Table 1.3 Commonly used regression models.

Regression model	Expression
Multiple linear regression	$E(Y \mid x_1, x_2, ..., x_p) = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + ... + \beta_p x_p$
Logistic regression	$\frac{P(Y=1 \mid x_1, x_2, ..., x_p)}{1 - P(Y=1 \mid x_1, x_2, ..., x_p)} = e^{\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_p x_p}$
Poisson regression	$E(Y \mid x_1, x_2, \ldots, x_p) = e^{\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_p x_p}$
Cox regression	$h(t, x_1, x_2, ..., x_p) = h_0(t) \cdot e^{\beta_1 x_1 + \beta_2 x_2 + \cdots + \beta_p x_p}$