

Environmental Exposures Influence on the Maternal Microbiome and Health of their Children

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Disclosure

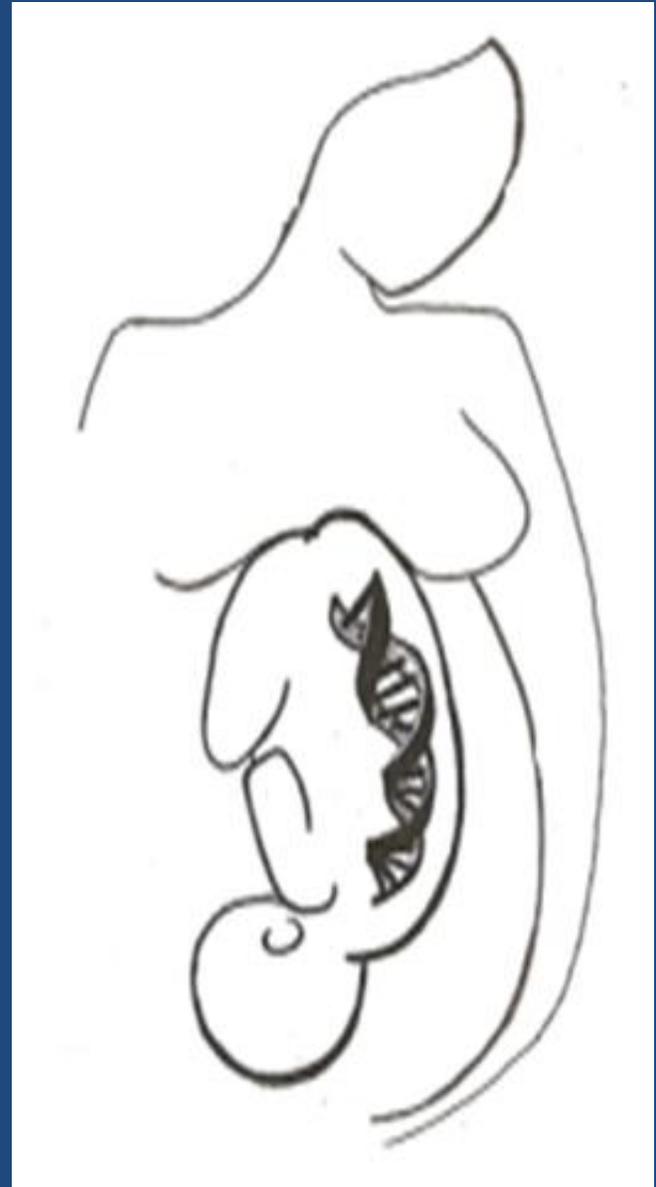
- I have no conflicts of interest, sponsorships or commercial support to report

Objectives:

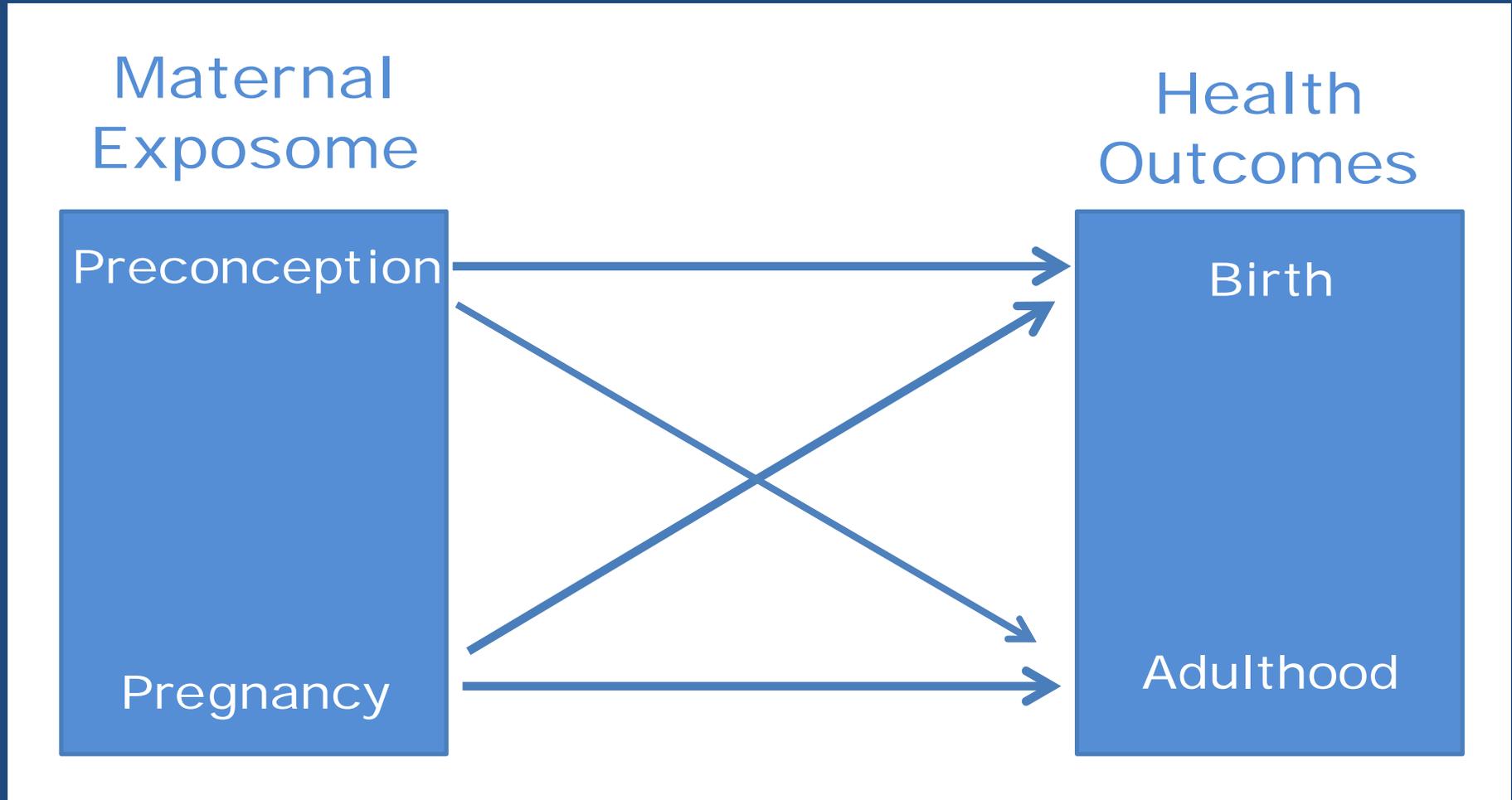
- Identify exposures that may alter the maternal microbiome
- Discuss potential health implications for their children's health related to altered maternal microbiome composition during pregnancy and birth

Outline

- Background
- Methods
- Results
- Discussion

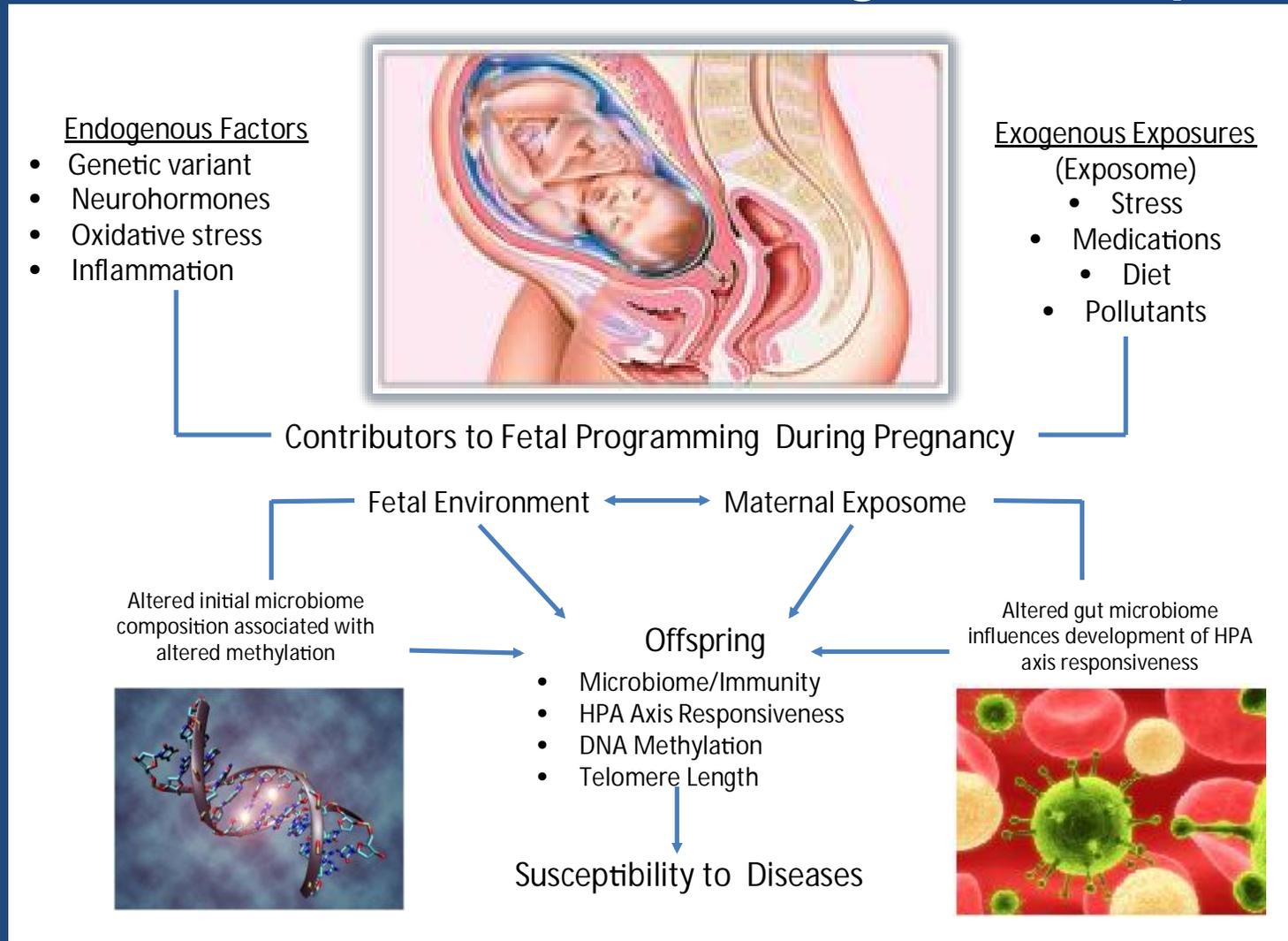


Interaction between Maternal & Fetal Environments



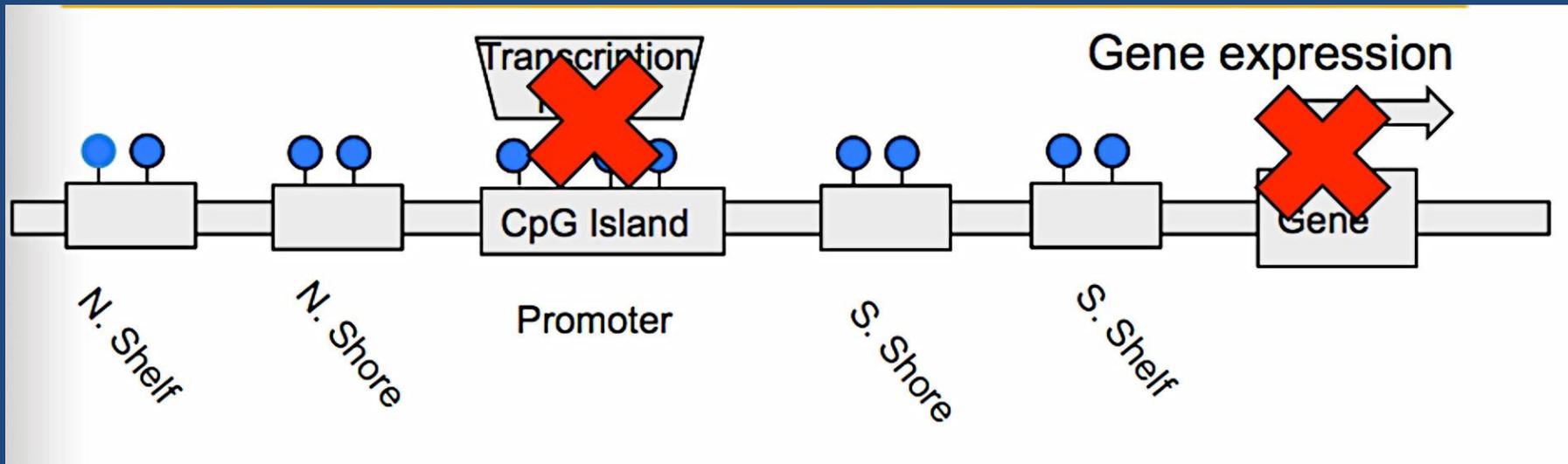
Wright, M. L.; Starkweather, A. R.; York, T. P. Mechanisms of the Maternal Exposome and Implications for Health Outcomes. *Adv. Nurs. Sci.* 2016, 39, E17–E30.

Mechanisms influencing Development

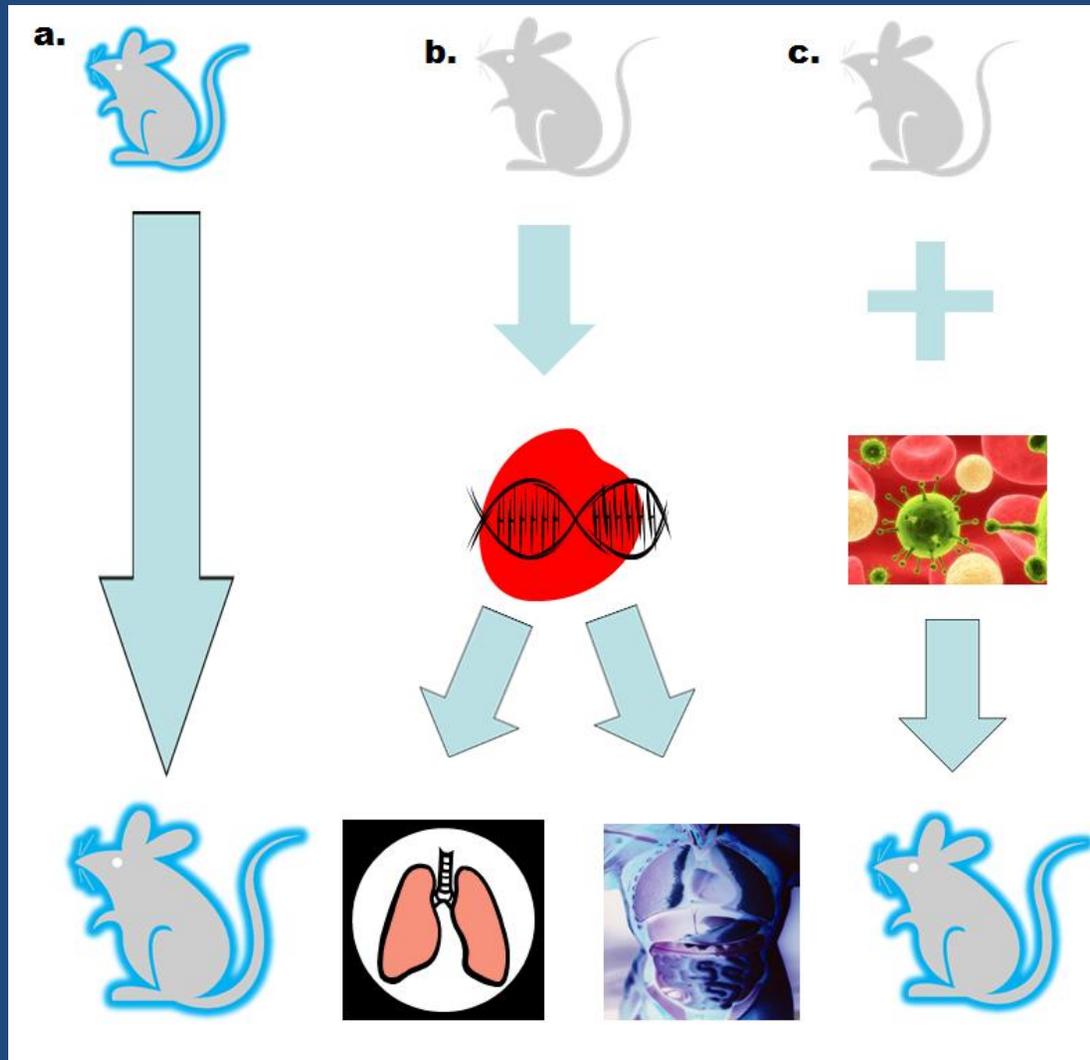


Wright, M. L.; Starkweather, A. R.; York, T. P. Mechanisms of the Maternal Exposome and Implications for Health Outcomes. *Adv. Nurs. Sci.* 2016, 39, E17–E30.

DNA Methylation



Environment and DNA methylation



2 Questions

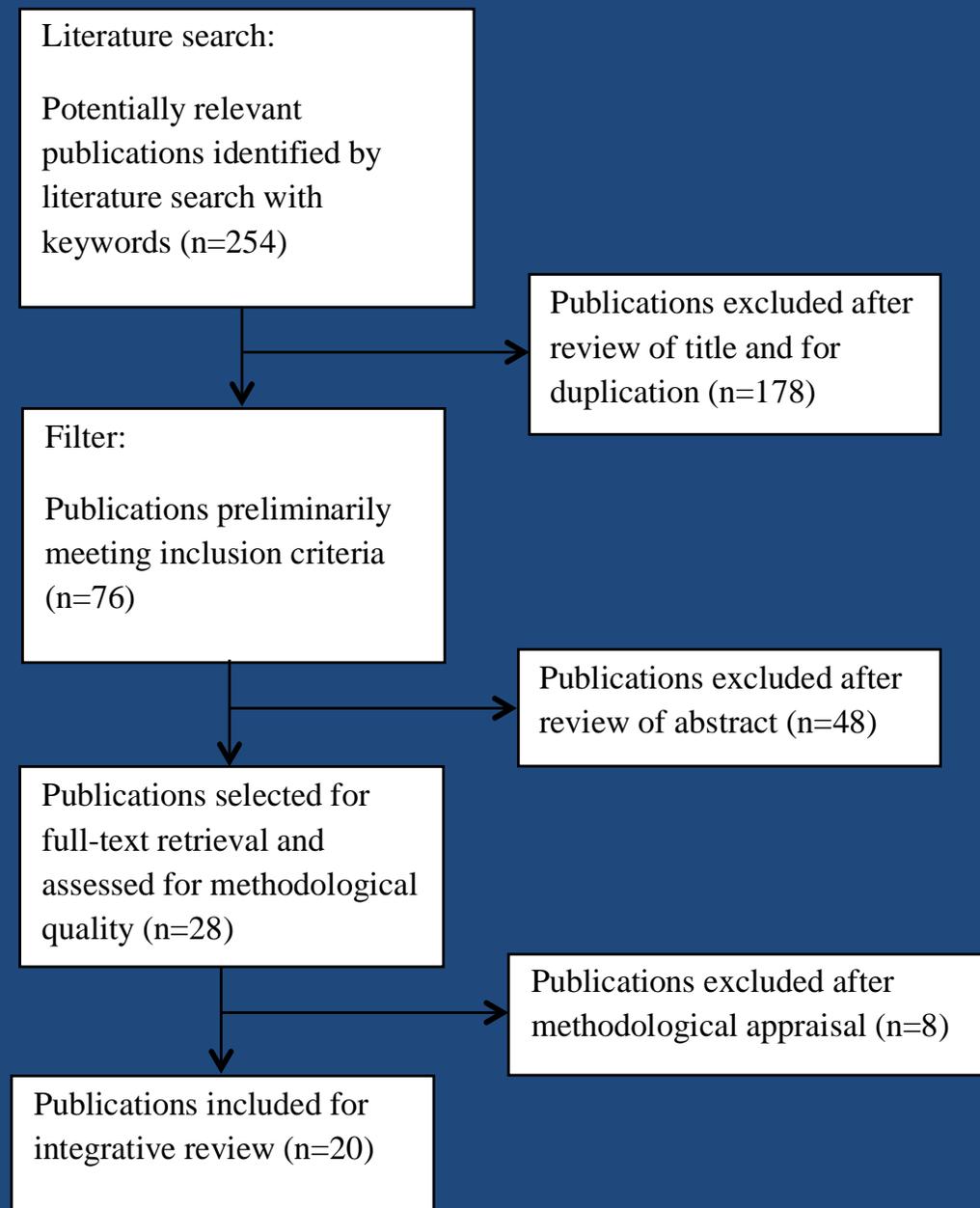
1. What is known about the maternal microbiome during pregnancy?
2. Do variations in the maternal microbiome during pregnancy influence children's future health?



Integrative Review

Key words:

- Microbiome
- Microbiota
- Antenatal period
- Pregnancy
- Offspring
- Birth outcomes

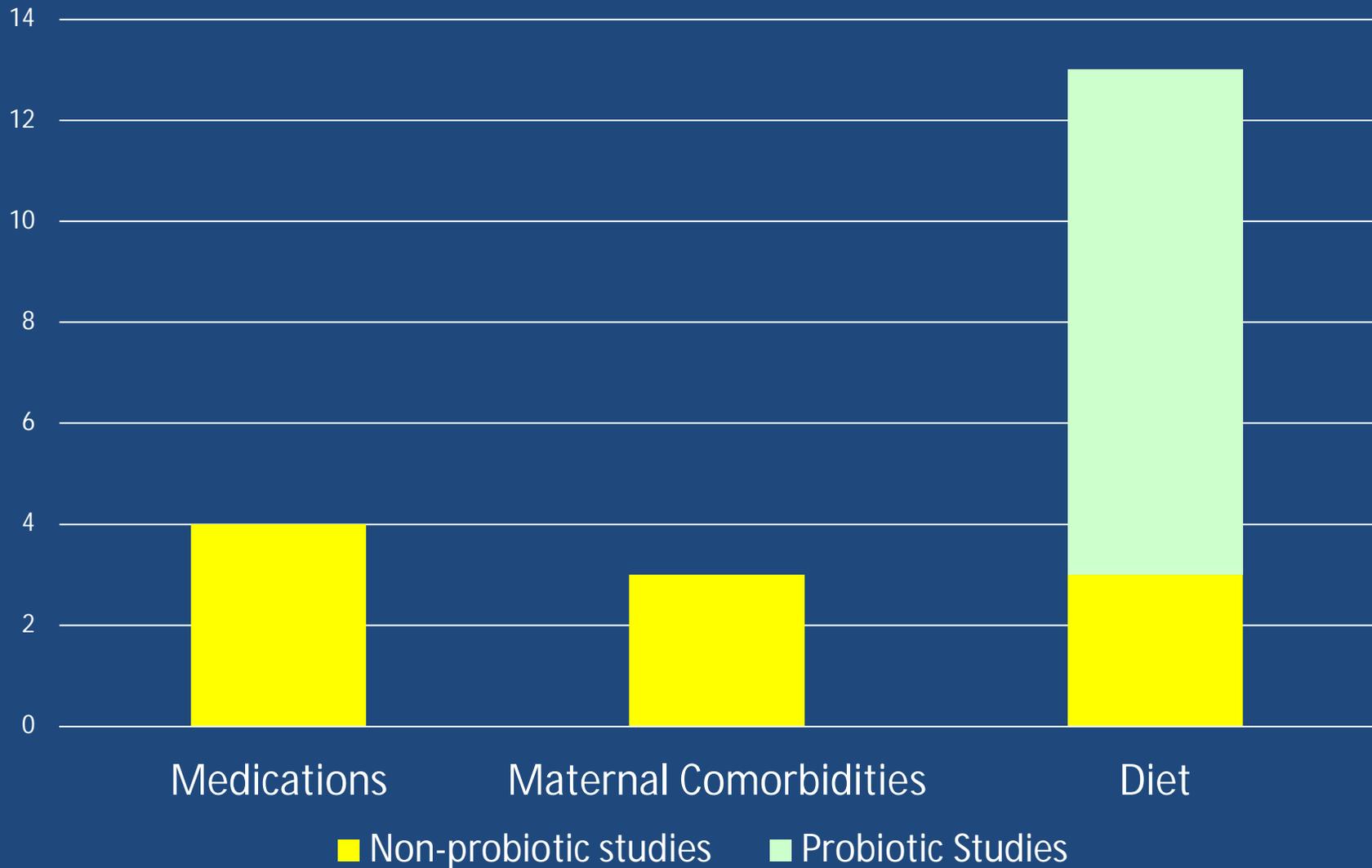


Results Overview

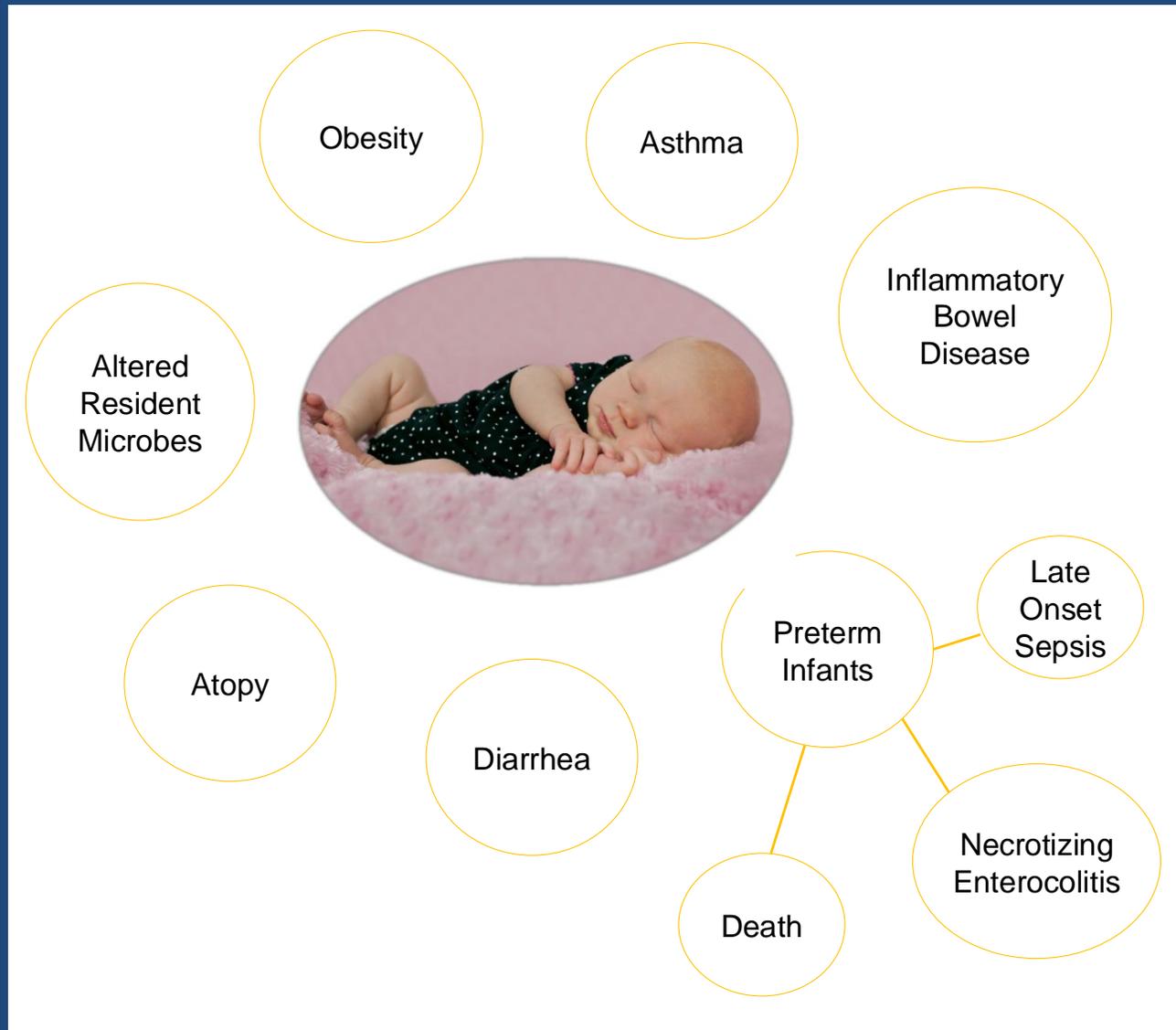
- Small sample sizes
- Observational and randomized control trials
- Ambiguous findings
- Full Results freely available online:

Wright, M. L.; Starkweather, A. R. Antenatal microbiome: Potential contributor to fetal programming and establishment of the microbiome in offspring. *Nurs. Res.* 2015, 64, 306–319.

Main factors identified



Potential Health Implications



Clinical Implications

- Mode of birth
- Infant feeding
- Environmental toxicants
- Antibiotic use



Thank you!

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