

CORRECTION

Open Access



Correction: Temperature-related mortality and associated vulnerabilities: evidence from Scotland using extended time-series datasets

Kai Wan^{1*}, Zhiqiang Feng^{1,2}, Shakoor Hajat^{3,4} and Ruth M. Doherty¹

Correction: *Environ Health* 21, 99 (2022)
<https://doi.org/10.1186/s12940-022-00912-5>

Published online: 30 September 2023

Following the publication of the original article [1], a mistake was found in the temperature data for the three regions in Scotland. This error affected some results marginally, however the conclusions and key messages remain valid after the error was corrected.

The daily mean temperature data was mislabelled during the analysis—the temperature data in the West was mislabelled as North, the temperature data in the East was mislabelled as West and the temperature data in the North was mislabelled as East.

All changes after and before the correction are presented Table 1. The section of the content and the line number of the updated manuscript are also included.

Figures 2, 3, 4 and 5 are updated, and the old and new figures are presented below.

Reference

1. Wan K, Feng Z, Hajat S, et al. Temperature-related mortality and associated vulnerabilities: evidence from Scotland using extended time-series datasets. *Environ Health*. 2022;21:99. <https://doi.org/10.1186/s12940-022-00912-5>.

The original article can be found online at <https://doi.org/10.1186/s12940-022-00912-5>.

*Correspondence:

Kai Wan

K.Wan@ed.ac.uk

¹ School of GeoSciences, University of Edinburgh, Edinburgh, UK

² Scottish Centre for Administrative Data Research, School of Geosciences, University of Edinburgh, Edinburgh, UK

³ Department of Public Health, Environments and Society, London School of Hygiene & Tropical Medicine, London, UK

⁴ Centre On Climate Change and Planetary Health, London School of Hygiene & Tropical Medicine, London, UK

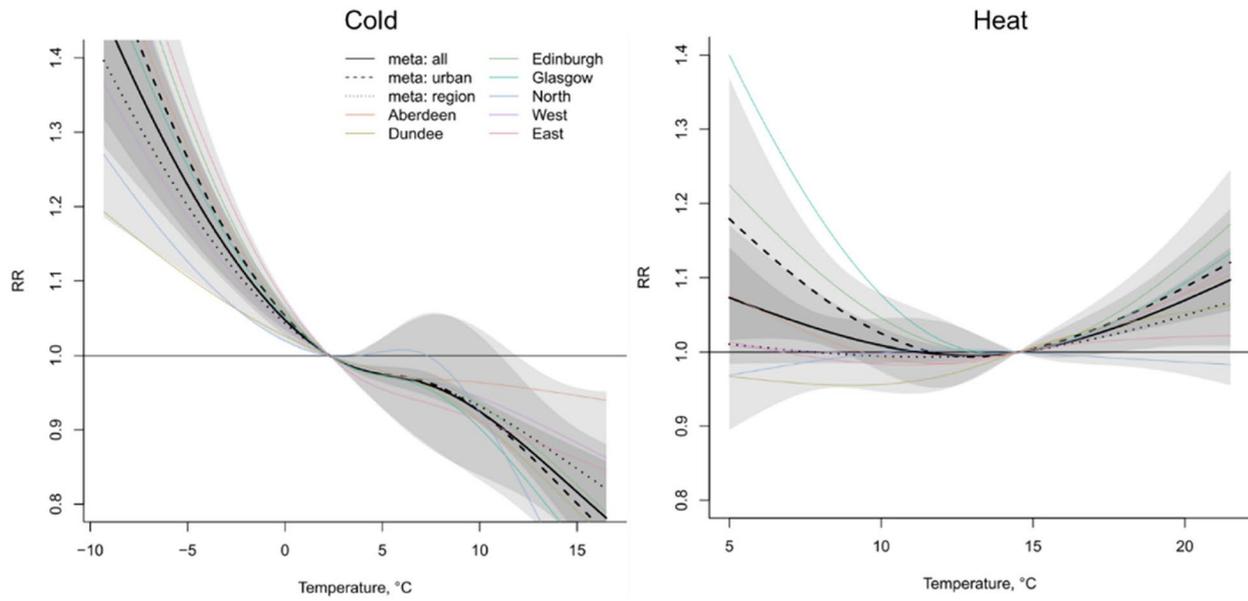


© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.

Table 1 List of changes in text. Updated texts are underlined, and old texts are placed in square brackets in italic. The text deleted are marked with strikethrough

Summary of change	Section (line number)	Text change																
Temperature summary statistics	Table 1 (257-258)	Daily mean temperature																
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Region</th> <th style="text-align: center;">Whole year</th> <th style="text-align: center;">OtA</th> <th style="text-align: center;">JJA</th> </tr> </thead> <tbody> <tr> <td>North</td> <td style="text-align: center;">7.8 [8.2]</td> <td style="text-align: center;">5.3 [5.1]</td> <td style="text-align: center;">12.1 [13.4]</td> </tr> <tr> <td>West</td> <td style="text-align: center;">8.2 [7.8]</td> <td style="text-align: center;">5.1 [4.7]</td> <td style="text-align: center;">13.4 [13.2]</td> </tr> <tr> <td>East</td> <td style="text-align: center;">7.8</td> <td style="text-align: center;">4.7 [5.3]</td> <td style="text-align: center;">13.2 [12.1]</td> </tr> </tbody> </table>	Region	Whole year	OtA	JJA	North	7.8 [8.2]	5.3 [5.1]	12.1 [13.4]	West	8.2 [7.8]	5.1 [4.7]	13.4 [13.2]	East	7.8	4.7 [5.3]	13.2 [12.1]
		Region	Whole year	OtA	JJA													
		North	7.8 [8.2]	5.3 [5.1]	12.1 [13.4]													
West	8.2 [7.8]	5.1 [4.7]	13.4 [13.2]															
East	7.8	4.7 [5.3]	13.2 [12.1]															
Effect estimate	Abstract (28-29)	Aggregate all-cause mortality risk in Scotland was estimated to increase by <u>9%</u> [10%] (95% confidence interval, CI: <u>8%, 11%</u> [7%, 13%]) under extreme cold and 4% (CI: <u>3%, 5%</u>) [2%, 5%] under extreme heat.																
	3. Results (273-276) and 4. Discussion (350-353)	The effect estimate should be " <u>1.09 (CI: 1.08, 1.11)</u> [1.10 (CI: 1.07, 1.13)] for the cold effect, and 1.04 for the heat effect (CI: <u>1.03, 1.05</u>) [1.02, 1.05]"																
Variation by location	Abstract (27-28)	Adverse cold effects were observed in all cities and regions, and heat effects were apparent in all cities and regions except northern Scotland.																
	3. Results (282-285)	In JJA, there is a heat effect in all cities and regions apart from northern Scotland.																
	Abstract (30)	People in urban areas experienced higher mortality risk under extreme cold and heat than those in rural regions.																
	3. Results (282)	The meta-estimation of RR in the four cities is higher than in the three regions for both the cold and heat effects.																
Variation by periods	3. Results (286-288)	The cold and heat effects in each of the three 15-year periods are illustrated in Figure 3. The cold effect is vastly reduced in the most recent 15 years with a very small increase in mortality risk as the temperature decreases below 2.3 °C. In contrast, there is generally less temporal variation in the heat effect but the greatest risk is observed in the most recent period.																
Variation by deprivation	3. Results (299-301)	Those in the most and least deprived area experience slightly higher cold and heat effects compared to other deprivation quintiles.																
	3. Results (314-315)	Among the younger age group, those in the most deprived areas have higher cold and heat effects, whereas the elderly in the least deprived areas experience higher cold and heat effects.																
	4. Discussion (428-430)	This study found higher cold- and heat-related mortality risks among younger people who lived in the most deprived areas compared to younger people in less deprived areas, whereas <u>no evident pattern was observed</u> [the patterns were reversed] in the older population																
	4. Discussion (433)	However, it is unknown why affluent older people experience higher heat effects.																
Variation by marital status	3. Results (312-314)	The married <u>population</u> [elderly] experience a slightly higher cold-related mortality risk than the unmarried <u>population</u> [elderly], whereas those who are unmarried experience a slightly higher heat-related mortality risk regardless of age.																

Old Figure 2



New Figure 2

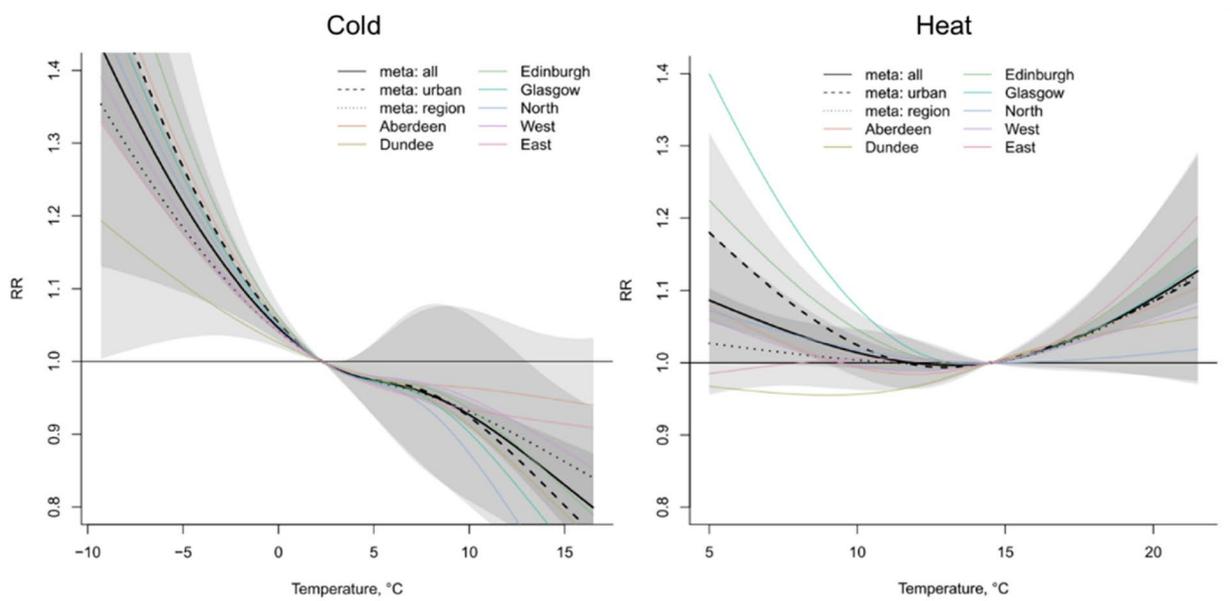
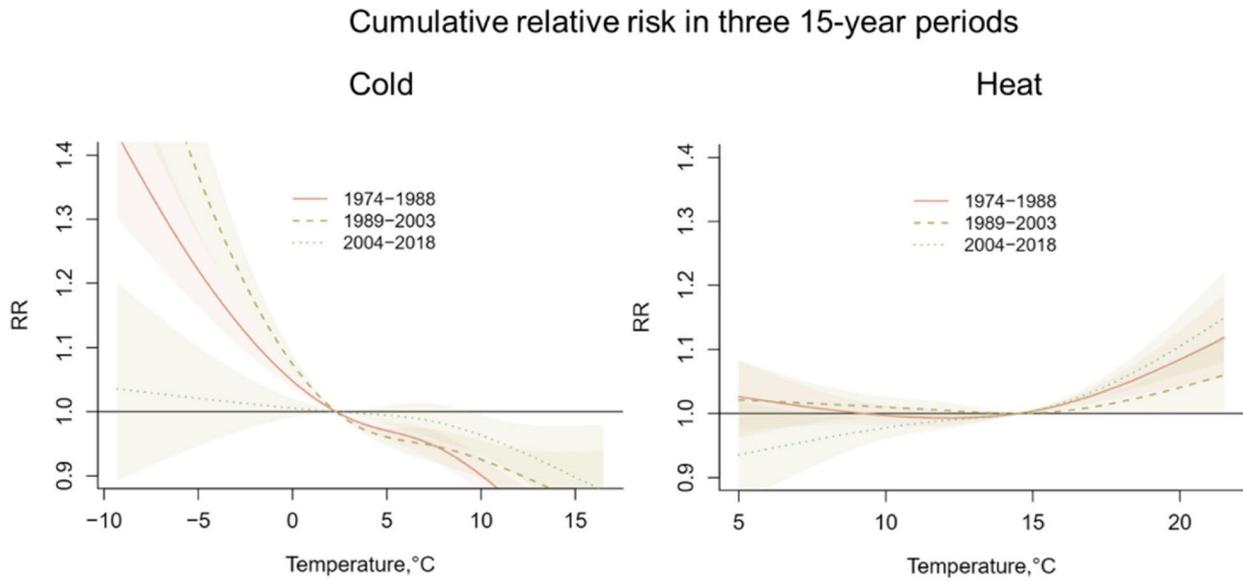


Fig. 2 Relative risk under daily mean temperatures in each city and region and meta-analysis results

Old Figure 3



New Figure 3

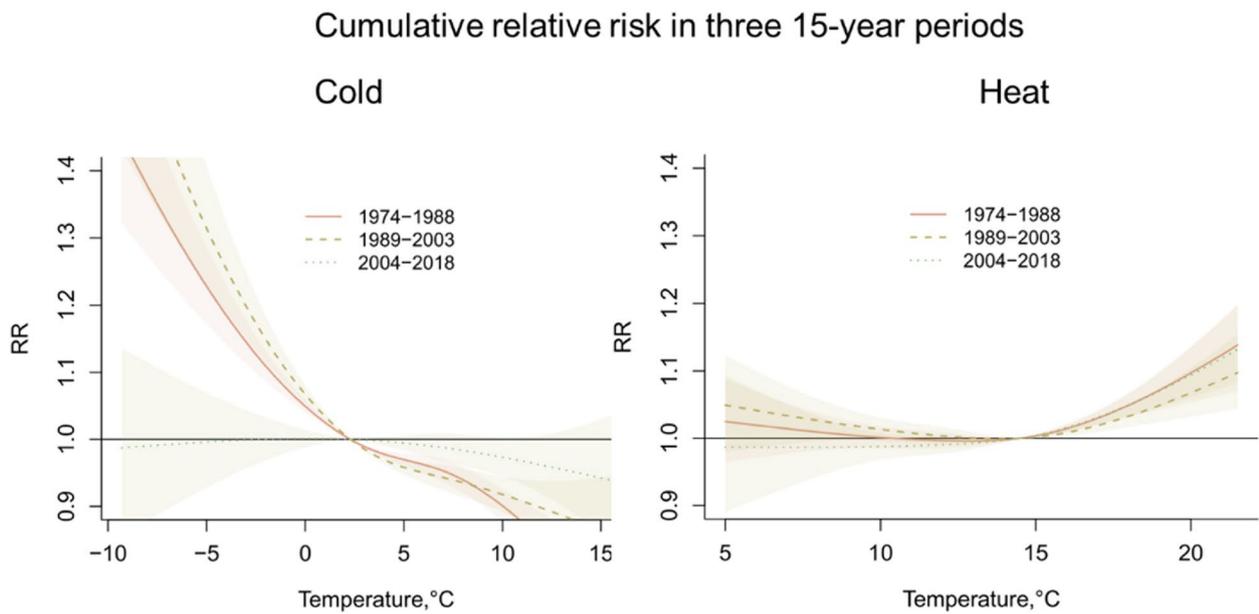
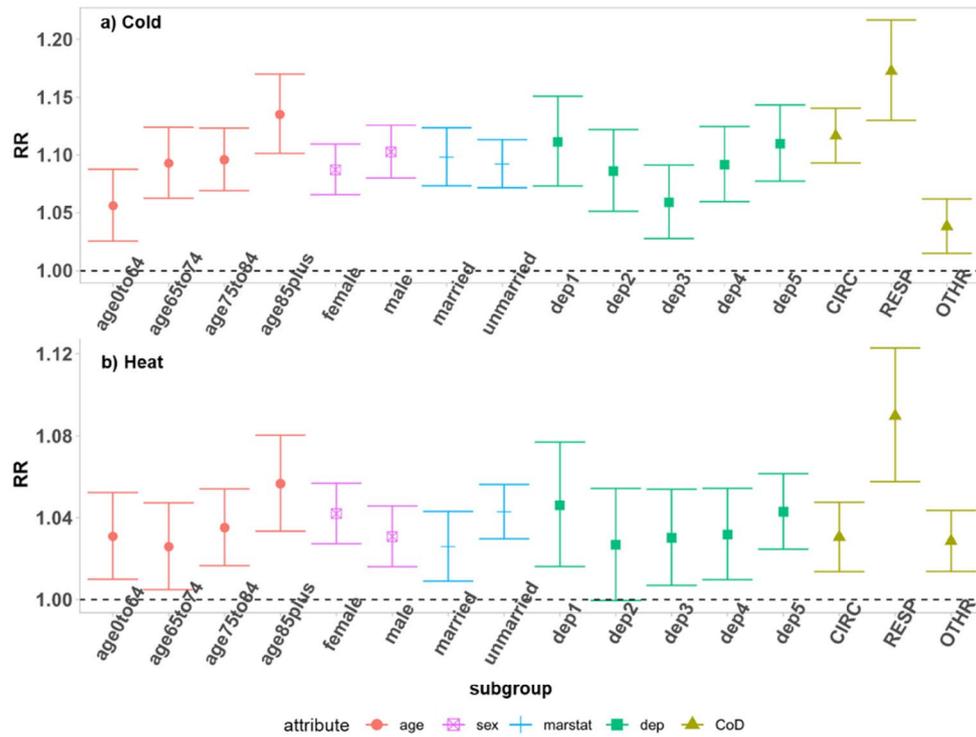


Fig. 3 Meta-estimation of cumulative relative risk in three 15-year periods

Old Figure 4



New Figure 4

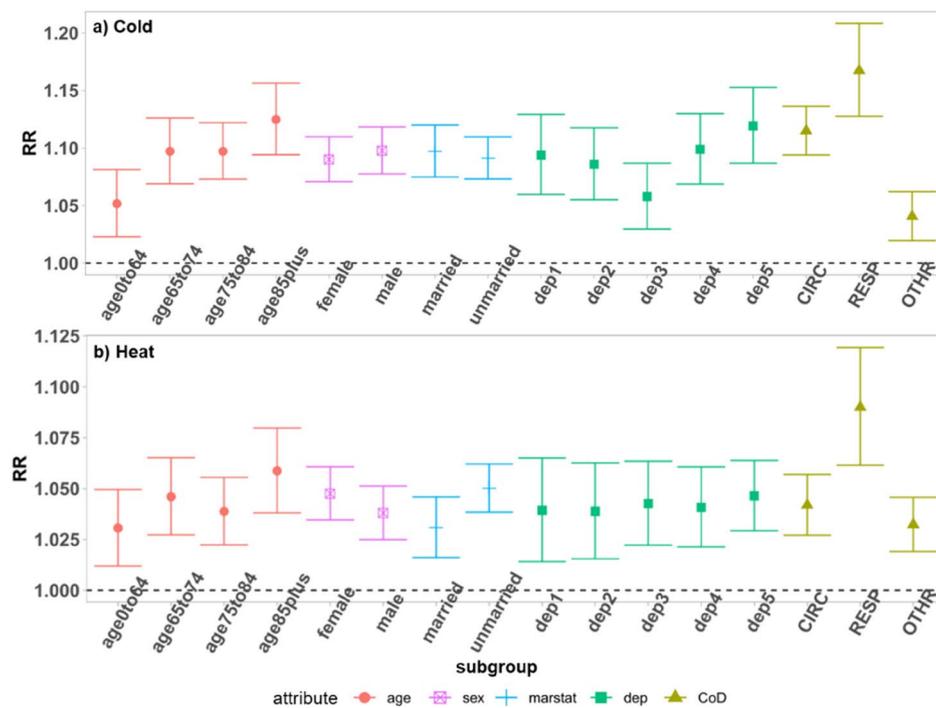
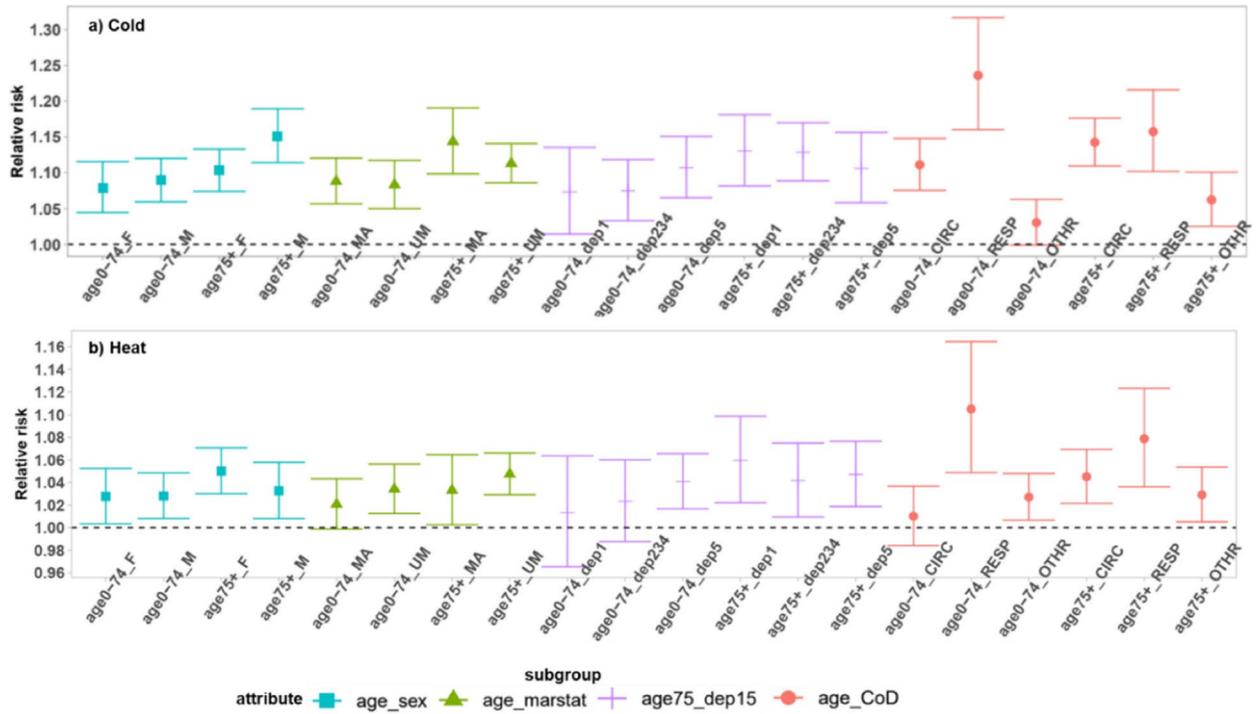


Fig. 4 Meta-estimation of RR of subgroups

Old Figure 5



New Figure 5

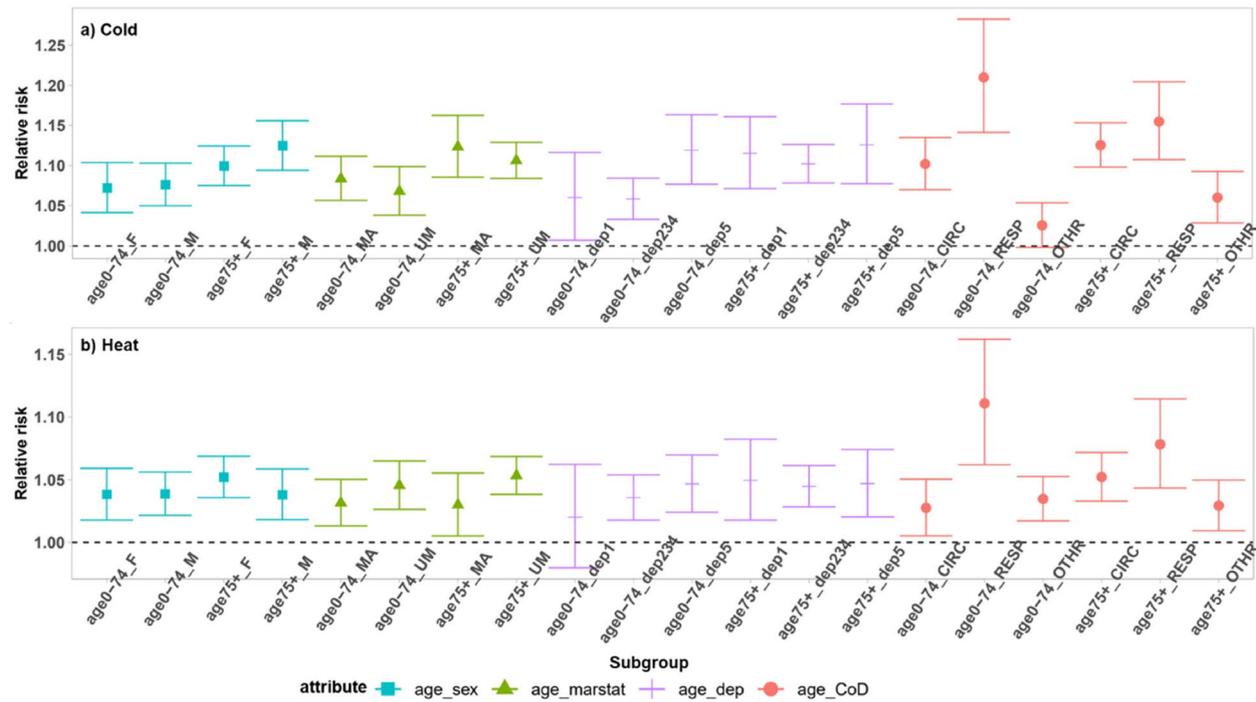


Fig. 5 Meta-estimation of relative risk of subgroup interactions