

Reliability formula

$$\text{Reliability} = \sigma^2 / (\sigma^2 + V)$$

where σ^2 is the systematic variance between hospitals and V is the sampling variance of the sample estimate of a hospital's rate (both on the probability scale):

- $\sigma^2 = \sigma_L^2 * p^2 * (1-p)^2$, where σ_L^2 = variance component from model output in logit scale
- $V = p*(1-p) / N$,
where p = the overall readmission rate across all hospitals and N = the hospital's volume.