

Supplemental Table 1 – One rainy season: simulation results

Model	Year 1			
	Bias	Coverage	Power	Type 1 Error
<b>MM: PL (IL1)</b>	-0.0021	93.40	97.90	7.84
<b>MM: PLKR (IL3)</b>	-0.0021	93.40	97.10	5.83
<b>MM: Laplace (IL2)</b>	-0.0031	91.20	98.70	9.70
<b>MM: AGQ - 10 (IL4)</b>	-0.0031	91.20	98.70	9.70
<b>GEE Model Based SE (IL5)</b>	-0.0038	93.66	96.98	5.23
<b>GEE Empirical SE (IL6)</b>	-0.0038	90.74	97.78	7.85
<b>GEE MBN Correction (IL7)</b>	-0.0038	94.96	94.66	4.23
<b>GEE FG Correction (IL8)</b>	-0.0041	93.65	96.07	4.93
<b>Unweighted t-test (CL1)</b>	-0.0039	94.80	95.50	4.80
<b>Size Weighted Gaussian (CL3)</b>	-0.0028	92.80	96.40	4.80
<b>Variance Weighted (CL2)</b>	-0.0036	94.70	95.70	5.00
<b>Adjusted Residual (CL4)</b>	0.004	94.20	96.30	5.50

Supplemental Table 1: Bias, coverage, power and Type-I error rate for the single-period, fourteen cluster (one rainy season) analyses. The results reflect the analysis of the first of two simulated rainy seasons alone. A similar evaluation of the second rainy season yielded largely similar results and is not shown. These models were simulated from an assumed village random effect variance of 0.05.