

The calculator for the

[Estimating the prevalence with imprecise sensitivity and specificity:](#)

The working paper ([KWP No. 2152](#)) describes the situation where sensitivity and specificity are precisely given. However, often both can only be estimated with some uncertainty and sometimes ranges for both values are reported in the literature.

For this calculator for the estimation of the prevalence, we assume that for both, sensitivity and specificity, ranges are given and we assume that both values follow a uniform distribution.

We integrate out both sensitivity and specificity and approximate the corresponding integrals via a discrete grid. Thus, the user of the calculator has to provide a lower and an upper bound for both sensitivity and specificity. The point estimator is the mean from the grid and the standard deviation of the estimator is derived from the law of total variance.

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