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Sample-size estimation

- You should state whether an appropriate sample size was computed when the study was being designed
- You should state the statistical method of sample size computation and any required assumptions
- If no explicit power analysis was used, you should describe how you decided what sample (replicate) size (number) to use

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn't apply to your submission:

Our paper involves a pooling analysis of cross-sectional studies for the sake of describing epidemiological patterns. We report on attribution of change and hence there is no hypothesis testing and power calculation in its traditional sense does not apply. By the virtue of pooling historical data, it is also strengthen and constrained by what was measured in the past. Nonetheless, the amount of data here (number of studies and participants) is unprecedented, and there is no other multi-country study addressing exactly this question with this amount of data. Our study involved nearly 2800 studies, with over 187 million participants, so we are able to answer the question in relation to age group, region and time period, which was not feasible for any other prior study.

Replicates

- You should report how often each experiment was performed
- You should include a definition of biological versus technical replication
- The data obtained should be provided and sufficient information should be provided to indicate the number of independent biological and/or technical replicates
- If you encountered any outliers, you should describe how these were handled
- Criteria for exclusion/inclusion of data should be clearly stated
- High-throughput sequence data should be uploaded before submission, with a private link for reviewers provided (these are available from both GEO and ArrayExpress)

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn't apply to your submission:



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Our study is descriptive and attribution analysis, and we did not carry out experiments. Information on frequency and replication is not applicable. Inclusion/exclusion criteria are described in references 55-57, and referred to in lines 255-283. We have no sequence data.

Statistical reporting

- Statistical analysis methods should be described and justified
- Raw data should be presented in figures whenever informative to do so (typically when N per group is less than 10)
- For each experiment, you should identify the statistical tests used, exact values of N, definitions of center, methods of multiple test correction, and dispersion and precision measures (e.g., mean, median, SD, SEM, confidence intervals; and, for the major substantive results, a measure of effect size (e.g., Pearson's r, Cohen's d)
- Report exact p-values wherever possible alongside the summary statistics and 95% confidence intervals. These should be reported for all key questions and not only when the p-value is less than 0.05.

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn't apply to your submission:

Our statistical method is described in lines 33	16-351 of the manuscript.

(For large datasets, or papers with a very large number of statistical tests, you may upload a single table file with tests, Ns, etc., with reference to sections in the manuscript.)

Group allocation

- Indicate how samples were allocated into experimental groups (in the case of clinical studies, please specify allocation to treatment method); if randomization was used, please also state if restricted randomization was applied
- Indicate if masking was used during group allocation, data collection and/or data analysis

Please outline where this information can be found within the submission (e.g., sections or figure legends), or explain why this information doesn't apply to your submission:

As mentioned earlier, we did not carry out experiments, hence the questions on group allocation do not apply to our study.

Additional data files ("source data")

- We encourage you to upload relevant additional data files, such as numerical data that are represented as a graph in a figure, or as a summary table
- Where provided, these should be in the most useful format, and they can be uploaded as "Source data" files linked to a main figure or table
- Include model definition files including the full list of parameters used
- Include code used for data analysis (e.g., R, MatLab)
- Avoid stating that data files are "available upon request"



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Please indicate the figures or tables for which source data files have been provided:

Coefficients for Figure 5 are provided in the Supplementary Table 1 and 2 and all information of studies included are in Supplementary Table 4. Of the raw data used in this pooling analysis, some are from public sources, for which we can provide links. Others are from individual researchers and/or from government and international agencies, which should be requested from the data holders on a study to study basis; we can provide contact information.