Author's response to Reviewer 1

We thank Reviewer 1 for their careful re-evaluation of the revised manuscript and for the positive assessment of the changes made so far.

The reviewer noted that in Supplementary Figures S10 and S13 the relationship between observed and simulated mortality had become negative, and correctly suggested that this could arise because the selection of best-performing AWC scenarios was based on goodness-of-fit metrics that do not explicitly constrain the sign of the relationship. We agree with this assessment.

In response, we revised the AWC scenario-selection procedure by introducing an additional constraint such that only scenarios exhibiting a positive observed–simulated mortality relationship are eligible for selection. Within this constrained subset, scenarios are then ranked using the same performance criteria as before (adjusted $R^2$and MAE). This prevents the selection of scenarios with inverted relationships, even if their goodness-of-fit metrics are comparatively high.

Supplementary Figures S10 and S13 have been updated accordingly. All selected scenarios shown in these figures now exhibit positive observed–simulated mortality relationships, ensuring a meaningful and interpretable comparison between observations and simulations. The corresponding interpretation in the main text was updated to reflect the revised selection outcome (lines 371-376).

Editorial and supplementary material corrections

In addition, we have addressed the editorial office's comments regarding the supplementary material. Supplementary figures and tables are now numbered consecutively (Figure S1, Figure S2, Table S1, etc.), independent of section numbering.