

Standardisering

$$X \sim N(\mu_x, \sigma_x^2) \rightarrow Z \frac{X - \mu_x}{\sigma_x} \sim N(0, 1)$$

sansynlighed for at X ligger mellem a og b

$$P(a \leq X \leq b) = P\left(\underbrace{\frac{a - \mu_x}{\sigma_x}}_Z \leq \frac{X - \mu_x}{\sigma_x} \leq \frac{b - \mu_x}{\sigma_x}\right) =$$

$$= \Phi\left(\frac{b - \mu_x}{\sigma_x}\right) - \Phi\left(\frac{a - \mu_x}{\sigma_x}\right)$$

normcdf