Posterior odds = prior odds × likelihood ratio.

→odds alternate way of presenting probabilities.

eg. let θ be prob event A occur

Interested in:
$$\frac{Pr(\theta > 0.5 \mid y)}{Pr(\theta \leq 0.5 \mid y)}$$

⇒ equivalent hypothesis

$H_0 : \theta > 0.5$
$H_A : \theta \leq 0.5$

we can test a composite null.

COMPARISON TO NON BAYESIAN METHODS.

° $\hat{p} = 0$

$$CI = 0 \pm 1.96 \sqrt{\frac{0(1-0)}{n}}$$

→ 95% confident
$p = 0$
↓ ambitious statement.

BUILDING A PREDICTIVE MODEL

→ Posterior prob. of interest: $Pr(\beta_j \neq 0 \mid y, X)$.