1.d. $W(X=1|C=0) = 1$

$W(X=1|C=1) = 1$

$W(X=0|C=0) = \frac{P(X=1|C=0)}{P(X=0|C=0)}$

$W(X=0|C=1) = \frac{P(X=1|C=1)}{P(X=0|C=1)}$

$$\ln \frac{E(Y)}{1-E(Y)} = \beta_0 + \beta_1 X$$

$$\frac{E(Y)}{1-E(Y)} = e^{\beta_0 + \beta_1 X}$$

$$E(Y) = \frac{e^{\beta_0 + \beta_1 X}}{1 + e^{\beta_0 + \beta_1 X}}$$