

Example Population

Arrival Rate = 10 visits/hour, Expected CV = 0.3, Repeatability (ICC) = 0.5

Study A - Observation period = 120 mins, Mean number of observed arrivals = 20

Observed
Variation



Assuming No
Stochastic Error



Estimated
ICC = 0.32

Correcting for
Stochastic Error



Estimated
ICC = 0.5

Study B - Observation period = 60 mins, Mean number of observed arrivals = 10

Observed
Variation



Assuming No
Stochastic Error



Estimated
ICC = 0.24

Correcting for
Stochastic Error



Estimated
ICC = 0.5

Study C - Observation period = 30 mins, Mean number of observed arrivals = 5

Observed
Variation



Assuming No
Stochastic Error



Estimated
ICC = 0.16

Correcting for
Stochastic Error



Estimated
ICC = 0.5

Total Observed Variance

'Explainable' Variation

Stochastic error

Variance due to between individual differences



Total Variance