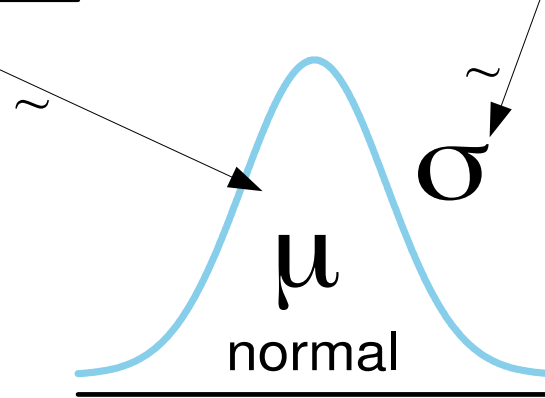


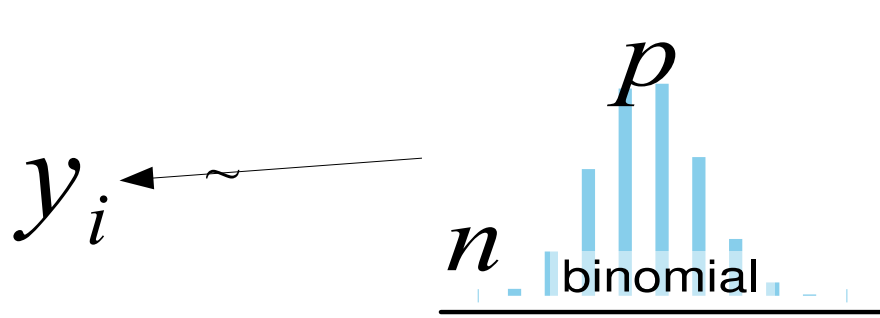
Hospital Level



Service Level

$$\underbrace{\text{logistic}(\beta_0 + \sum_i \beta_i x_i)}_{= \nabla}$$

Patient Level



$$\begin{aligned} y_i &\sim \text{Binomial}(p, n) \\ \beta_o &\sim \text{Normal}(\mu, \sigma) \\ \mu &\sim \text{Normal}(\rho, \tau) \\ \sigma &\sim \text{inv-gamma}(\nu, \kappa) \end{aligned}$$