



Sleep Trajectories During Pregnancy and Postpartum: Insights from Digital Health on Cardiovascular Health and Preeclampsia

Alana Davidson, BS, Tatiana X. Solis-Montenegro, BS, Matthew E. Fuller, MS, Emma Peek, BS, Jerome Federspiel, MD, PhD, Ashraf Habib, MBBCh, MSc, MHSc, FRCA, Marie-Louise Meng, MD

Background

- Sleep disturbances occur in pregnancy and are linked to cardiovascular (CV) dysfunction
- Sleep pattern differences stratified by CV risk in pregnancy are not well understood

Aims

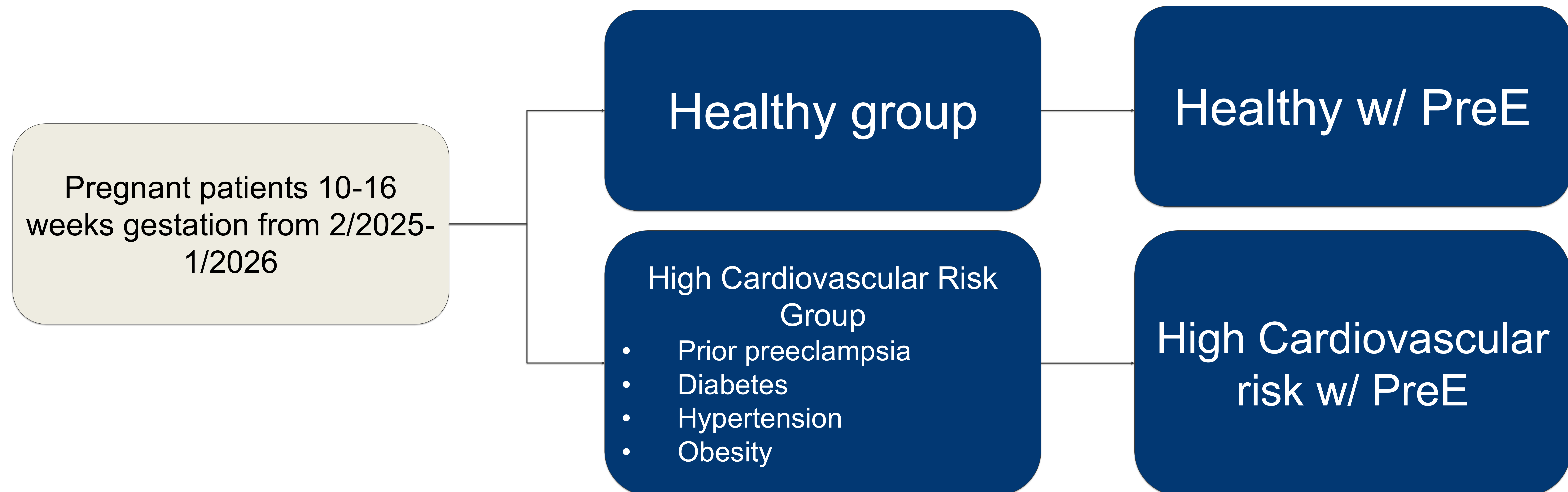
1. Assess feasibility of using wearable devices to track sleep during peripartum period
2. Compare sleep patterns among healthy individuals, those with CV risk factors, and those who develop preeclampsia (PreE)

Hypothesis

Individuals with higher CV risk and those who develop PreE will have worse sleep outcomes

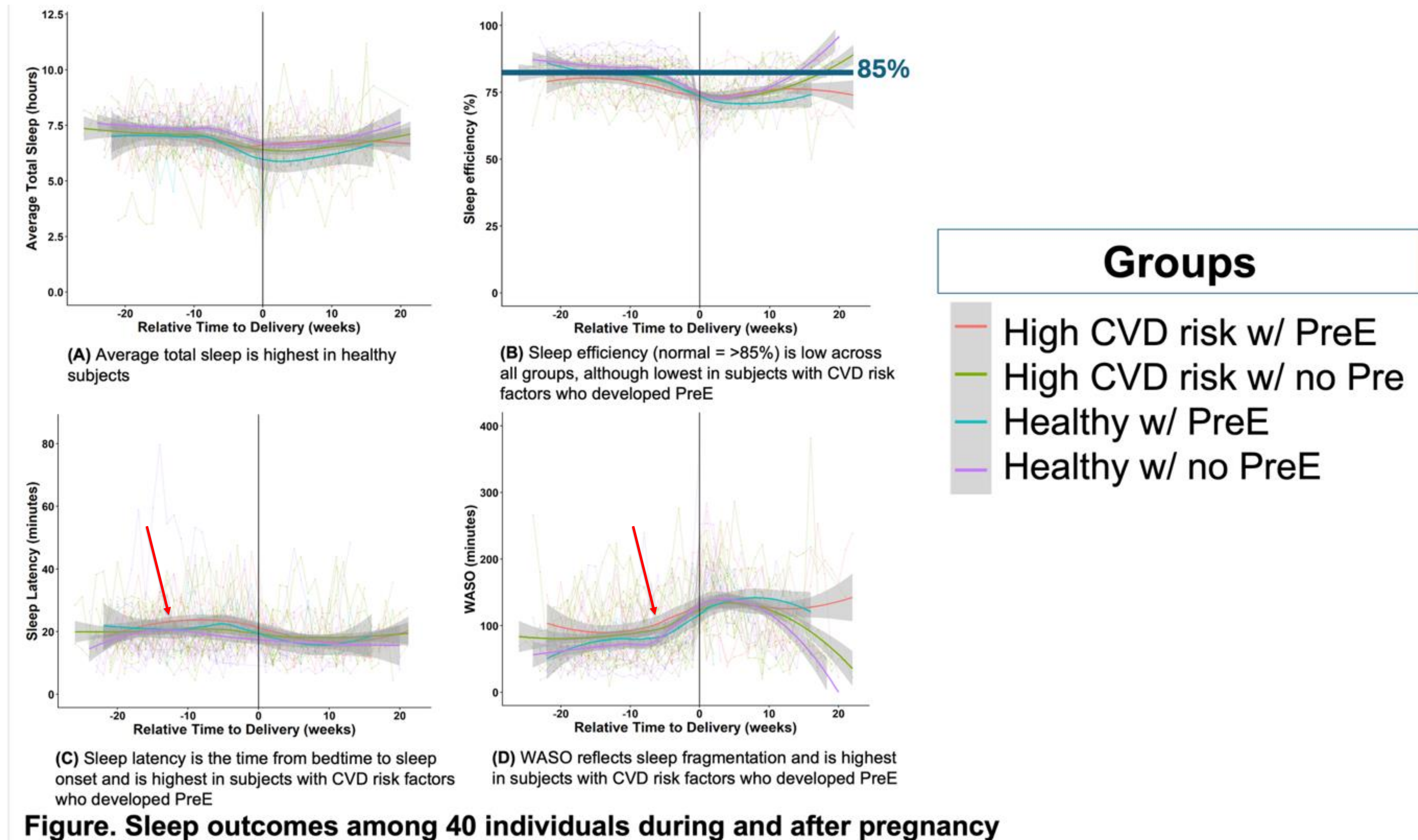
Study Design and Methods

- Interim Prospective, Observation study
- Due to sample size, results are described visually and qualitatively



Results

- 17 healthy subjects + 23 w/ CV risk factors
- PreE → 12% of healthy subjects
- PreE → 26% of subjects w/ CV risk factors



Conclusions and Discussions

Wearable digital health monitoring is **feasible**

↑ sleep fragmentation in patients w/ CV risk factors who developed PreE