

Plotting the Mean Cumulative Function

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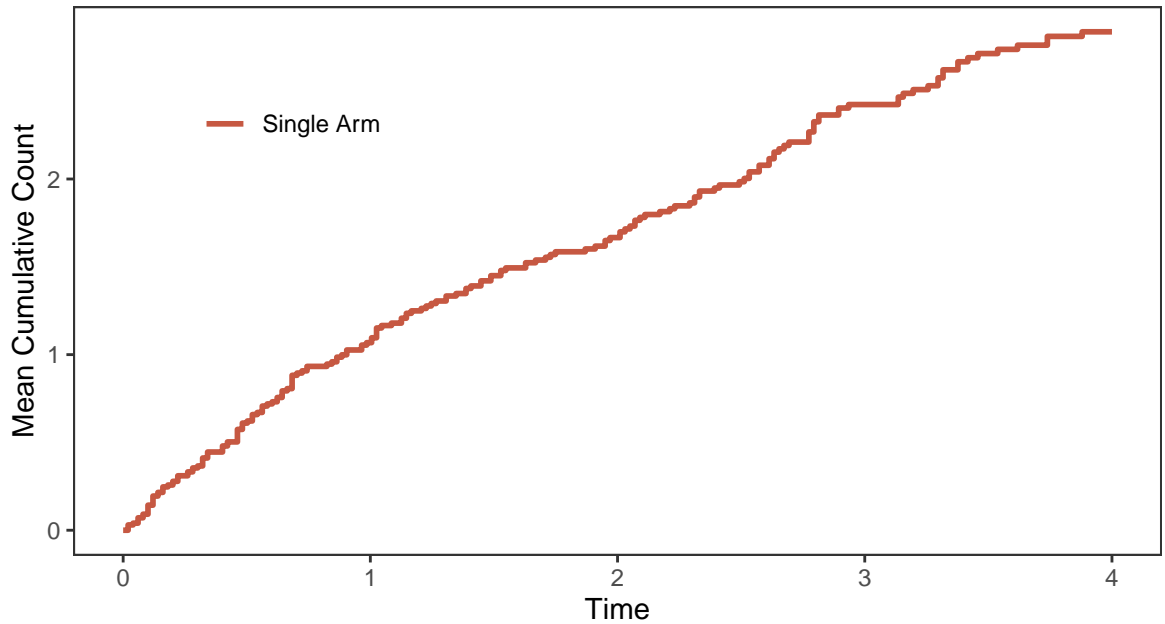
One sample setting

Simulate data for plotting

```
data <- MCC::GenData(n = 100)
```

Plot the MCF with NARs

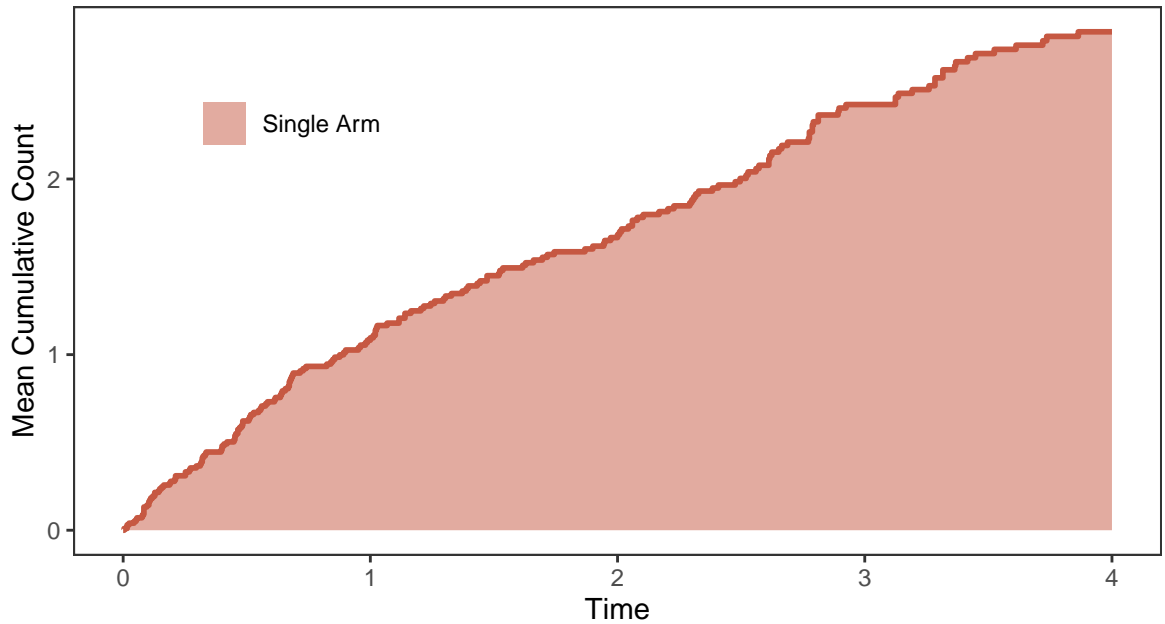
```
q <- MCC::PlotOneSampleMCF(  
  data = data,  
  color_lab = "Single Arm"  
)  
q_nar <- MCC::PlotOneSampleNAR(  
  data = data,  
  x_breaks = seq(from = 0, to = 4),  
  y_lab = "Single Arm"  
)  
q_main <- cowplot::plot_grid(  
  plotlist = list(q, q_nar),  
  nrow = 2,  
  align = "v",  
  axis = "l",  
  rel_heights = c(3, 1)  
)  
show(q_main)
```



Single Arm -	100	59	42	31	19
	0	1	2	3	4

Plot area under the MCF with NARs

```
q <- MCC::PlotOneSampleAUMCF(
  data = data,
  color_lab = "Single Arm"
)
q_nar <- MCC::PlotOneSampleNAR(
  data = data,
  x_breaks = seq(from = 0, to = 4),
  y_lab = "Single Arm"
)
q_main <- cowplot::plot_grid(
  plotlist = list(q, q_nar),
  nrow = 2,
  align = "v",
  axis = "l",
  rel_heights = c(3, 1)
)
show(q_main)
```



Single Arm -	100	59	42	31	19
	0	1	2	3	4

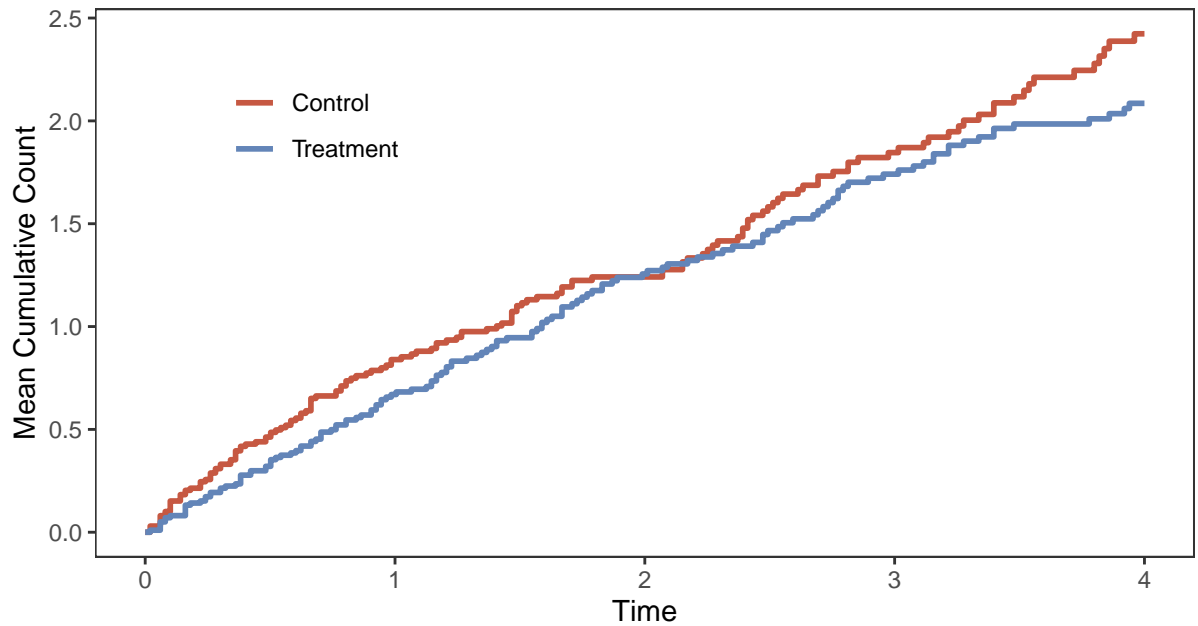
Two sample setting

Simulate data for plotting

```
covariates <- data.frame(  
  arm = c(rep(1, 100), rep(0, 100)),  
  covar = stats::rnorm(200)  
)  
data <- MCC::GenData(  
  beta_event = c(log(0.8), log(1.2)),  
  covariates = covariates,  
  frailty_variance = 0.2,  
  tau = 4  
)
```

Plot the MCFs with NARs

```
q <- MCC::PlotMCFs(
  data = data,
  color_labs = c("Control", "Treatment")
)
q_nar <- MCC::PlotNARs(
  data = data,
  x_breaks = seq(from = 0, to = 4),
  y_labs = c("Control", "Treatment")
)
q_main <- cowplot::plot_grid(
  plotlist = list(q, q_nar),
  nrow = 2,
  align = "v",
  axis = "l",
  rel_heights = c(3, 1)
)
show(q_main)
```



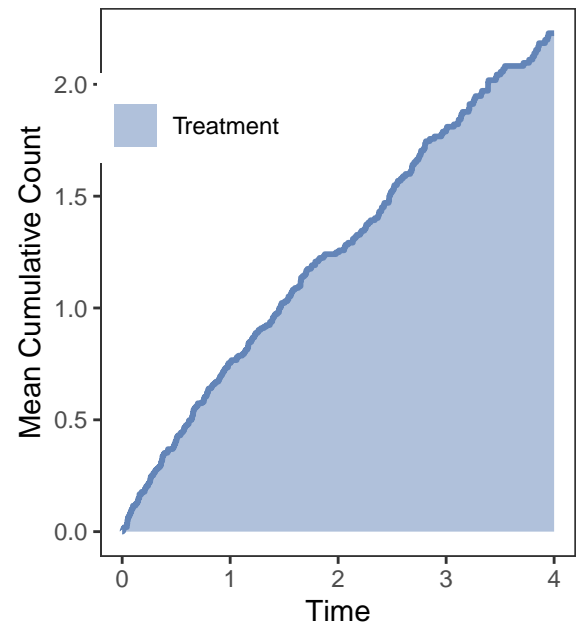
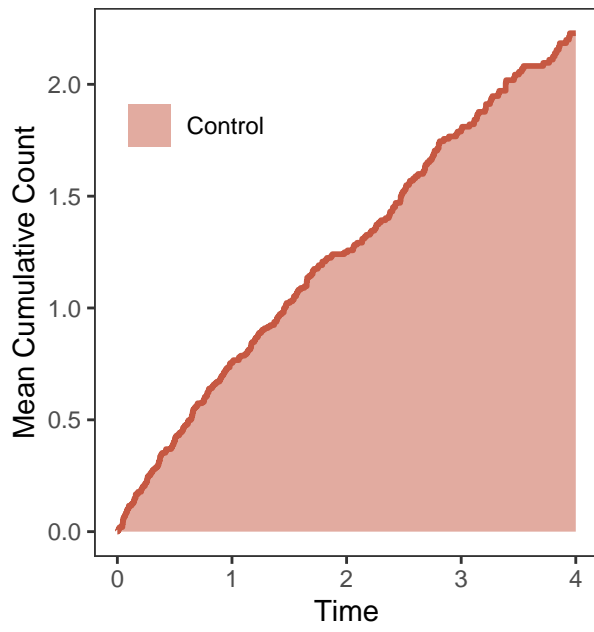
Treatment -	100	59	38	27	17
Control -	100	61	38	23	13
	0	1	2	3	4

Plot areas under the MCFs with NARs

```
# Control arm.
q0 <- MCC::PlotAUMCFs(
  data = data,
  which_arm = 0,
  arm_label = "Control"
)
q0_nar <- MCC::PlotOneSampleNAR(
  data = data %>% dplyr::filter(arm == 0),
  x_breaks = seq(from = 0, to = 4),
  y_lab = "Control"
)
q0_main <- cowplot::plot_grid(
  plotlist = list(q0, q0_nar),
  nrow = 2,
  align = "v",
  axis = "l",
  rel_heights = c(3, 1)
)

# Treatment arm.
q1 <- MCC::PlotAUMCFs(
  data = data,
  which_arm = 1,
  color = "#6385B8",
  arm_label = "Treatment"
)
q1_nar <- MCC::PlotOneSampleNAR(
  data = data %>% dplyr::filter(arm == 1),
  x_breaks = seq(from = 0, to = 4),
  y_lab = "Treatment"
)
q1_main <- cowplot::plot_grid(
  plotlist = list(q1, q1_nar),
  nrow = 2,
  align = "v",
  axis = "l",
  rel_heights = c(3, 1)
)

# Overall figure.
q_main <- cowplot::plot_grid(
  plotlist = list(q0_main, q1_main),
  nrow = 1
)
show(q_main)
```



Control	-100	61	38	23	13	Treatment	-100	59	38	27	17
	0	1	2	3	4		0	1	2	3	4