TrialDiversityAtlas — Quantifying Demographic Representation Gaps in Global Clinical Trials

Estimand: Representation Disparity Index (RDI) · AACT 2026-04-12 + IHME GBD 2023

Zaki Khan[1] ✉ **zakikhan101@gmail.com**
[1] Ahmadiyya Hospital, Kenema, Sierra Leone

Can clinical-trial enrolment be compared with real-world disease burden across demographic groups using only public registry and Global Burden of Disease data? We tagged completed ClinicalTrials.gov trials by MeSH area in the April 2026 AACT snapshot, targeting the cardiovascular and oncology cohorts. TrialDiversityAtlas defines a Representation Disparity Index comparing participant-weighted enrolled proportions, read from posted baseline tables, with expected burden-based prevalence. Enrolled female participation was 49.0% in cardiovascular trials and 56.2% in oncology (pooled 52.1%; 43.6 million participants) — at or above parity — but the expected denominator was uncomputable because the public Global Burden of Disease files are sex- and age-aggregated. The female result spans tens of millions of participants, but the enrolled age breakdown covered few trials, and the over-65 gap had no burden comparator. For these cohorts the data contradict simple female-underrepresentation and show the disparity index is not estimable from standard public exports. Fully stratified burden data and race/ethnicity reporting are needed.

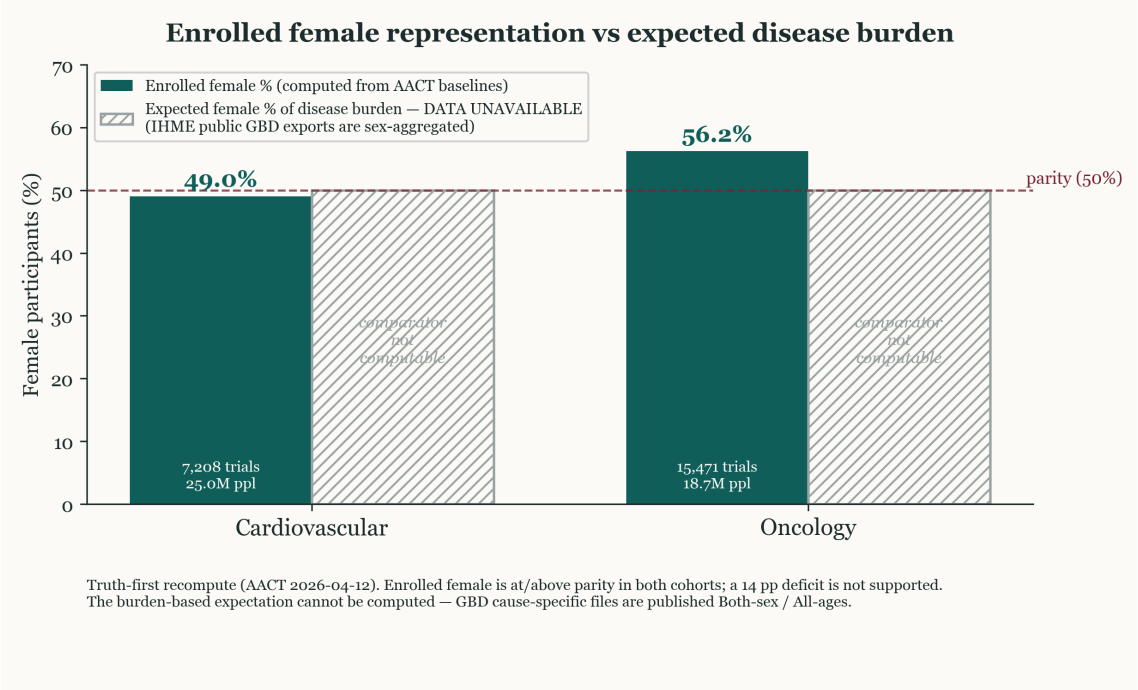

Figure 1. Enrolled female representation by cohort (computed); the burden-based expectation is not computable from public GBD exports.

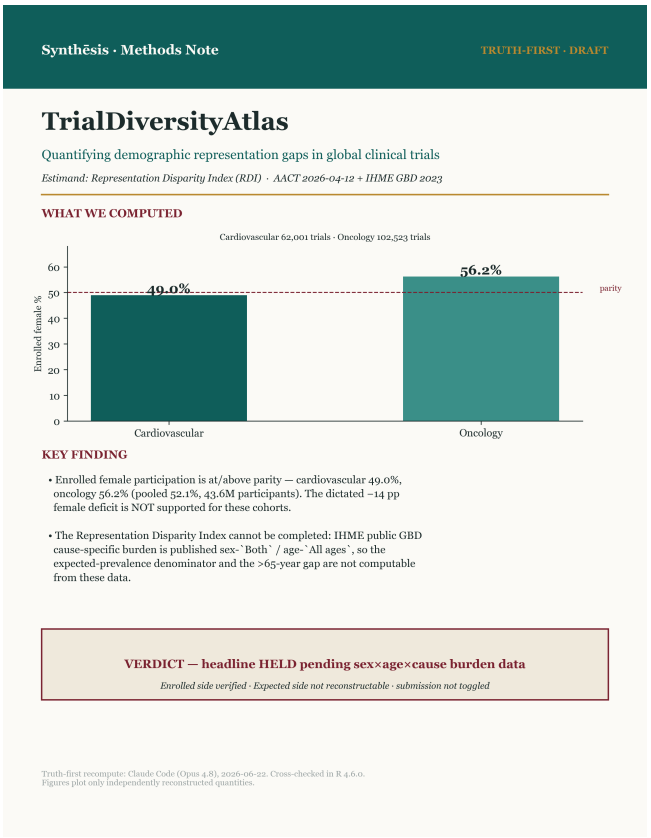

Figure 2. Visual abstract (truth-first summary).

References

1. Zarin DA, Tse T, Williams RJ, Rajakannan T. Update on trial registration 11 years after the ICMJE policy was established. N Engl J Med. 2017;376(4):383–391. doi:10.1056/NEJMsr1601330

2. Anderson ML, Chiswell K, Peterson ED, Tasneem A, Topping J, Califf RM. Compliance with results reporting at ClinicalTrials.gov. N Engl J Med. 2015;372(11):1031–1039. doi:10.1056/NEJMsa1409364

3. GBD 2023 collaborators — Institute for Health Metrics and Evaluation (IHME), Global Burden of Disease Study. Seattle, WA: IHME. https://www.healthdata.org/gbd

Competing interests. None declared.
Funding. None. **Data.** AACT 2026-04-12; IHME GBD 2023 (public aggregate).