

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

Vulnerable Population Protection: Structural Inequalities in Clinical Trial Investment

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KEY WORDS vulnerable population; Clinical trial; Investment

Abstract

VULNERABLE POPULATION PROTECTION: STRUCTURAL INEQUALITIES IN CLINICAL TRIAL INVESTMENT

Background

Clinical trials inform healthcare decisions worldwide, but inequalities remain. In African contexts, vulnerable groups such as refugees, prisoners, and pregnant women are frequently excluded or included without sufficient protection. While Uganda has maintained a strong ethical framework for clinical trials, ensuring the consistent application of these safeguards remains a challenge

Objective

To examine whether patterns in protecting vulnerable populations in African clinical trials expose underlying structural disparities in research investment and governance

Methods

A cross-sectional audit of interventional trials registered on ClinicalTrials.gov through April 2026 was performed. Eligible studies included 3,515 African and 159,433 trials in the United States. The primary outcome was the odds ratio of trial participation based on registry data, with trends over time evaluated

Results

Africa contributed fewer trials, with a 45-fold disparity compared to the United States. Although registrations saw a 17.1-fold increase, differences persisted. Patterns also indicated inconsistent protection of vulnerable populations

Conclusion

Structural limitations in governance and investment still restrict fair participation and protection in African clinical trials. Findings are limited by the reliance on a single registry and the exclusion of non-English 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/governance-justice/dashboards/vulnerable-population-protections.html>

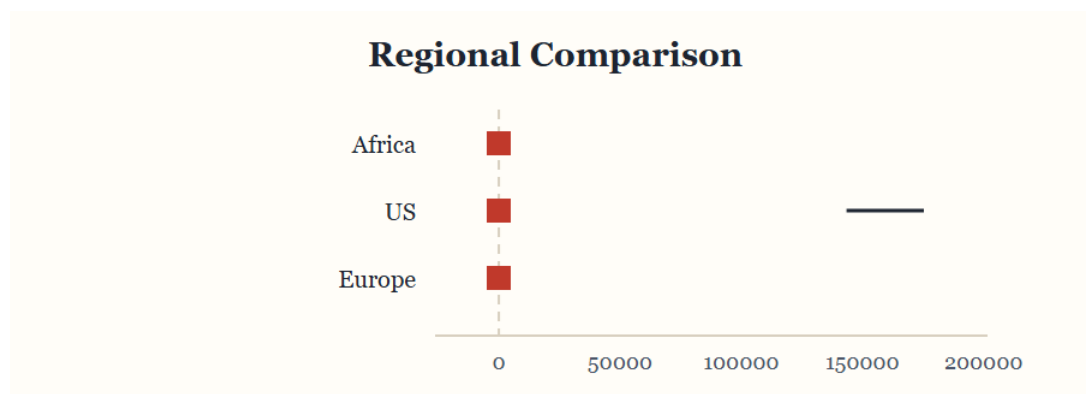


Figure 1. Regional Comparison Rendered directly from the article's live interactive dashboard.

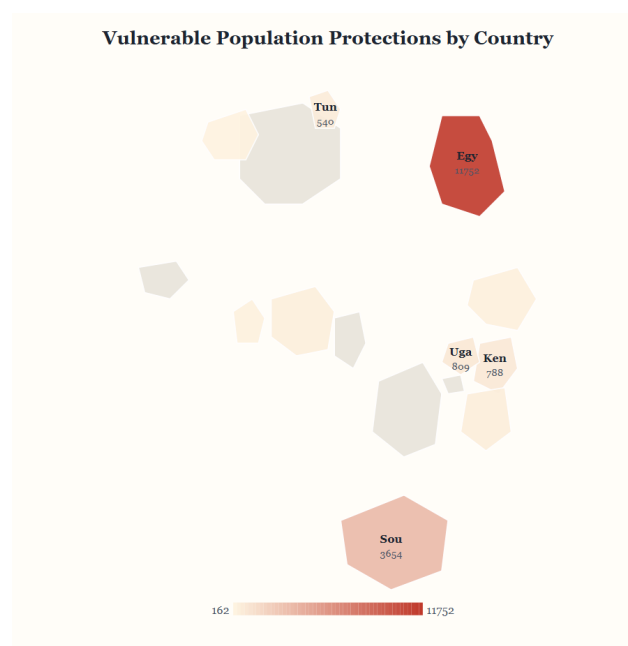


Figure 2. Vulnerable Population Protections by Country Rendered directly from the article's live interactive dashboard.

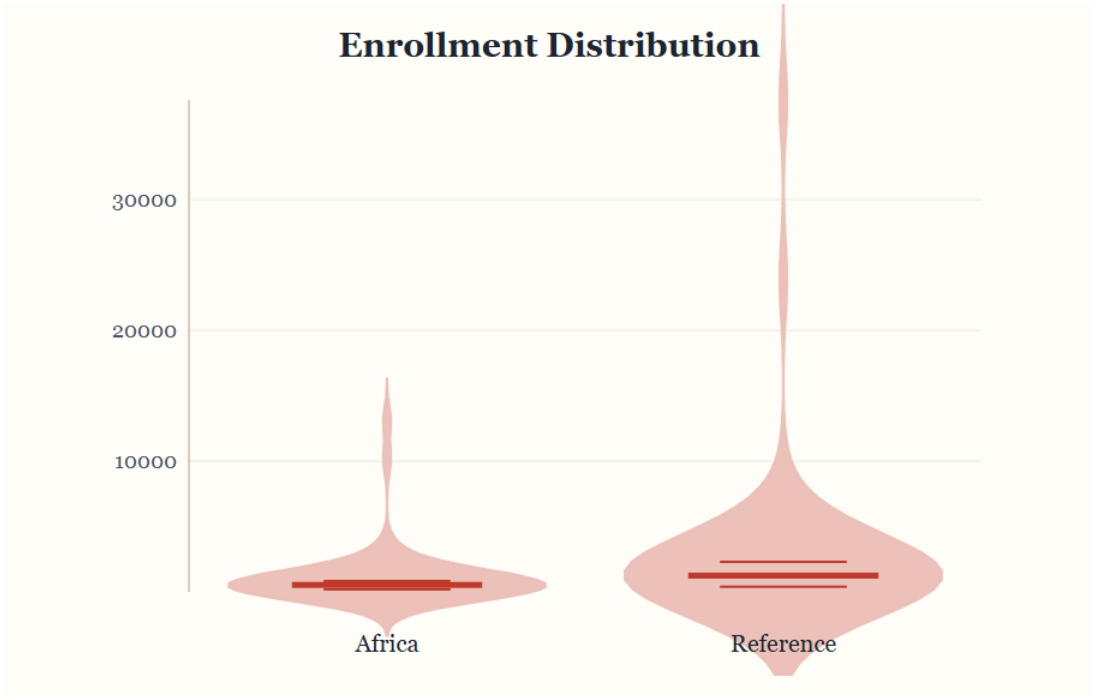


Figure 3. Enrollment Distribution Rendered directly from the article's live interactive dashboard.

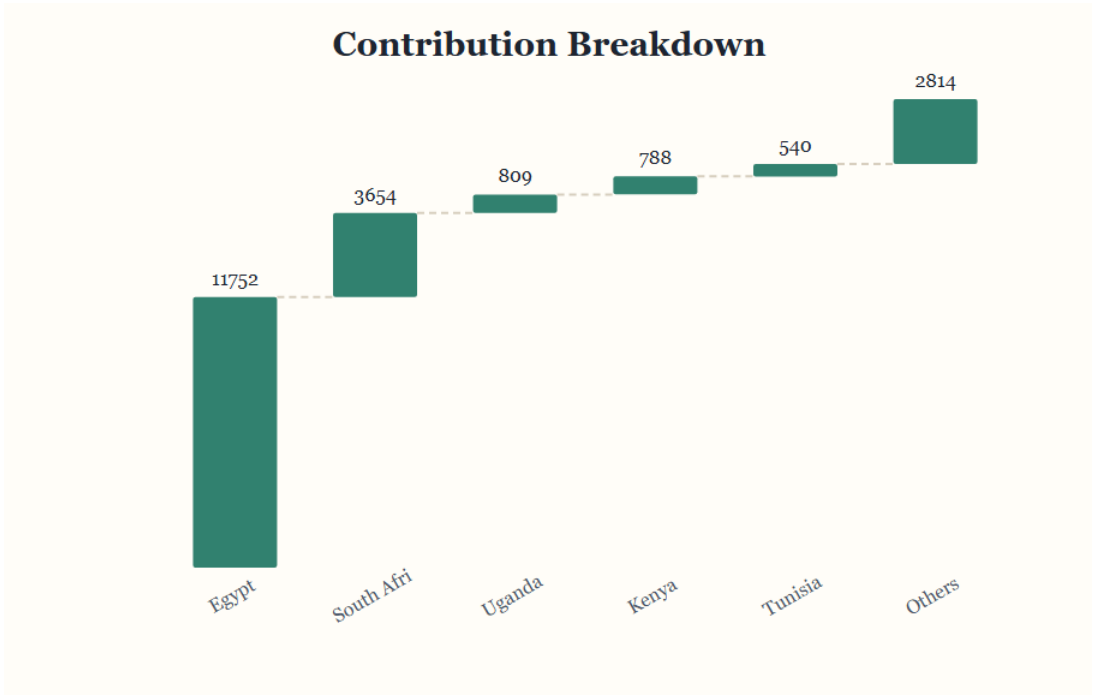


Figure 4. Contribution Breakdown Rendered directly from the article's live interactive dashboard.

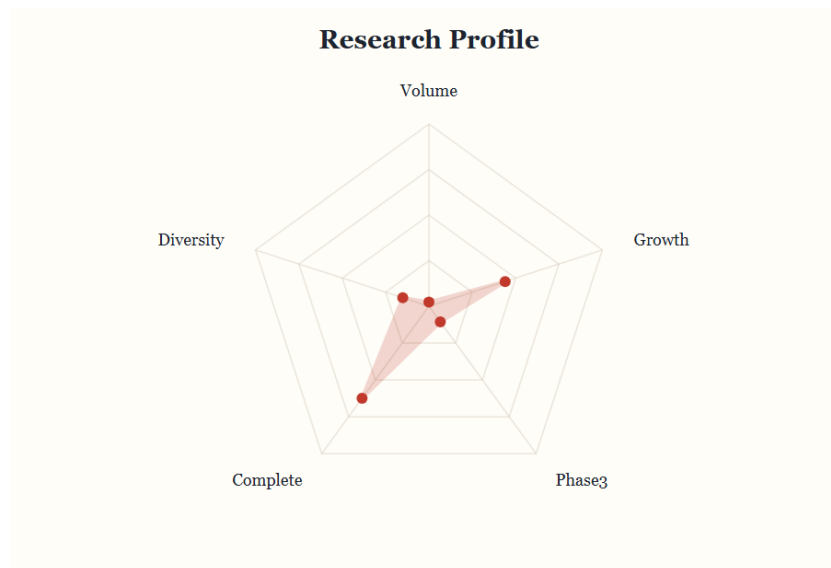


Figure 5. Research Profile Rendered directly from the article's live interactive dashboard.



Figure 6. Growth 2010-2026 Rendered directly from the article's live interactive dashboard.



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

HOW TO CITE

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