

RCT analysis: Improved Precision

The NEW ENGLAND JOURNAL of MEDICINE

SEARCH Study (NCT:01864603)



- Pragmatic Cluster RCT
 - N=320,000, 16 communities
- TMLE & “Adaptive pre-specification”
 - Flexible pre-specified adjustment
- Primary pre-specified analysis in trial
- Efficiency gains
 - Substantial for some outcomes
 - Never harmful

Similar findings across many trials

ORIGINAL ARTICLE

HIV Testing and Treatment with the Use of a Community Health Approach in Rural Africa

D.V. Havlir, L.B. Balzer, E.D. Charlebois, T.D. Clark, D. Kwarisiima, J. Ayieko,

Focusing Stage 2 estimation:	Effect	95%CI	Efficiency*
Three-year cumulative HIV Incidence			
Unadjusted	0.98	(0.66, 1.45)	-
TMLE with Adaptive Prespec.	0.96	(0.80, 1.17)	4.6
Incidence of HIV-associated TB or death			
Unadjusted	0.79	(0.64, 0.98)	-
TMLE with Adaptive Prespec.	0.80	(0.69, 0.91)	2.6
Population-level Viral Suppression			
Unadjusted	1.15	(1.11, 1.20)	-
TMLE with Adaptive Prespec.	1.15	(1.11, 1.20)	1.0