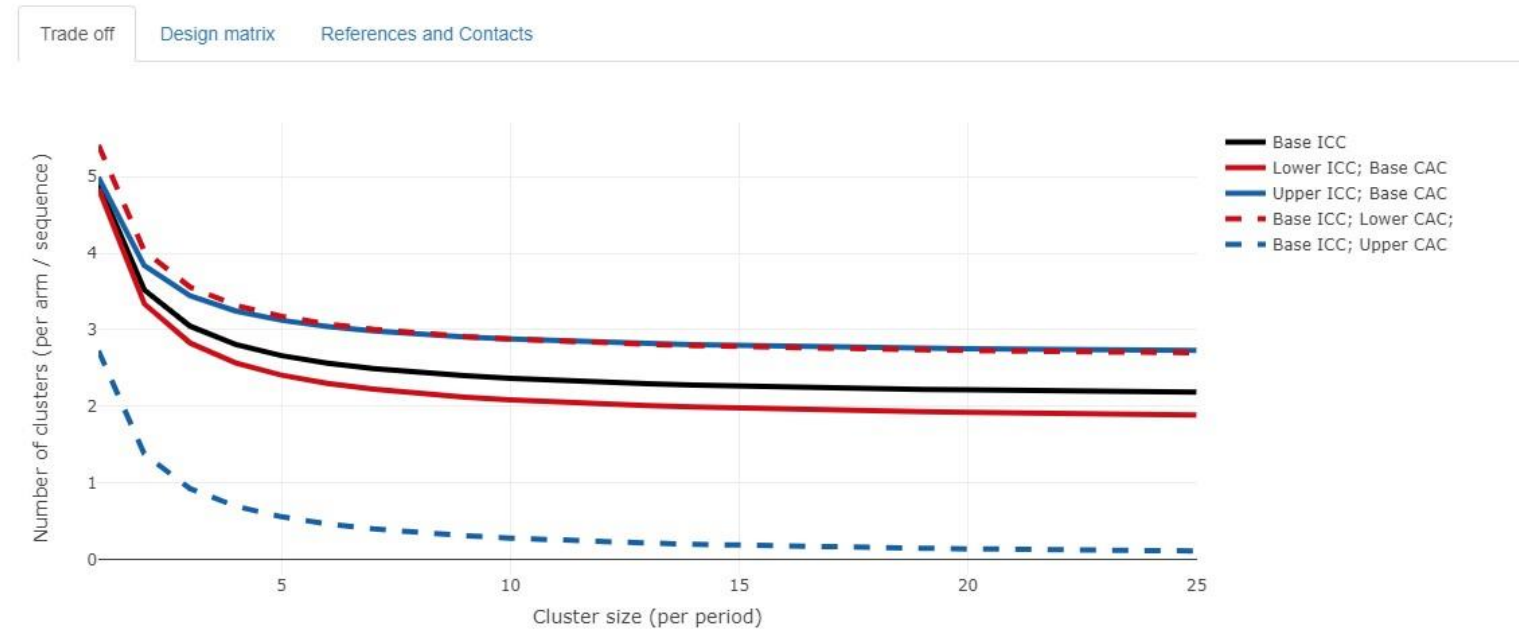


## Additional file 2. Sample size calculation.



Curve shows the reduction in number of clusters required as cluster-period size increases (for a fixed power).

Warning: caution is needed with CRTs with a small number of clusters due to risk of lack of internal and external validity; and appropriateness of calculations used particularly for binary and count outcomes

### Parameters

Power: 0.8

p0: 0.25 p1: 0.56

Significance level: 0.05

Number of sequences: 4

WP-ICC: 0.4 WP-ICC (lower): 0.34 WP-ICC (upper): 0.51 CAC: 0.6

Individual auto-correlation: 0.6