In [1]:
```
# we install the library
install.packages("eha")
```

```
also installing the dependency 'survival'


  There are binary versions available but the source versions are later:
        binary source needs_compilation
survival 3.2-11  3.5-5              TRUE
eha       2.9.0 2.10.3              TRUE

  Binaries will be installed
package 'survival' successfully unpacked and MD5 sums checked
package 'eha' successfully unpacked and MD5 sums checked

The downloaded binary packages are in
        C:\Users\Lenovo\AppData\Local\Temp\RtmpMjrfyf\downloaded_packages
```

In [2]:
```
library(eha)
```

```
Warning message:
"package 'eha' was built under R version 3.6.3"
```

In [6]:
```
library(survival)
```

```
Warning message:
"package 'survival' was built under R version 3.6.3"
```

In [4]:
```
# we get the data set
data <- infants
```

In [15]:
```
# Fit the Cox proportional hazards model using the "coxph" function
coxph_model <- coxph(Surv(enter,exit, event) ~ age + sex, data = data)
```

In [16]:
```
# we obtain the statistics of the model
summary(coxph_model)
```

```
Call:
coxph(formula = Surv(enter, exit, event) ~ age + sex, data = data)

  n= 105, number of events= 21

           coef exp(coef) se(coef)      z Pr(>|z|)
age    -0.04044   0.96037  0.04507 -0.897    0.370
sexboy -0.48518   0.61559  0.44224 -1.097    0.273

       exp(coef) exp(-coef) lower .95 upper .95
age       0.9604      1.041    0.8792     1.049
sexboy    0.6156      1.624    0.2587     1.465

Concordance= 0.586  (se = 0.058 )
Likelihood ratio test= 1.99  on 2 df,   p=0.4
Wald test            = 2  on 2 df,   p=0.4
Score (logrank) test = 2.03  on 2 df,   p=0.4
```

In [27]:
```
# Interpretación de los coeficientes
cat("The mother's age is inversely related to the risk of infant death, with a decrease
cat("Male infants have a", round((1 - exp(coef(coxph_model)["sexboy"])) * 100, 2), "% l
```

```
The mother's age is inversely related to the risk of infant death, with a decrease of -
3.96 % in risk for each additional year of age.
Male infants have a 38.44 % lower risk of death than female infants.
```

In [ ]: