

Impacts of Birth on Infants and Mothers

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Birth experience matters

Austin; 2022

Many decisions go into birth

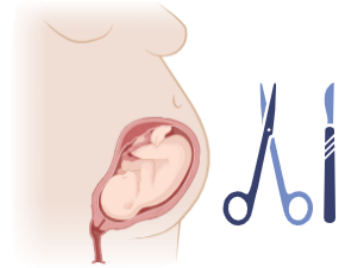
- Mode of delivery
(VD, CS)
- Healthcare provider
(midwife, Dr.)
- Place of birth
- Impacts on infants
 - Physical
 - Psychological
- Impacts on mothers
 - Psychological

Investigating outcomes and how these factors interact

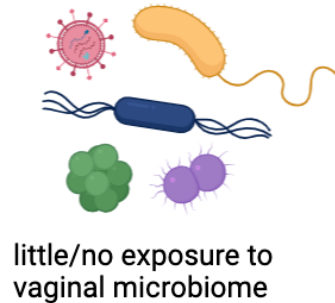
- Literature review
- Survey: local trends
 - CoW alum, staff, faculty

Mode of Delivery: microbiome and immune system

- Exposure to vaginal microbiome
- Increased incidence of disease
 - Obesity
 - Diabetes
 - Hypertension
 - IBDs
 - Asthma
 - Laryngitis
 - Juvenile arthritis
 - Celiac disease



C-section



little/no exposure to vaginal microbiome

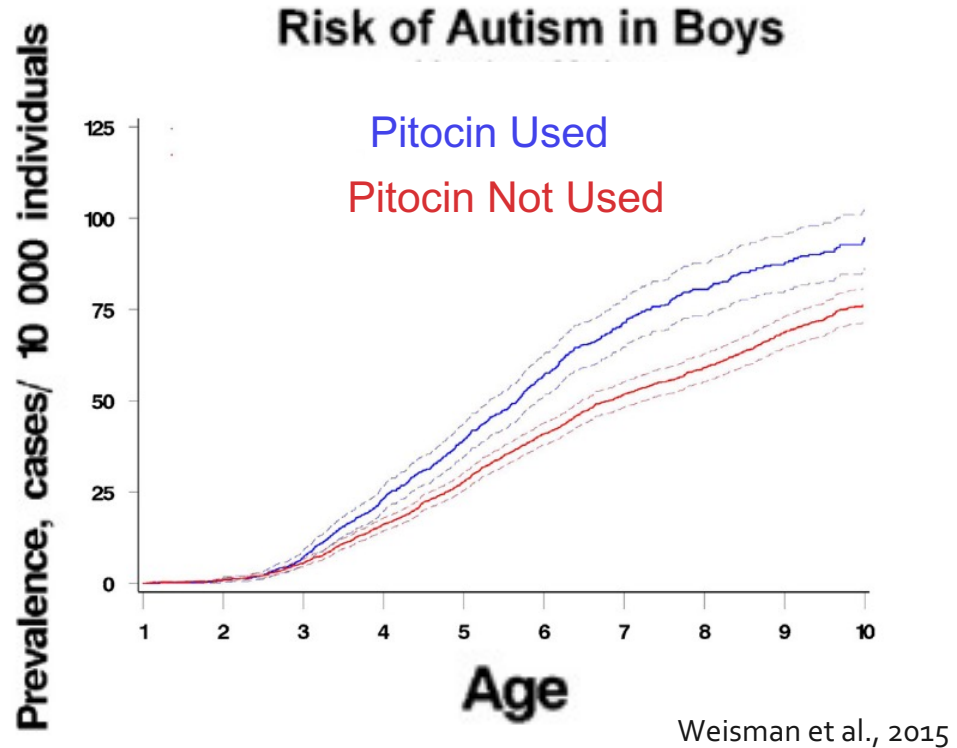


decreased breastfeeding

increased disease

Mode of delivery → childhood behavior?

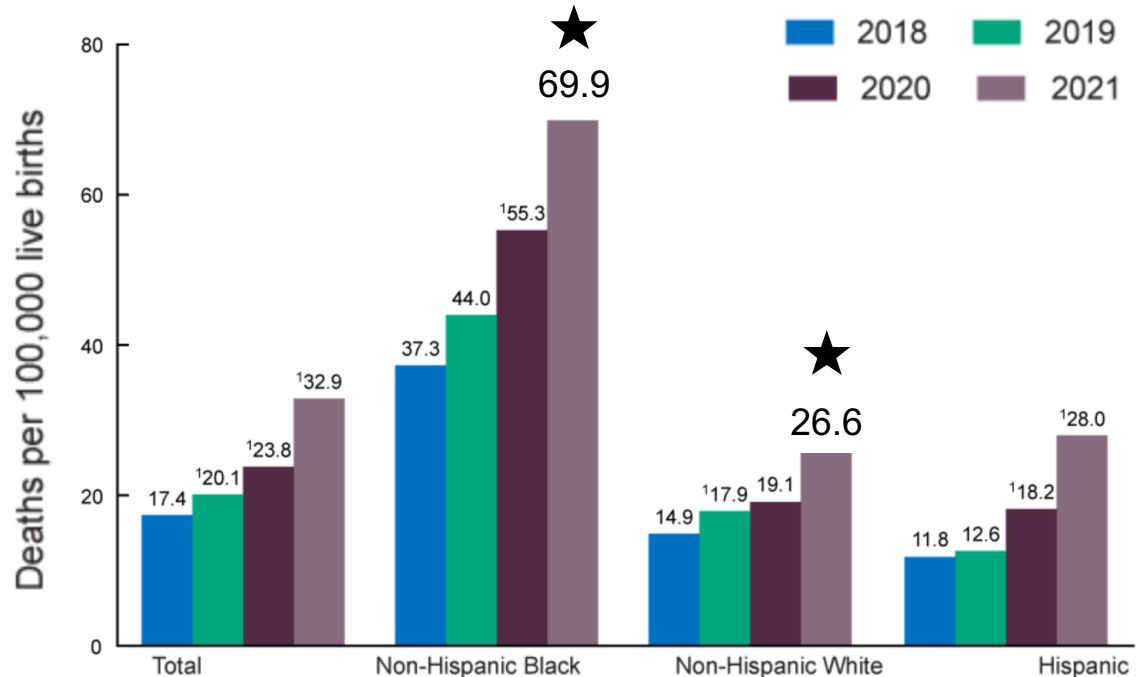
- Childhood behavior
 - Unassisted vaginal deliveries → fewest problems?
 - HPA axis and cortisol
- ASD and Pitocin (oxytocin)
 - Birth complications
 - ↓ oxytocin receptors, ↓ oxytocin production



Race, SES, EDCs

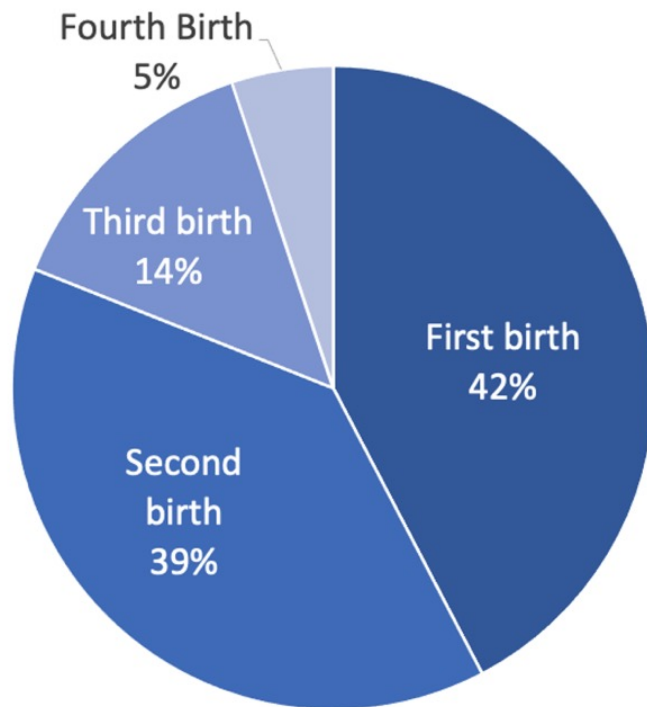
- Higher Black maternal and infant mortality rates
- Higher SES → better outcomes
- EDC exposure

Maternal Mortality Rates in US



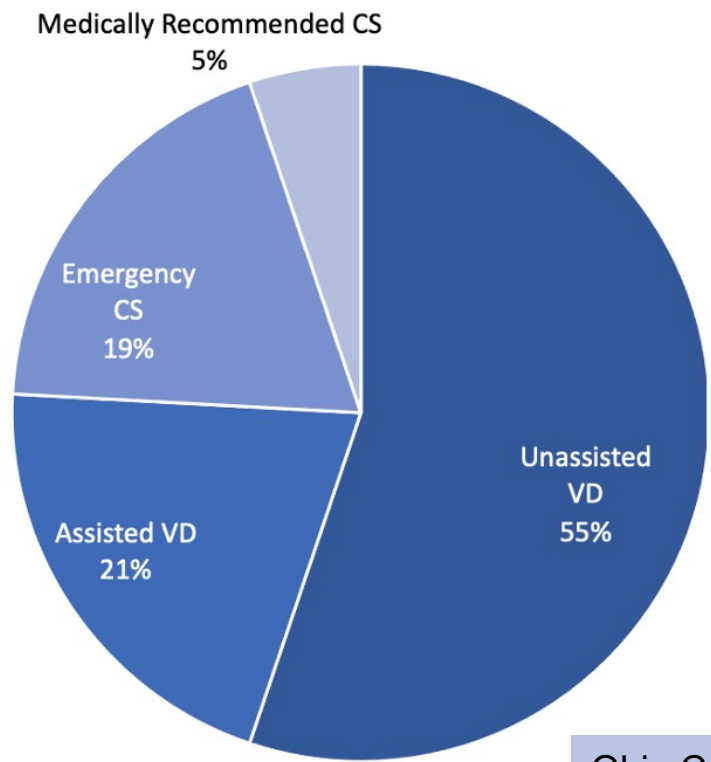
National Center for Health Statistics, 2021

Population: white, educated, hospital births



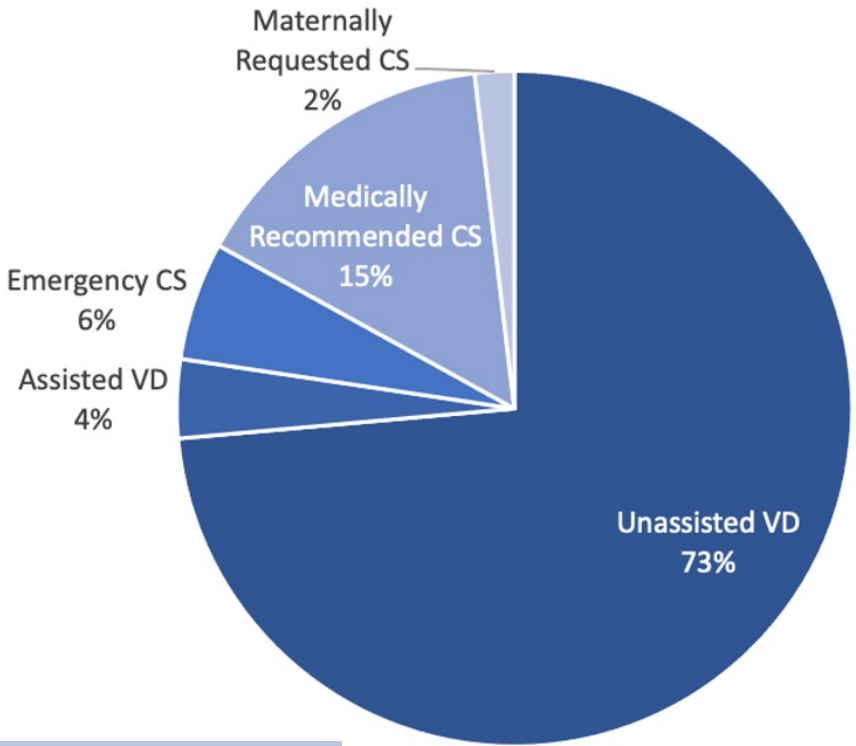
Total births= 138

Population: white, educated, hospital births



A. First births

Ohio C-section rate: 31.5%

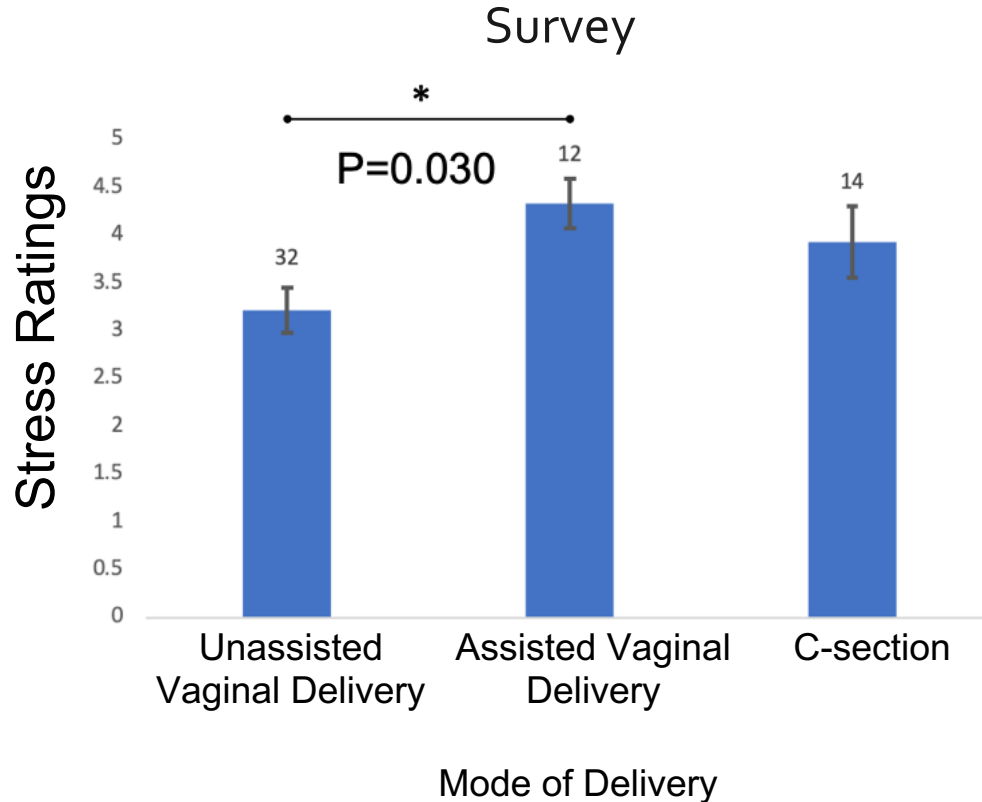


B. Second births

Maternal experiences

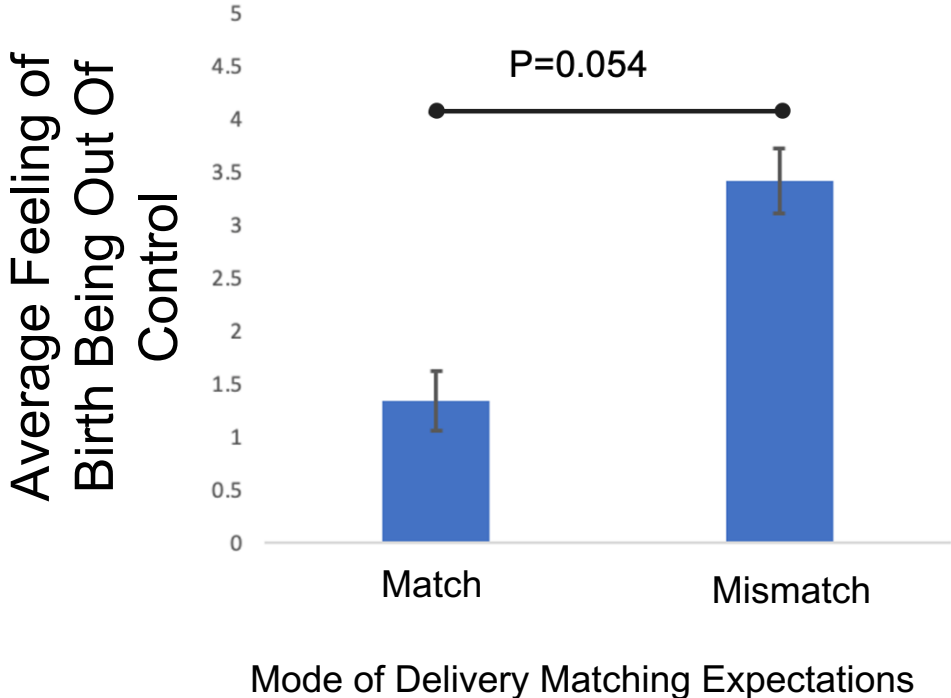
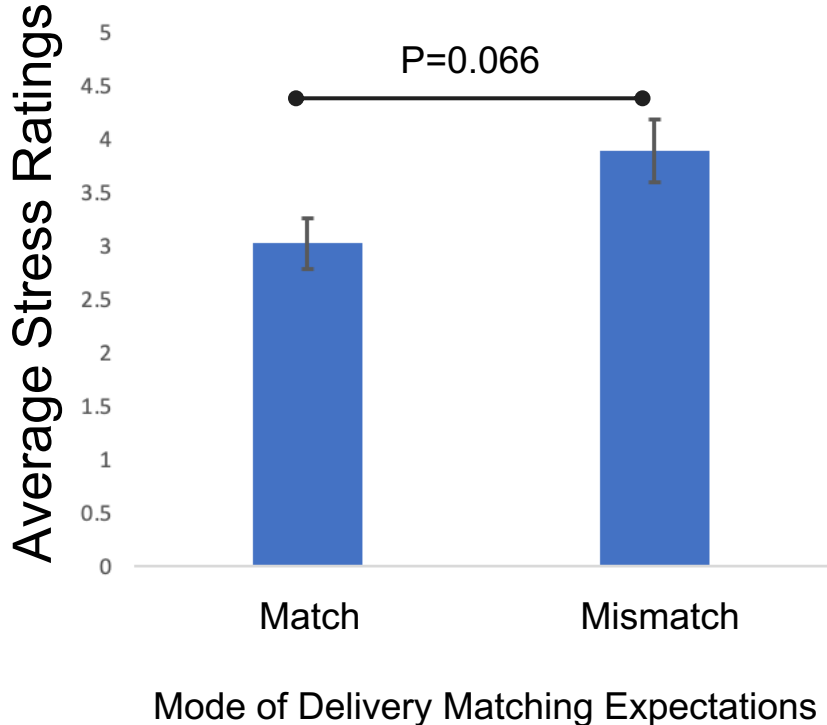
Lit. Review

- Vaginal delivery: ↑ mood/self-esteem
- Home births: 3x more likely to have an UVD than a hospital birth
- ↓ interventions in hospital if intended to give birth at home
- ↓ CS with midwife than with physician in hospital



Satisfaction ↑ when expectations are met

Satisfaction ↑ when expectations are met



Summary

From Lit. Review

- Mode of delivery → microbiome, behavior
- Pitocin → ASD
- Race, SES, EDCs

From Survey

- Fewer CS than OH average
- Expectations matter

- Many factors shape infant outcomes and maternal experience

Thank you
Questions?

