

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

Sample Size Adequacy Audit

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Abstract

Within the context of African clinical research methodologies, does the pattern of sample-size audits reveal underlying disparities in research investment across the continent? This cross-sectional review analysed 23,873 African and 190,644 US interventional trials registered on ClinicalTrials.gov up to April 2026. Investigators calculated the rate ratio comparing Africa to other regions, using each country's registry data as the primary measure.

Africa registered 3,515 pertinent trials, whereas the United States registered 159,433, indicating a forty-fivefold difference in research volume. Nonetheless, from 2000-2005 to 2021-2025, trial registrations in Africa increased by a factor of 17.1; however, the disparity with high-income regions persisted. These findings imply that deficiencies in methodological capacity impede the quality and impact of African clinical research.

Limitations of the study include missing sub-national data and the exclusion of observational studies from the analysis.

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/methods-systems/dashboards/sample-size-adequacy.html>

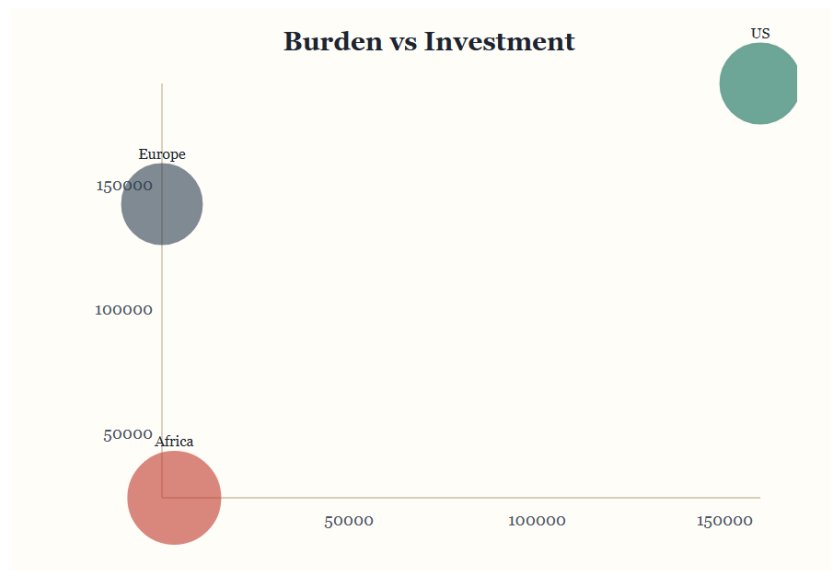


Figure 1. Burden vs Investment Rendered directly from the article's live interactive dashboard.

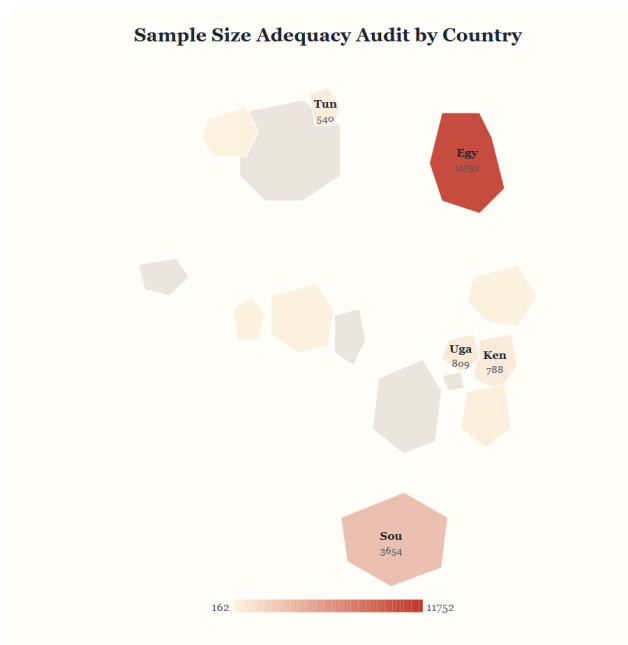


Figure 2. Sample Size Adequacy Audit by Country Rendered directly from the article's live interactive dashboard.

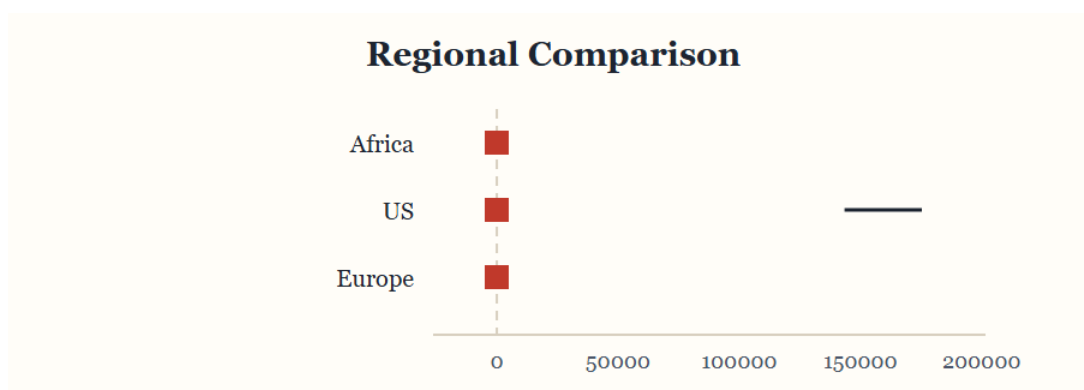


Figure 3. Regional Comparison Rendered directly from the article's live interactive dashboard.

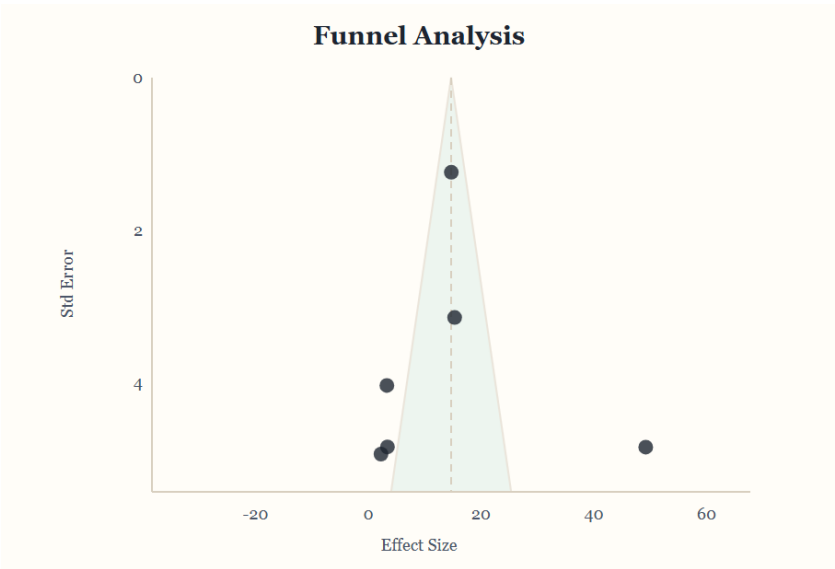


Figure 4. Funnel Analysis — Std Error Rendered directly from the article's live interactive dashboard.

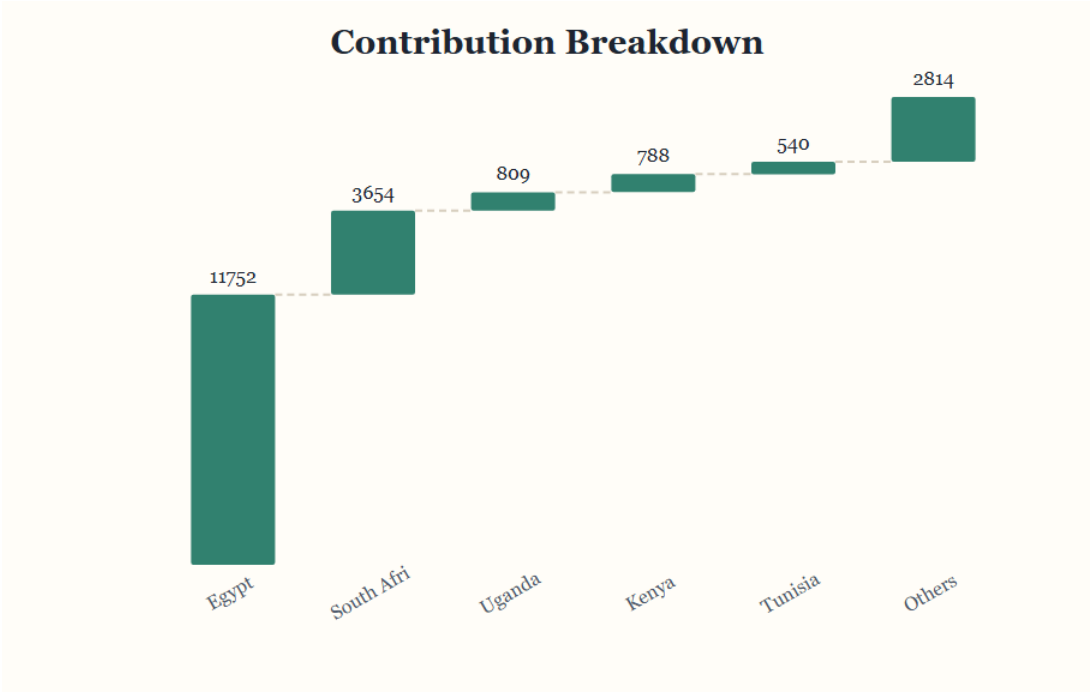


Figure 5. Contribution Breakdown Rendered directly from the article's live interactive dashboard.

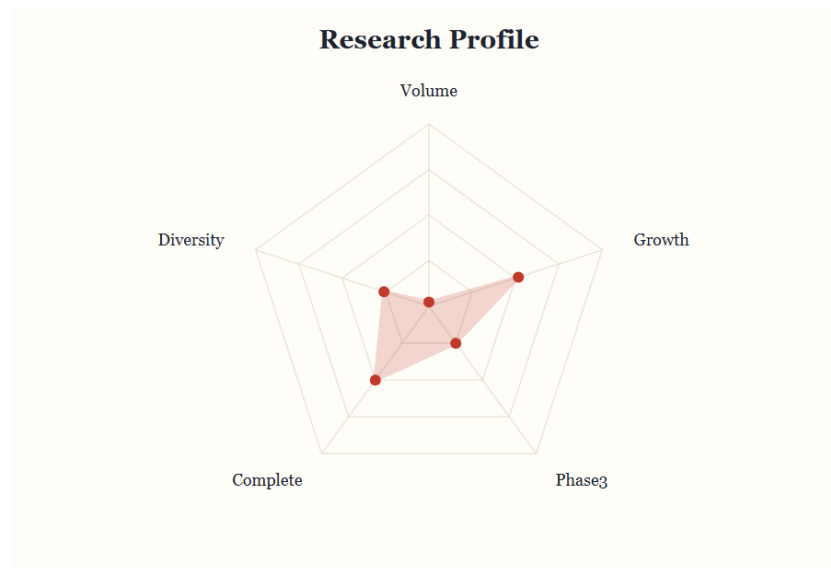


Figure 6. Research Profile Rendered directly from the article's live interactive dashboard.

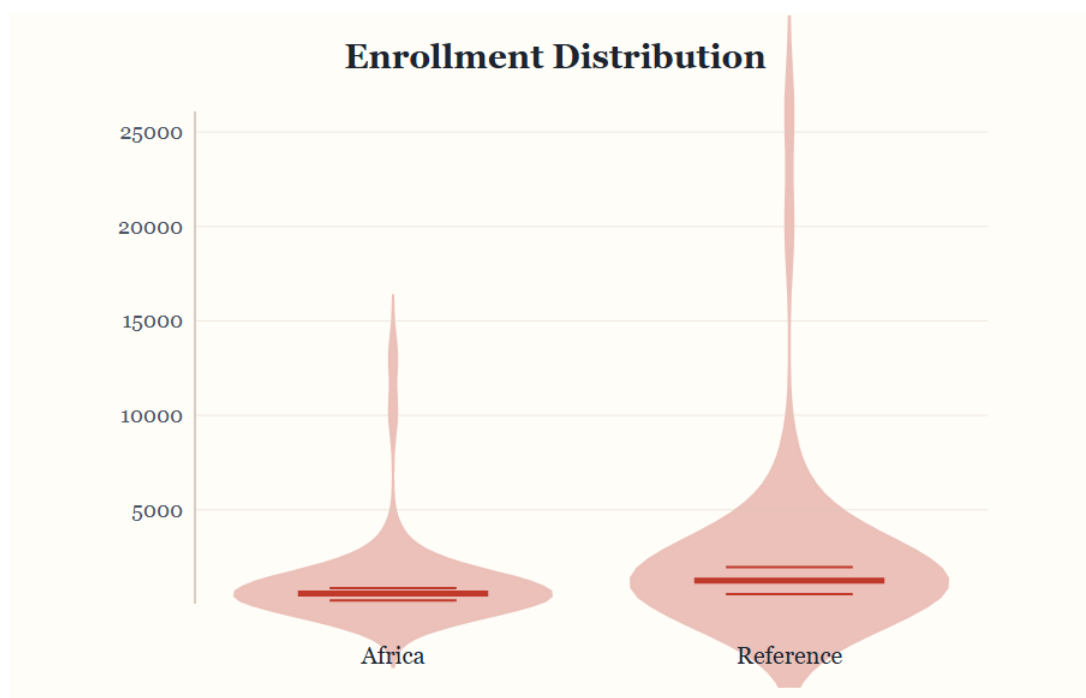


Figure 7. Enrollment Distribution Rendered directly from the article's live interactive dashboard.

HOW TO CITE

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Reproducibility & data provenance. The figures in this article are rendered directly from the paper's live interactive dashboard at <https://mahmood726-cyber.github.io/africa-e156-students/methods-systems/dashboards/sample-size-adequacy.html>, where the complete analysis — data, methods and every estimate — can be explored and reproduced. This open path from published figure back to the underlying analysis is part of how the journal works. The article's text, authors, abstract, issue and licence follow the journal's published record.

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