeasement to keep Africa acquiescent.' **[21]** If the primary objective of the APTF is to promote technology transfer, it is not unreasonable

to expect the Foundation to challenge the motives of BioNTech and encourage the organization to engage in such transfer, instead of exporting a ‘black box’ system to Africa.

Unfortunately, there is nothing in the public domain that suggests APTF has done that. This leaves us at a loss regarding the objectives of the Foundation, as it has publicly endorsed a program that has been described as ‘tokenism’ with little substance in terms of facilitating technology transfer.

APTF should reconsider its stance on foreign direct investments and programs initiated by large pharmaceutical companies in the continent to avoid undermining public trust and confidence. The legitimacy of such programs should be evaluated according to the Foundation's objectives. APTF should promote and facilitate meaningful collaborations and technology transfer programs between multinational corporations and local companies, urging them to engage in initiatives that yield tangible and lasting impacts.

C. Continental Approach versus Regional Approach

Furthermore, it is not clear why a continent-wide approach is preferred in addressing the pharmaceutical manufacturing deficit in African countries. The voices of the different ‘recipient’ countries and the concerned populations are relevant to whatever industrialization initiative that AfDB wants to undertake. These continent-level approaches silence these voices in the design and governance of health interventions. Efforts at achieving technological resilience of the continent should be based on democratic dynamics and wide participation. This is better achieved when the approaches are either regional or national.

More importantly, Africa is not a homogeneous mass or a single country. **[22]** The continent comprises 54 diverse states, each at varying levels of development, including different pharmaceutical capacities. According to a report, 80% of pharmaceutical manufacturers in Africa are concentrated in eight countries and twenty-two have no local manufacturers. **[23]** Given this diversity, initiatives like APTF would be more effective if they were regionally or country-specific, targeting the most challenging health needs of a particular region or country. To address this potential problem, the Foundation may be structured as a network of regional research, manufacturing, and distribution

centers that involve local participation. Additionally, APTF's broad and diverse objective makes it challenging to hold the Foundation accountable, as it can potentially claim credit for any foreign intervention in the continent. A more focused approach, addressing the severe barriers to access to medicines in specific underserved countries like Burundi, South Sudan, Central African Republic, Sierra Leone, Malawi, and Niger would have been more strategic than a wide-ranging continental approach.

D. Independence and Accountability

APTF, although established by AfDB, has been granted the status of an international agency and is designed to operate as an independent body.**[24]** In the coming months, it may become clearer how it intends to operate in terms of its governance structure and the level of independence it aims to exercise.

However, it is not unreasonable to wonder why it was designed to operate independently and who will be held accountable for its actions, given the public nature of its objectives. Will it be the Chief Executive Officer and Secretary of the Foundation, the Board of Governors, or the Advisory Council? To whom will these bodies report? Why is the AfDB so quick to sever ties with the Foundation?

Regarding the last question, one possible explanation could be that the AfDB may not see itself as capable of supervising such an initiative, or such supervision may take the AfDB beyond its mandate of promoting the sustainable financing of public and private projects and programs likely to contribute to the economic and social development of regional member countries, prompting the question of why it was set up in the first place.

The APTF could have been another branch of the African Development Bank Group, similar to the African Development Bank, the African Development Fund, and the Nigeria Trust Fund, given its broad mandate to "contribute to the sustainable economic development and social progress of the African countries." Alternatively, the AfDB could have collaborated with regional economic organizations in Africa, such as the Economic Community of West African States (ECOWAS), the Southern African Development Community (SADC), and the Economic Community of Central African States (ECCAS), to establish similar initiatives under their governance structure.

Without these structures in place, APTF may need to promptly establish a framework – beyond the advisory and governing council - for being accountable to the public concerning its funding sources, resource allocation, and the impact of its various initiatives. It should contemplate making its activities open and transparent to cultivate public trust and confidence.

Conclusion

The APTF was established in 2023 with the mandate of implementing initiatives to boost Africa's pharmaceutical sector for the welfare of its populace. This initiative, as indicated earlier is commendable and long overdue. The project is also overseen by distinguished individuals. Nonetheless, there exist valid apprehensions regarding the foundation's structure, objectives, and modus operandi. In this article, I have delineated four such concerns and proposed initial remedies, which include ensuring it does not replicate the functions of another agency, questioning ‘black box’ systems that impede the foundation's objectives, reinforcing its dedication to technology transfer, embracing a regional-focused strategy, and fostering transparency and public accountability in its activities.

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