Supplement 2: Directed Acyclic Graphs to identify assumptions of covariates likely to cause heterogeneity in the outcomes.

DAG 1: Assumptions about variables associated with variation in mode of birth.

**Structure**
- Birth Setting
- Appropriate Tub
- Nulliparity

**Process**
- Induction or Augmentation
- Epidural
- Continuous Monitoring

**Outcome**
- Mode of Birth
DAG 2: Assumptions about variables associated with variation in maternal satisfaction

- **Structure**
  - Birth Setting
  - Care Model
  - Appropriate Tub

- **Process**
  - Continuous Monitoring
  - Induction or Augmentation

- **Intermediate Outcome**
  - Pain Intensity
    - VAS
    - Medication Use

- **Outcome**
  - Satisfaction
  - Use Water Again
DAG 3: Assumptions about variables associated with variation in perineal outcomes.

Structure
- Birth Setting
- Delivery in Appropriate Tub
- Care Model
- Nuliparity

Process
- Induction or Augmentation
- Epidural
- Episiotomy

Outcome
- Intact Perineum
- OASI
DAG 4: Assumptions about variables associated with variation in maternal infection.

- **Birth Setting**
  - AROM
  - Epidural
  - P&M in Water
  - Operative Delivery

- **Process**
  - OASI

- **Intermediate Outcome**
  - Maternal Infection
DAG 5: Assumptions about variables associated with variation in neonatal outcomes.

**Structure**
- Eligibility Criteria
- Setting

**Process**
- Induction or Augmentation
- Opioid Use

**Primary Outcome**
- NICU Admission
- Need for Resuscitation
- APGAR
- TTN
- RDS