

## Nut consumption in relation to all-cause and cause-specific mortality: a meta-analysis 18 prospective studies

Guo-Chong Chen, Ru Zhang, Miguel A. Martínez-González, Zeng-Li Zhang, Marialaura Bonaccio, Rob M. van Dam\*, Li-Qiang Qin\*

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Supplementary Figure 1. Nut consumption and cardiovascular disease mortality, high vs. low consumption

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Supplementary Figure 2. Nut consumption and coronary heart disease mortality, high vs. low consumption

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Supplementary Figure 3. Nut consumption and stroke mortality, high vs. low consumption

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Supplementary Figure 18. Peanut and tree nut consumption and cancer mortality, per 1 serving/wk

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Supplementary Figure 19. Peanut and tree nut consumption and all-cause and cause-specific mortality, nonlinear dose-response

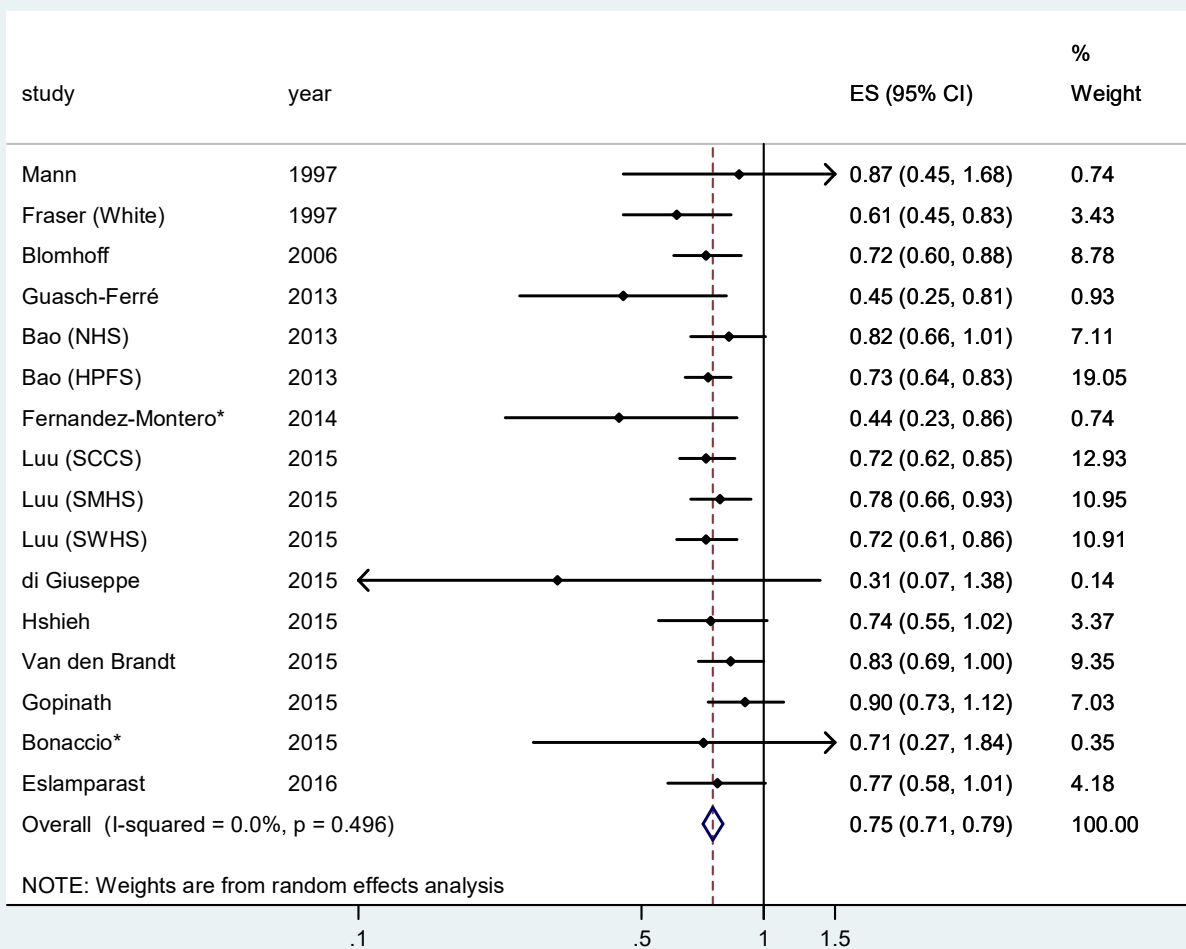
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Supplementary Figure 20. Nonlinear dose-response meta-analysis of nut consumption and all-cause and cause-specific mortality, including studies in which the average intake of nuts in the highest categories was  $\geq 3.5$  servings/week (range: 4.0-7.5 servings/week)

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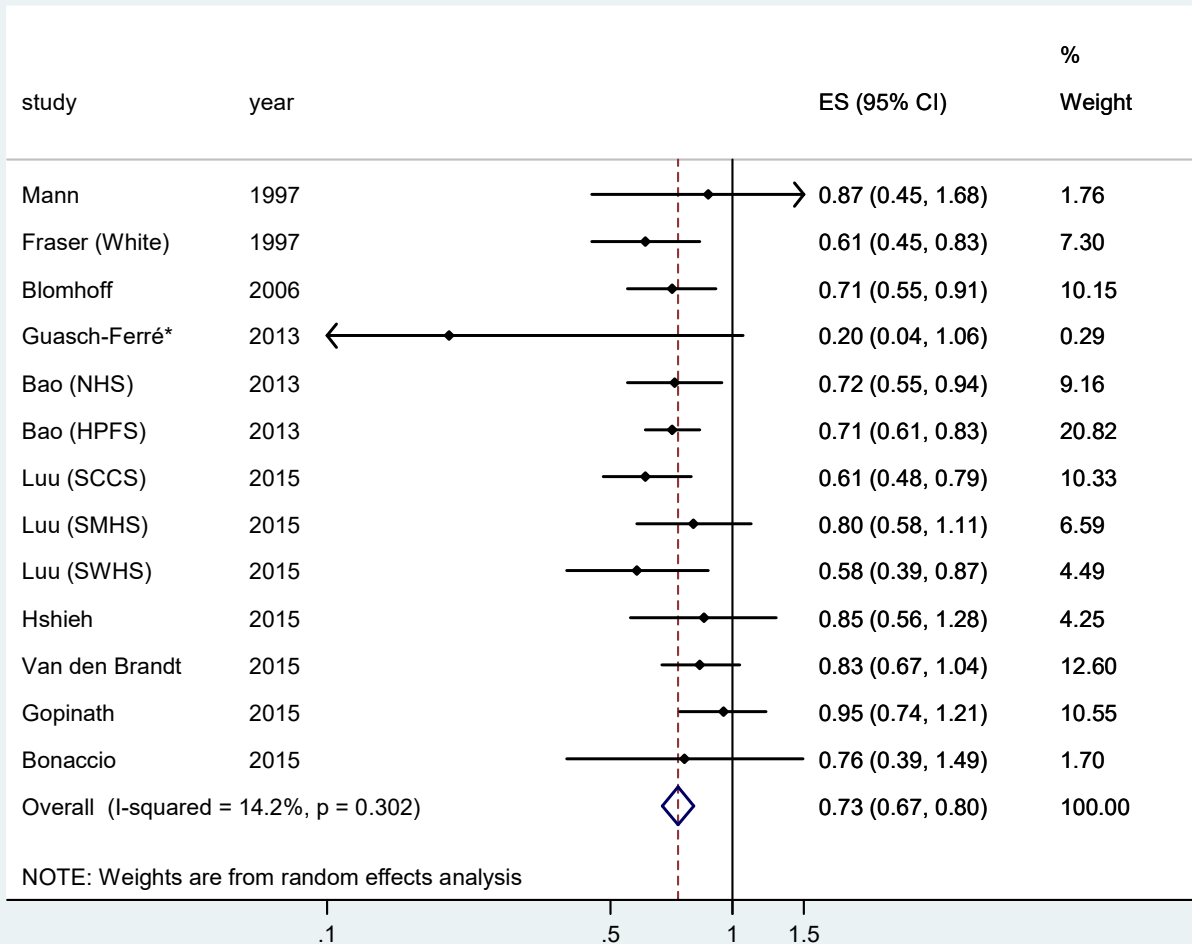
Supplementary Figure 21. Results of publication bias tests by Begg's rank correlation test, Egger's linear regression test, and funnel plots

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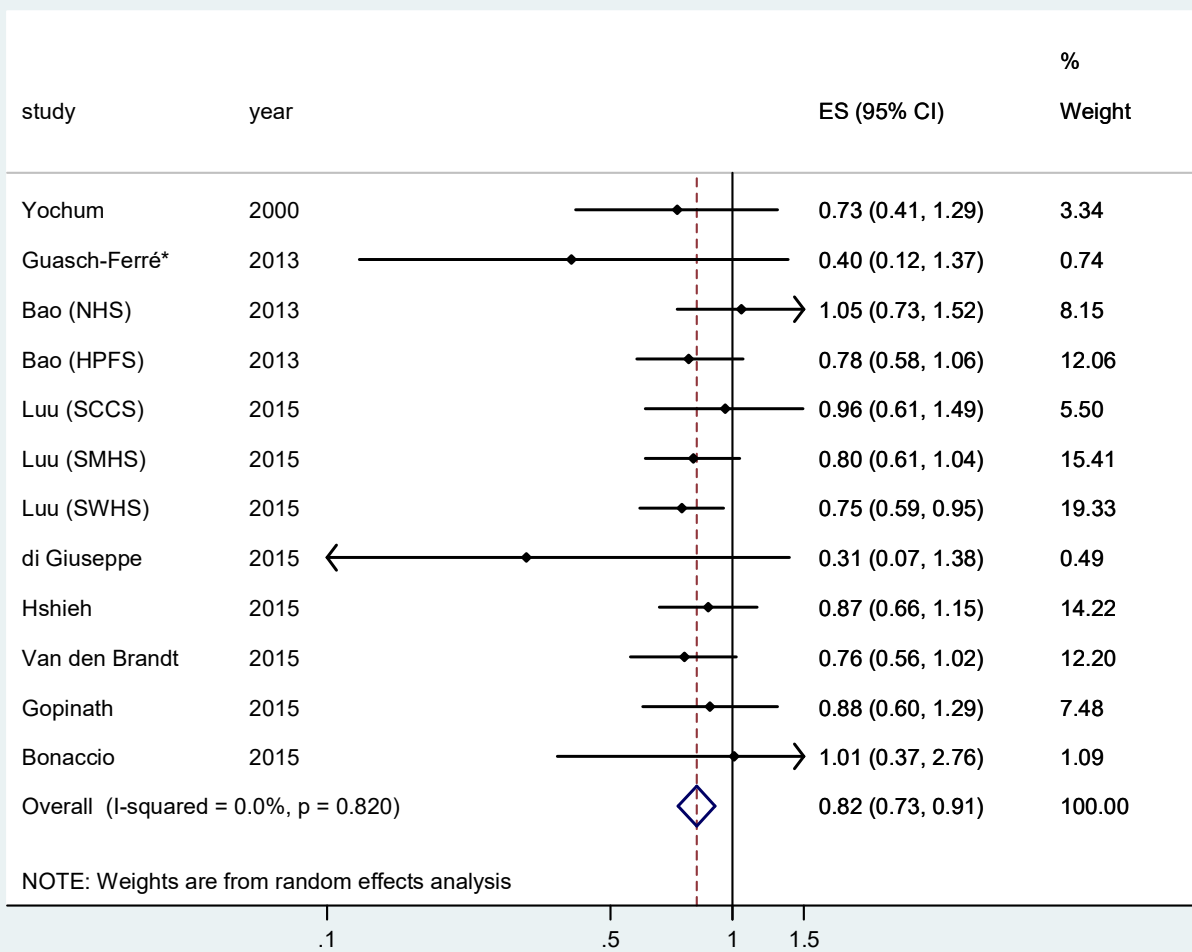
**Supplementary Figure 1. Meta-analysis of nut consumption and cardiovascular disease mortality, high vs. low consumption.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

\*Unpublished data provided by the authors of the primary studies.



**Supplementary Figure 2. Meta-analysis of nut consumption and coronary heart disease mortality, high vs. low consumption.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

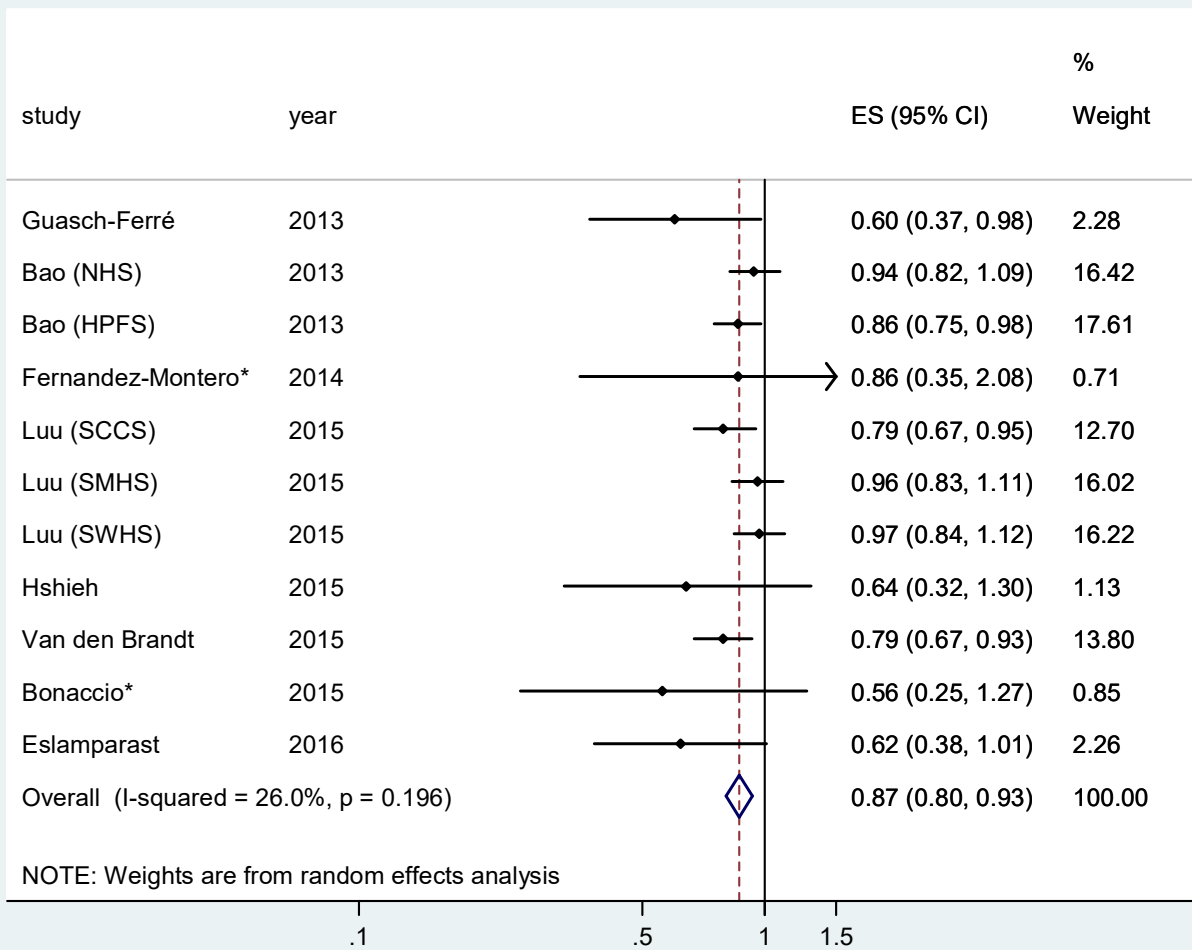
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**Supplementary Figure 3 Meta-analysis of nut consumption and stroke mortality, high vs. low consumption.**

HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

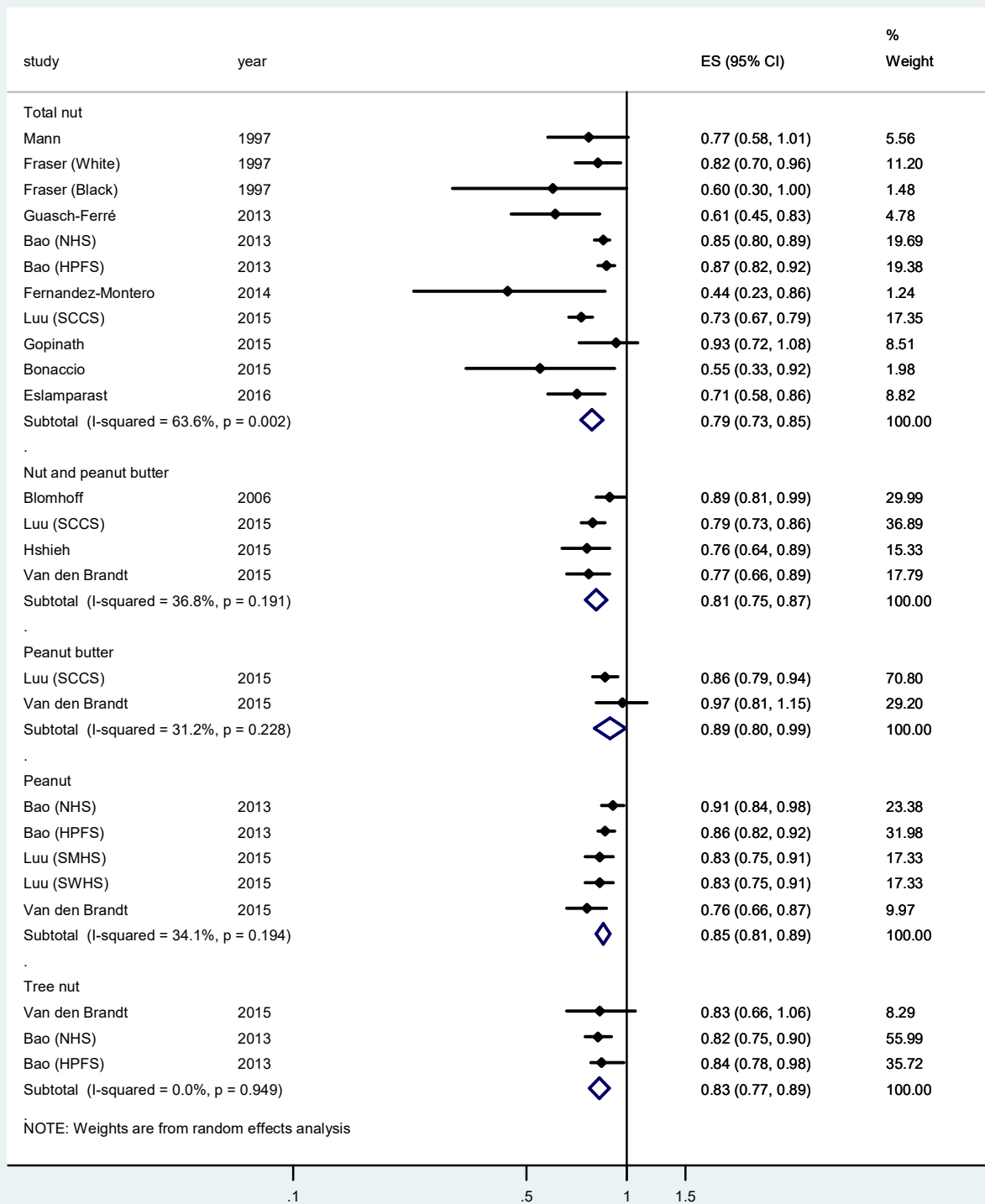
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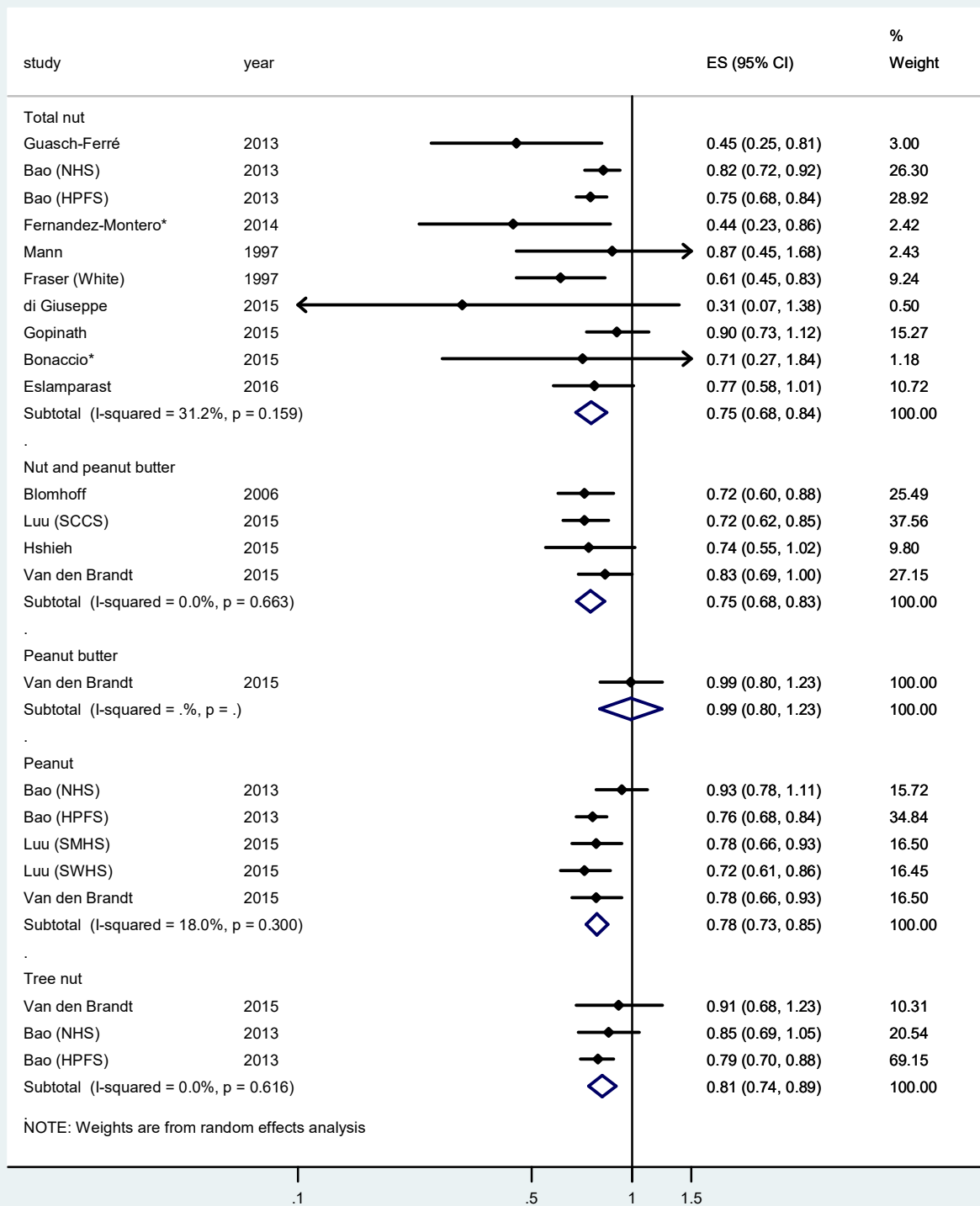
**Supplementary Figure 4. Meta-analysis of nut consumption and cancer mortality, high vs. low consumption.**

HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

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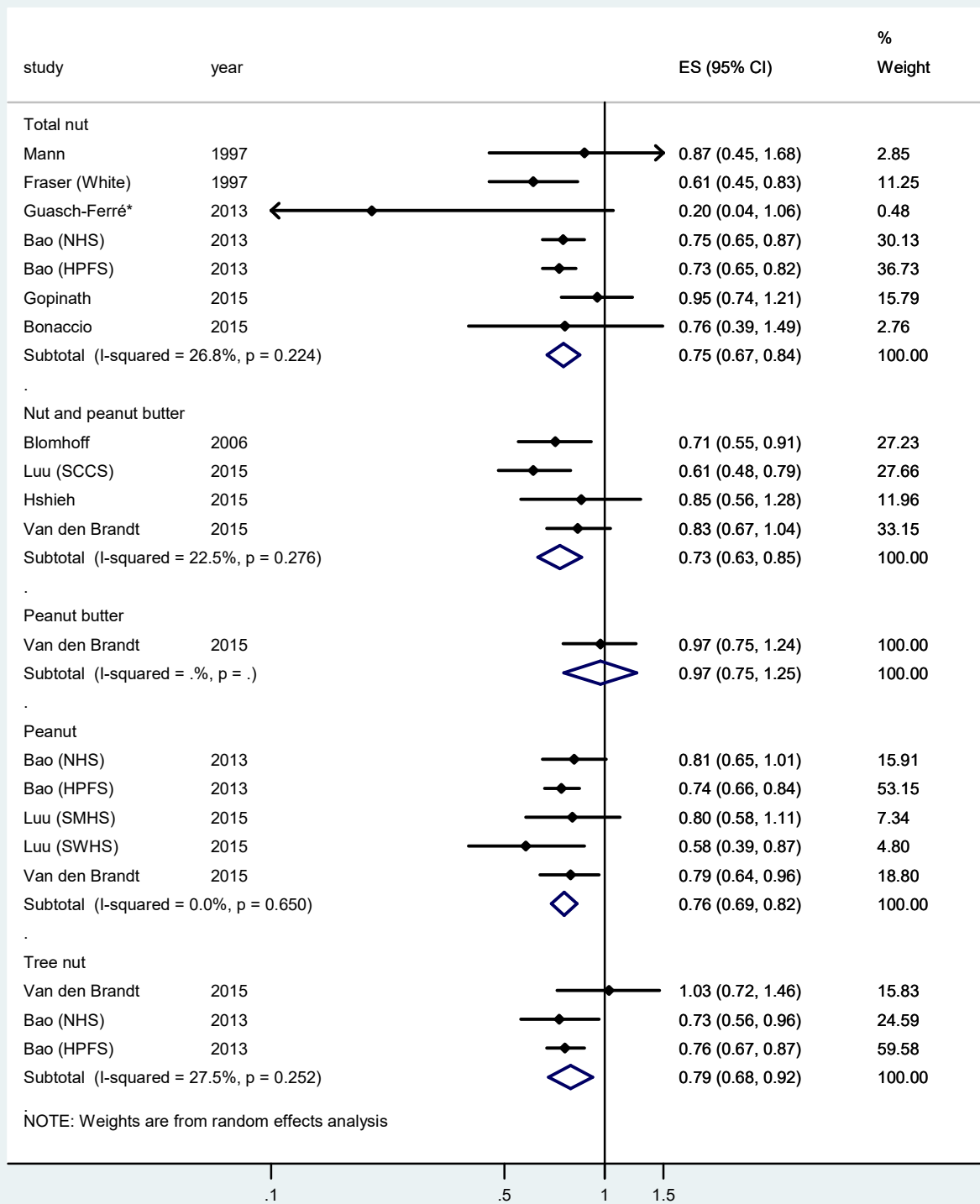


**Supplementary Figure 5. Meta-analysis of different nut consumption and all-cause mortality, high vs. low consumption.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.



**Supplementary Figure 6. Meta-analysis of different nut consumption and cardiovascular disease mortality, high vs. low consumption.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

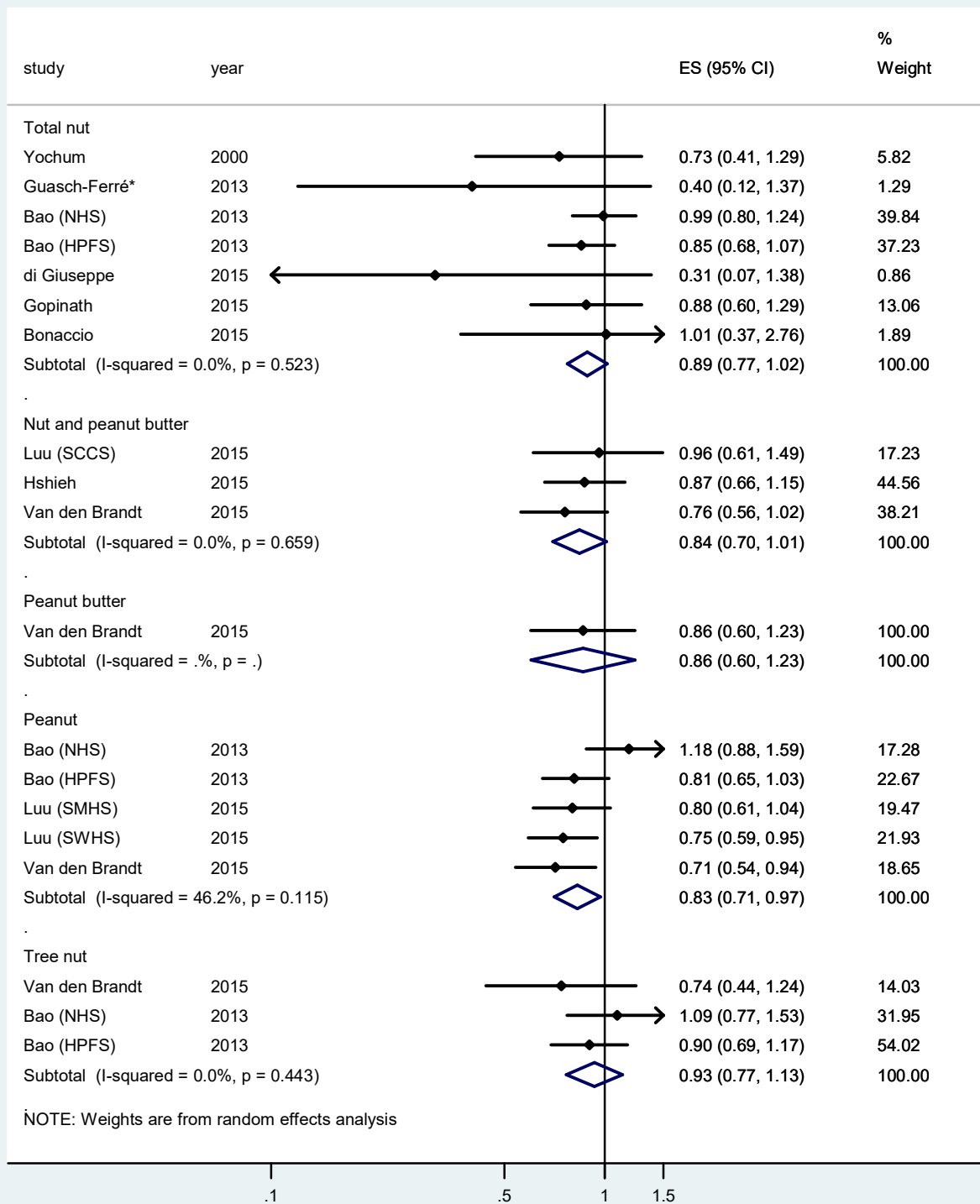
\*Unpublished data provided by the authors of the primary studies.



**Supplementary Figure 7. Meta-analysis of different nut consumption and coronary heart disease mortality, high vs. low consumption.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

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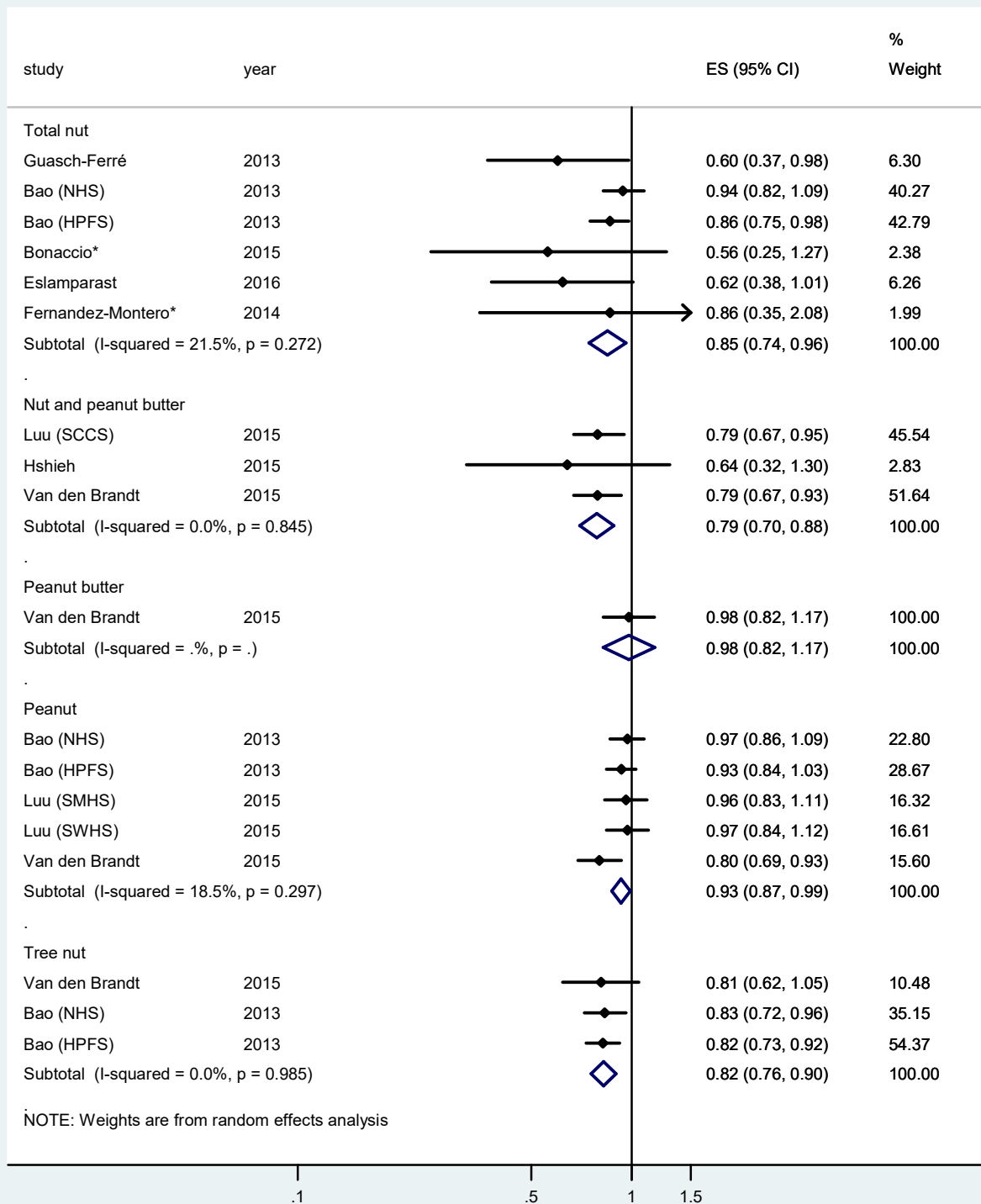




**Supplementary Figure 8. Meta-analysis of different nut consumption and stroke mortality, high vs. low consumption.**

HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

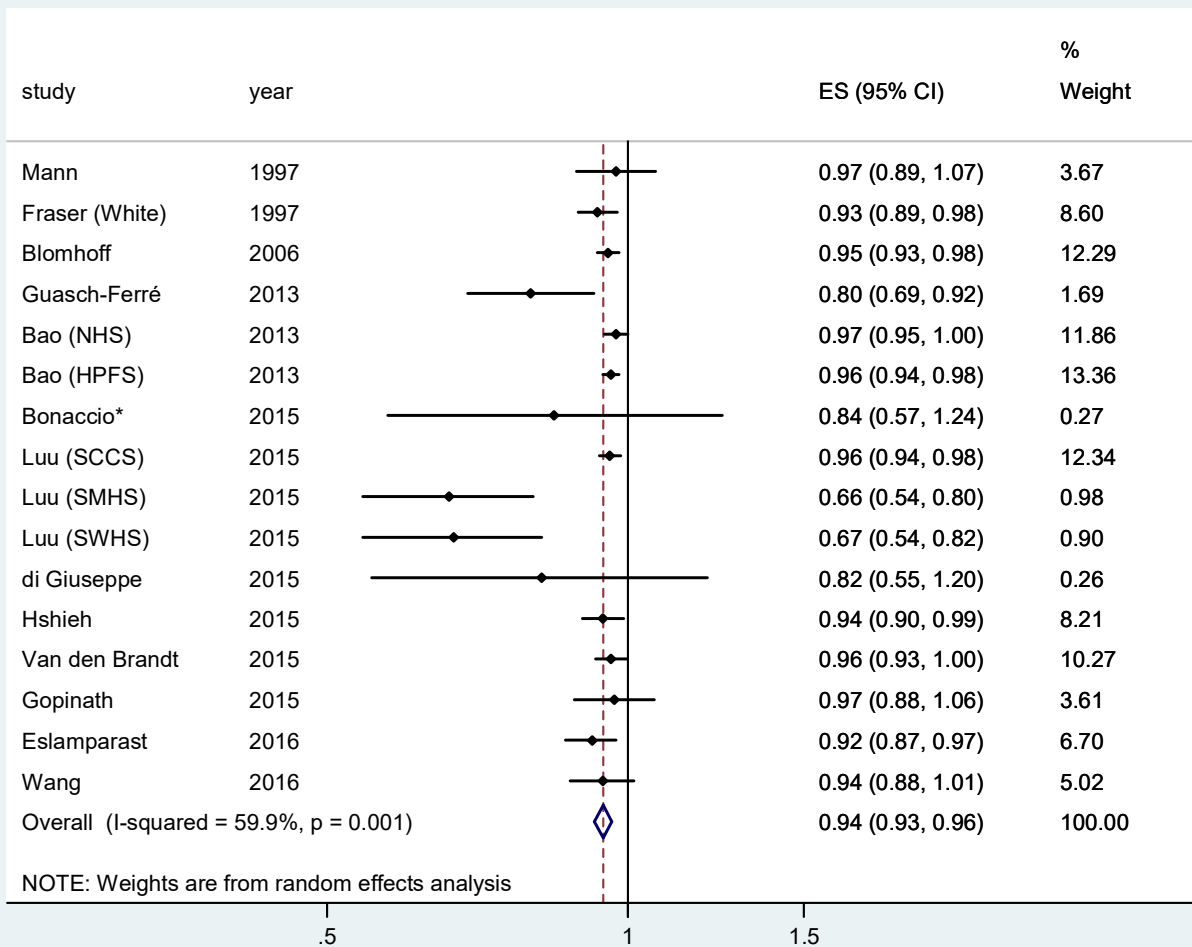
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**Supplementary Figure 9. Meta-analysis of different nut consumption and cancer mortality, high vs. low consumption.**

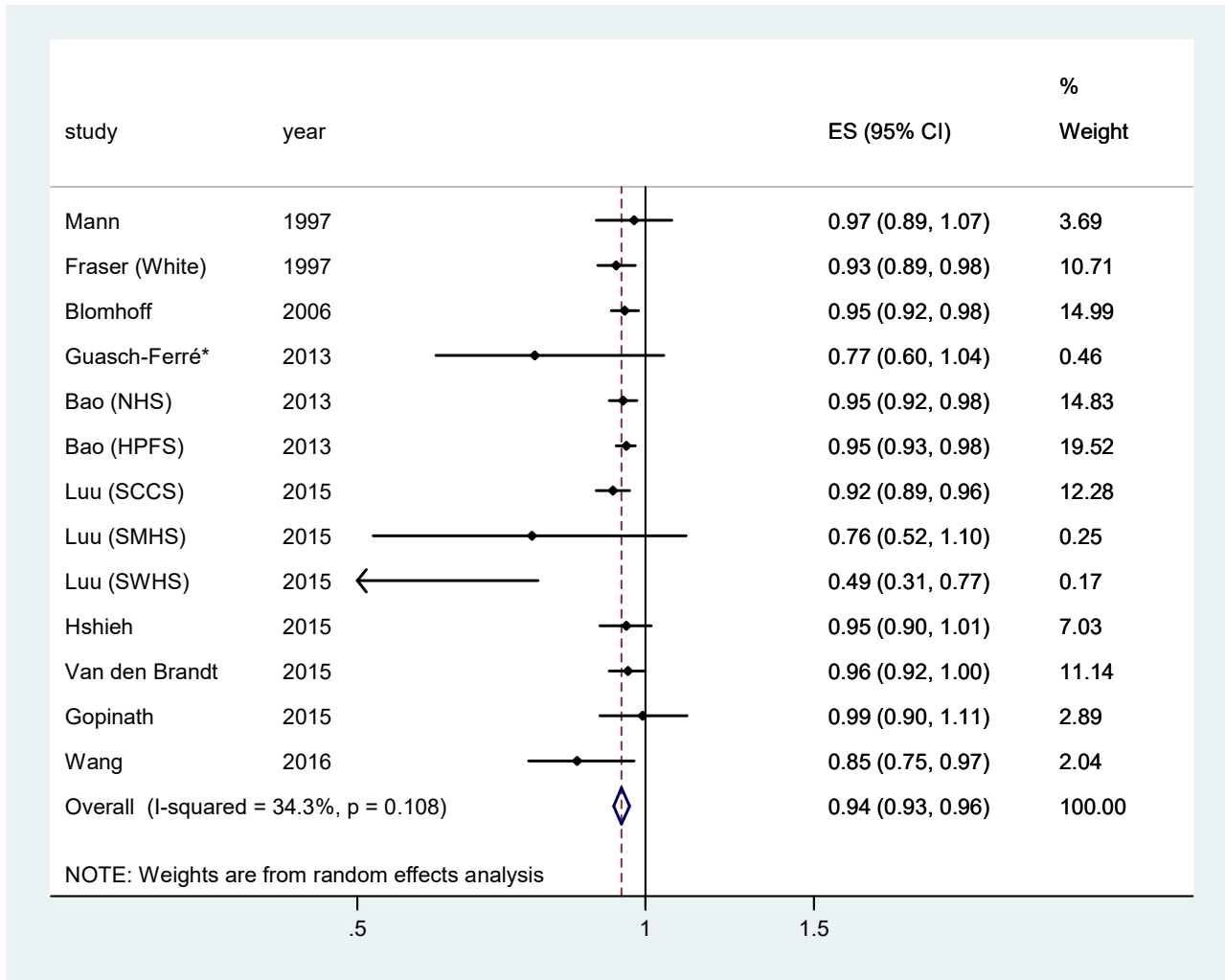
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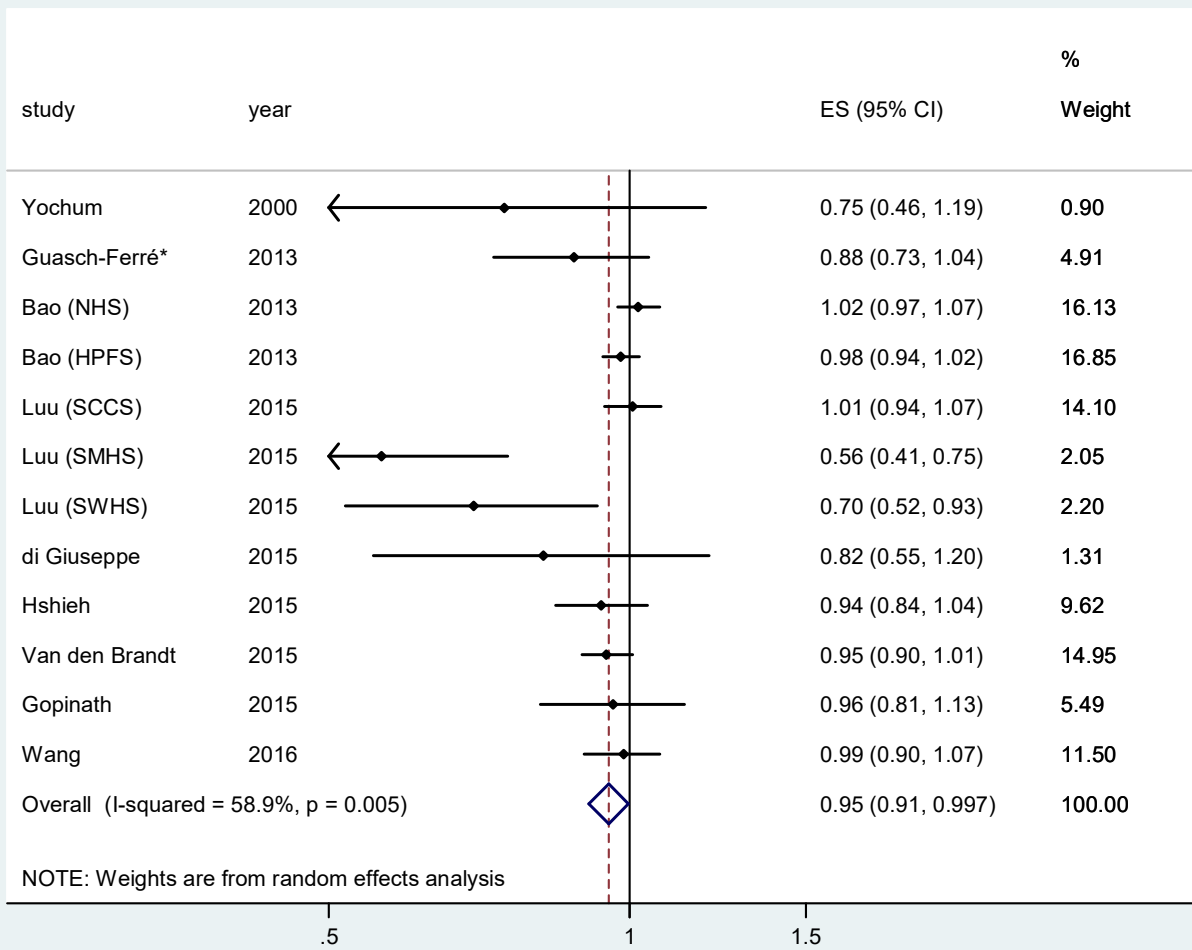
**Supplementary Figure 10. Dose-response meta-analysis of nut consumption and cardiovascular disease mortality, per 1 serving/wk.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

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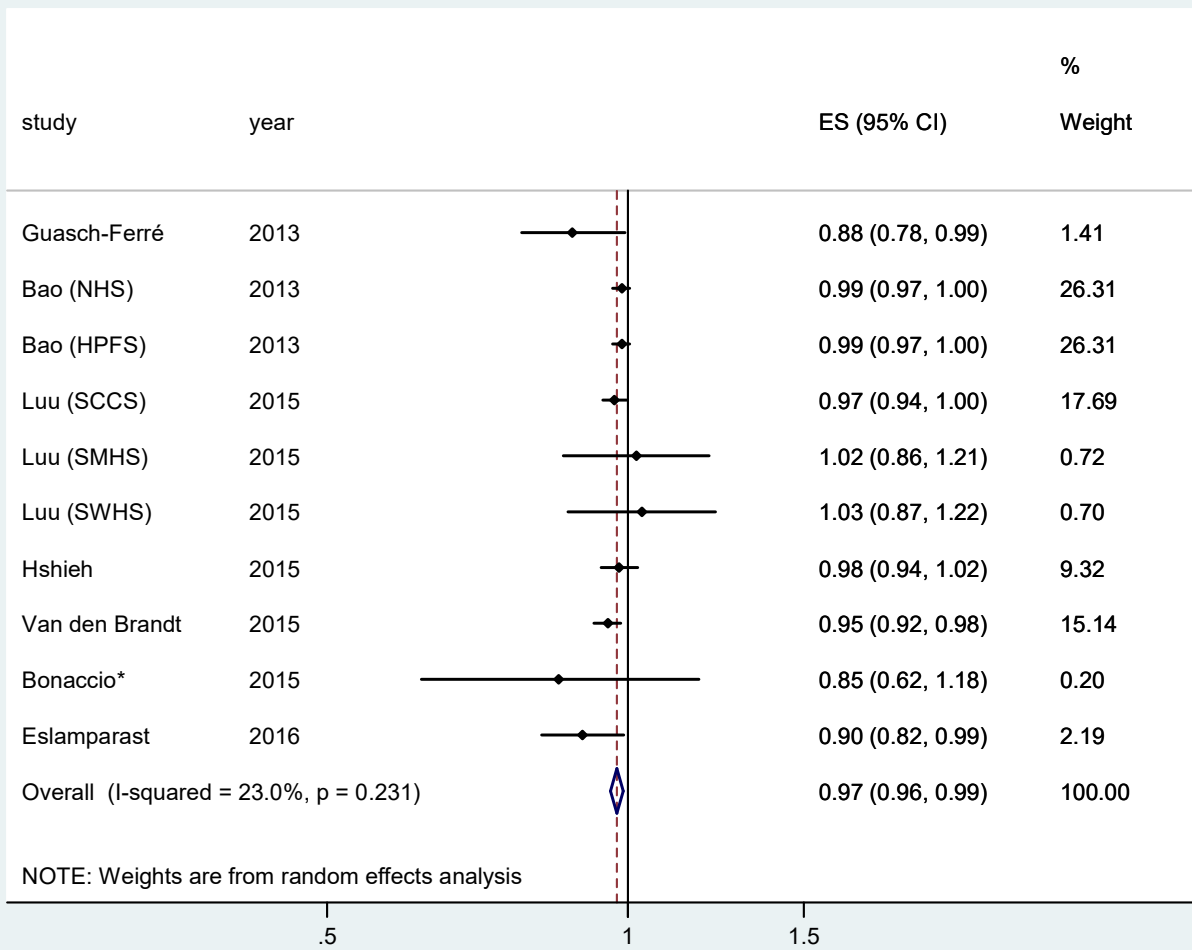


**Supplementary Figure 11. Dose-response meta-analysis of nut consumption and coronary heart disease mortality, per 1 serving/wk.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

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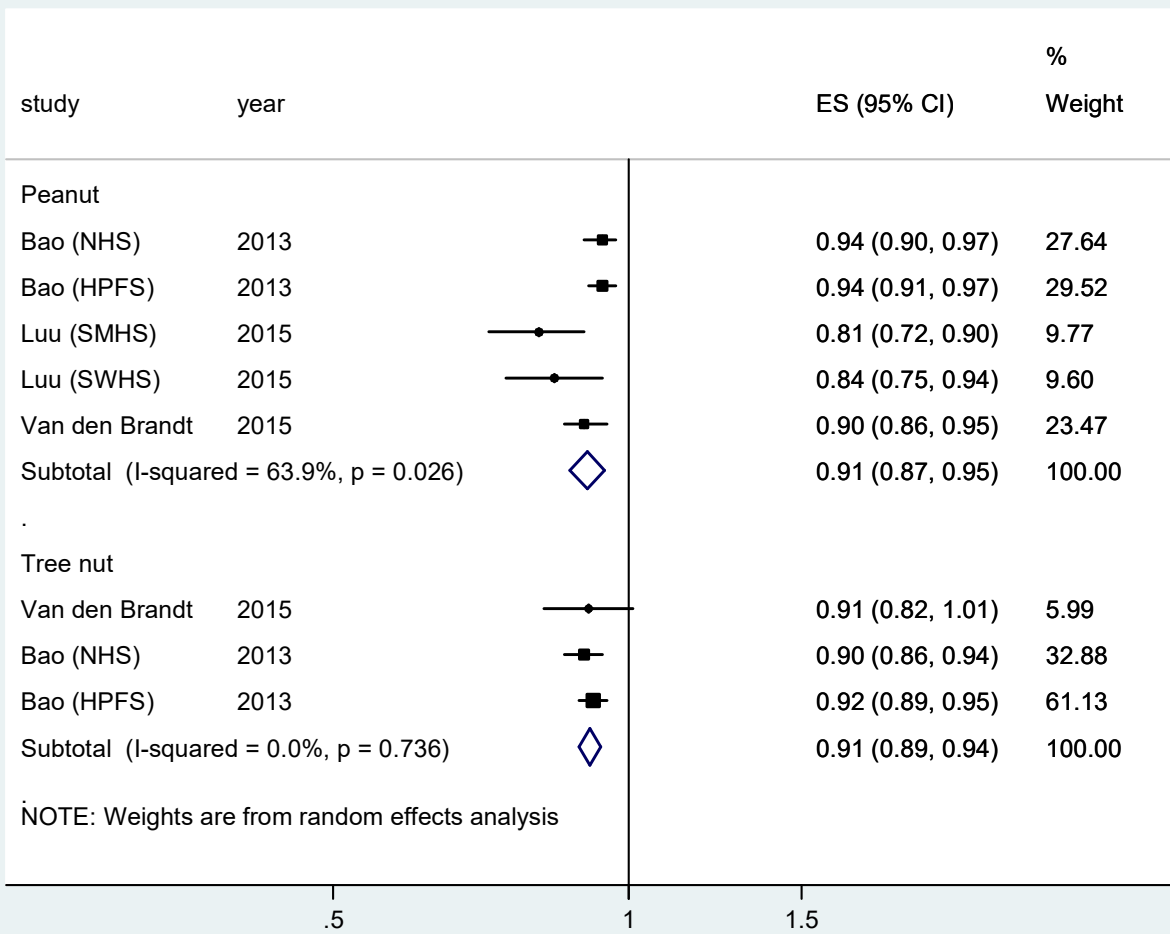
**Supplementary Figure 12. Dose-response meta-analysis of nut consumption and stroke mortality, per 1 serving/wk.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.  
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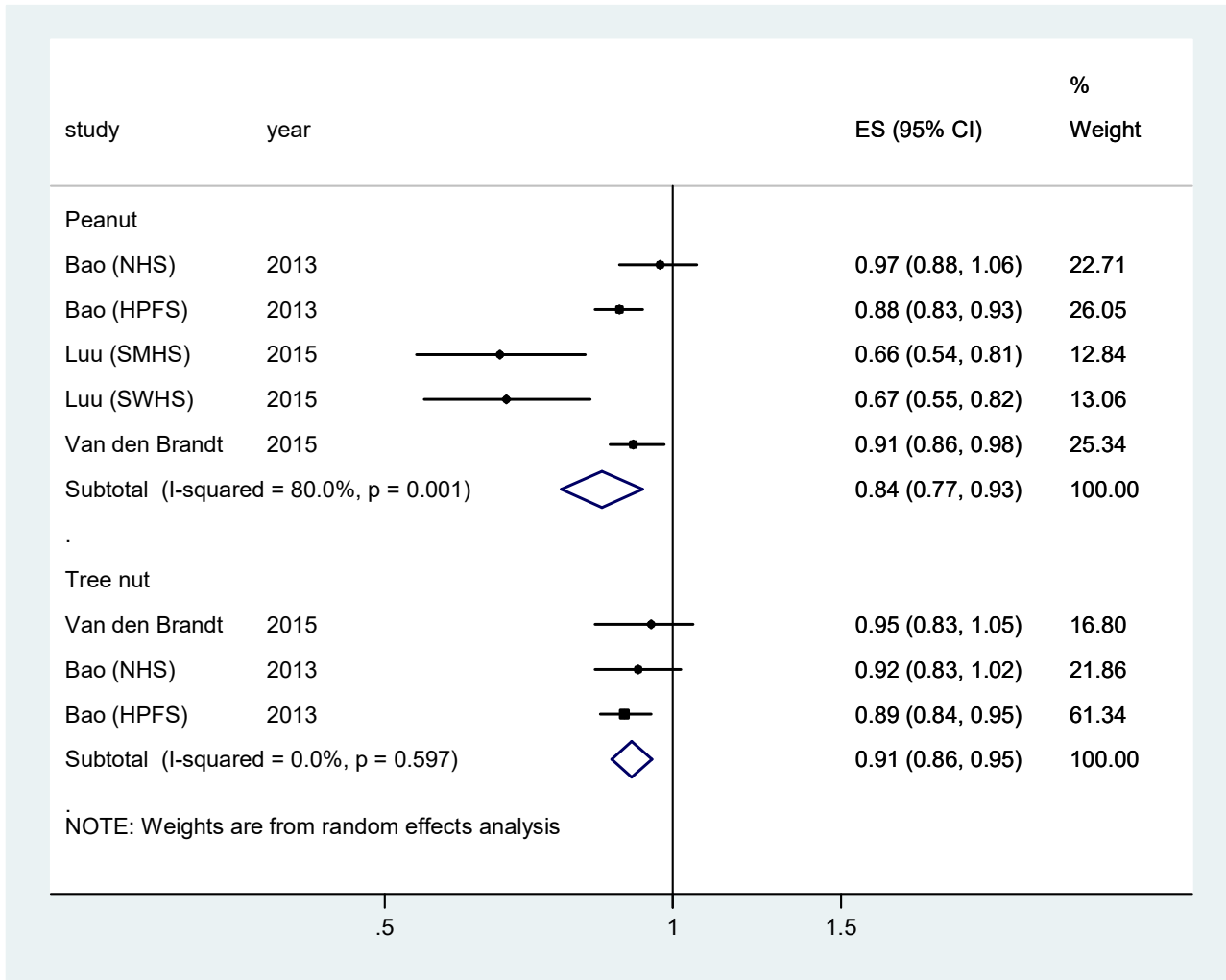
**Supplementary Figure 13. Dose-response meta-analysis of nut consumption and cancer mortality, per 1 serving/wk.**

HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SCCS, Southern Community Cohort Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

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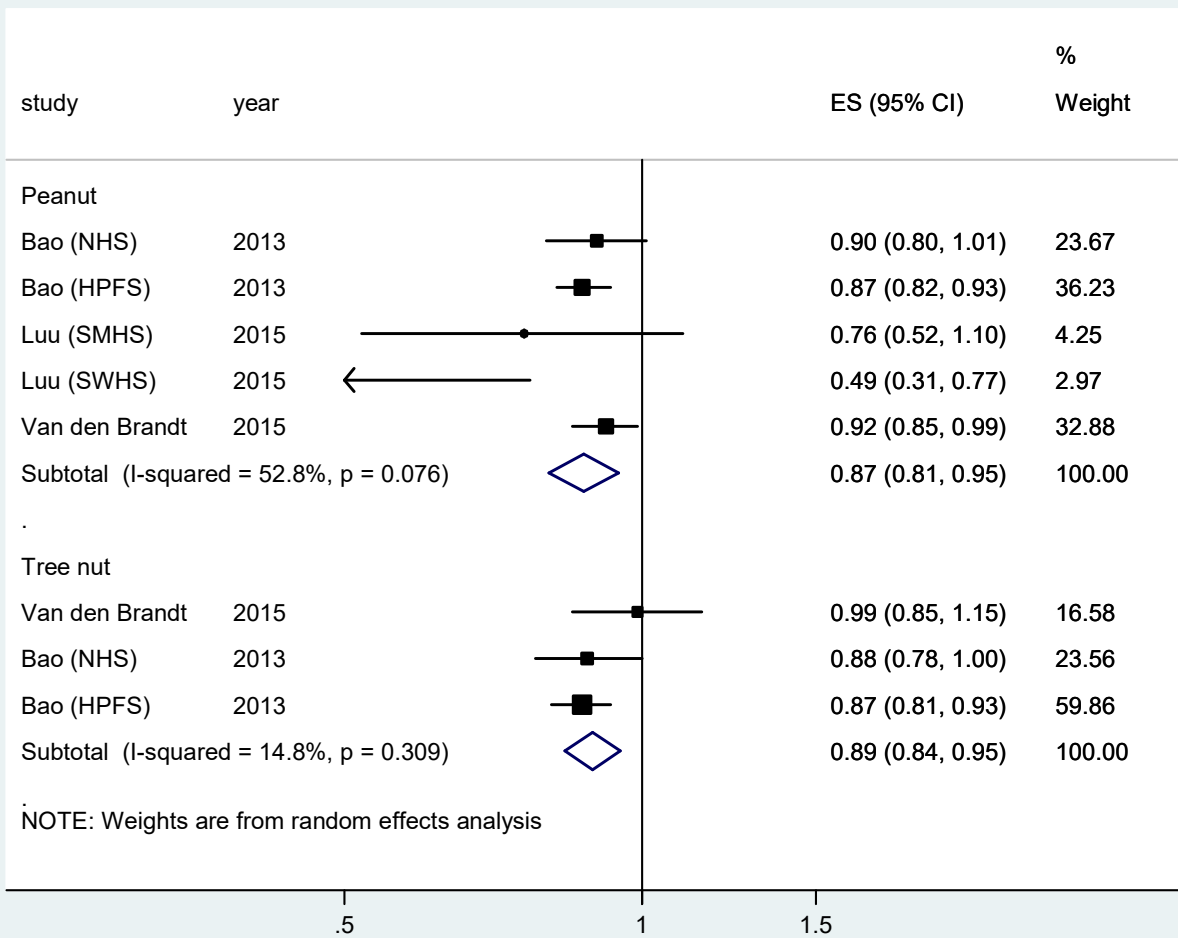


**Supplementary Figure 14. Dose-response meta-analysis of peanut and tree nut consumption and all-cause mortality, per 1 serving/wk.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

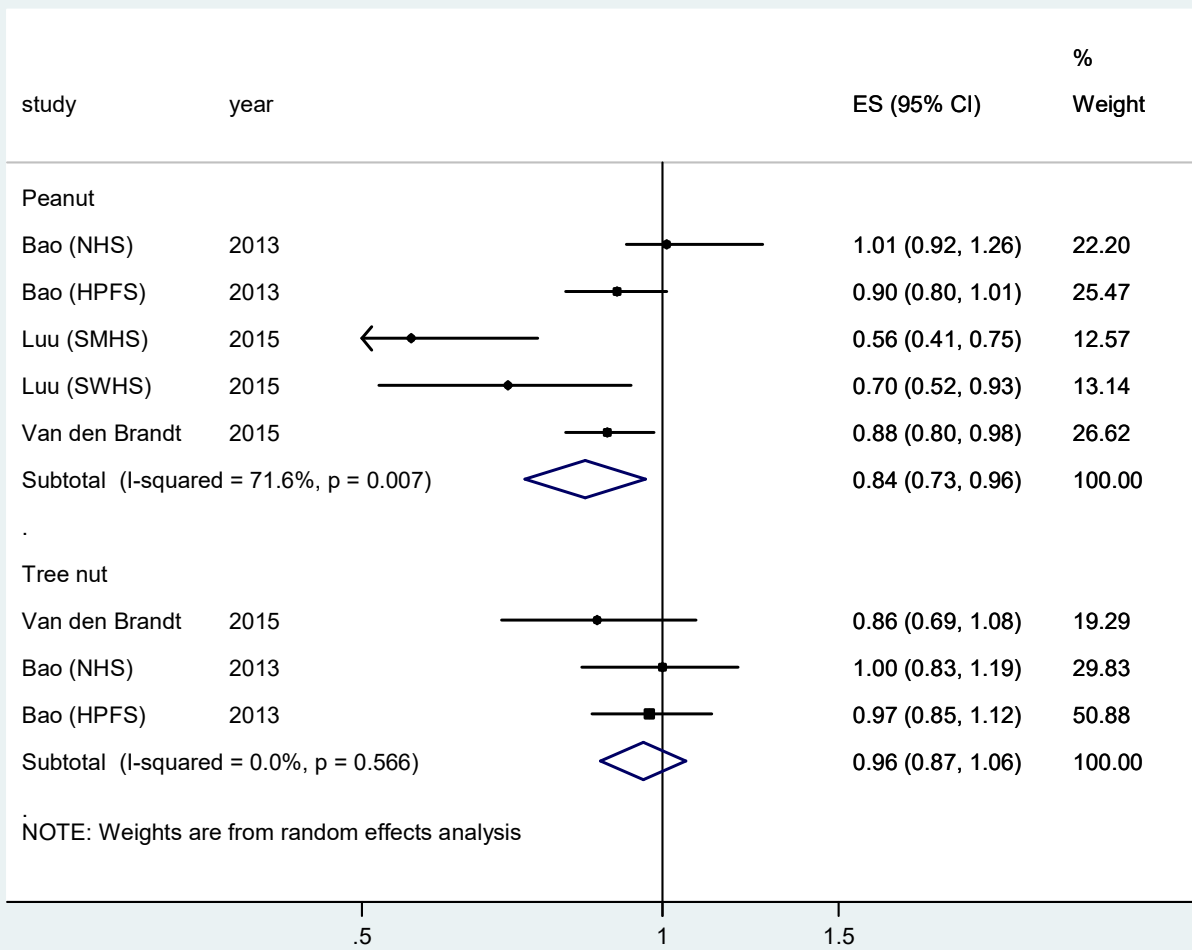


**Supplementary Figure 15. Dose-response meta-analysis of peanut and tree nut consumption and cardiovascular mortality, per 1 serving/wk.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

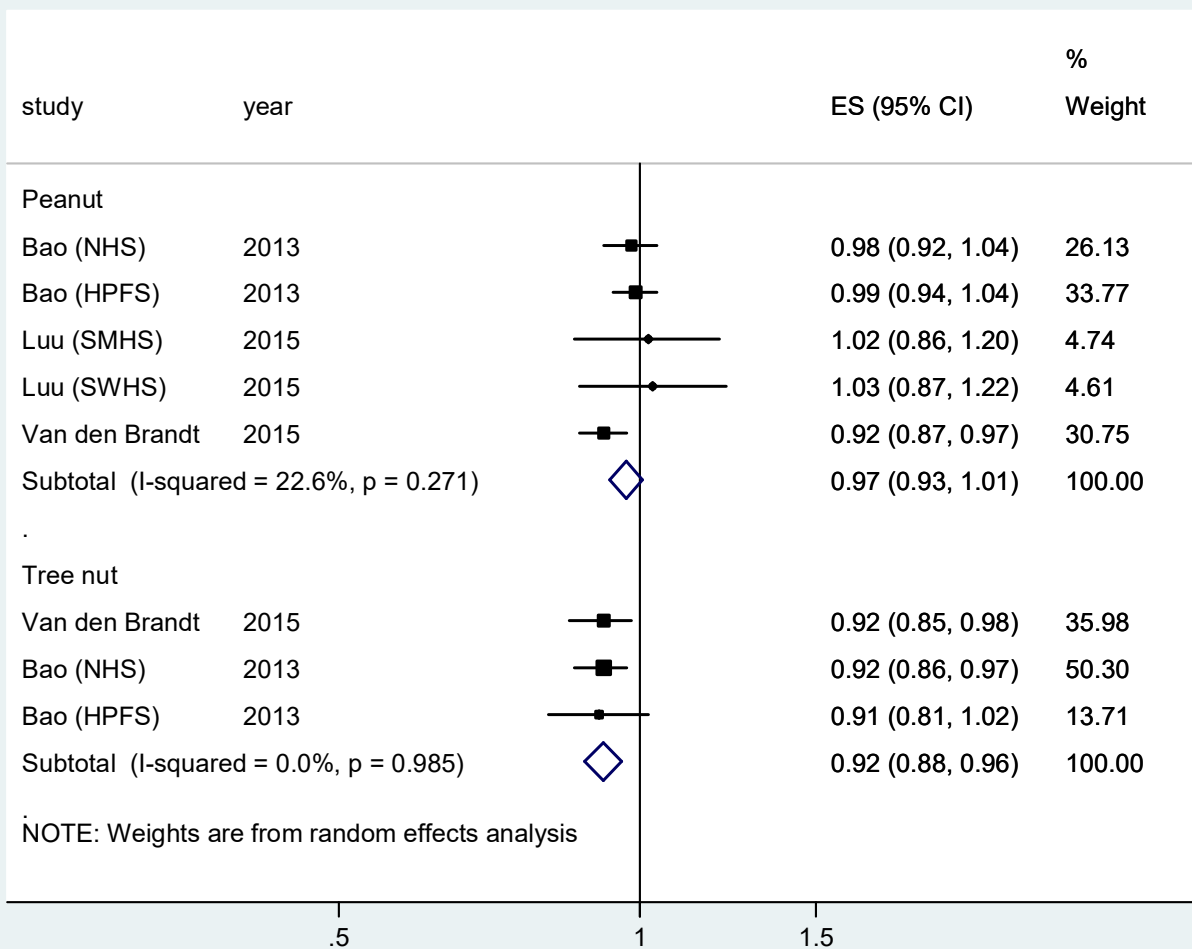




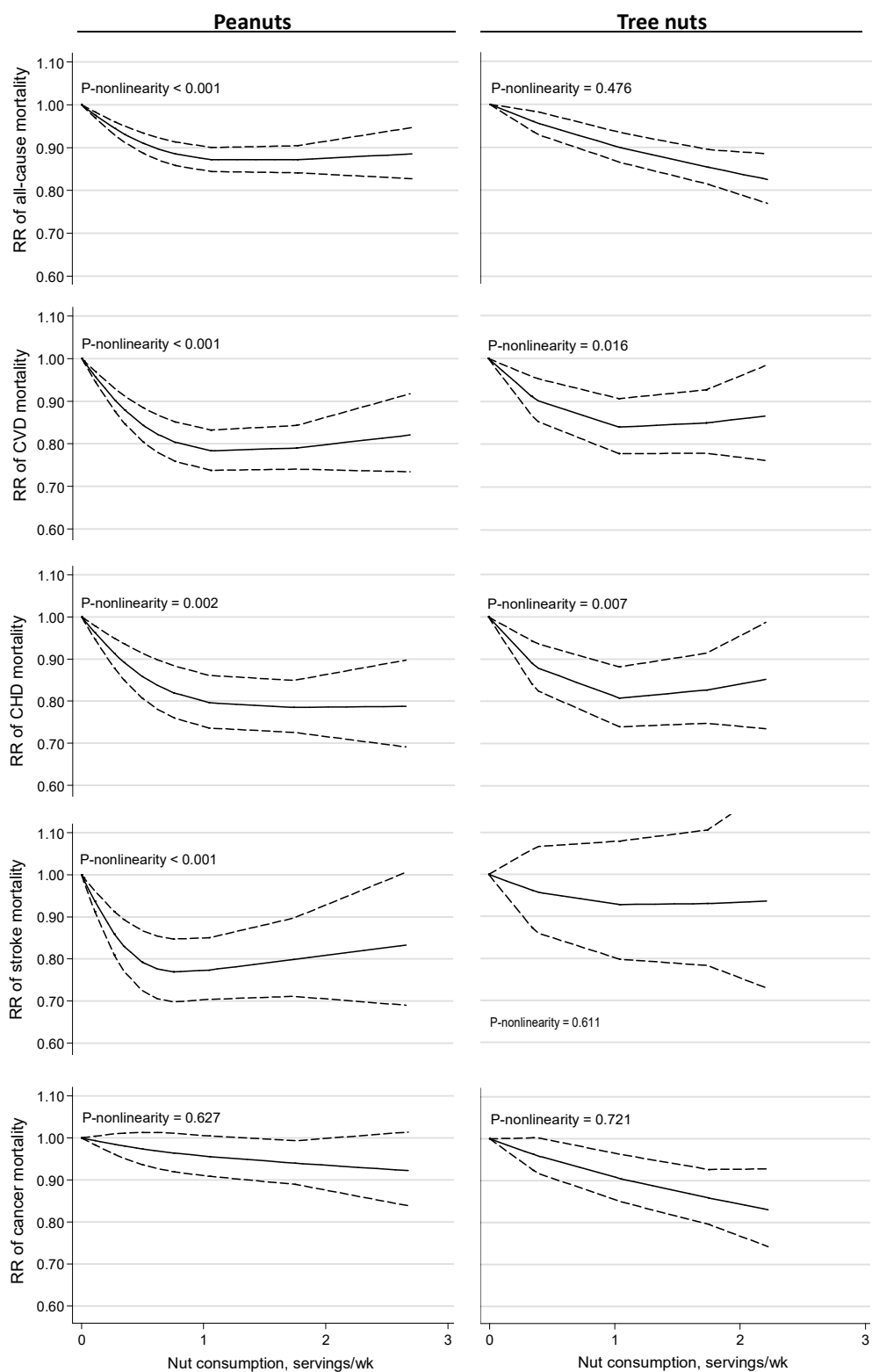
**Supplementary Figure 16. Dose-response meta-analysis of peanut and tree nut consumption and coronary heart disease mortality, per 1 serving/wk.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.



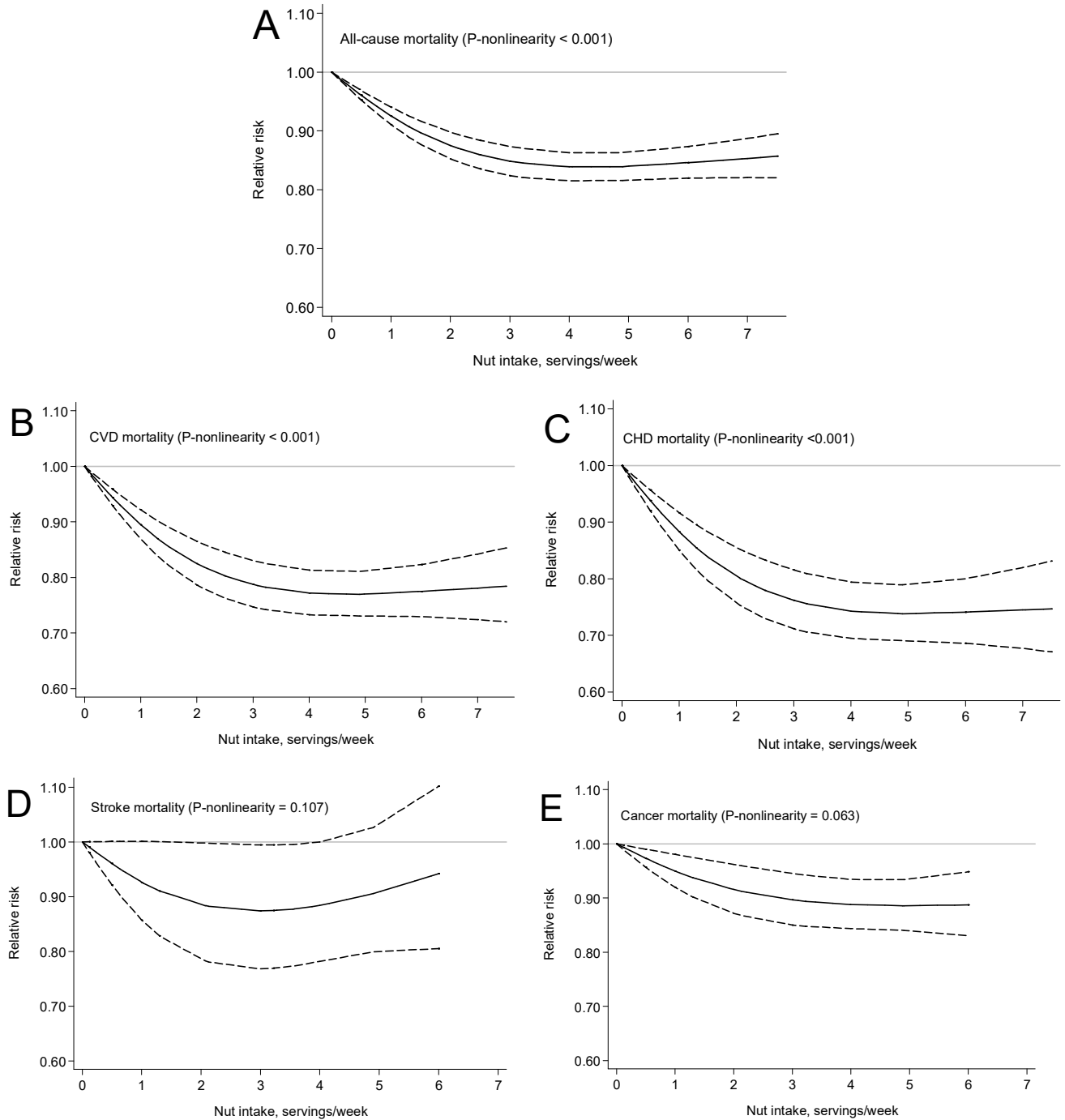
**Supplementary Figure 17. Dose-response meta-analysis of peanut and tree nut consumption and stroke mortality, per 1 serving/wk.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.



**Supplementary Figure 18. Dose-response meta-analysis of peanut and tree nut consumption and cancer mortality, per 1 serving/wk.** HPFS, Health Professionals Follow-up Study; NHS, Nurses' Health Study; SMHS, Shanghai Men's Health Study; SWHS, Shanghai Women's Health Study.

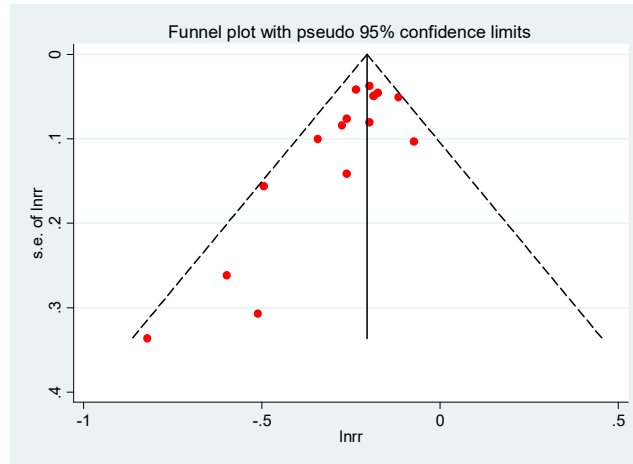


**Supplementary Figure 19. Nonlinear dose-response meta-analysis of peanut and tree nut consumption and all-cause and cause-specific mortality.** CHD, coronary heart disease; CVD, cardiovascular disease.

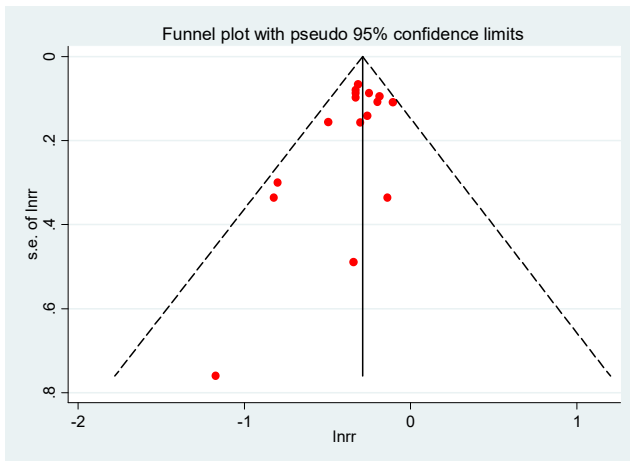


**Supplementary Figure 20. Nonlinear dose-response meta-analysis of nut consumption and all-cause and cause-specific mortality, including studies in which the average intake of nuts in the highest categories was  $\geq 3.5$  servings/week (range: 4.0-7.5 servings/week). CHD, coronary heart disease; CVD, cardiovascular disease.**

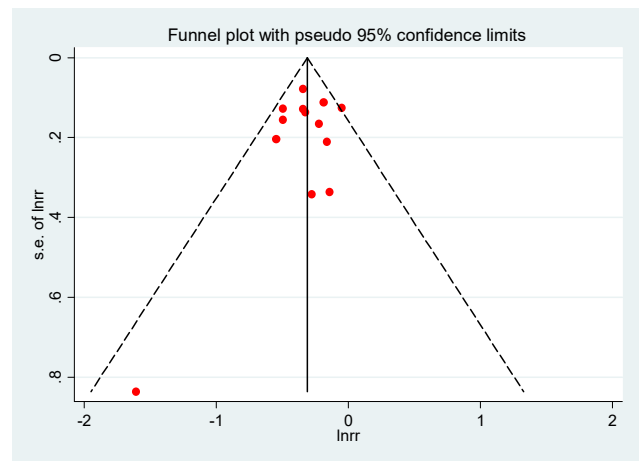
**A: All-cause mortality** ( $P$ -Egger test = 0.006,  $P$ -Begg test = 0.015)



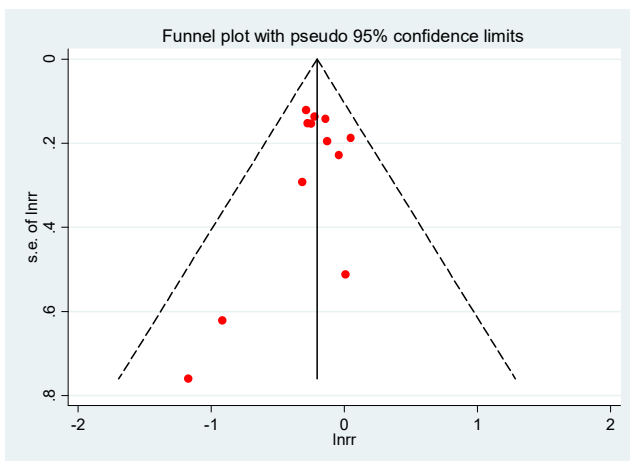
**B: CVD mortality** ( $P$ -Egger test = 0.105,  $P$ -Begg test = 0.392)



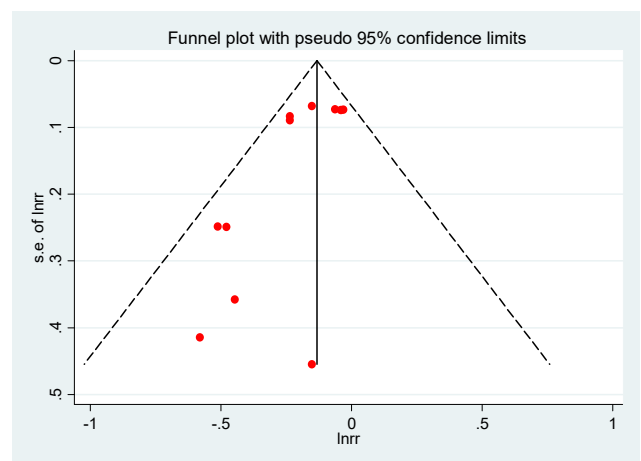
**C: CHD mortality** ( $P$ -Egger test = 0.516,  $P$ -Begg test = 0.669)



**D: Stroke mortality** ( $P$ -Egger test = 0.385,  $P$ -Begg test = 0.631)



**E: Cancer mortality** ( $P$ -Egger test = 0.436,  $P$ -Begg test = 0.033)



**Supplementary Figure 21. Results of publication bias tests by Begg's rank correlation test, Egger's linear regression test, and funnel plots for the meta-analysis of nut consumption (high vs low) and risk of all-cause and cause-specific mortality. CHD, coronary heart disease; CVD, cardiovascular disease.**