

Brief Article

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$\log(p/(1-p)) = \beta_0 + \beta_1 x_1$, say [and this is why the first two answers are wrong]

$$p/(1-p) = e^{\beta_0 + \beta_1 x_1}$$

$$p^*/(1-p^*) = e^{\beta_0 + \beta_1(x_1+1)} \quad [\text{increase by one unit}]$$

$$p^*/(1-p^*) = e^{\beta_0 + \beta_1 x_1} e^{\beta_1}$$

$$p^*/(1-p^*) = \log(p/(1-p)) e^{\beta_1} \quad [\text{so } \beta_1 \text{ characterizes a multiplicative increase in the odds}]$$