Common Designs in Cluster Randomized Trials

- Completely randomized: intervention allocated at random to clusters. Suitable when randomizing a fairly large number of clusters.
- Matched pairs: clusters are paired and the two clusters within each pair are allocated at random to the interventions. Advantage: provides very tight and explicit balancing of potentially important prognostic factors at baseline.
- Stratified: clusters are grouped in homogenous strata and then they are allocated at random to interventions.

Searching for Real World Answers



SEARCH Sustainable East Africa Research for Community Health

Makerere University, University of California, San Francisco

Scientific and Development Partners

- National Institutes of Health
- World Health Organization
- World Bank
- PEPFAR/OGAC

SEARCH Hypothesis

The implementation of universal HIV testing and treatment in rural communities in East Africa will result in

- Reduced HIV, TB and Malaria burden
- Lower maternal and infant mortality rates
- Improved economic and educational productivity

compared to standard treatment

In other words...

Expansion of ART coupled with new efficient health delivery models would lead to smaller and less ill epidemic populations and improve and protect the health and productivity of the community

ART reduces death and AIDS 1996–2008



ART can do much more

- Reduce new HIV infections
- Prevent mother to child transmission
- Prevent TB
- Maintain the household, fewer orphans, child labor
- Increase economic and education productivity

The Theory of Reducing HIV by ART

- Apply "test and treat" to generalized epidemic in South Africa (17% prevalence)
- 95% reduction in new HIV cases in 10 years
- Prevalence less than 1% by 2050