... about absolute and relative risk

◆ The use of percentages rather than absolute values can affect how differences are perceived.
Consider how a 20% price reduction differs in its monetary worth depending on the item being sold: it could represent 20p off the price of a pastry or a £2000 saving on a car. Which reduction is more valuable to you will depend on your circumstances.

◆ The Absolute Risk Reduction (ARR) is simply a difference in event rates. Subtract the rate observed with treatment from that seen in the control group.

\[
ARR = control \text{ event rate} - \text{event rate with treatment}
\]

◆ The Relative Risk Reduction (RRR) is the same difference in risk but calculated relative to the risk in the control group.

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RRR = \frac{control \text{ event rate} - \text{event rate with treatment}}{control \text{ event rate}}
\]

◆ The relative risk reduction is more impressive than the absolute risk reduction and the difference between them becomes larger as the control or baseline event rate becomes lower.

◆ Neither the ARR or the RRR give an indication about the frequency of events.
Consider two treatments: treatment A lowers the risk of an adverse event from 40% to 30%; treatment B lowers the risk from 8% to 6%. The RRR for both is 25% but the ARR for treatment A is 10% and for treatment B is 2%.

Can you work out the NNT? See Things to know about NNTs.