**Sample Research Questions**

**Mental Health and Birth Outcomes**

1. **What factors are associated with postpartum PTSD among Ethiopian mothers?**
   * Target: PTSD\_traj\_group or PTSDSympX
   * Candidate predictors: psychosocial stressors, support, delivery mode, morbidity.
2. **How do direct/indirect morbidity and social support affect maternal mental quality of life (Mental\_QOL)?**
   * Regression-style question.
   * Predictor candidates: Support, DirectMorbidity, IndirectMorbidity, Fearbirth\_Cate, etc.
3. **What are the predictors of traumatic birth experiences?**
   * Target: TraumaticBirth\_cate
   * Use social, psychological, and obstetric features as inputs.

**Determinants of Delivery Mode or Outcome**

1. **Can delivery mode be predicted based on psychological and physical health characteristics?**
   * Target: Delivery\_Mode\_Cate
   * Predictors: Fear\_Birth\_score, BMI, WHODASTotal\_score, etc.
2. **What demographic and psychosocial factors influence fetal outcomes?**
   * Target: FetalOutcome\_cate

**Exploratory/Descriptive**

1. **What is the distribution of mental health outcomes (e.g., depression, PTSD) across different age or income groups?**
   * Use for defining **cohorts** or stratified analysis.
2. **Are women in rural areas more likely to experience psychological violence or depression symptoms?**
   * Variables: Residence, PsychViolence, Dep1

**Top 3 ML-Ready Questions from the Ethiopian Dataset**

**1. What factors predict postpartum PTSD trajectory?**

* **Target variable:** PTSD\_traj\_group (ordinal/multiclass)
* **Candidate predictors:**
  + Psychological: Fear\_Birth\_score, PTSDSympX, Support, RelationProblem, DeathLoved
  + Demographics: Age, Residence, Monthly\_expendi\_Cate, Social\_support\_cate
  + Obstetric: TraumaticBirth\_cate, Delivery\_Mode\_Cate, Gravid, Parity

**2. Can we predict the likelihood of a traumatic birth?**

* **Target variable:** TraumaticBirth\_cate (binary or multiclass)
* **Candidate predictors:**
  + Mental health: Dep1, Anxiety1, Fear\_Birth\_score
  + Support: Support, PsychViolence, Social\_support\_cate
  + Physical: DirectMorbidity, IndirectMorbidity, BMI

**3. What factors are associated with poor functional health status (WHODAS score)?**

* **Target variable:** WHODASTotal\_score (continuous)
* **Candidate predictors:**
  + Psychosocial: PsychViolence, Support, Mental\_QOL, PTSDSympX
  + Demographic: Marital\_Cate, Age\_Cate, Monthly\_expendi\_Cate