Child and maternal mortality Visual Brief

This note records the exact official source lock, measure definitions, uncertainty conventions, geography reconciliation, source-native corrections, and release boundary for Visual Brief v1.1.

Source lock closed. Seven exact official files passed container or encoding validation, native schemas were inspected, SHA-256 hashes were recorded, and production values were reconciled. No unresolved material discrepancy remains.

1. Controlling sources and vintages

Child: UN IGME Report 2025 machine-readable workbooks for under-five mortality rates, under-five deaths, neonatal mortality rates, and neonatal deaths; estimates through 2024; 90% uncertainty intervals.

Maternal: MMEIG revised 2025 workbook and WHO complete estimates ZIP covering 2000–2023; 80% uncertainty intervals. WHO indicator export AC597B1 was used as an independent country-level cross-check.

2. Source precedence

Priority	Source form	Use
1	Exact official downloadable file	Native fields, exact quantiles, entity universe, source-specific rounding, and hashes.
2	Official statistical table and methods	Interpretation and source-reported trend statistics.
3	Official report narrative	Context; subordinate when rounded wording conflicts with the data file.
4	Landing page or release copy	Discovery and public summary only.

The source binaries are retained in the private reproducibility input bundle and are deliberately excluded from the public Visual Brief and website deployment packages.

3. Measure and non-additivity rules

- Neonatal deaths are contained within under-five deaths and are never added on top.
- U5MR and NMR are probabilities per 1,000 live births and are not additive.
- Maternal deaths are a count; MMR is maternal deaths per 100,000 live births.
- Adult lifetime risk is not a rescaled MMR; fertility and competing mortality also matter.
- Child 2024 and maternal 2023 counts are not combined.
- Annual rates of reduction are trend statistics, not causal claims.

4. Source-native corrections in v1.1

Record	v1.0	v1.1	Decision basis
World maternal deaths, 2000	444,000	443,000	MMEIG workbook and WHO ZIP median 443,310.685, displayed to the source precision.
World MMR 80% UI, 2000	308–352	309–349	WHO ZIP 0.1 and 0.9 quantiles: 308.782 and 348.620.
World maternal deaths 80% UI upper, 2023	309,000	308,000	WHO ZIP 0.9 quantile 308,499.394 under source-native display rounding.

Trend-rate control. The source-reported child annual rates of reduction are retained. Two-endpoint reconstructions differ slightly for 2000–2015 because they are not a substitute for the source-reported period statistic.

5. Independent maternal cross-check

The MMEIG 2023 country universe contains 195 entities. WHO indicator export AC597B1 contains exact matching 2023 lower, median, and upper values for 193. Puerto Rico and the State of Palestine are present in the MMEIG source but absent from that WHO indicator export; this is recorded as a coverage difference, not a value discrepancy.

6. Regional geography reconciliation

Chart 6 uses the eight principal SDG regions. The UN IGME workbooks contain multiple aggregate blocks, including an SDG-region block and a UNICEF reporting-region block. Both include a row labelled “Sub-Saharan Africa,” but they are different aggregation systems.

> Geography guard. The SDG block controls Chart 6. Its 2024 Sub-Saharan Africa values are U5MR 71.6 and 2.830 million under-five deaths. The UNICEF reporting-region values 71.2 and 2.932 million were excluded from the SDG chart; they are not corrections to the SDG series.

At exact source precision, the eight child SDG regional death medians sum to the world median: 4,857,797. After display rounding, the regional values sum to 4,857,000 while the world displays as 4,858,000; the 1,000 difference is rounding and is not “corrected.”

MMEIG posterior medians are not additive across aggregation levels. The eight exact 2023 SDG regional maternal-death medians total 257,224.369, compared with the world median 260,128.634. Source-published regional and world medians are therefore used independently.

7. Chart-specific controls

Chart	Control
1	Print year and denominator; do not combine the headline counts.
2	Separate rate and count panels; no dual axis.
3	Draw neonatal deaths inside the under-five total.
4	Use source-reported trend rates; do not infer a cause.
5	Label the 2030 requirement as a scenario, not a forecast.
6	Use the same eight SDG regions; show child 90% and maternal 80% intervals; no rank numbering.

8. Release boundary

The source-locked v1.1 charts, PDFs, accessible tables, registry records, and website integration are release-cleared. A Netlify deployment ZIP may be prepared after full-site regression QA. Live production deployment remains a separate explicit action.