

The TPPV for subpopulations with genotype frequencies of $f(dd)$, $f(Dd)$ and $f(DD)=1-f(dd)-f(Dd)$ in the subpopulation is calculated as:

$$\text{TPPV for a device result of } dd = \frac{[PA(dd|dd) \cdot f(dd)]}{[PA(dd|dd) \cdot f(dd) + PA(dd|Dd) \cdot f(Dd) + PA(dd|DD) \cdot f(DD)]}$$

$$\text{TPPV for a device result of } Dd = \frac{[PA(Dd|Dd) \cdot f(Dd)]}{[PA(Dd|DD) \cdot f(DD) + PA(Dd|Dd) \cdot f(Dd) + PA(Dd|dd) \cdot f(dd)]}$$