

METHODS NOTE · Peer-reviewed · Published · Live dashboard figures

Precision Medicine in Africa: A Systematic Review of Epilepsy Treatment Gap

Eleanor Sabuka

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Abstract

When I look at African health research, I can't help but question whether the distribution of epilepsy trials across countries reveals a real research gap. Defined as the proportion of people with active epilepsy not receiving appropriate treatment, over 75% in low-income countries and over 50% in most middle-income countries, World Health Organization (WHO) and International League Against Epilepsy (ILAE) reports. Highlighting gaps from poor health infrastructure, lack of medication, stigma, and poverty.

The cross-sectional audit evaluated 23,873 African and 190,644 United States interventional trials registered on ClinicalTrials.gov through April 2026. Africa hosted 73 epilepsy trials (0.3% of its portfolio) compared to 1,017 in the United States, yielding a 0.0-fold disparity in per-population investment. Temporal analysis shows 17.1-fold growth in African trial registrations from 2000-2005 to 2021-2025, though the gap with high-income regions continues.

Interpretation is limited by using a single registry and the absence of non-English trial databases.

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/health-disease/dashboards/epilepsy-treatment-gap.html>

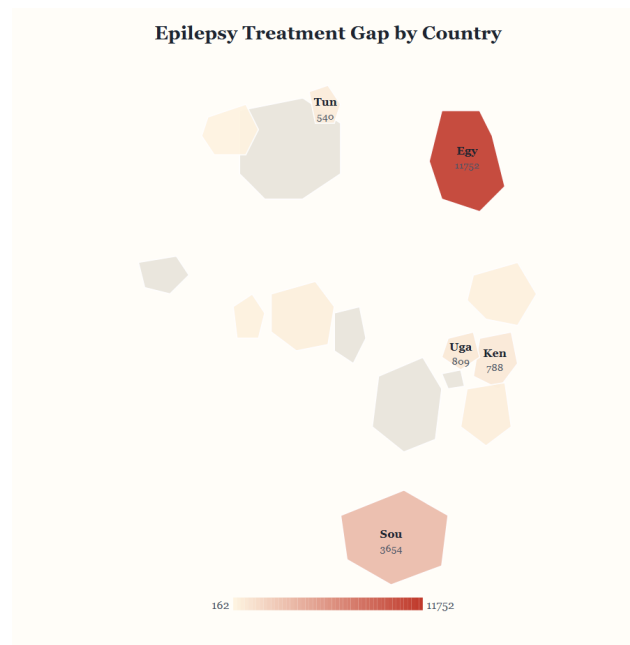


Figure 1. Epilepsy Treatment Gap by Country Rendered directly from the article's live interactive dashboard.

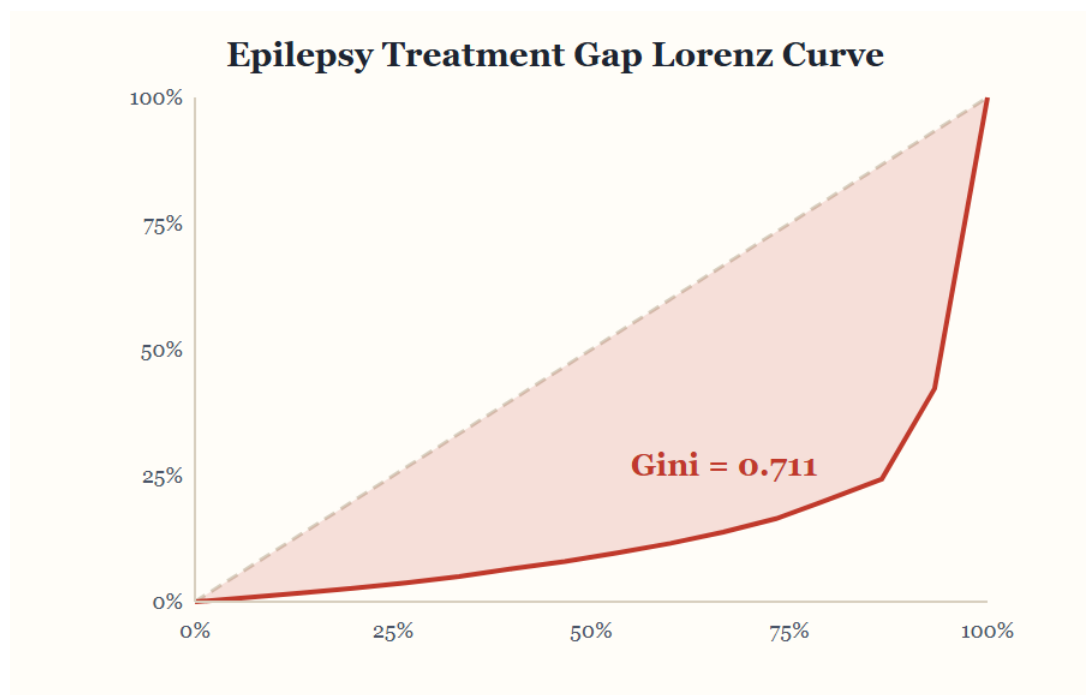


Figure 2. Epilepsy Treatment Gap Lorenz Curve Rendered directly from the article's live interactive dashboard.

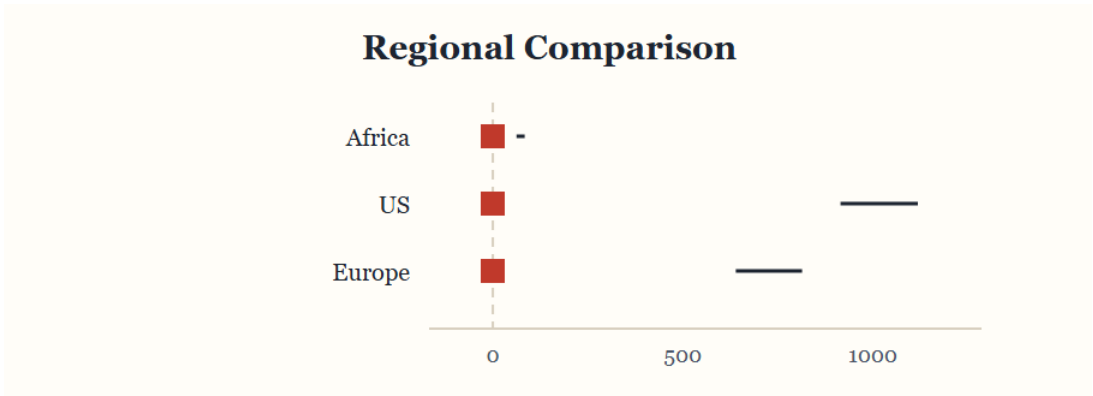


Figure 3. Regional Comparison Rendered directly from the article's live interactive dashboard.

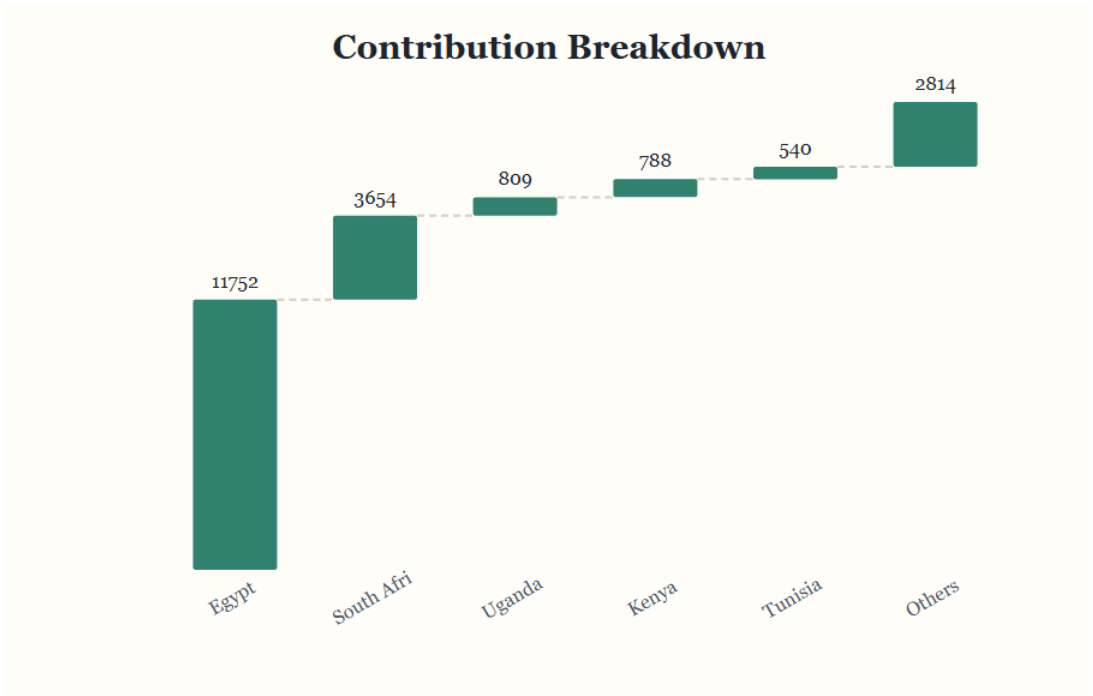


Figure 4. Contribution Breakdown Rendered directly from the article's live interactive dashboard.

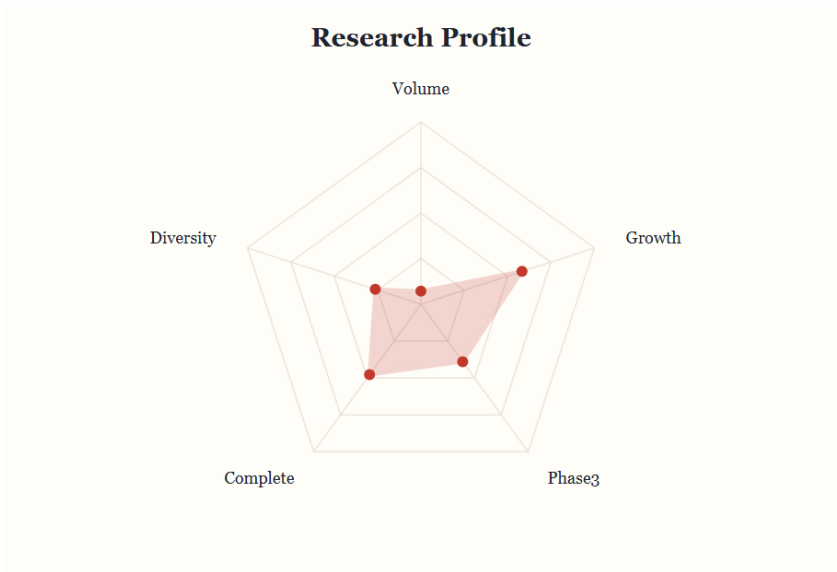


Figure 5. Research Profile Rendered directly from the article's live interactive dashboard.

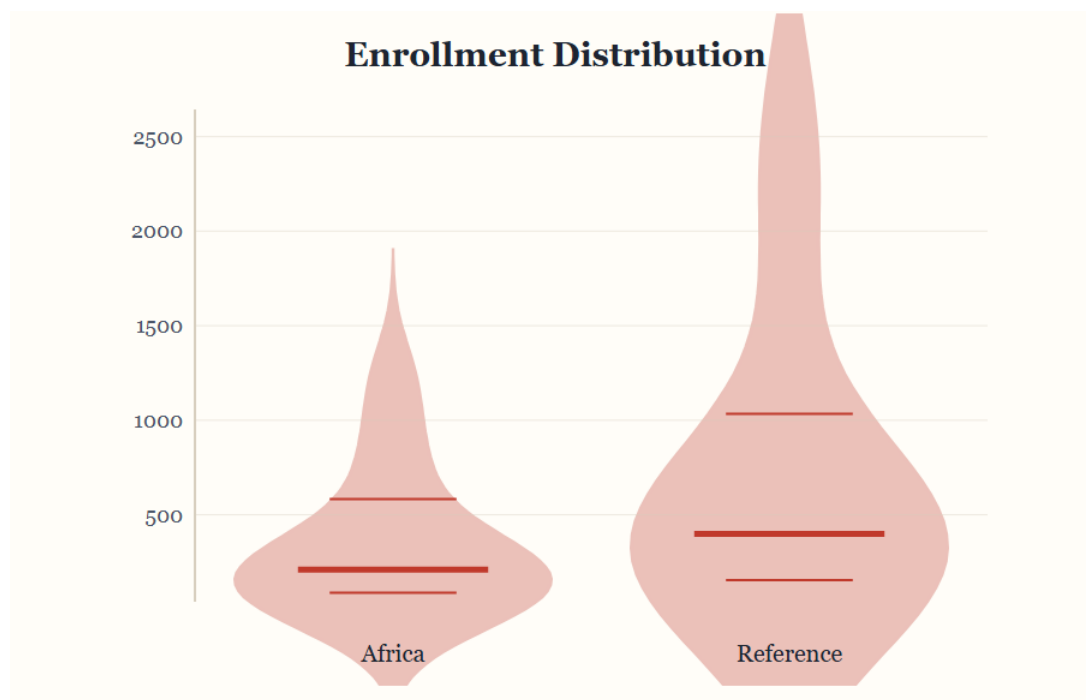


Figure 6. Enrollment Distribution Rendered directly from the article's live interactive dashboard.

HOW TO CITE

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