What is Psychosis?
Overall Research Focus

- Understanding factors that contribute to outcomes in youth with early psychosis
  - Cognitive predictors with fMRI
  - Clinical predictors with mobile health technology

- Evaluating outcomes associated with mental health interventions

#1 Impaired Prefrontal Control as a Marker of Psychosis Risk

- Can we use cognitive measures to identify youth at greatest risk for future psychosis?
- First Episode SZ and CHR youth show impaired cognitive control when compared to demographically matched healthy controls
- First Episode SZ and CHR youth do not show increased DLPFC activation under conditions of high control (B cues) when compared to healthy controls
#2 Age-at-Onset effects on Prefrontal Functioning in Early Psychosis

Is cognitive impairment worse if you are younger when the illness starts?
Does cognitive impairment worsen over time?
Is clinical or functional outcome associated with trajectory of change?

#3 Using Mobile Health Technology to track Early Clinical Signs of Relapse

The Relapse Problem: ~80% of patients in community setting relapse within 3 years
- Can we improve relapse prediction by monitoring daily fluctuations in “early signs”?
- Smartphone technology ideal platform for monitoring patient-status daily

Early Sign: Depression    Early Sign: Anxiety    Early Sign: Sleep

- Monitoring symptoms by smartphone could improve relapse prediction and prevention!
#4 Evaluating Effectiveness of Early Psychosis Interventions

- New line of research!
- Prop 63 supported the creation of “Prevention and Early Intervention” clinical programs across California
  - Sacramento County → UC Davis SacEDAPT Early Psychosis Clinic
- Need research to evaluate:
  - What do these programs cost? Do they save us money in the long run?
  - Do they really provide better outcomes for youth and families?

Why is this Important??

- Psychosis is more common than you think -- Over 600 new cases of psychosis develop in Sacramento County each year → impacts our community, health system, schools, economy...
  - “Will my child go to college?” or “Will I get married or have kids?”
- Want to live a meaningful life, have hope for the future
- Believe research will help pave the way to better outcomes!