

Child Wasting and Severe Wasting, 2024

Technical Methods for the Experimental Daily-Equivalent USU Pilot Estimate | WSI-CW-JME-2024-01 | Release v1.1

Model specification

This technical note documents the regional daily-equivalent USU pilot for 2024 child wasting and severe wasting. It uses the approved WSI Experimental USU Pilot Standard: $p=1$, no overlap adjustment, $R1=1.96875$ intensity-days, P1 - illustrative pilot mapping maturity, and deterministic low, central, and high mapping scenarios.

The model is $B1_day = \sum_s N_s I_s \times 1 \text{ day}$ and $U1_day = B1_day / R1$. Results are not extrapolated to a full year.

Approved mappings

State	Low	Central	High	Maturity
Moderate wasting	1	2	3	P1 - illustrative
Severe wasting	2	4	6	P1 - illustrative

Input data

The input table was extracted from the official 2025 JME key findings PDF. Values are printed rounded regional/global central estimates for 2024. The USU calculations use central counts only; uncertainty bounds are retained as source evidence but not propagated into the pilot estimate.

Geography	Scenario	B1 per day	U1 per day	Severe share
Global	central	110.0M intensity-days	55.9M USU	44.4%
Africa	central	28.8M intensity-days	14.6M USU	37.5%
Asia	central	78.6M intensity-days	39.9M USU	47.3%
Latin America and Caribbean	central	1.4M intensity-days	0.7M USU	28.6%
Oceania excluding Australia and New Zealand	central	0.4M intensity-days	0.2M USU	100.0%

Rank stability

Among the four included non-global regional rows, the ranking is stable across low, central, and high mappings and matches the ranking by total wasting count: Asia, Africa, Latin America and Caribbean, Oceania excluding Australia and New Zealand. Spearman rank correlation versus total wasting count is 1.0 for all three scenarios.

Limitations

- The source is a printed PDF table rather than a full precision machine-readable regional workbook.
- Moderate wasting is derived from rounded central counts only.
- The model does not include mortality, infections, long-term developmental effects, caregiver burden, or health-system burden.

- The state mappings are P1 - illustrative pilot assumptions and are not supplied by JME.
- Young children cannot be assumed to map their experience onto an adult cardinal 0-10 scale.