

$$\text{logit}(P(\text{Control})) = 0.61 + 1.40 \times 10^{-4} \times S_{\text{ab}} + 0.58 \times \text{Age}_{20-40} + 0.29 \times \text{Age}_{40-60} - 0.10 \times \text{Age}_{>60} + \epsilon$$

$$\begin{aligned} \text{logit}(P(\text{Control})_{\text{hybrid}}) &= 3.38 + 3.86 \times 10^{-5} \times S_{\text{ab}} + 0.64 \times \text{Age}_{20-40} - 0.01 \times \text{Age}_{40-60} - 0.11 \times \text{Age}_{>60} \\ &\quad + (u_{0,\text{hybrid}} + u_{1,\text{hybrid}} \times S_{\text{ab}} + u_{2,\text{hybrid}} \times \text{Age}_{20-40} + u_{3,\text{hybrid}} \times \text{Age}_{40-60} + u_{4,\text{hybrid}} \times \text{Age}_{>60}) + \epsilon_{\text{hybrid}} \end{aligned}$$

$$\begin{aligned} \text{logit}(P(\text{Control})_{\text{vaccine}}) &= 0.20 + 4.47 \times 10^{-5} \times S_{\text{ab}} + 0.74 \times \text{Age}_{20-40} + 0.56 \times \text{Age}_{40-60} + 0.35 \times \text{Age}_{>60} \\ &\quad + (u_{0,\text{vac}} + u_{1,\text{vac}} \times S_{\text{ab}} + u_{2,\text{vac}} \times \text{Age}_{20-40} + u_{3,\text{vac}} \times \text{Age}_{40-60} + u_{4,\text{vac}} \times \text{Age}_{>60}) + \epsilon_{\text{vaccine}} \end{aligned}$$

$$h(t) = h_0(t) \cdot \exp(-2.38 \cdot \text{Immune}_{\text{hybrid}} - 0.86 \cdot \text{Age}_{20-40} - 0.72 \cdot \text{Age}_{40-60} - 0.36 \cdot \text{Age}_{>60}) + \epsilon$$