MATERNAL VITAMIN D STATUS AND RISK OF GESTATIONAL DIABETES: A META-ANALYSIS.

Hu L, et al.
Cell Physiol Biochem. ٢٠١٨;٤٥(١):٢٩١-٣٠٠.
doi: ١٠,١١٥٩/٠٠٠٤٨٦٨١٠. Epub ٢٠١٨ Jan ١٩.

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Introduction

- **Gestational Diabates**
  - Leading cause of complications associated with childbirth
    - preeclampsia
    - dystocia
    - delivering macrosomia
    - predisposition to obesity, diabetes and metabolic syndrome
  - Risk factors
    - family history of diabetes
    - maternal obesity or overweight
    - family history of diabetes

MATERNAL VITAMIN D DEFICIENCY?!

Introduction

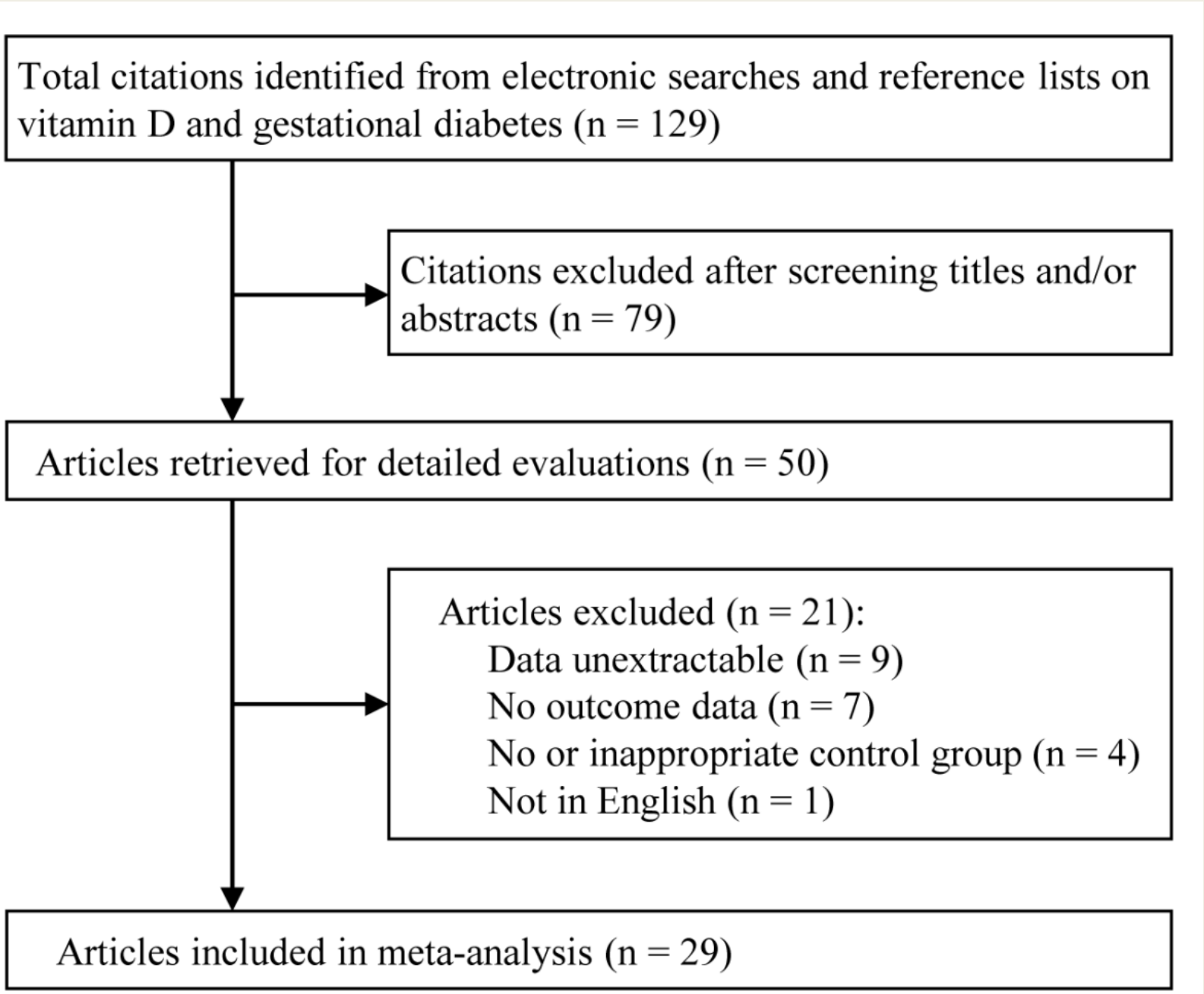
- **Maternal Vitamin D Levels**
  - Deficiency due to
    - fetal growth needs
    - inadequate vitamin D intake
    - limited sunlight exposure
  - Probable vitamin D supplementation benefits
    - fasting plasma glucose
    - serum insulin levels

Materials and Methods

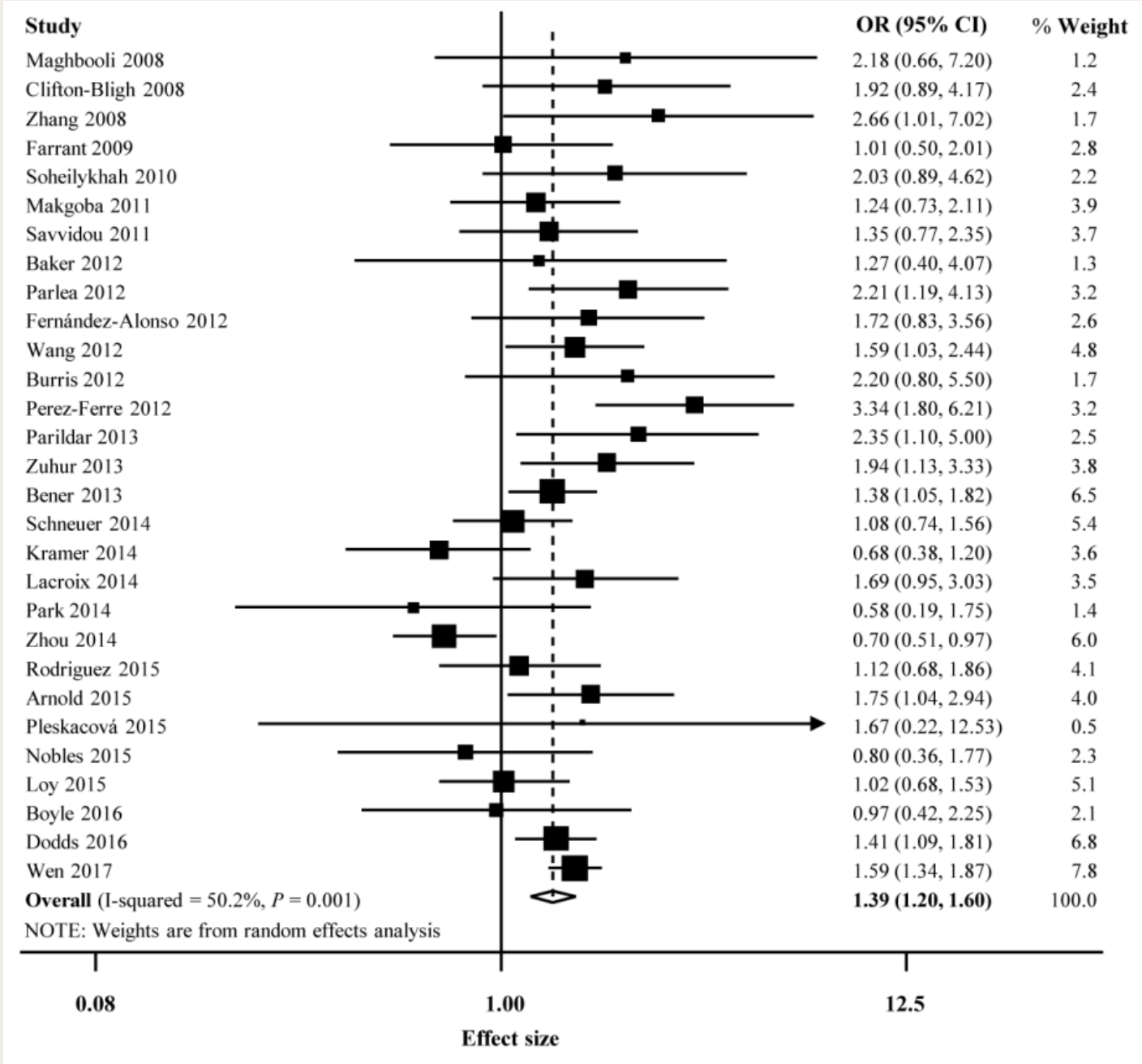
- **Search Strategy and Selection Criteria**
  - Articles in the PubMed, Medline and Embase databases up to May ٢٠١٧
  - Inclusion criteria
  - Exclusion criteria
- **Independent Assessment**
- **Statistical Analysis**

Results

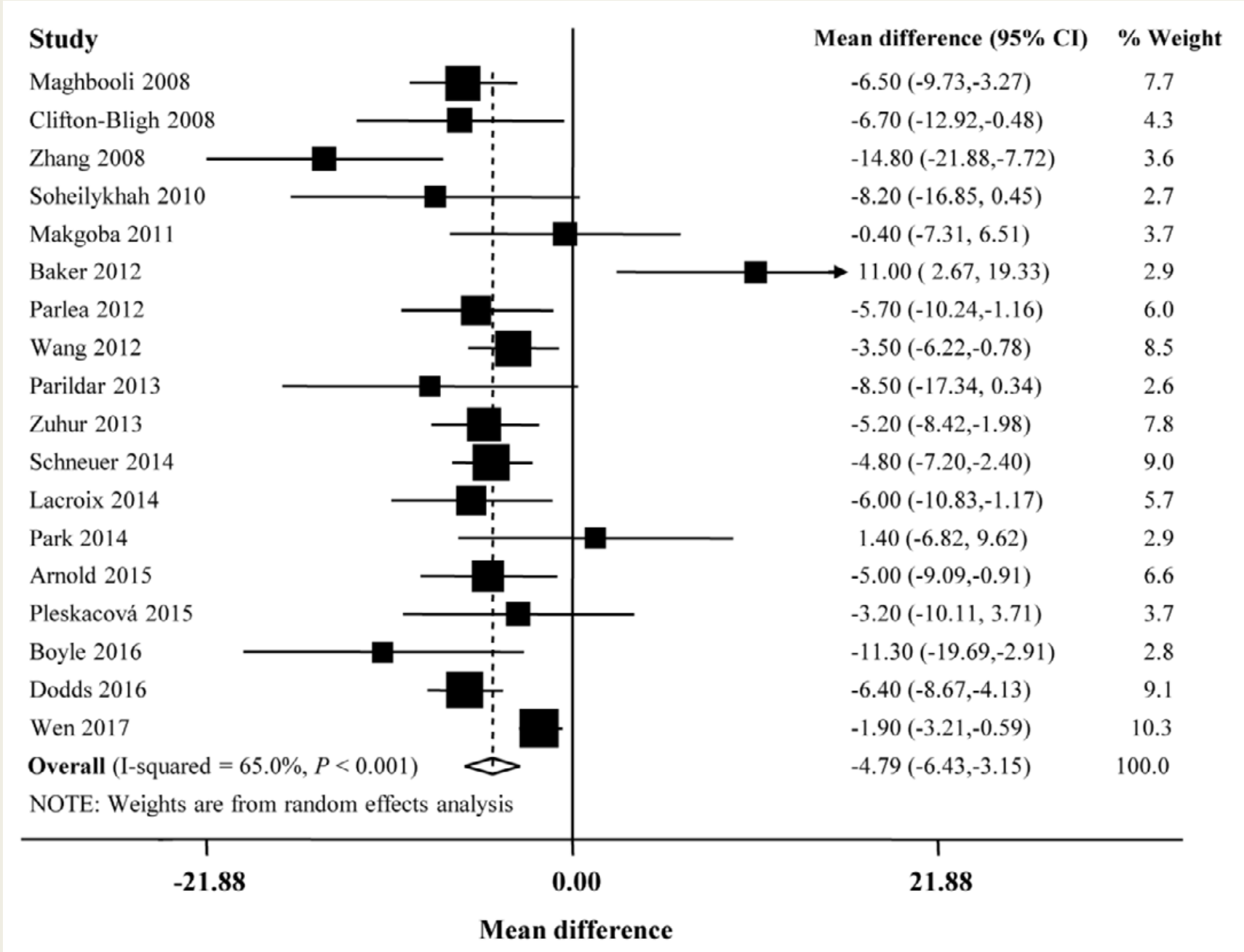
- **Study selection**



Association between vitamin D insufficiency and risk of GA



Association between ۲۵(OH)D level and GA



Discussion

- **Data**
  - ۲۸,۹۸۲ participants
  - ۴,۶۳۴ gestational diabetes cases

- **Limitations**
  - Differences in studies
    - GA diagnostic criteria
    - assay method for ۲۵(OH)D
    - vitamin D cut-off values
  - Adjustment of potential confounding factors
  - Unavailability of long-term risk of adverse outcomes
  - Unclear pathophysiology due to varied study designs

Conclusion

- **Results**
  - maternal vitamin D insufficiency ➔ risk of gestational diabetes
  - gestational diabetes cases ➔ lower levels of ٢٥(OH)D (٤٫٧٩ nmol/L)

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