PHASES OF A CLINICAL RESEARCH TRIAL

**PRECLINICAL TESTING**
- No human subjects
- Test in cell cultures, animal models

**PHASE I: SAFETY**
- Small group of human volunteers
- Test safety and dosage

**PHASE II: EFFICACY**
- Human volunteers
- Test efficacy, safety

**PHASE III: VALIDATION**
- Large group of human volunteers
- Test efficacy against placebo, safety

**PHASE IV: MONITORING**
- Thousands of vaccine recipients
- Assess longer-term, real-world data

ACCELERATING A TRIAL RUNS PROCESSES IN PARALLEL

- Build on previous research
- Skip marketing analysis
- Begin manufacturing process in parallel
- Perform marketing analysis, manufacturing in parallel
- FDA approval