

$$\text{age} = 52$$

$$\text{ldl} = 5.73$$

$$\text{tobacco} = 12$$

$$\text{typeA} = 49$$

$$\begin{aligned}\eta_1 &= -6.33 + 0.055(52) \\ &\quad + 0.179(5.73) + 0.037(49) \\ &\quad + 0.075(12) \\ &\approx \underline{0.3165}\end{aligned}$$

$$\hat{y} = \frac{\exp(0.3165)}{1 + \exp(0.3165)} = \underline{0.5784}$$

$$\hat{y} > 0.50 \quad \underline{\text{predict 1}}$$

$$\text{age} = 63$$

$$\text{ldl} = 4.41$$

$$\text{tobacco} = 0.01$$

$$\text{typeA} = 55$$

$$\begin{aligned}\eta_2 &= -6.33 + 0.055(63) \\ &\quad + 0.179(4.41) + 0.037(55) \\ &\quad + 0.075(0.01) \\ &\approx \underline{0.0124}\end{aligned}$$

$$\hat{y} = \frac{\exp(0.0124)}{1 + \exp(0.0124)} = \underline{0.5031}$$

$$\hat{y} > 0.5 \quad \underline{\text{predict 1}}$$

very marginal