# Survival Analysis

Summary Statistics    Kaplan Meier Curve    **Cox Model**    Weibull Regression Model

**Fit a Customized Model**    Survival Probability Estimation

**Outcome**

Dead to Breast Cancer
(DOBC)    ▼

**Variable 1**

Mutation Status    ▼

**Variable 2**

NULL    ▼

**Variable 3**

NULL    ▼

**Variable 4**

NULL    ▼

**Variable 5**

NULL    ▼

**Variable 6**

NULL    ▼

**Variable 7**

NULL    ▼

Generate the Model

Set to Default

Same as Weibull Model

The default cox model has default outcome as Dead to Breast Cancer and default variables: Mutation Status, Age, Tumor Stage, and Node Invovlement. If wish to customize it, you can build the new model in the first column. Otherwise, the survival probability calculation will use the default.

```
Call:
coxph(formula = Surv(SURVIVAL, NDOBC) ~ ANY_MUT + NUNDER_50 +
    NT_STAGE + NNODE_ANY, data = Data)

  n= 273, number of events= 35
   (32 observations deleted due to missingness)

             coef exp(coef) se(coef)     z Pr(>|z|)
ANY_MUT    0.5685    1.7656   0.4895 1.161   0.2455
NUNDER_50 0.2495    1.2833   0.3679 0.678   0.4977
NT_STAGE   0.8959    2.4496   0.3502 2.558   0.0105 *
NNODE_ANY 0.6988    2.0112   0.3573 1.955   0.0505 .
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

          exp(coef) exp(-coef) lower .95 upper .95
ANY_MUT       1.766     0.5664    0.6765     4.608
NUNDER_50     1.283     0.7792    0.6240     2.639
NT_STAGE      2.450     0.4082    1.2330     4.866
NNODE_ANY     2.011     0.4972    0.9984     4.052

Concordance= 0.705  (se = 0.044 )
Likelihood ratio test= 16.57  on 4 df,    p=0.002
Wald test            = 18.45  on 4 df,    p=0.001
Score (logrank) test = 20.15  on 4 df,    p=5e-04
```

The AIC of this model is 362.16 and the BIC of this model is 376.6
The p-value of the PH assumption is 0.28 and thus the PH assumption of this model is met.

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