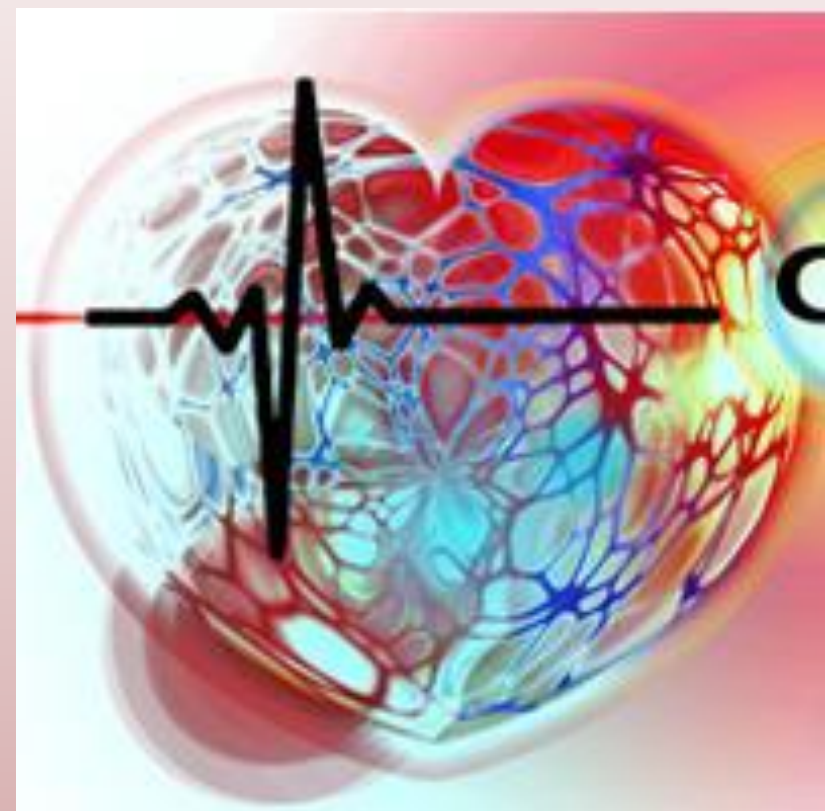


Dose-Response Relationship between Dietary Magnesium Intake and Cardiovascular Mortality: a Systematic Review and Meta-regression Analysis

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Conclusion: Although it is still premature to recommend the beneficial dose range for magnesium supplementation, recommending increased consumption of magnesium-rich food appears prudent. Use of magnesium in the prevention of cardiovascular disease (CVD) and related mortality needs to be investigated in further randomized controlled trials.

Background: The epidemiologic evidence on the relationship between dietary Mg intake and risk of CVD mortality is inconclusive, and the dose-response relationships have not yet been summarized.

Objective: To summarize the evidence regarding the association of dietary Mg intake with risk of CVD mortality and describe their dose-response relationship.

Methods: Systematic review and meta-regression analysis.

Results:

- The risk of CVD mortality was reduced by 14-16% in participants with higher dietary Mg intake (Figure 1).
- No significant linear dose-response relationship was found between CVD mortality and increment in dietary Mg intake across all the studies.
- The risk of CVD mortality was reduced by 24-25% per 100 mg/d increment in dietary Mg intake in women and in US participants (Figure 2).

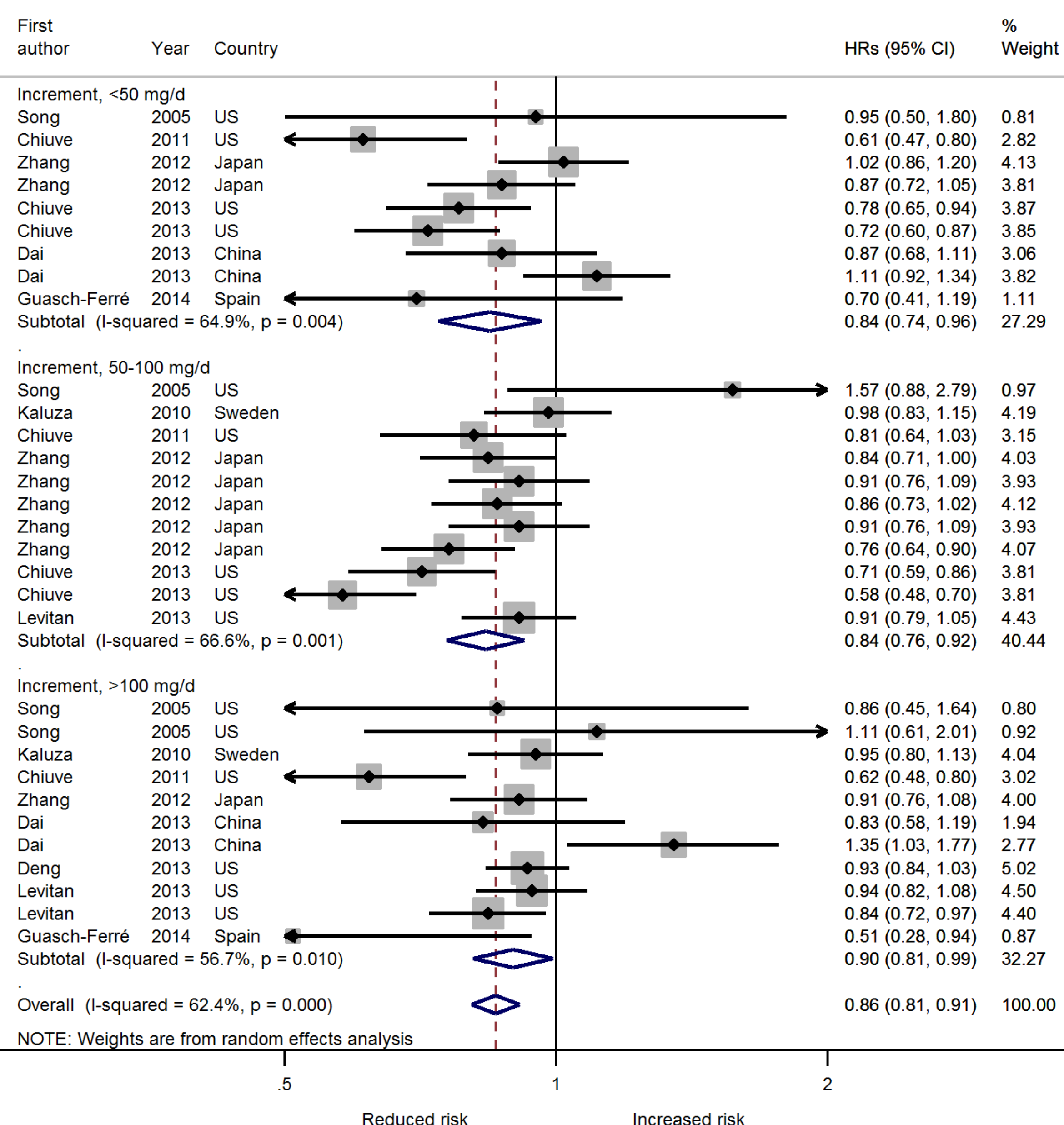


Figure 1. HRs for risk of CVD mortality

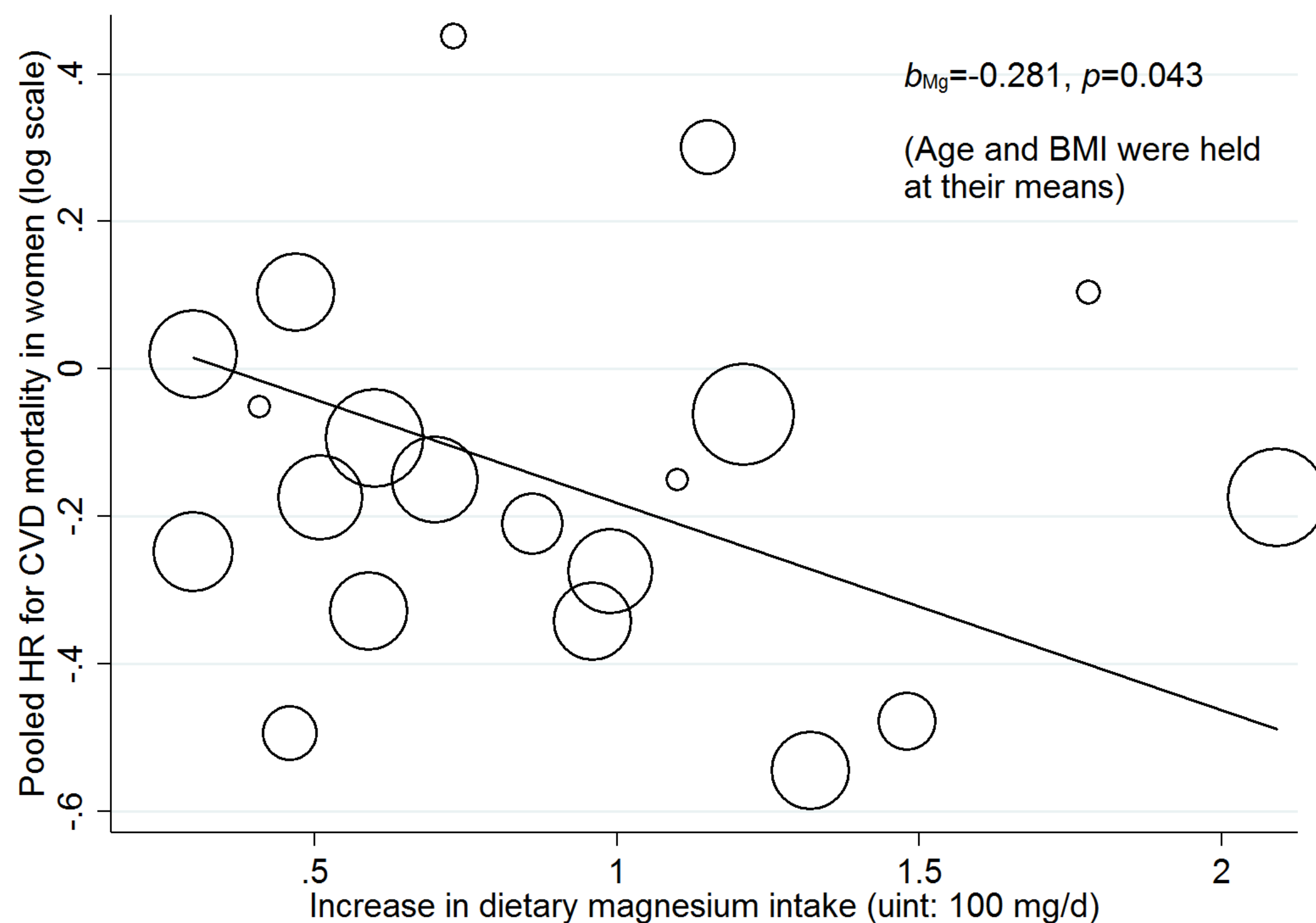


Figure 2. Dose-response relationship between risk of CVD mortality and incremental increase in dietary Mg intake in women



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