

1. Introductions

- Majority of umbrella reviews have only examined a single pregnancy complication and the risk of type 2 diabetes or hypertension
- We aim to synthesise evidence from systematic reviews and meta-analyses on the associations of multiple pregnancy complications with risk of type 2 diabetes and hypertension in women

2. Methods



Eligibility criteria

- ✓ **Population:** Pregnant women
- ✓ **Exposure:** Pregnancy complications
- ✓ **Comparator:** Presence of a control group without any of the pregnancy complications
- ✓ **Outcome:** type 2 diabetes and hypertension



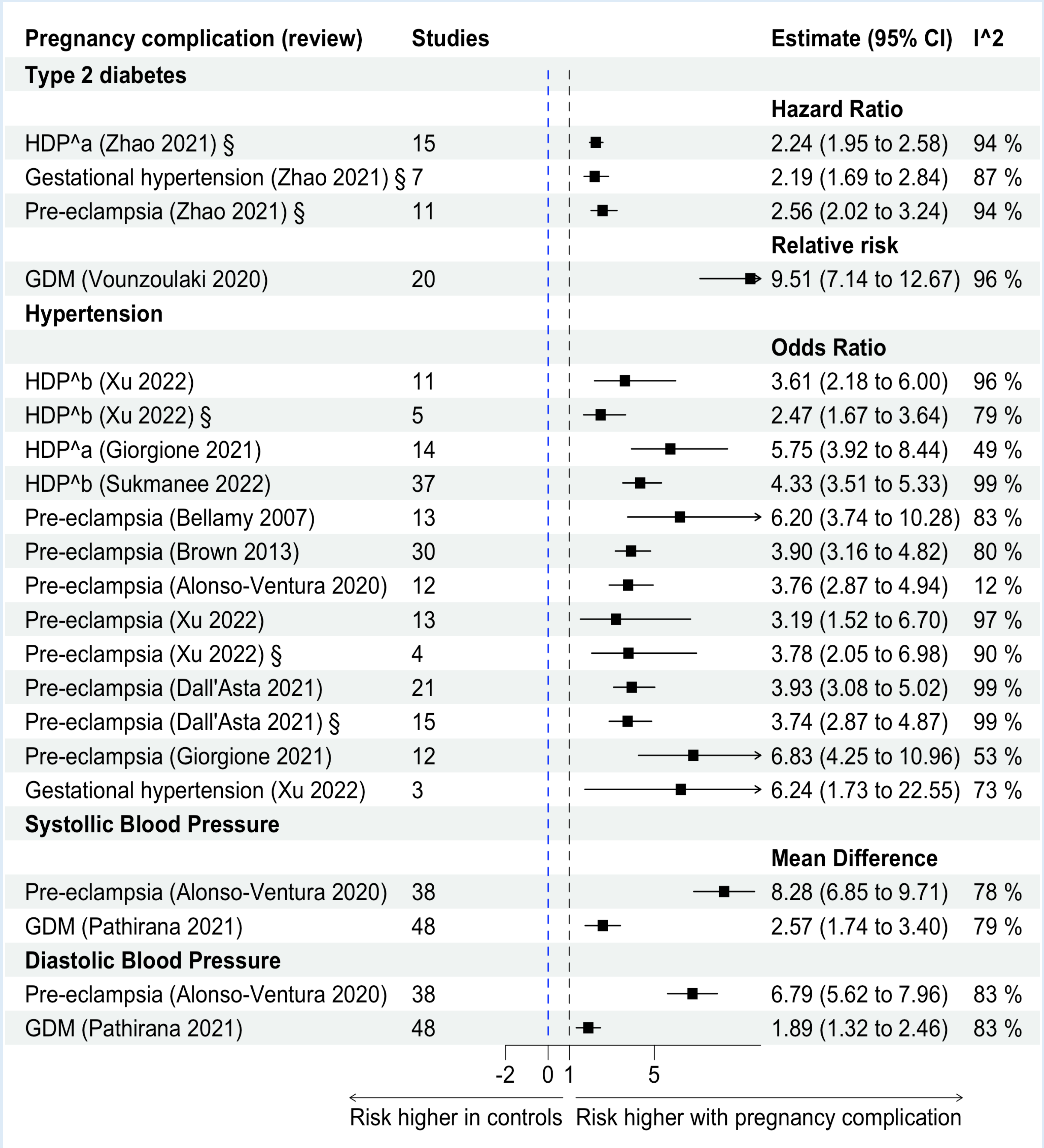
Information sources

- **Electronic databases**
- ✓ Medline
- ✓ Embase
- ✓ Cochrane Library of Systematic reviews
- ❖ *Searches from Inception to September 2022*



Quality assessment and data synthesis

- ✓ AMSTAR 2 checklist of quality assessment for systematic reviews
- ✓ Corrected covered area (CCA) was used to estimate overlap among reviews
- ✓ Quantitative and qualitative synthesis approaches were applied



§ - estimate from studies that adjusted for risk factors. **First vertical line** is the reference point (zero) for the mean difference estimates. The **second vertical line** is the reference line (one) for the relative risk, odds ratio and hazard ratio estimates. **Abbreviations:** GDM – Gestational Diabetes Mellitus, HDP – Hypertensive disorders of pregnancy

3. Summary results



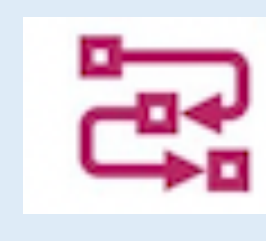
Gestational diabetes mellitus

- 10-fold higher risk of type 2 diabetes
- Higher mean blood pressure

Hypertensive disorders of pregnancy (HDP)

- 3-6 times more likely to develop hypertension
- 2 times more likely to develop type 2 diabetes

4. Implications of available evidence



- The strong associations of gestational diabetes mellitus and hypertensive disorders, with diabetes and hypertension suggests that interventions that reduce the risk of these conditions should be prioritised for these women.
- Further research needed in evaluating the value of the pregnancy complications in current risk prediction models for T2DM and chronic hypertension in women.