

Pharma Continental Pipeline

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Methods Note · Volume 2

Published 2026-06-06 · Diamond open access · CC BY 4.0

Article 93 · Volume 2 · **Published 2026-06-06 · DOI: not assigned**

Abstract

While Africa has the capacity to operate beyond the validations in the pharmaceutical industry, it is observed that Africa serves the primary function of a validation pipeline for Northern drug development. The analysis conducted through March 2026, using lead-sponsor metadata, revealed that Africa operates from a validation perspective in clinical trials, which does not fully benefit the continent. The evidence emerges from the data of the top pharmaceutical sponsors among 23,873 African trials on ClinTrials.gov, which indicates that the three largest global pharmaceutical companies, including Pfizer, AstraZeneca, and GlaxoSmithKline, dominate in the African trial landscape, sponsoring only for validation purposes (clinical trial phase 3), rather than the early-phase discovery, which could fully benefit the African continent.

The analysis also revealed that Africa hosted 140 adaptive trials and 20 Bayesian-design trials, compared with the United States of America, which hosted 2,986 and 494, both adaptive and Bayesian-design trials, respectively. Additionally, open-label trials showed 1,545 in Africa, far below 23,963 done in the United States. Such a huge margin further testifies that African trial centers are primarily for validation and not for innovation purposes.

These findings indicate that Africa benefits little or none in the clinical trial landscape, as the drugs are moved by the pharmaceutical continental pipeline from Northern laboratories to Africa for validation, and then to the Northern laboratories for global regulatory approval. Lastly, the findings further indicate that only the lead sponsor controls the interpretation, which may hinder more complex sponsorship arrangements from truly benefiting the African trial centers.

Interactive dashboard figures

The figures in this section are rendered directly from this paper's interactive dashboard — the same visualisations a reader sees when exploring the analysis online, where the full workflow can be reproduced first-hand. **Interactive dashboard:** <https://mahmood726-cyber.github.io/africa-e156-students/governance-justice/dashboards/pharma-continental-pipeline.html>

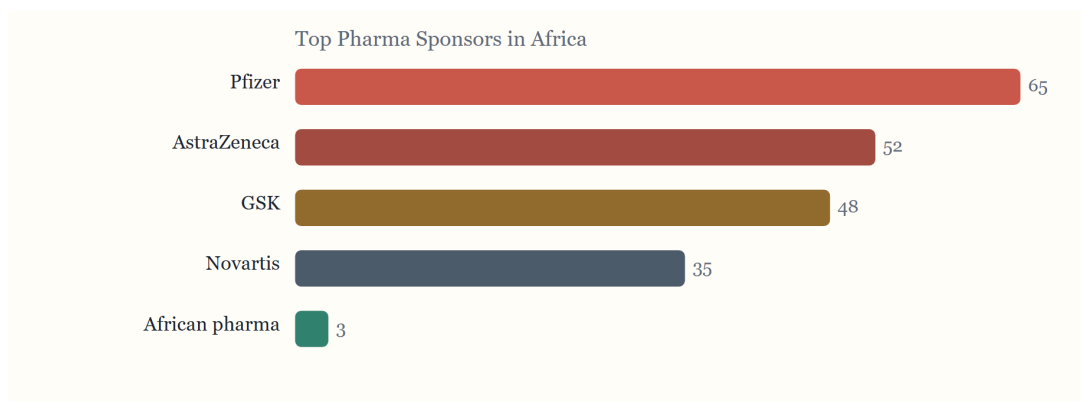


Figure 1. Top Pharma Sponsors in Africa Rendered directly from the article's live interactive dashboard.

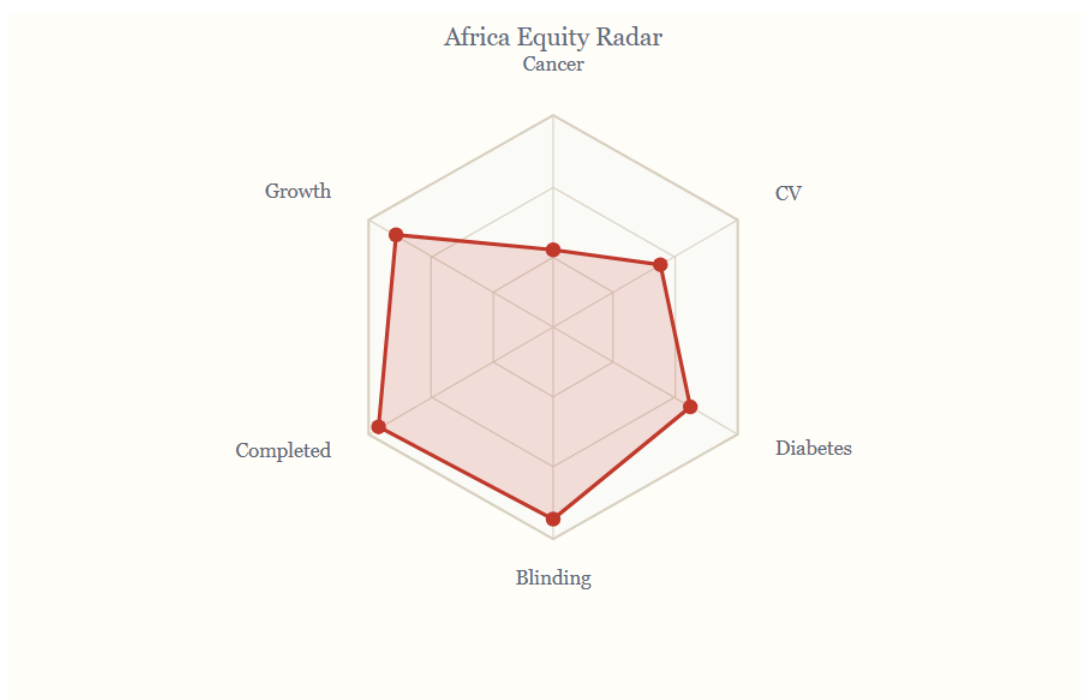


Figure 2. Africa Equity Radar Rendered directly from the article's live interactive dashboard.

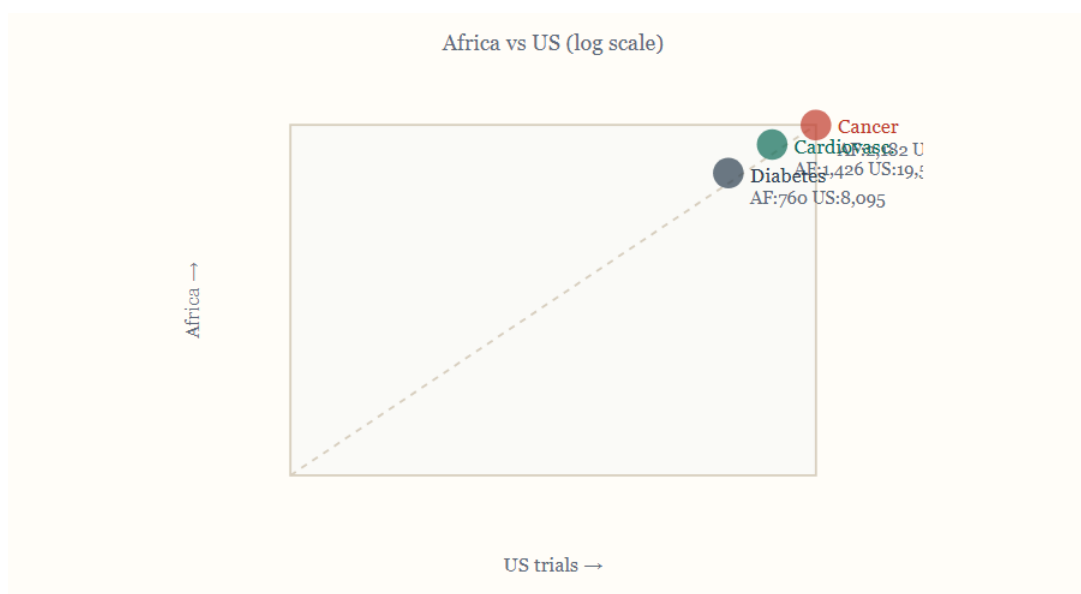


Figure 3. Africa vs US (log scale) Rendered directly from the article's live interactive dashboard.

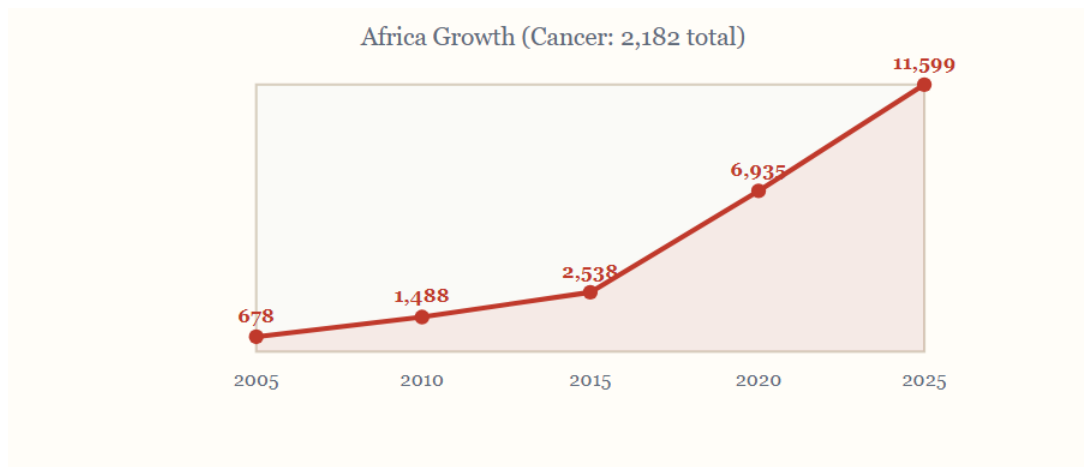


Figure 4. Africa Growth (Cancer: 2,182 total) Rendered directly from the article's live interactive dashboard.

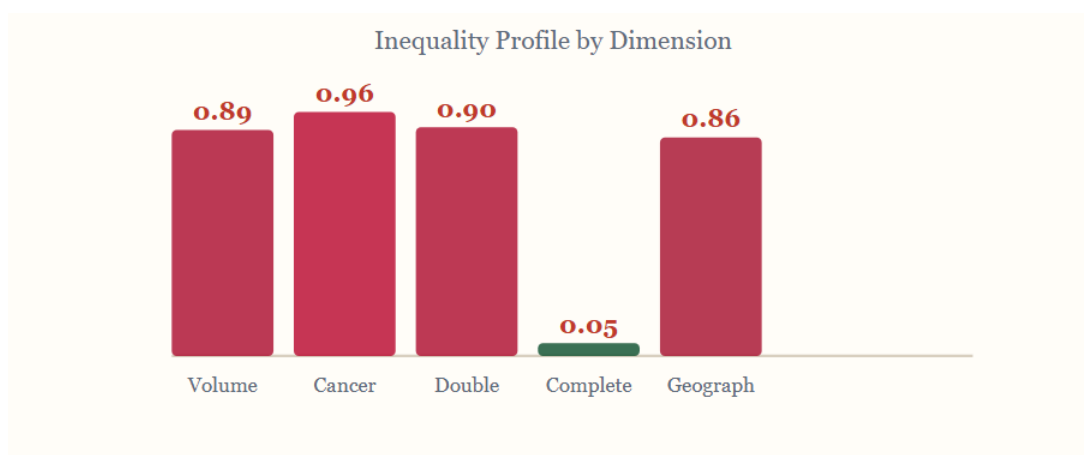


Figure 5. Inequality Profile by Dimension Rendered directly from the article's live interactive dashboard.

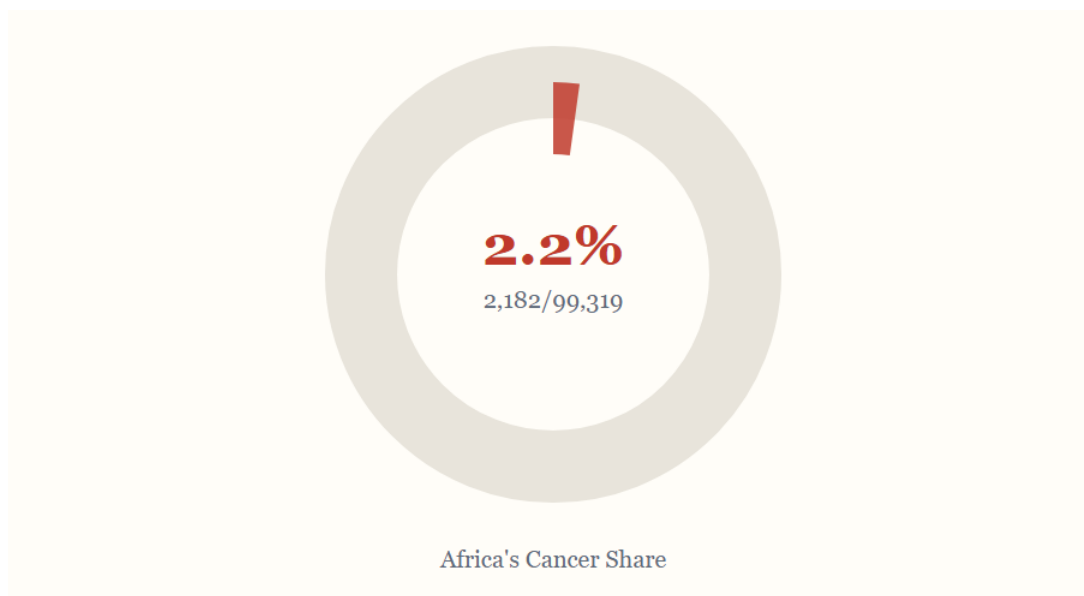


Figure 6. Africa's Cancer Share Rendered directly from the article's live interactive dashboard.

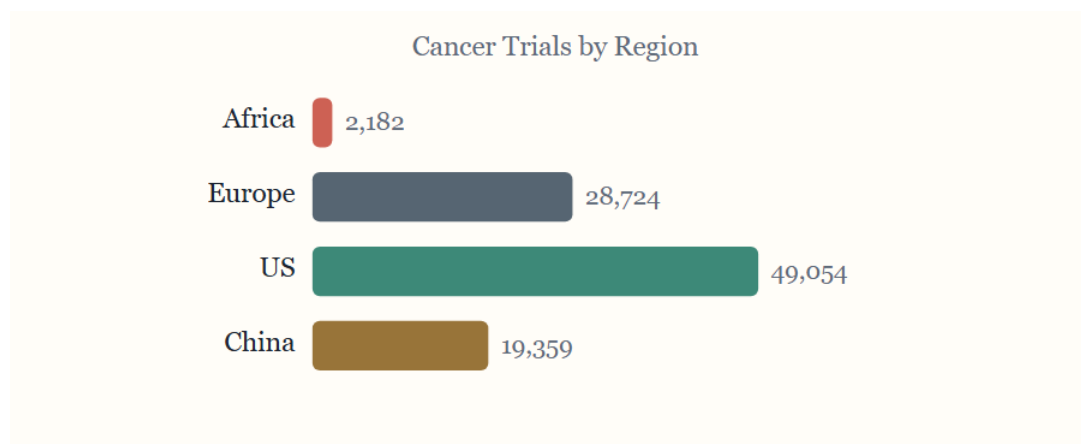


Figure 7. Cancer Trials by Region Rendered directly from the article's live interactive dashboard.

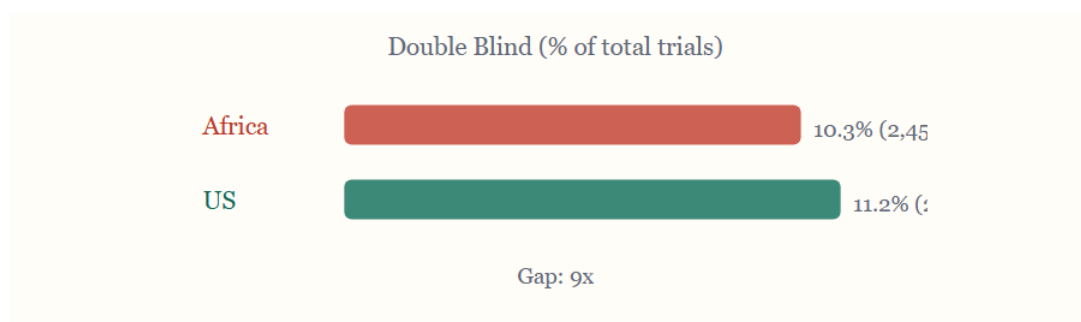


Figure 8. Double Blind (% of total trials) Rendered directly from the article's live interactive dashboard.

HOW TO CITE

Kumbukani Chikosa, Amumpaire Olivia, Bitness Lyabagaga, Njeodo Njongang Vigny, Natinael Berhane, Sebudde Nicholus, Musoke Muhammad, Kirabo Jireh, Muhammad Murtala, Shamim Nabidda, Tukamushaba Bruce, Munyole Samuel, Eghaghe Osadebamwen, Michael Bosiako Antwi, Christine Muhumuza, Fadumo Said Hassan, Adrine Nyamwiza, Ruchius Philbert, Rhoda Chikula, Amina Mohamud Fidow, Ssenfuma Ronnie, Joy Osifo, Tulengerayo Joshua, Mukisa Paul Brian, Derrick Tumwesigye & Kirabo Justine. Pharma Continental Pipeline. *Synthesis* . 2026;5(1). Article 93. Available at <https://synthesis-medicine.org/index.php/journal/article/view/93>. Licensed under CC BY 4.0. DOI: not assigned.

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