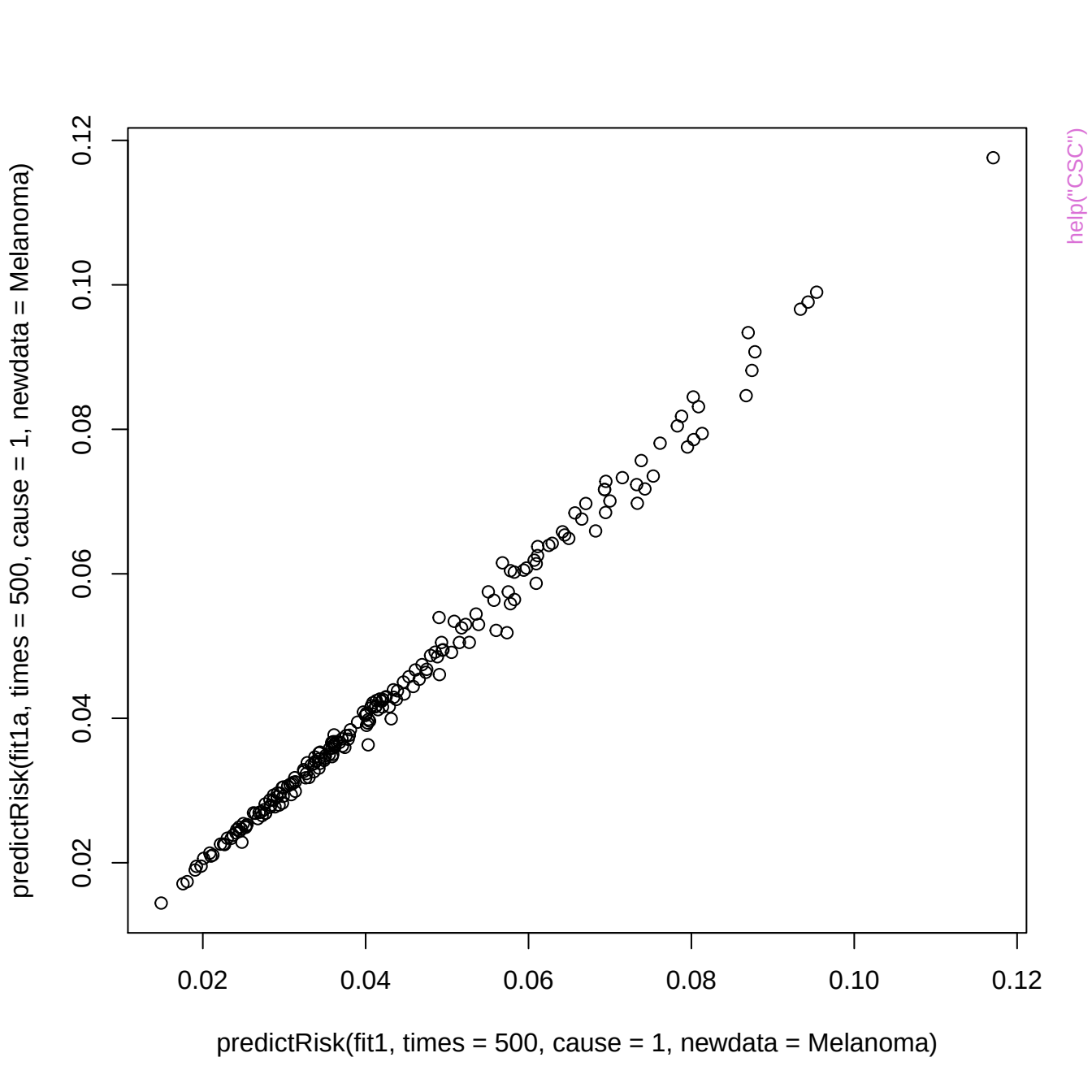
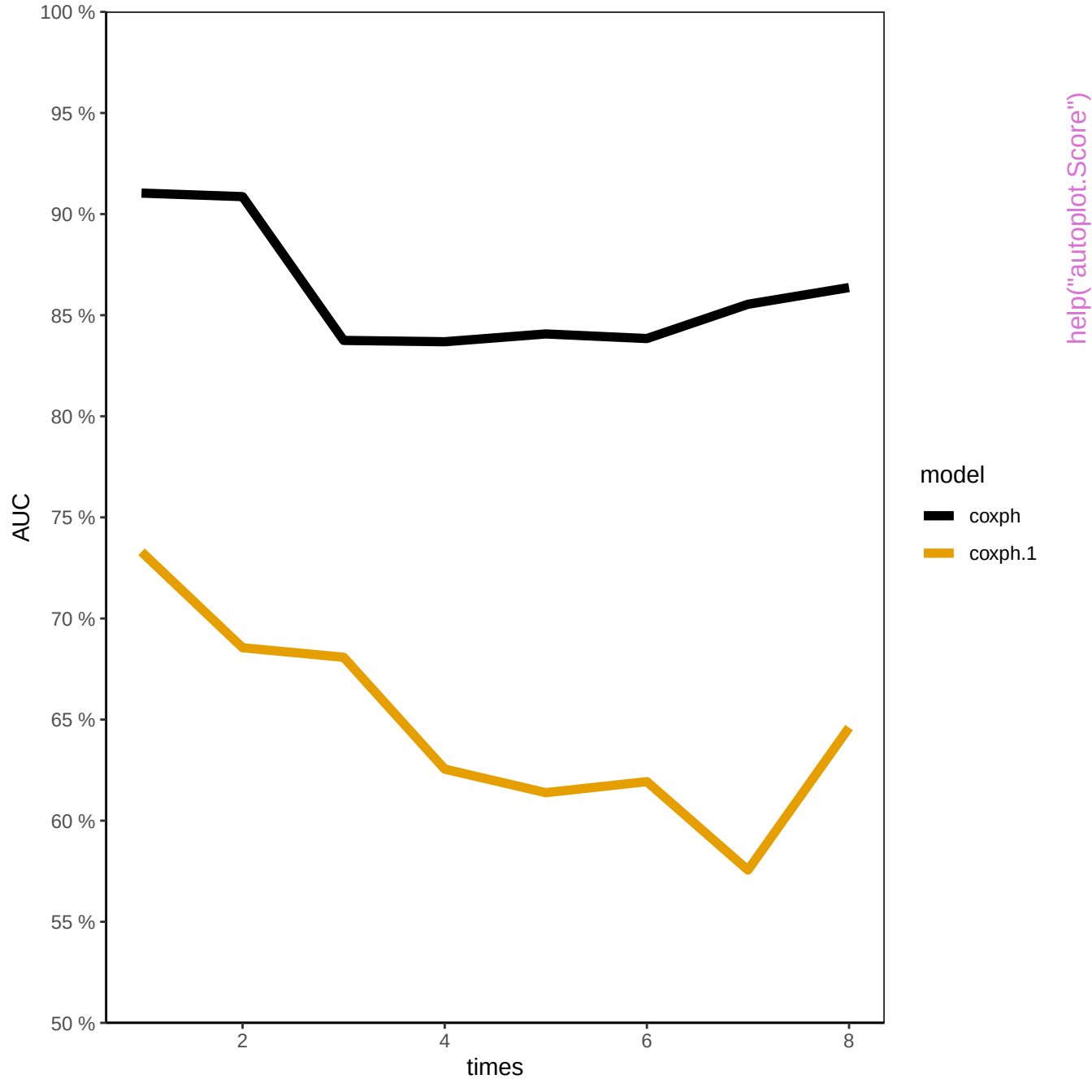
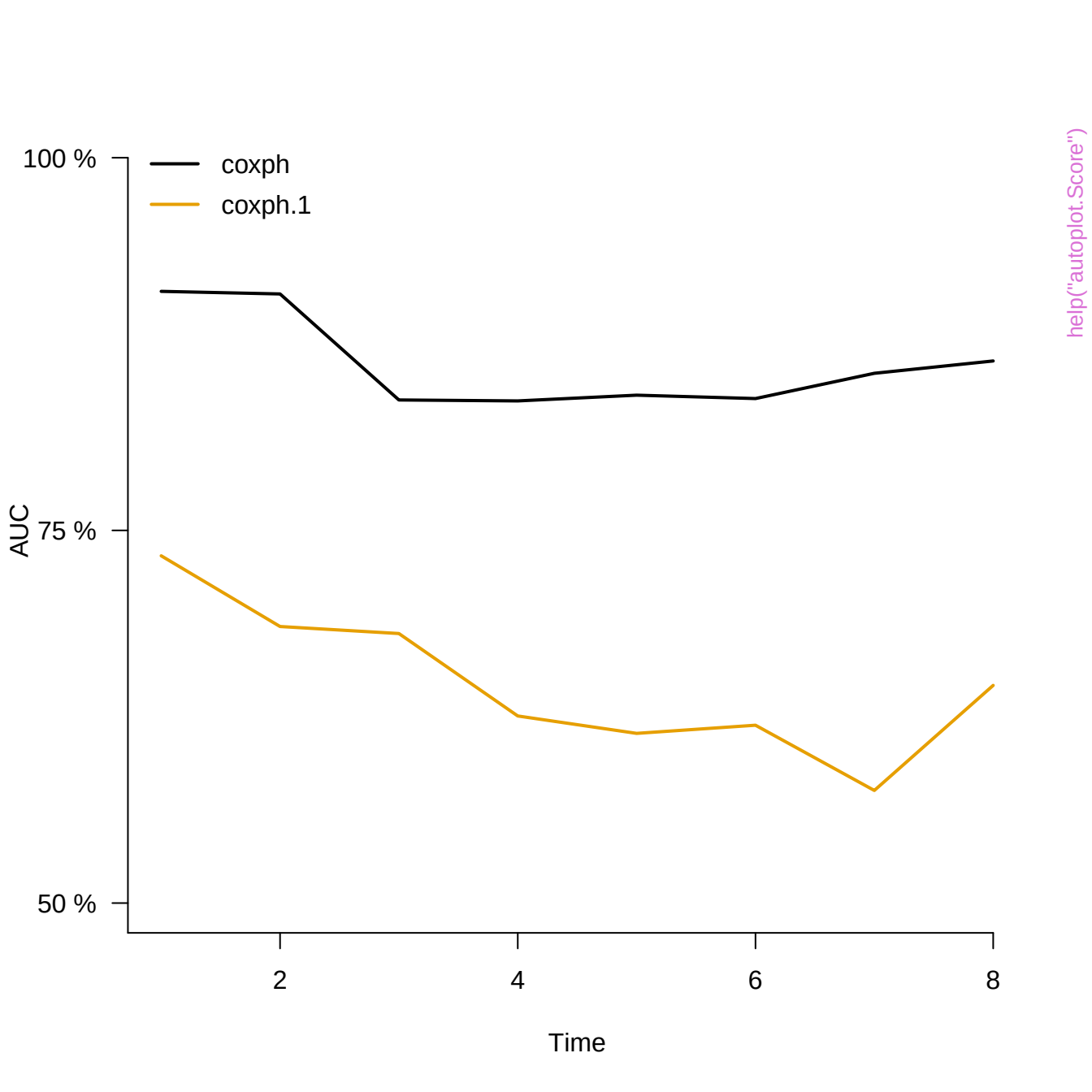
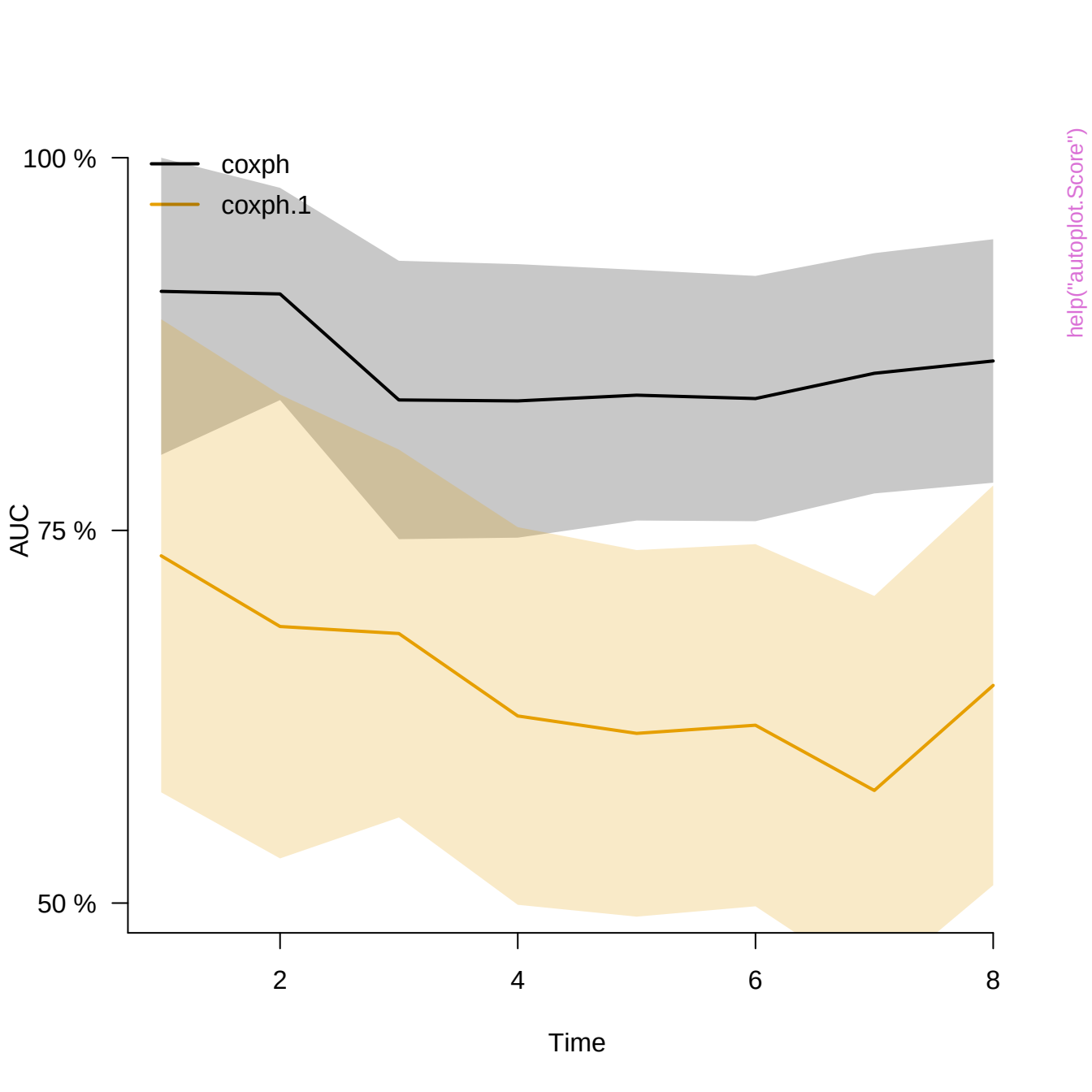
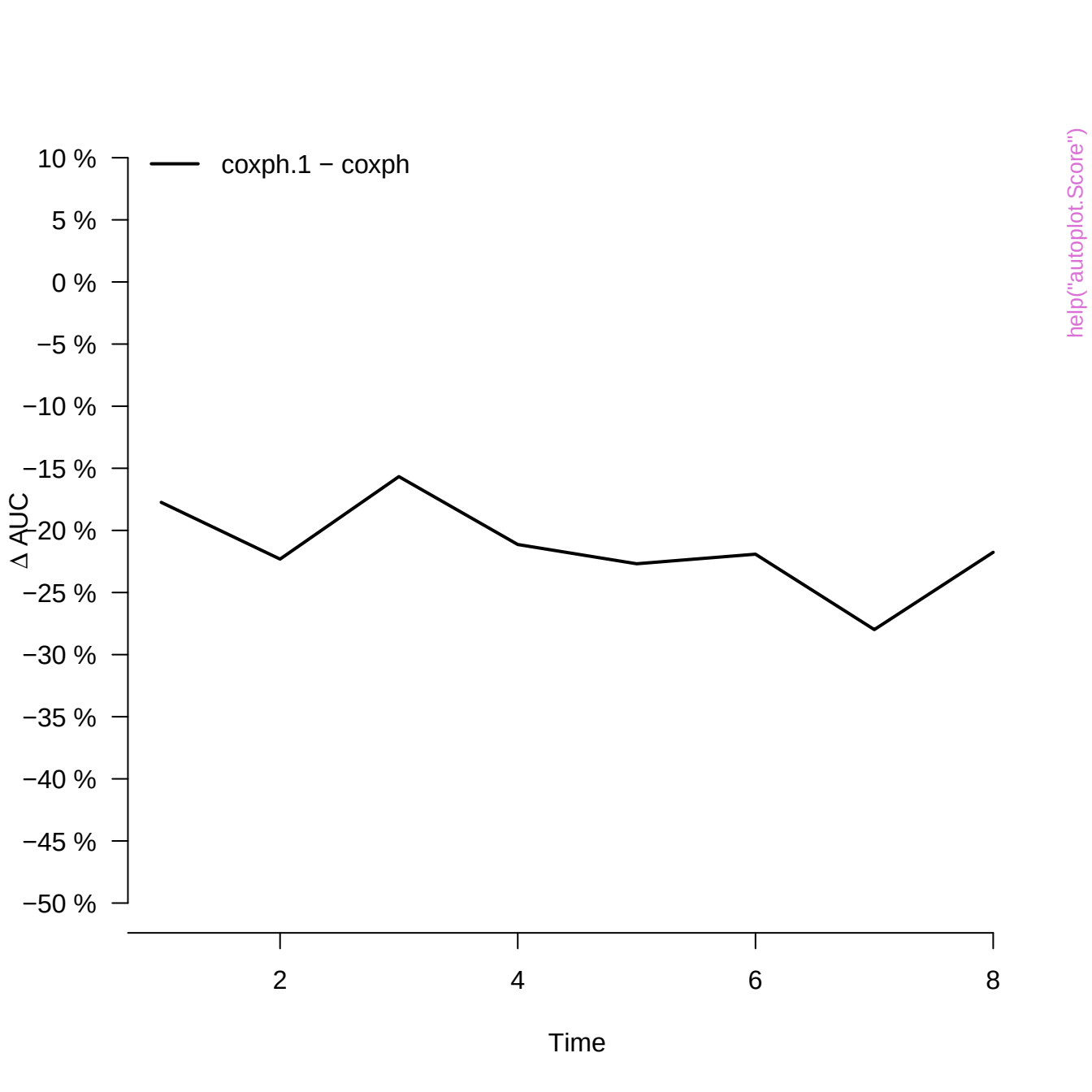
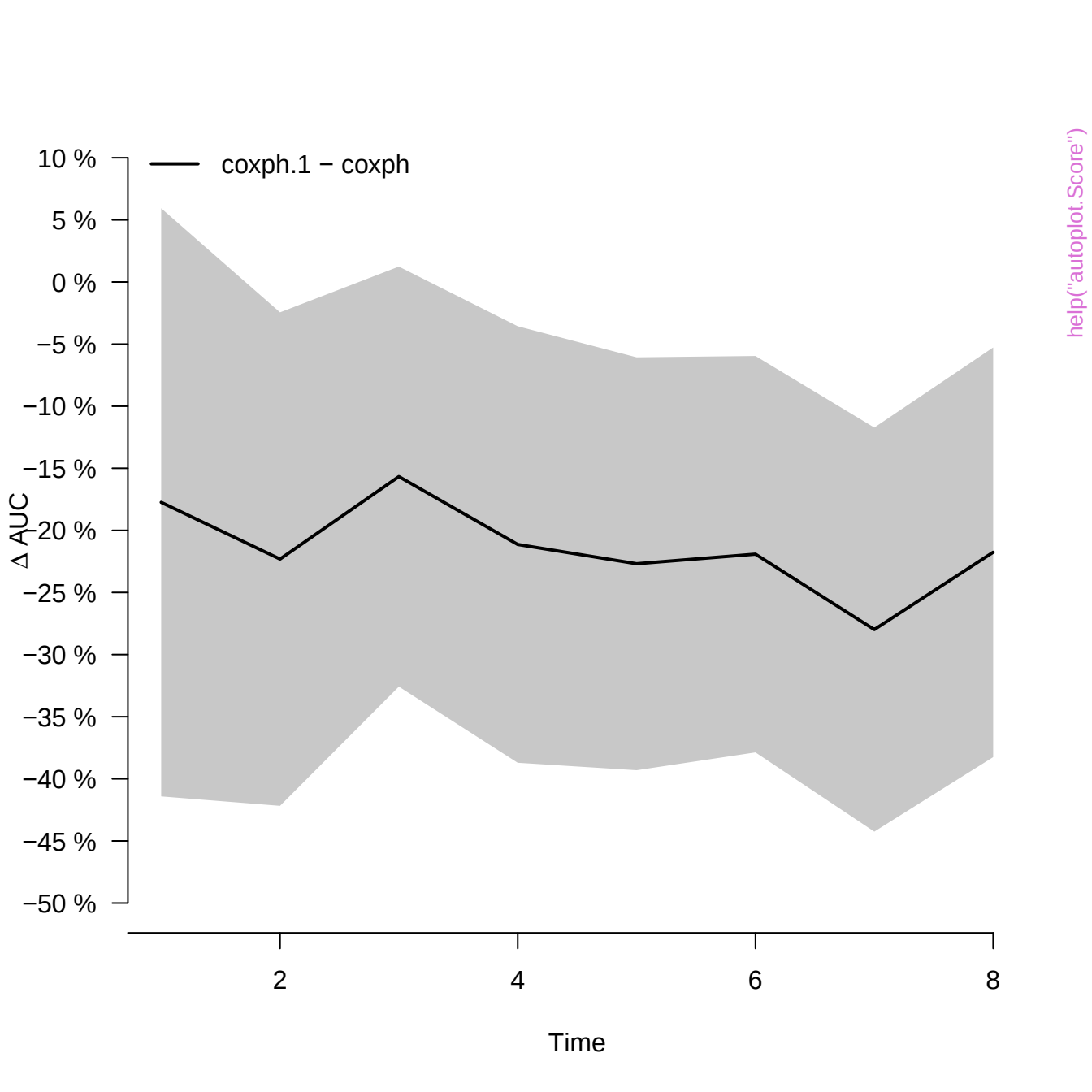

predictRisk(fit1a, times = 500, cause = 1, newdata = Melanoma)
0.02
0.04
0.06
0.08
0.10
0.12
predictRisk(fit1, times = 500, cause = 1, newdata = Melanoma)
0.02
0.04
0.06
0.08
0.10
0.12
help("CSC")


100 %
95 %
90 %
85 %
80 %
75 %
70 %
65 %
60 %
55 %
50 %
AUC
2
4
6
8
times
model
coxph
coxph.1
help("autoplot.Score")

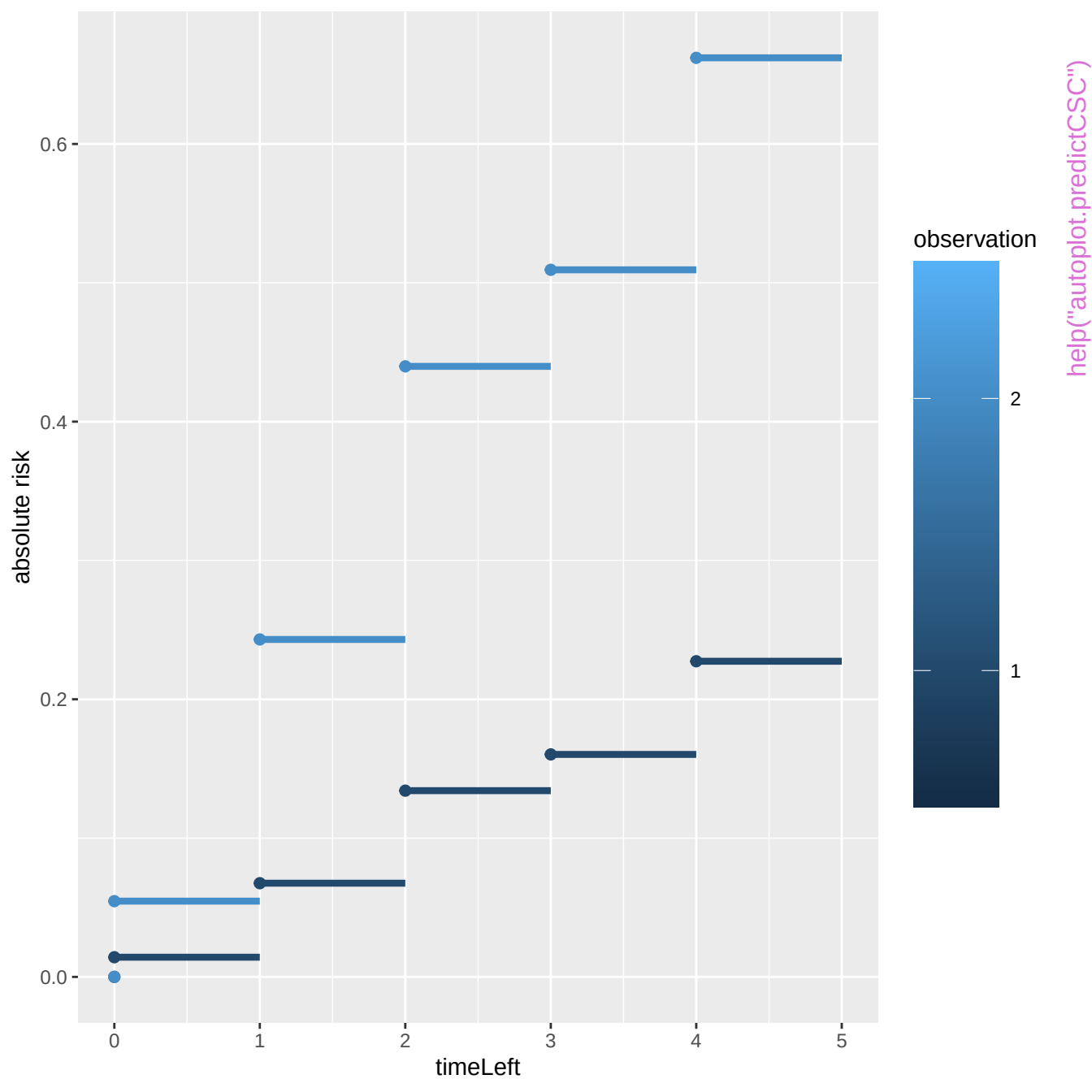

coxph
coxph.1
100 %
75 %
50 %
AUC
2
4
6
8
Time
help("autoplot.Score")

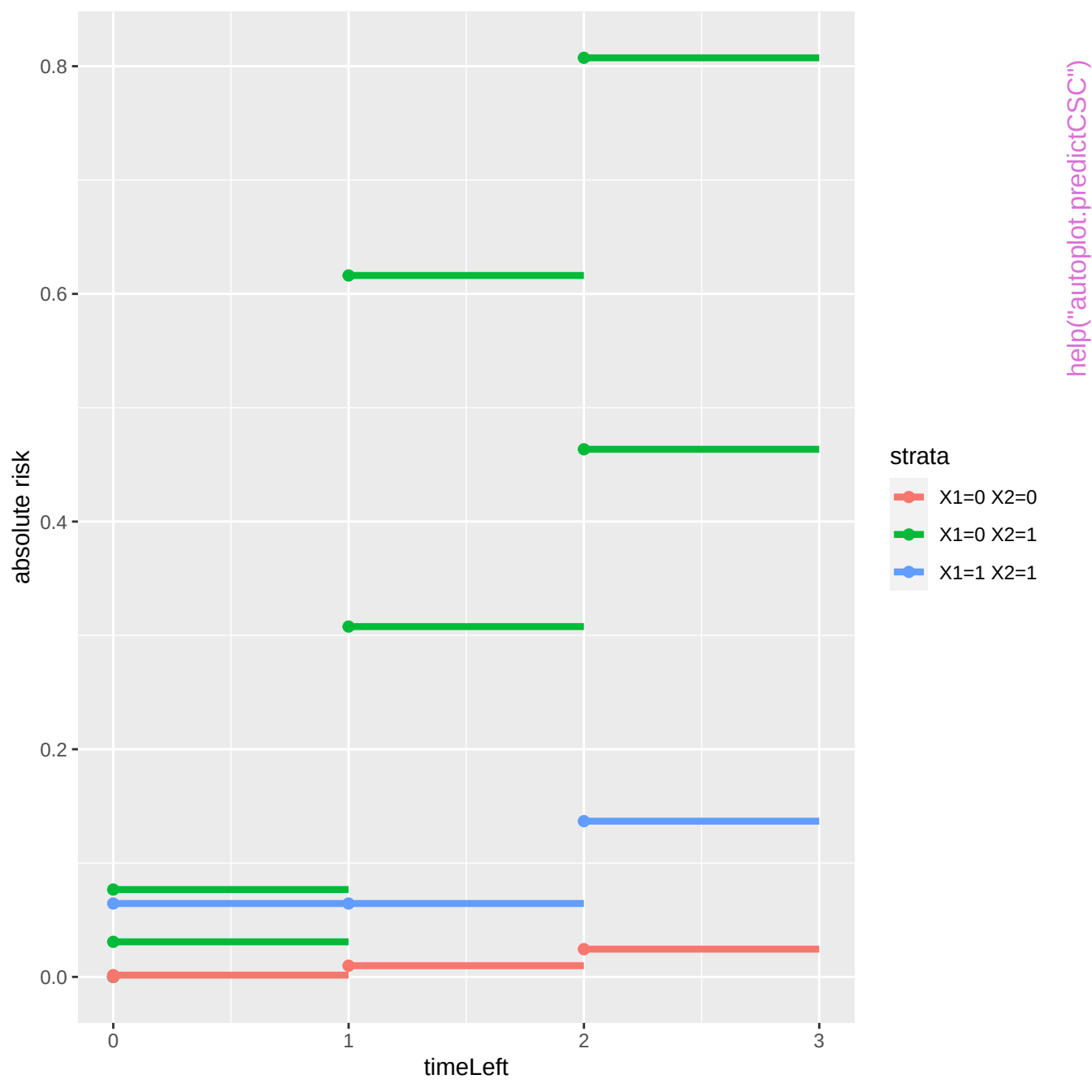

coxph
coxph.1
100 %
75 %
50 %
AUC
2
4
6
8
Time
help("autoplot.Score")

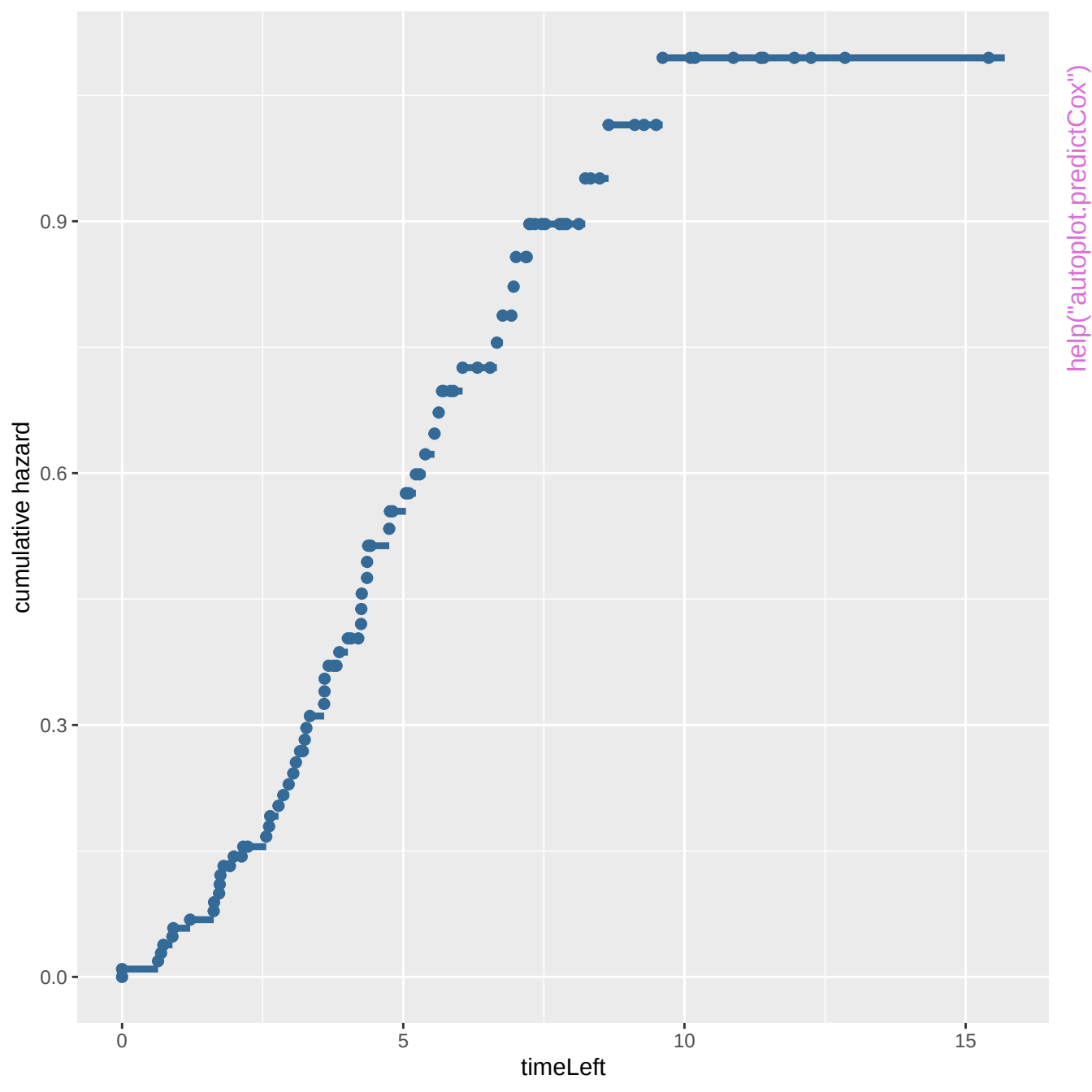

coxph.1 − coxph
10 %
5 %
0 %
−5 %
−10 %
−15 %
−20 %
−25 %
−30 %
−35 %
−40 %
−45 %
−50 %
Δ AUC
2
4
6
8
Time
help("autoplot.Score")

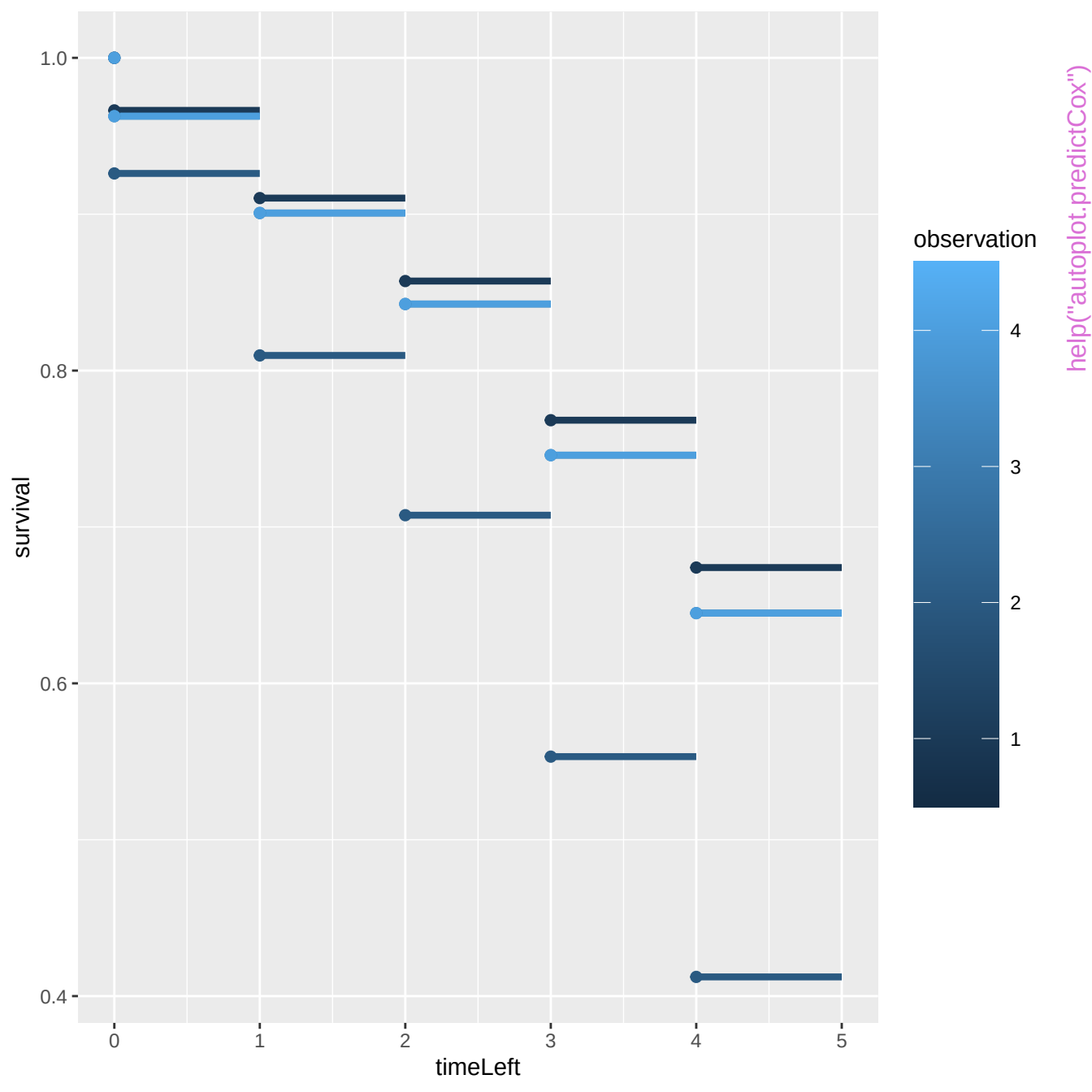


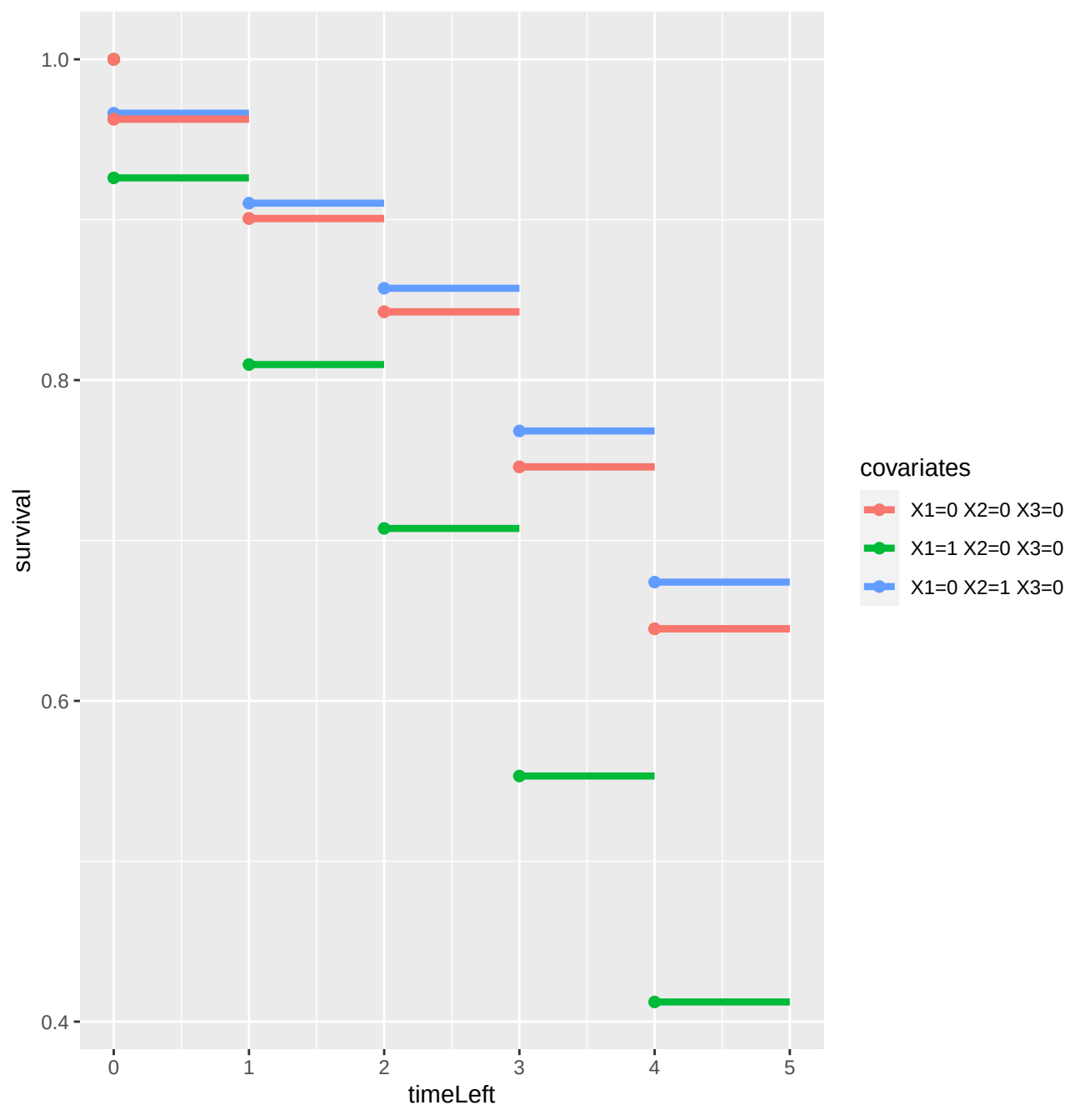
help("autoplot.Score")


absolute risk
0.0
0.2
0.4
0.6
0
1
2
3
4
5
timeLeft
observation
2
1
help("autoplot.predictCSC")

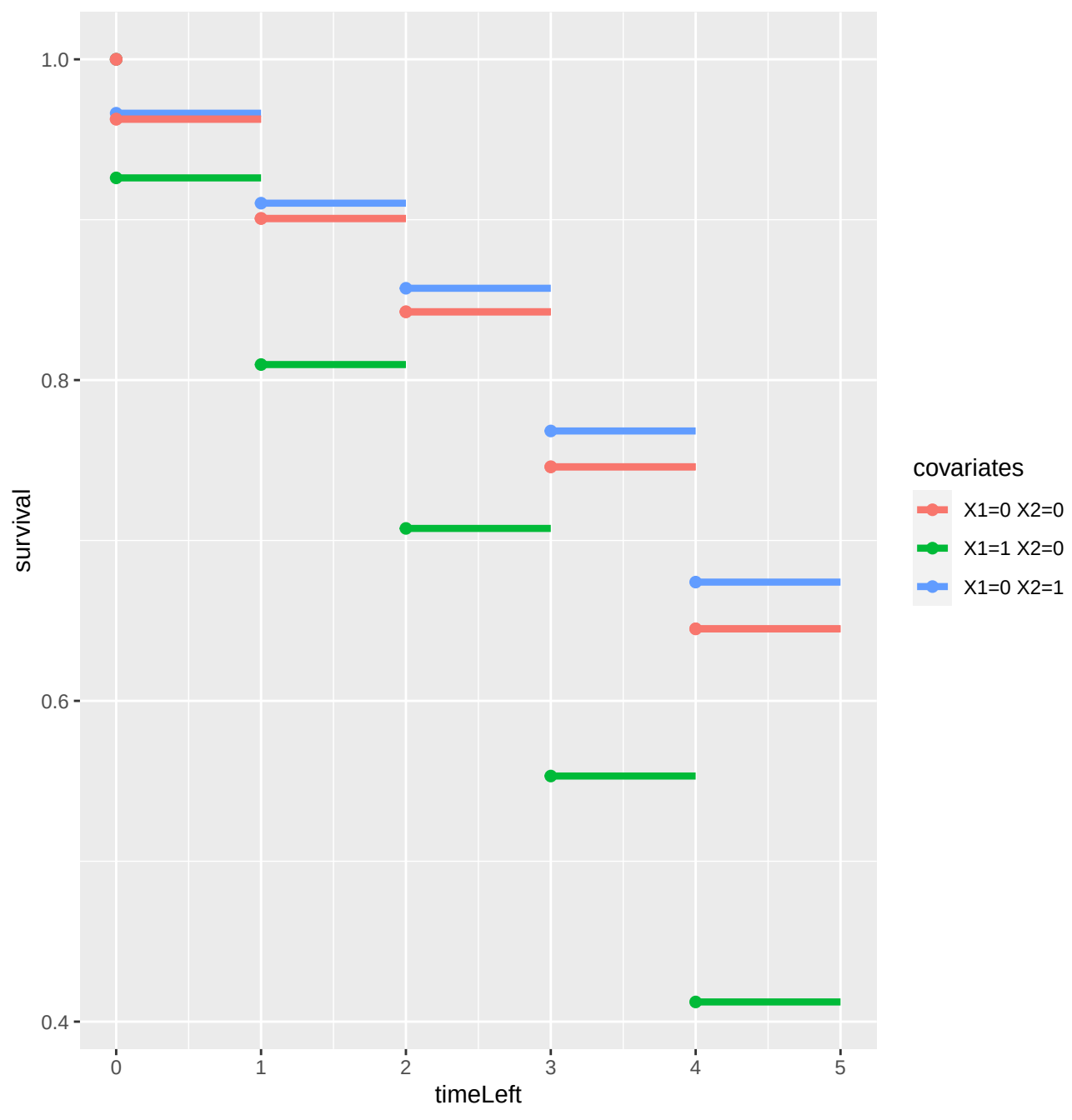

absolute risk
0.0
0.2
0.4
0.6
0.8
0
1
2
3
timeLeft
strata
X1=0 X2=0
X1=0 X2=1
X1=1 X2=1
help("autoplot.predictCSC")

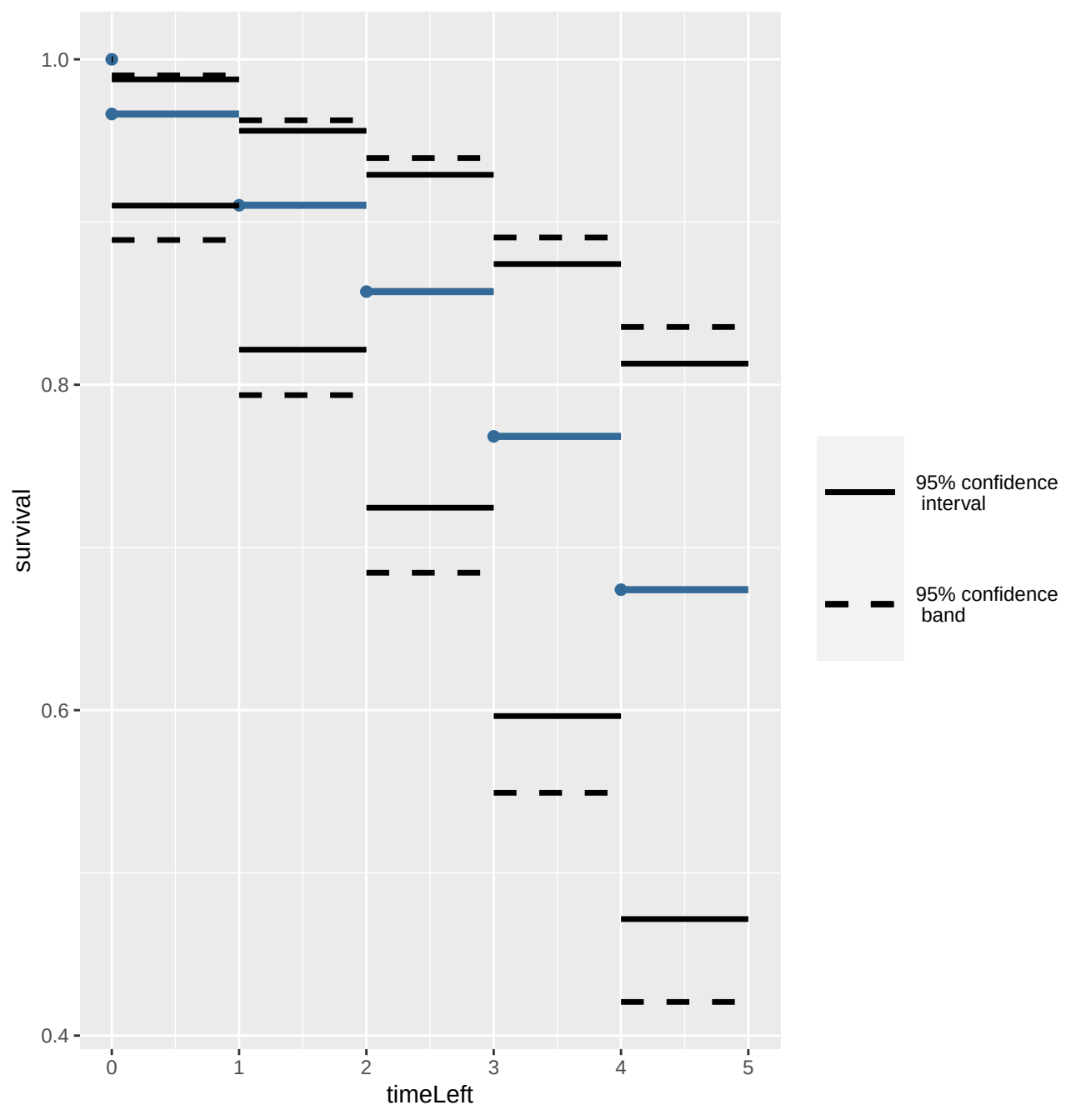

cumulative hazard
0.0
0.3
0.6
0.9
0
5
10
15
timeLeft
help("autoplot.predictCox")

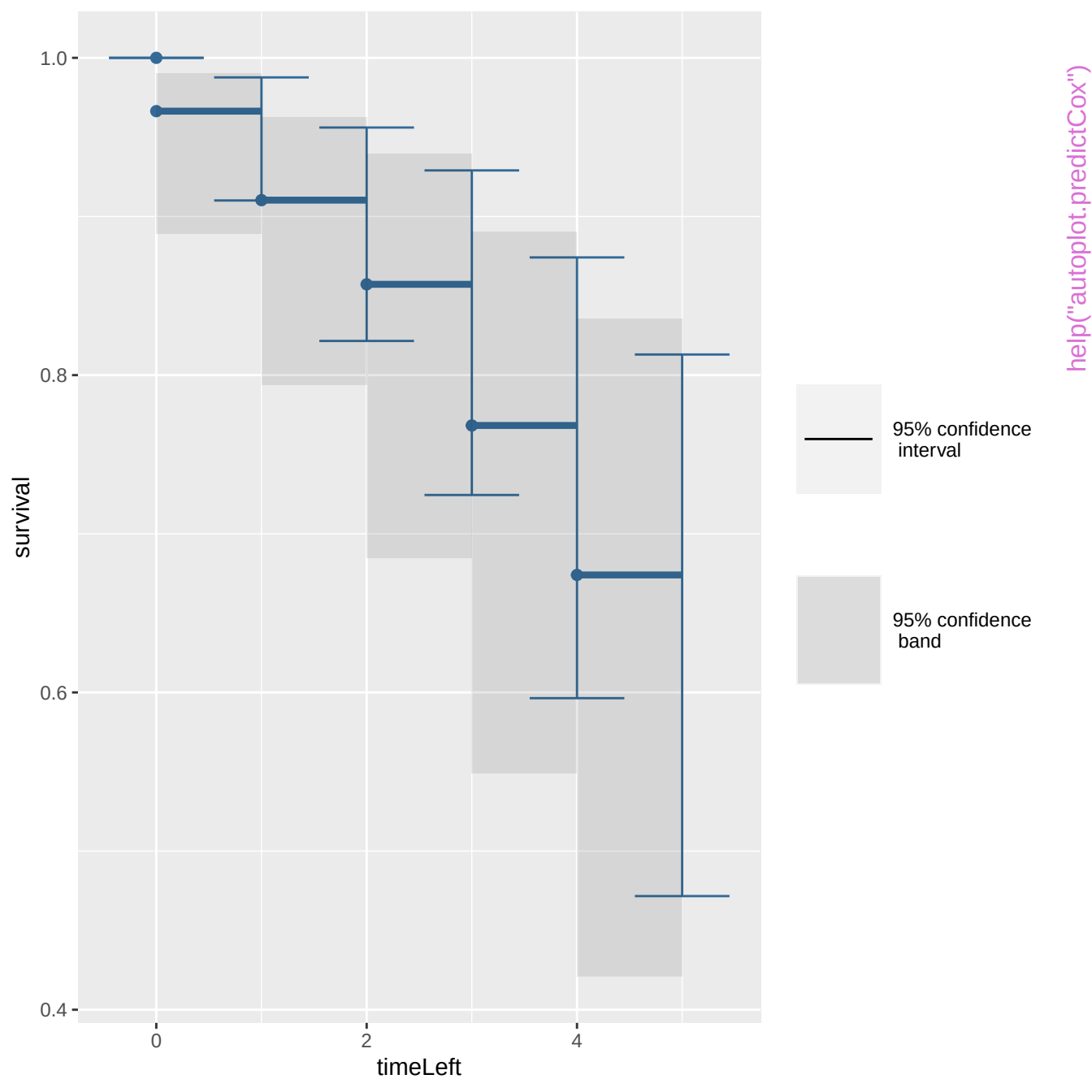

1.0
0.8
0.6
0.4
survival
0
1
2
3
4
5
timeLeft
observation
4
3
2
1
help("autoplot.predictCox")

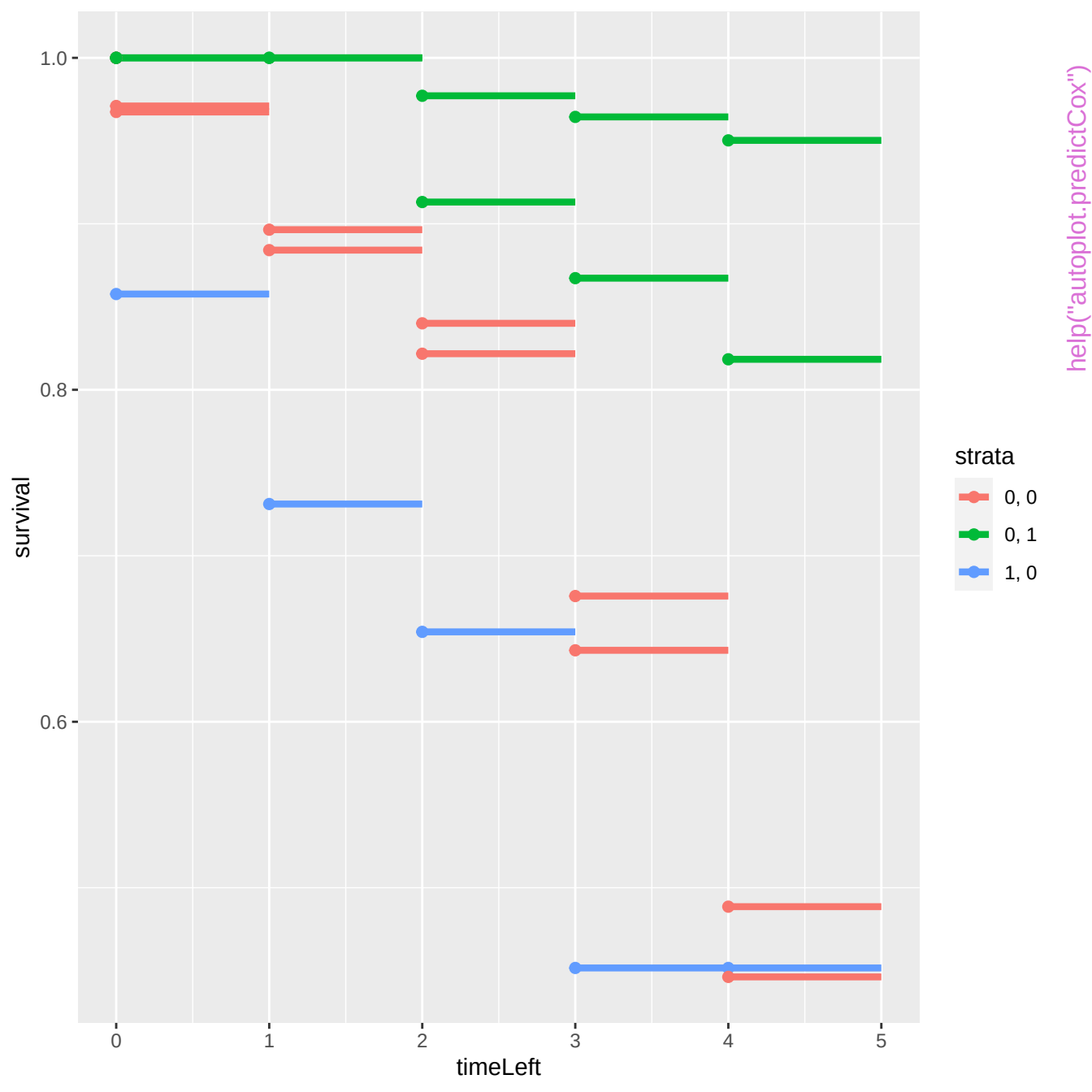


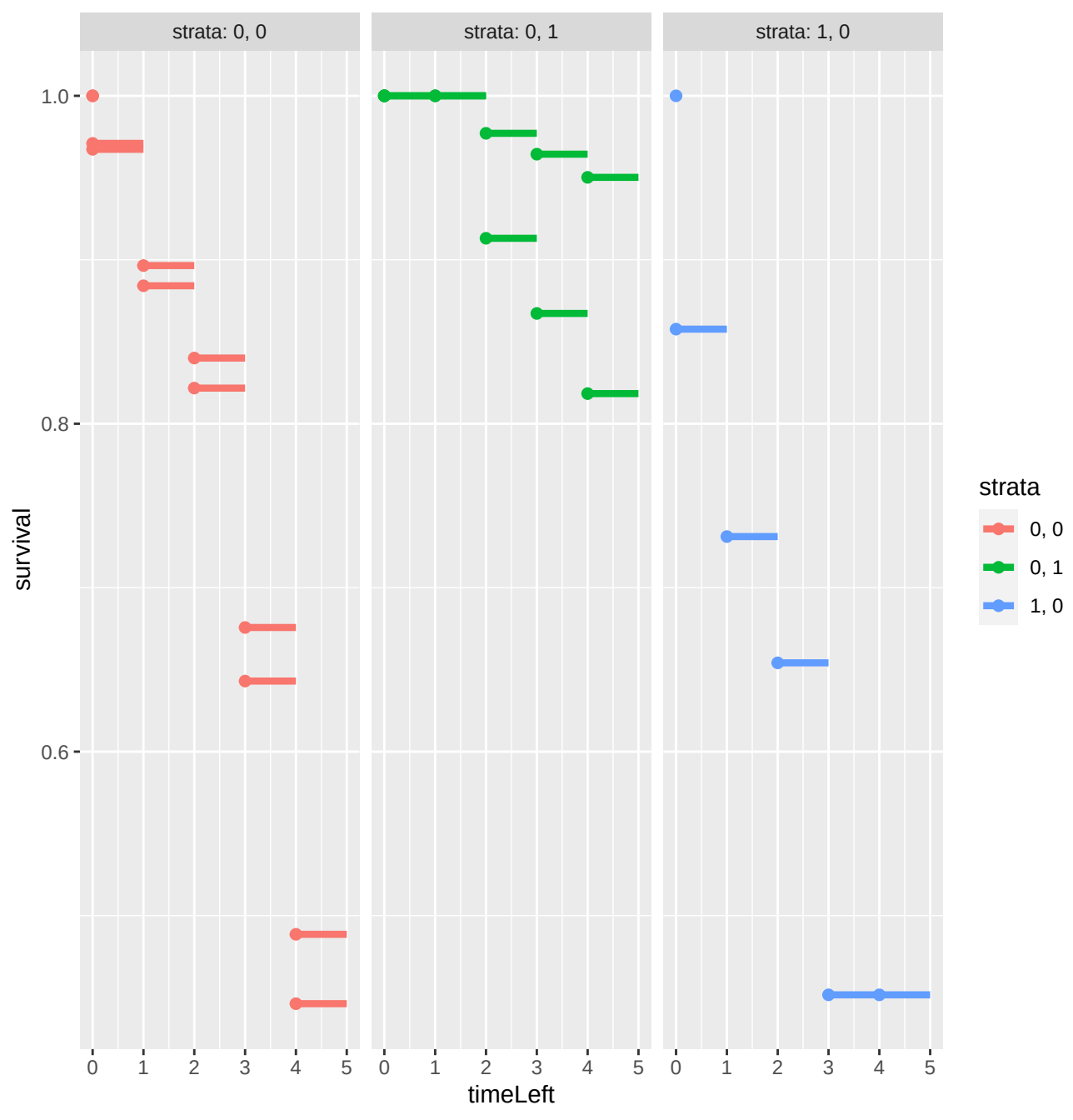
help("autoplot.predictCox")

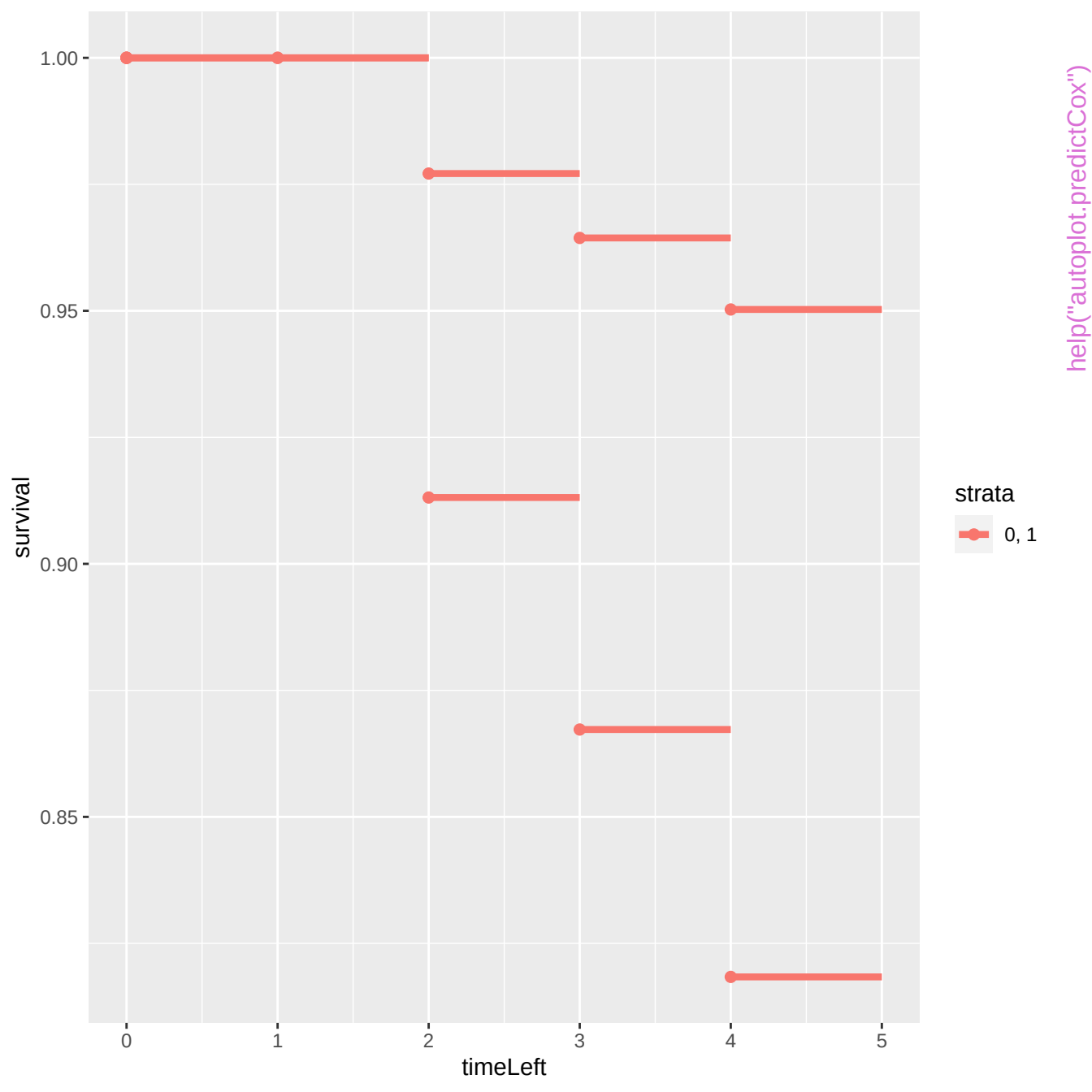

1.0
0.8
0.6
0.4
survival
0
1
2
3
4
5
timeLeft
covariates
X1=0 X2=0
X1=1 X2=0
X1=0 X2=1
help("autoplot.predictCox")

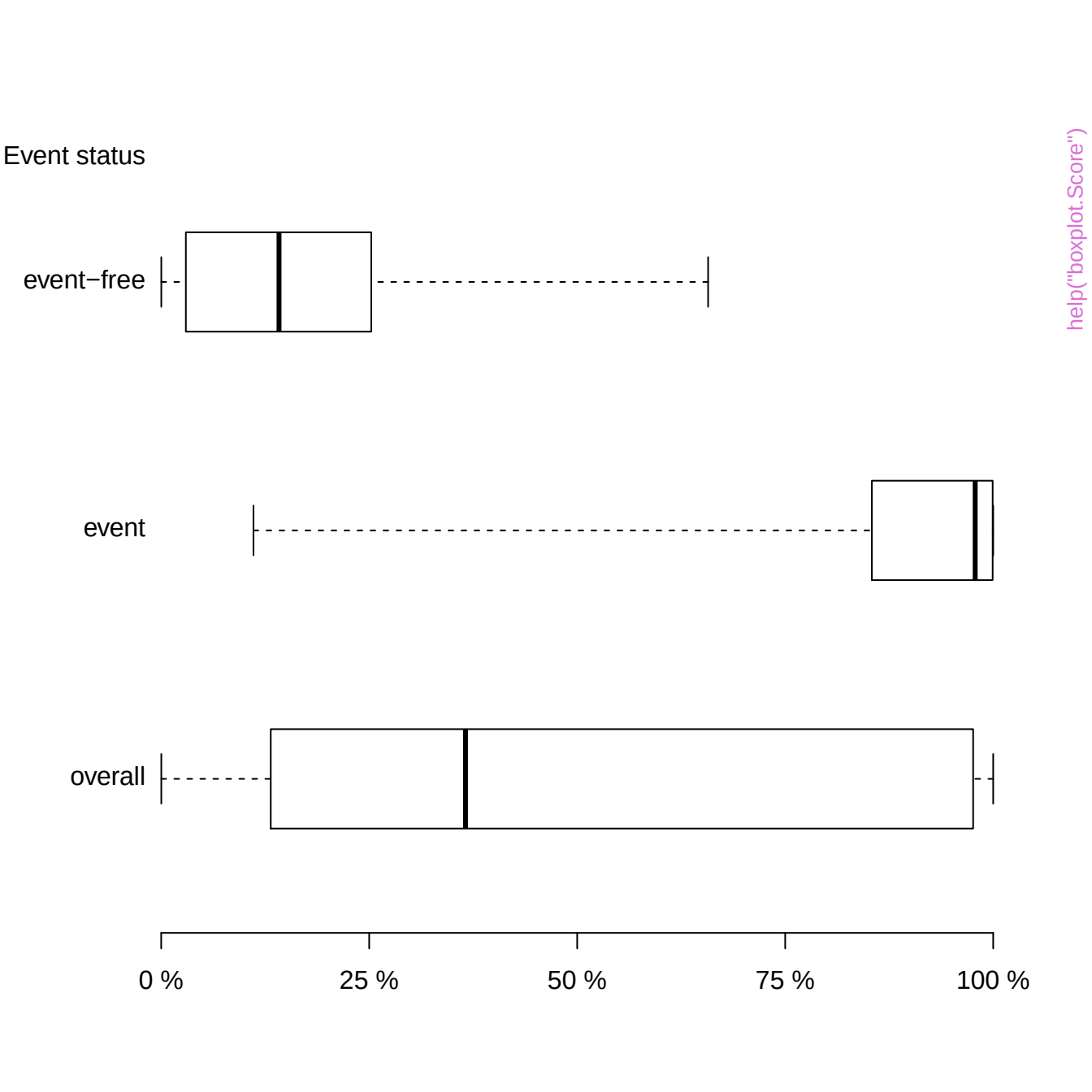

1.0
0.8
0.6
0.4
survival
0
1
2
3
4
5
timeLeft
95% confidence interval
95% confidence band
help("autoplot.predictCox")

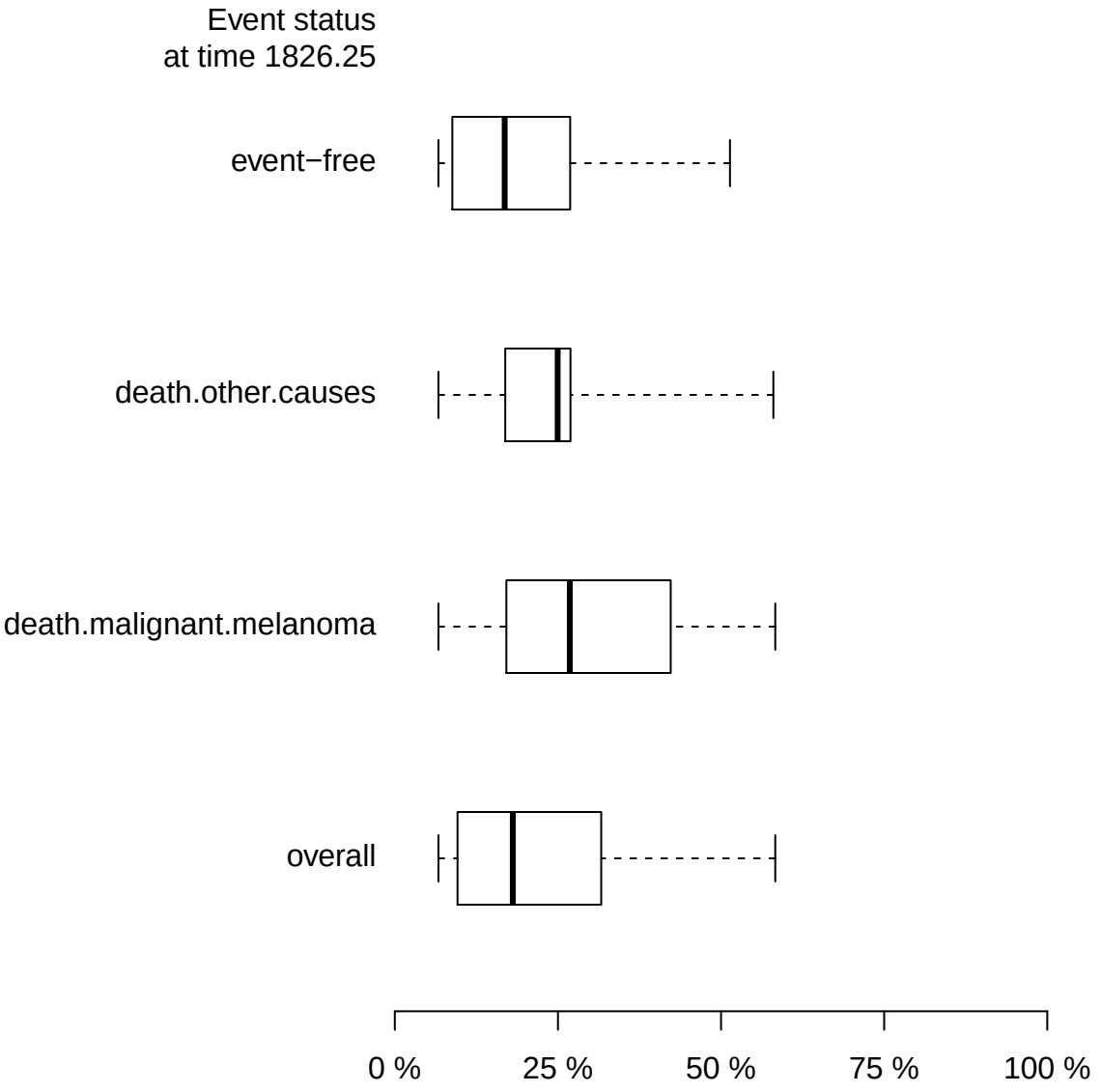

1.0
0.8
0.6
0.4
survival
0
2
4
timeLeft
95% confidence interval
95% confidence band
help("autoplot.predictCox")

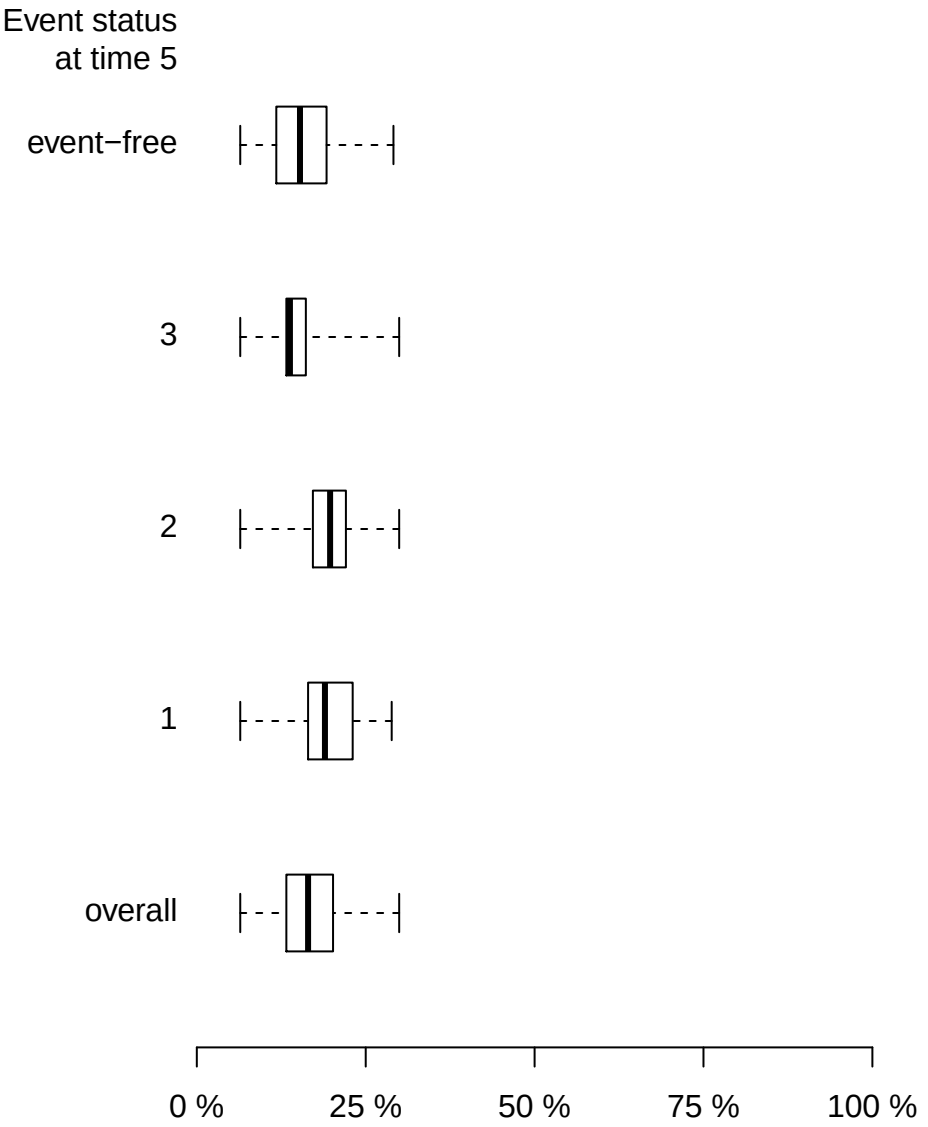

1.0
0.8
0.6
survival
0
1
2
3
4
5
timeLeft
strata
0, 0
0, 1
1, 0
help("autoplot.predictCox")

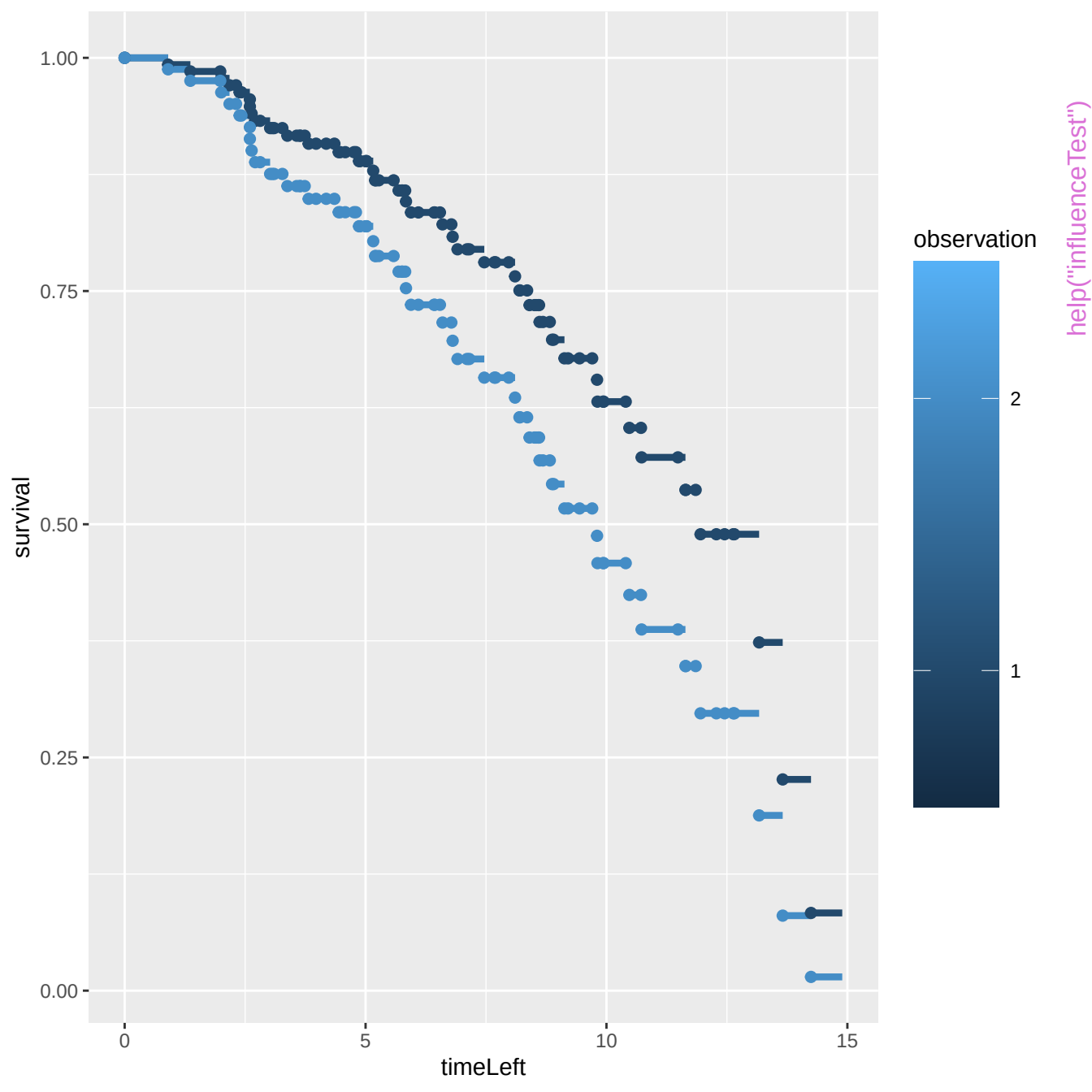

strata: 0, 0
strata: 0, 1
strata: 1, 0
1.0
0.8
0.6
survival
0
1
2
3
4
5
timeLeft
strata
0, 0
0, 1
1, 0
help("autoplot.predictCox")

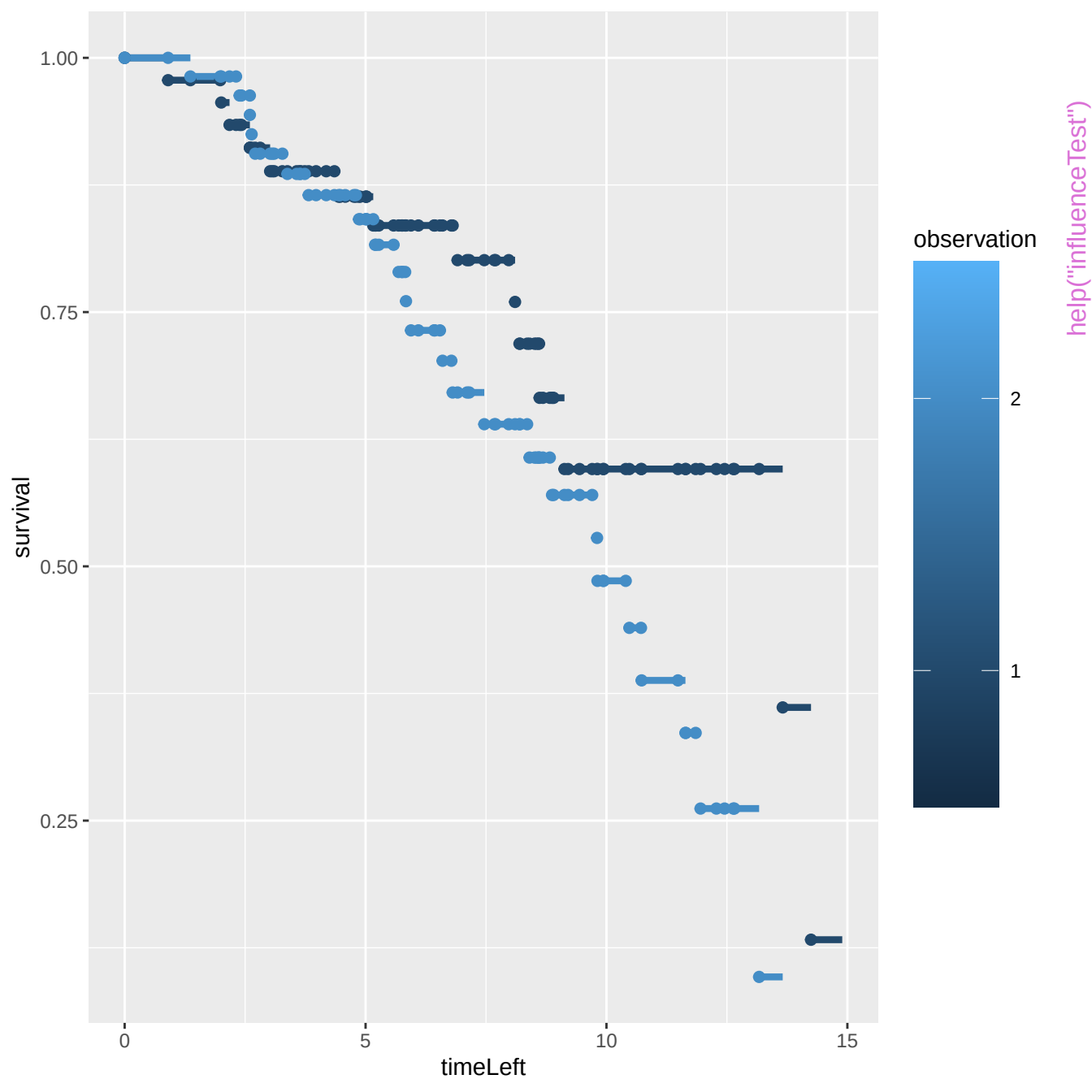

1.00
0.95
0.90
0.85
survival
0
1
2
3
4
5
timeLeft
strata
0, 1
help("autoplot.predictCox")

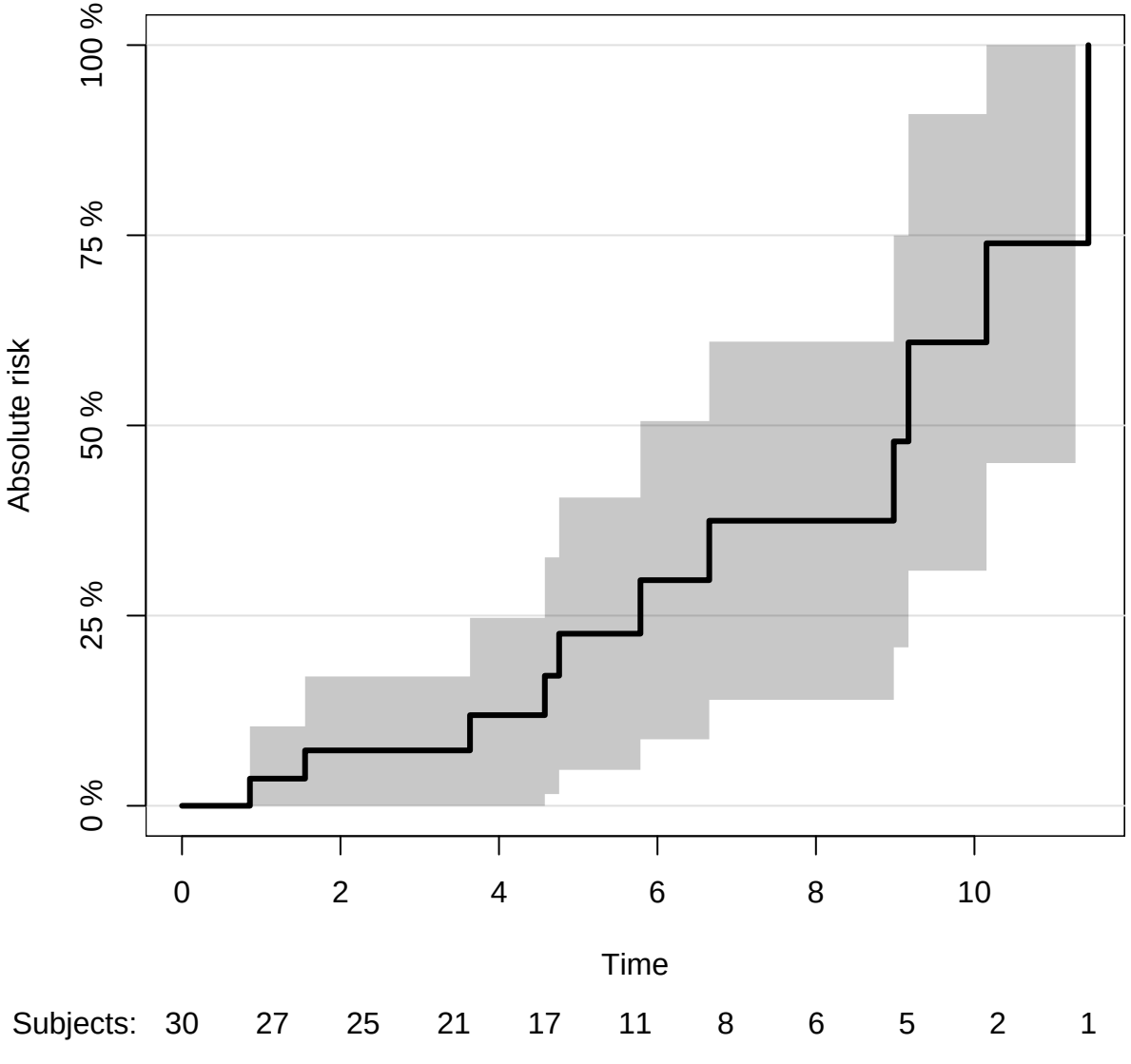

Event status
event−free
event
overall
0 %
25 %
50 %
75 %
100 %
help("boxplot.Score")


Event status
at time 1826.25
event−free
death.other.causes
death.malignant.melanoma
overall
0 %
25 %
50 %
75 %
100 %
help("boxplot.Score")

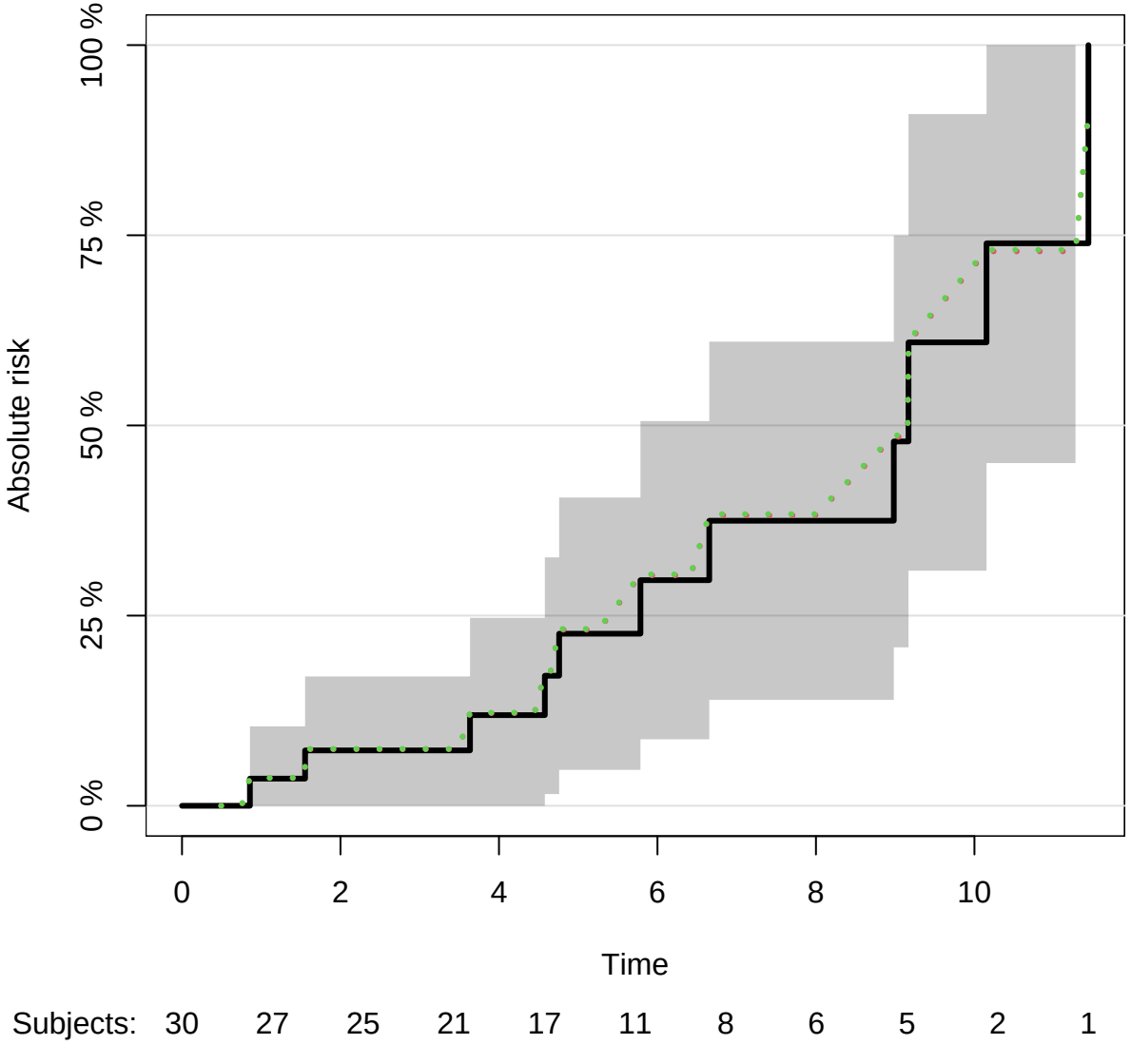

Event status
at time 5
event−free
3
2
1
overall
0 %
25 %
50 %
75 %
100 %
help("boxplot.Score")


1.00
0.75
0.50
0.25
0.00
survival
0
5
10
15
timeLeft
observation
2
1
help("influenceTest")

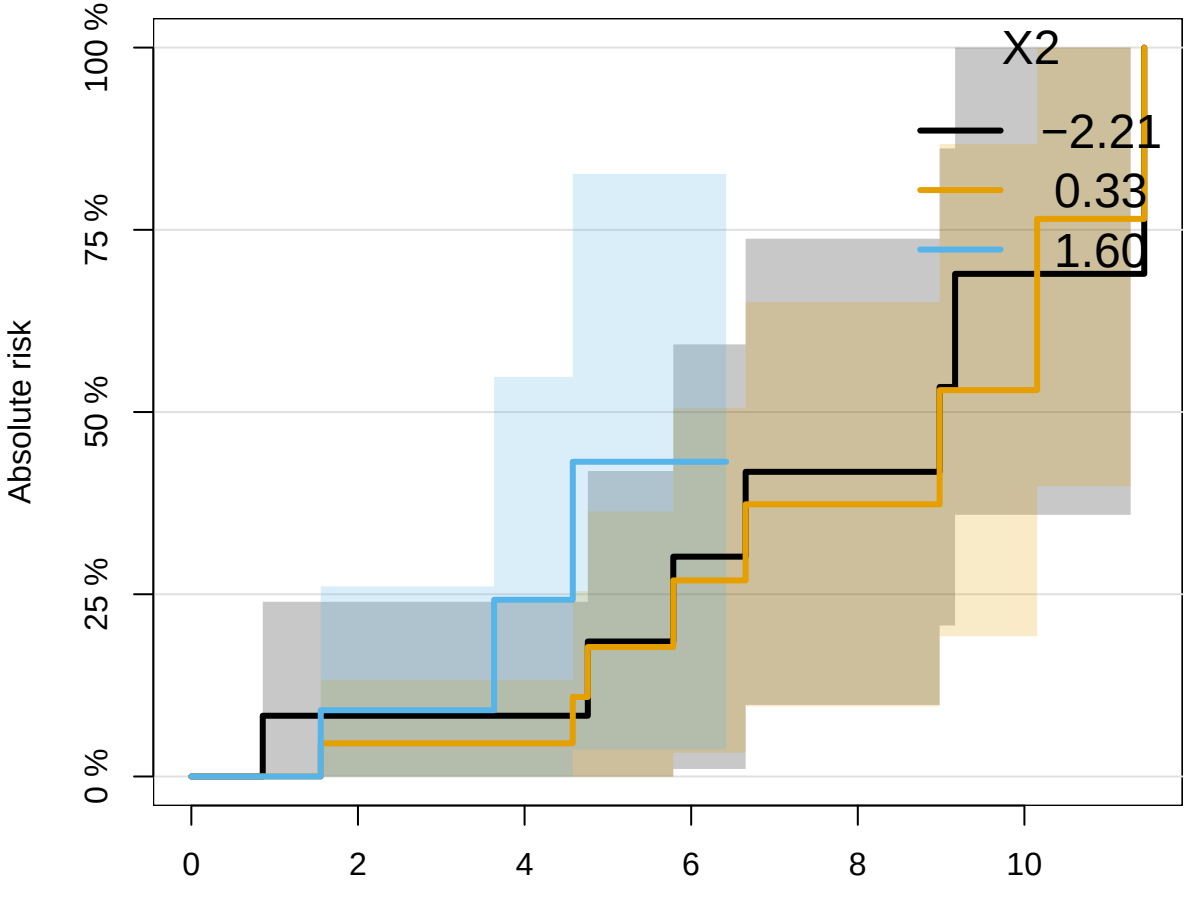

1.00
0.75
0.50
0.25
survival
0
5
10
15
timeLeft
observation
2
1
help("influenceTest")


Absolute risk
0 %
25 %
50 %
75 %
100 %
0
2
4
6
8
10
Time
Subjects: 30 27 25 21 17 11 8 6 5 2 1

help("ipcw")

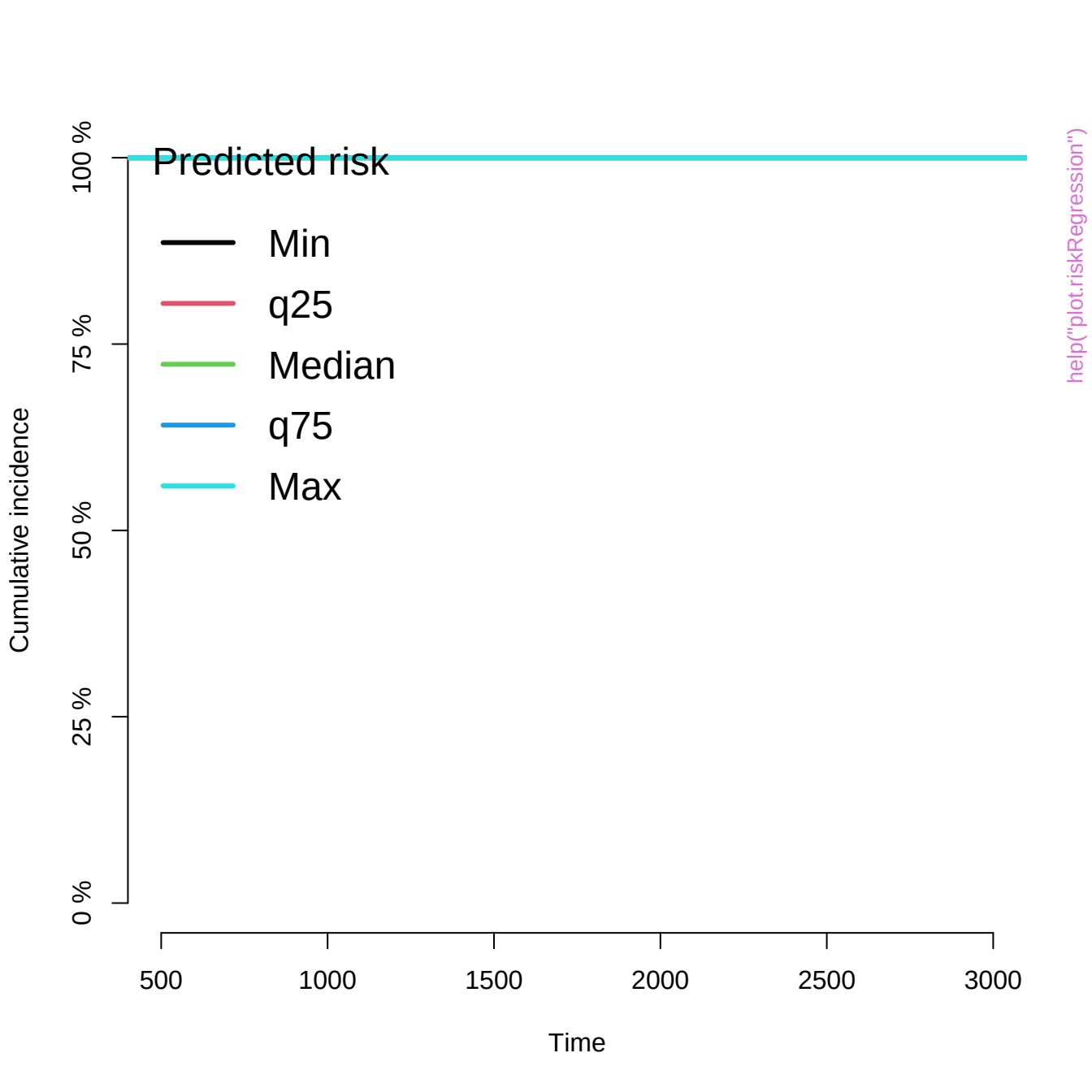

Absolute risk
0 %
25 %
50 %
75 %
100 %
0
2
4
6
8
10
Time
Subjects: 30 27 25 21 17 11 8 6 5 2 1

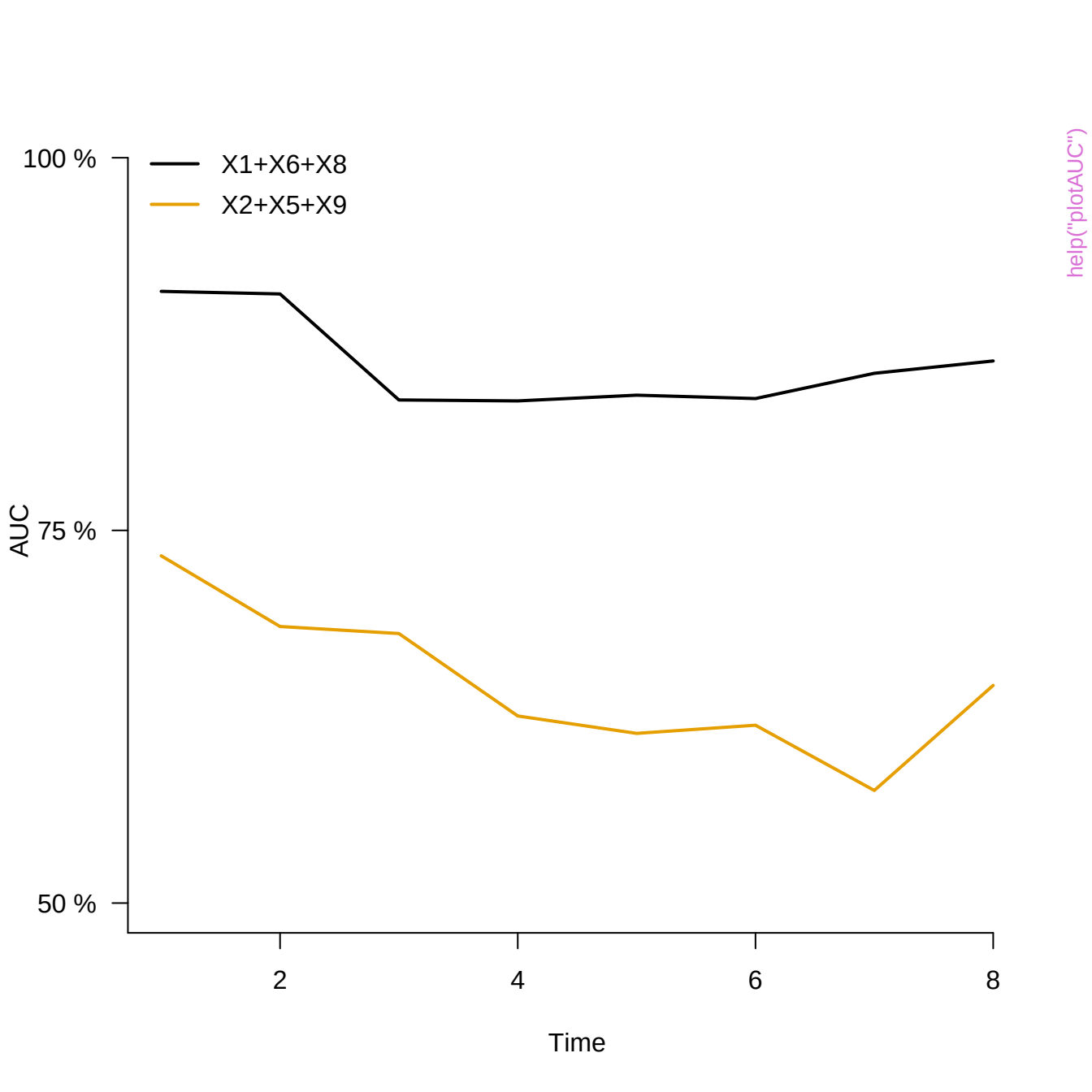
help("ipcw")

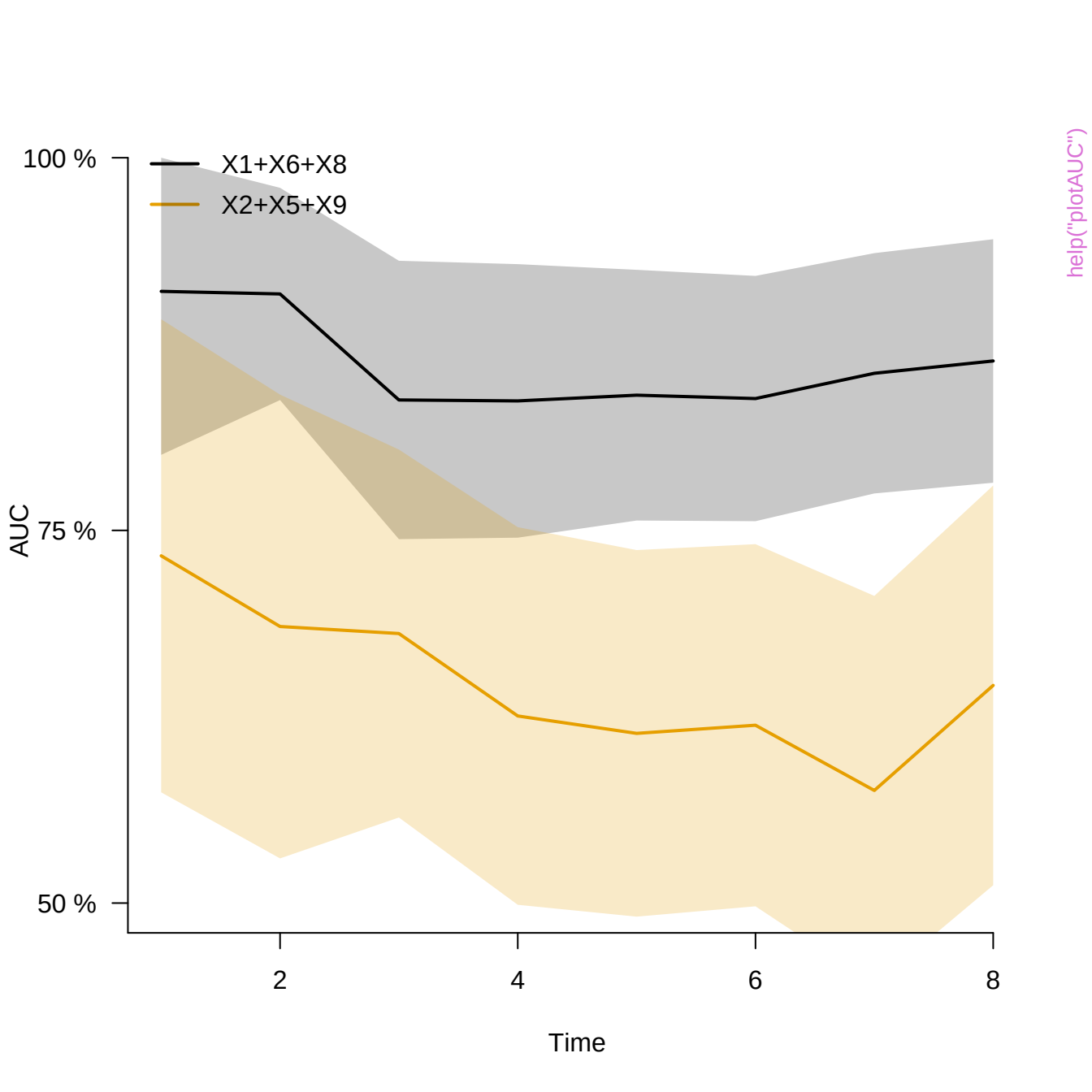


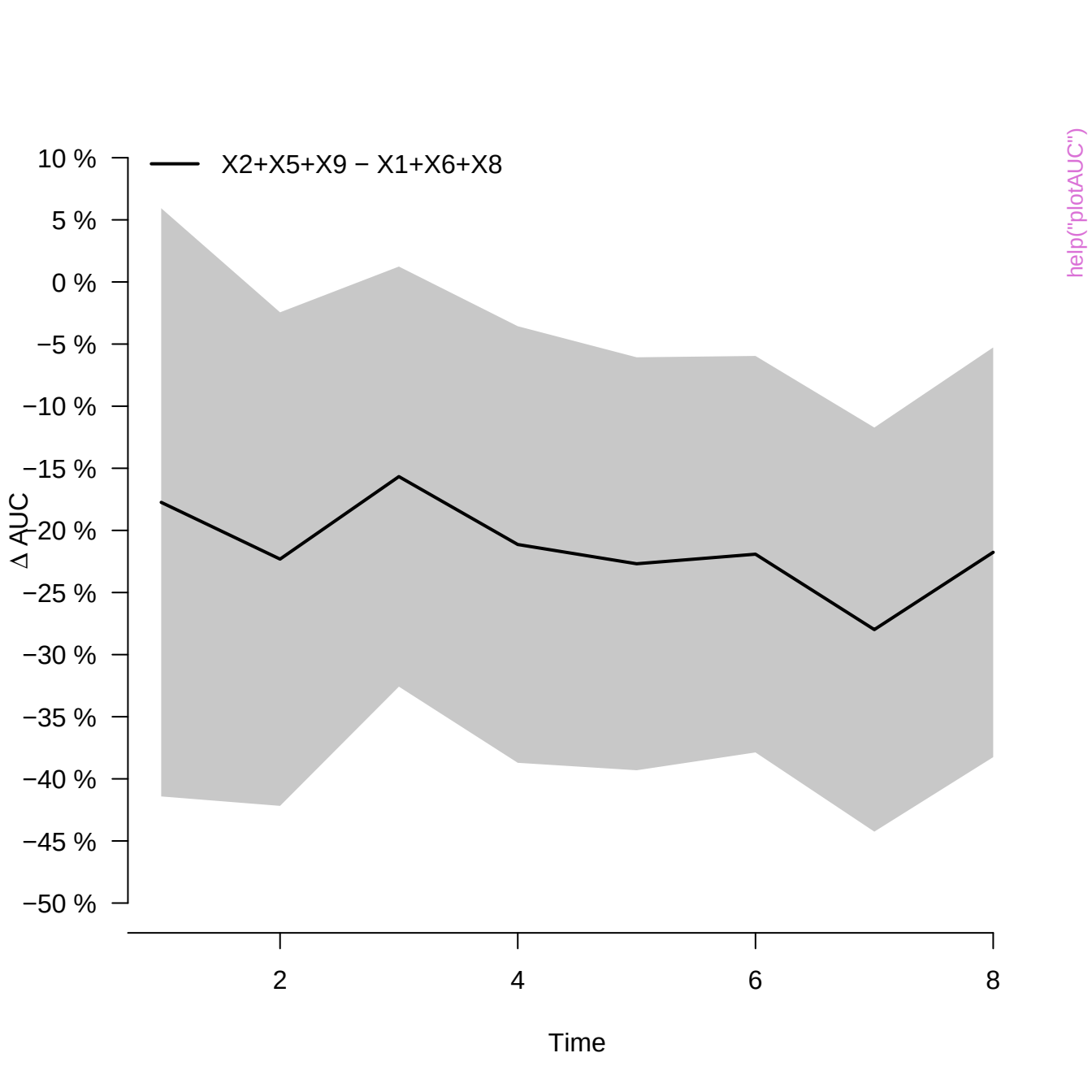
X2											
−2.21:	13	11	11	11	10	7	5	5	4	2	1
0.33:	25	23	21	17	15	9	6	4	3	1	1
1.60:	13	12	10	7	4	1	0	0	0	0	0

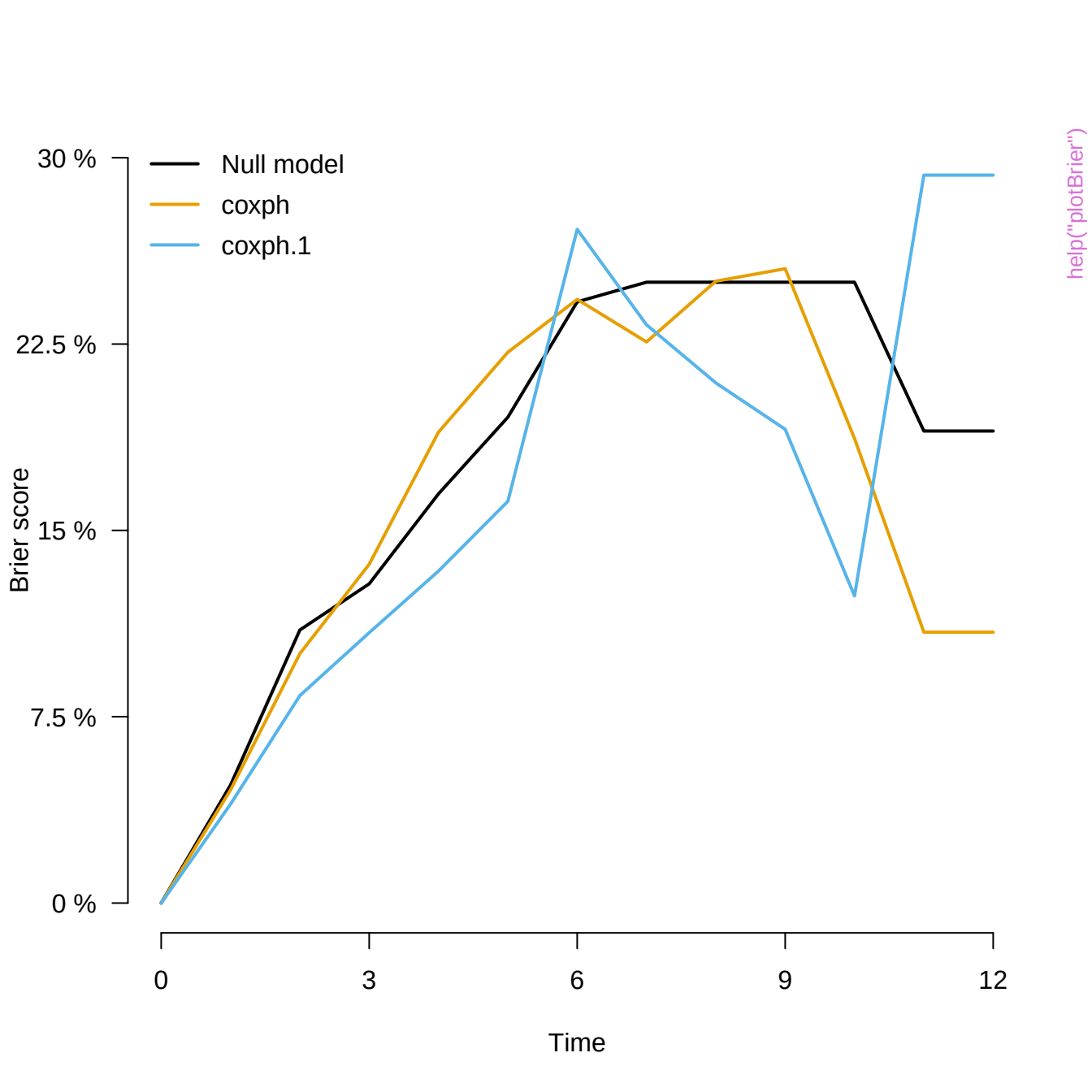
help("ipcw")

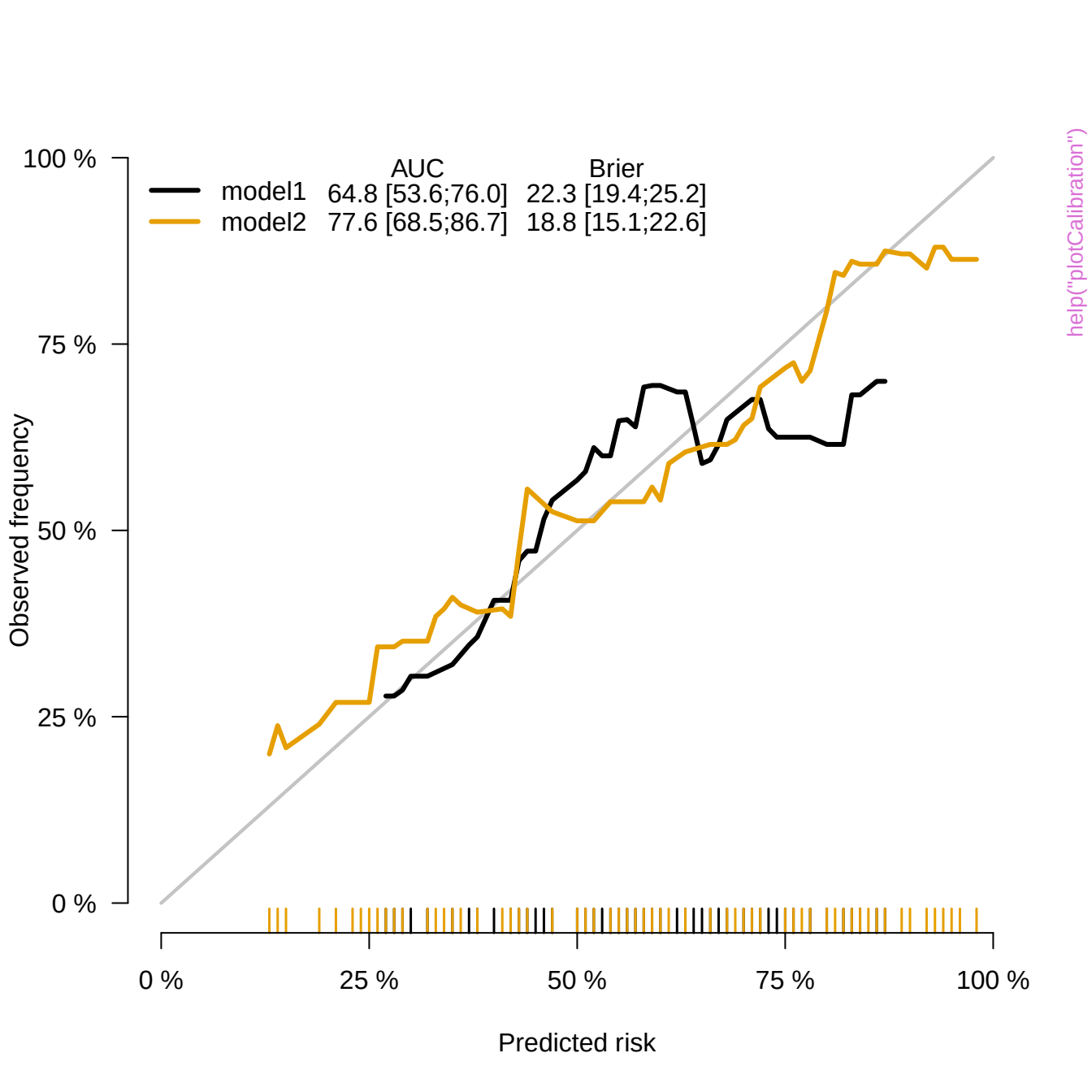

Predicted risk
Min
q25
Median
q75
Max
Cumulative incidence
0 %
25 %
50 %
75 %
100 %
500
1000
1500
2000
2500
3000
Time
help("plot.riskRegression")

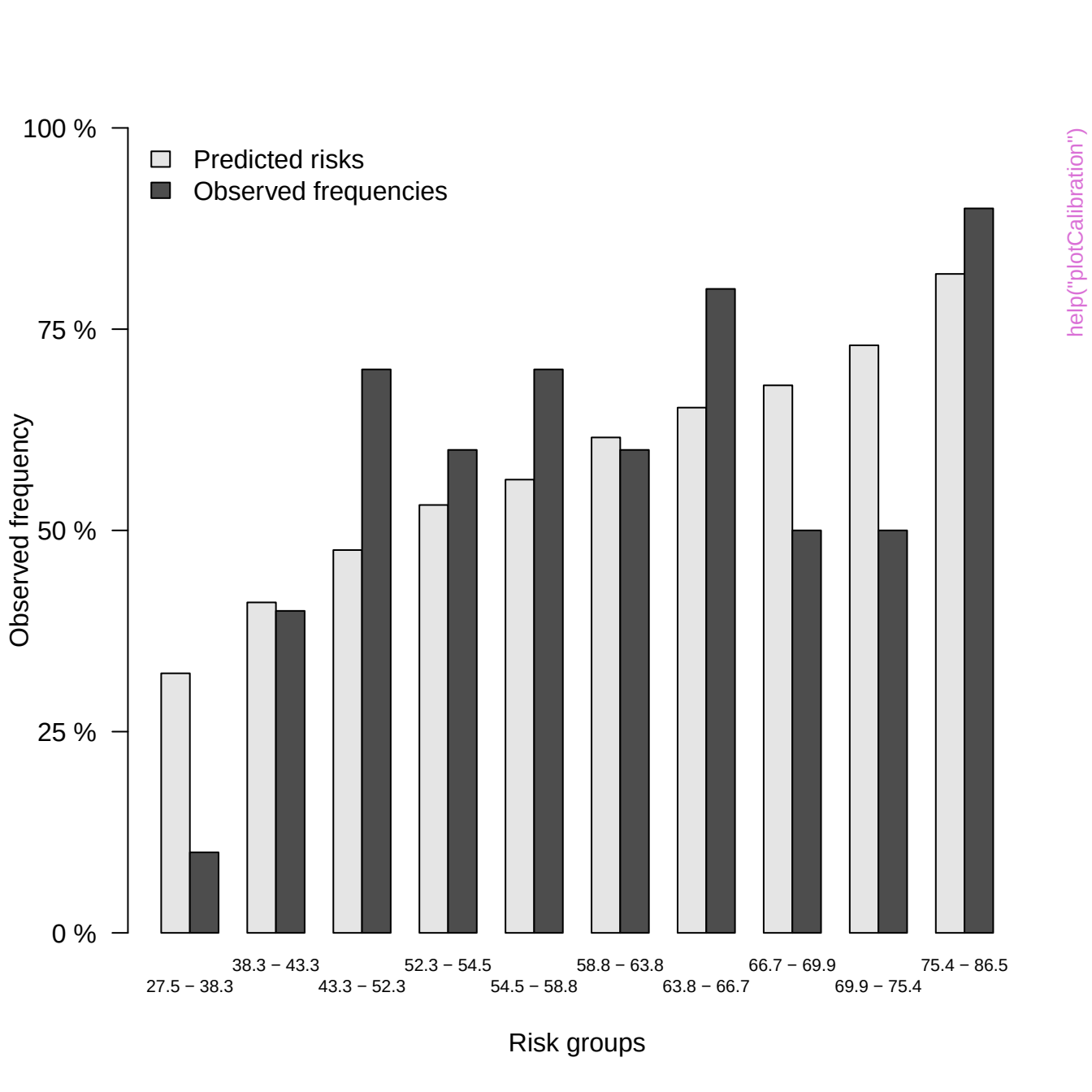

X1+X6+X8
X2+X5+X9
100 %
75 %
50 %
AUC
2
4
6
8
Time
help("plotAUC")

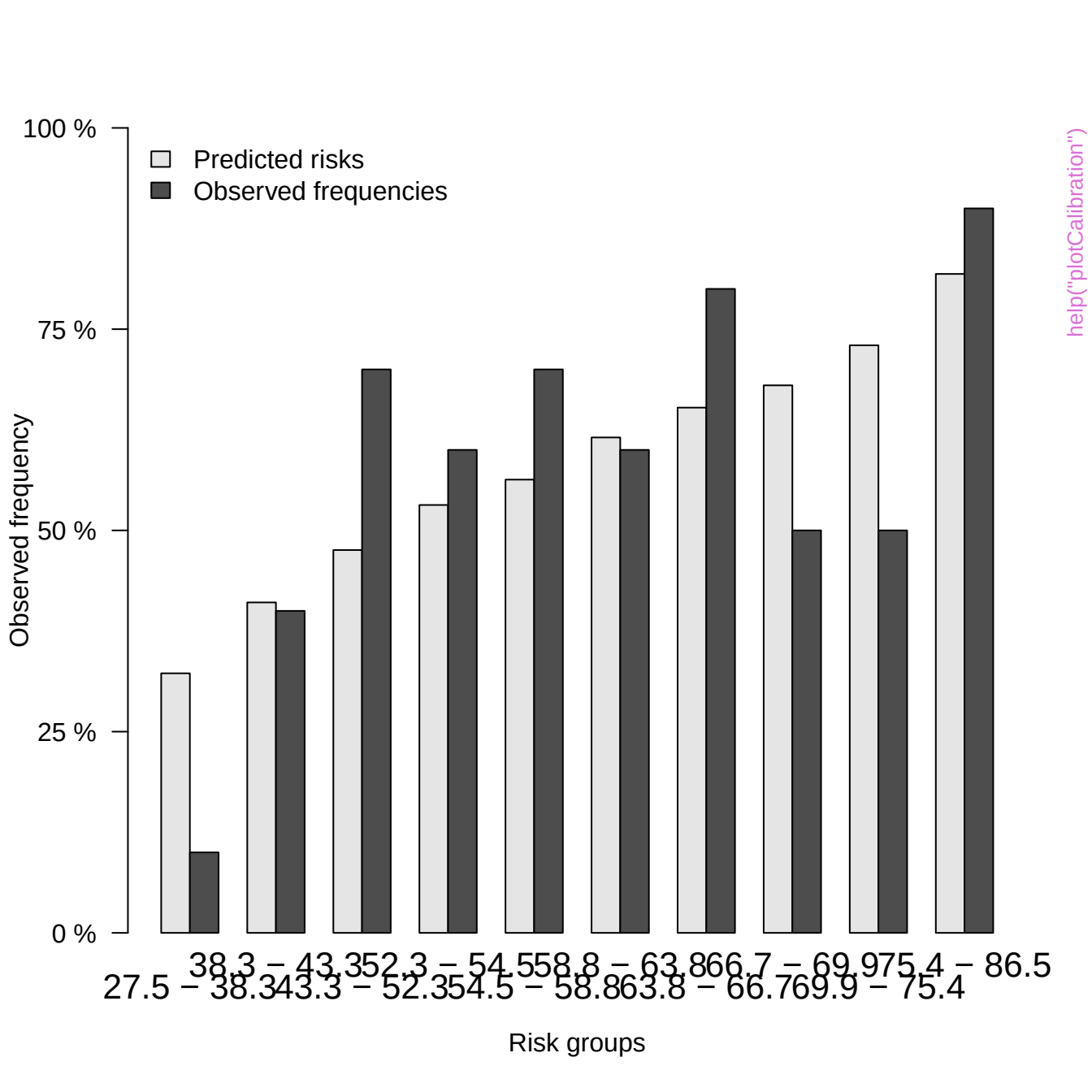

X1+X6+X8
X2+X5+X9
100 %
75 %
50 %
AUC
2
4
6
8
Time
help("plotAUC")

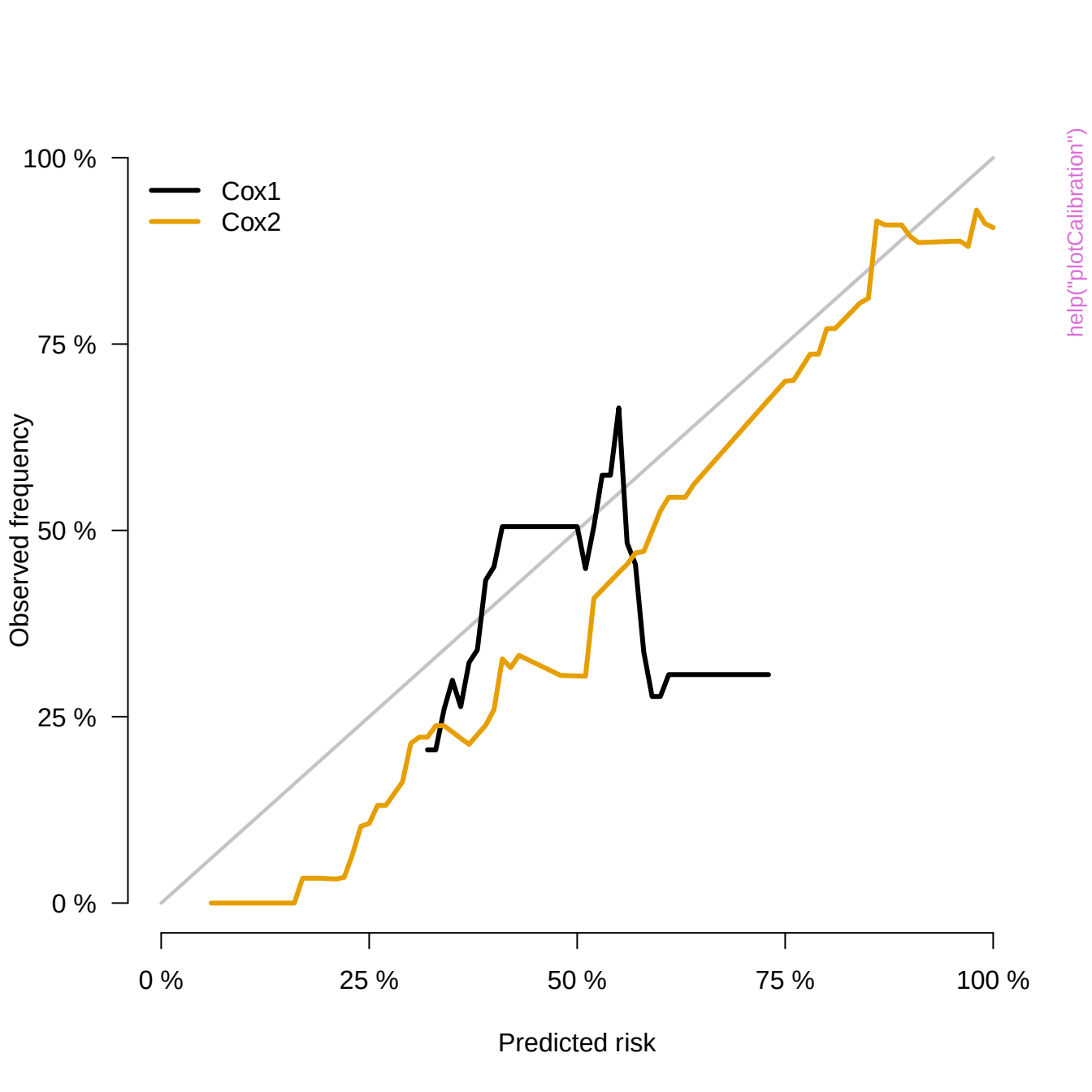

X2+X5+X9 − X1+X6+X8
10 %
5 %
0 %
−5 %
−10 %
−15 %
−20 %
−25 %
−30 %
−35 %
−40 %
−45 %
−50 %
Δ AUC
2
4
6
8
Time
help("plotAUC")

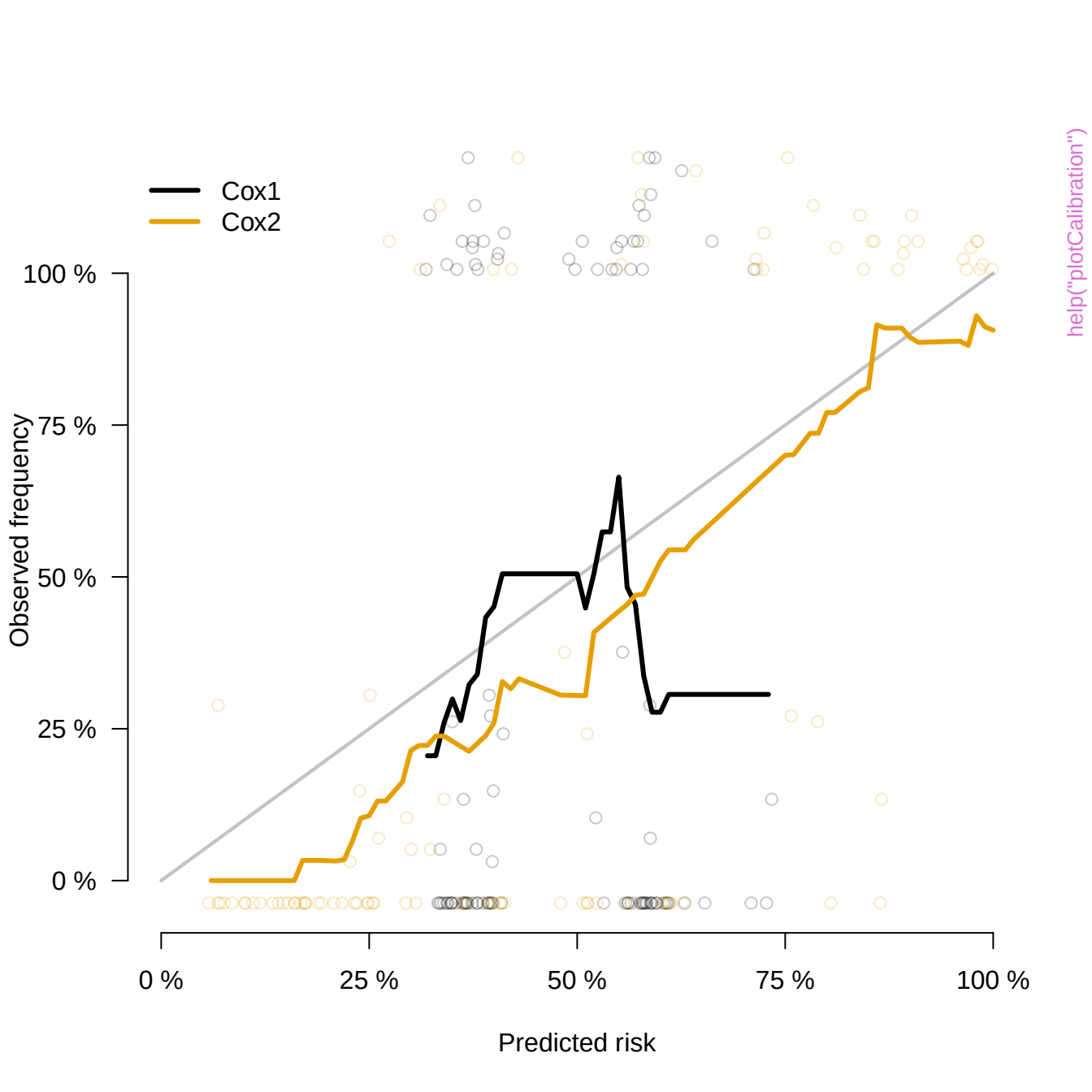

Null model
coxph
coxph.1
30 %
22.5 %
15 %
7.5 %
0 %
Brier score
0
3
6
9
12
Time
help("plotBrier")

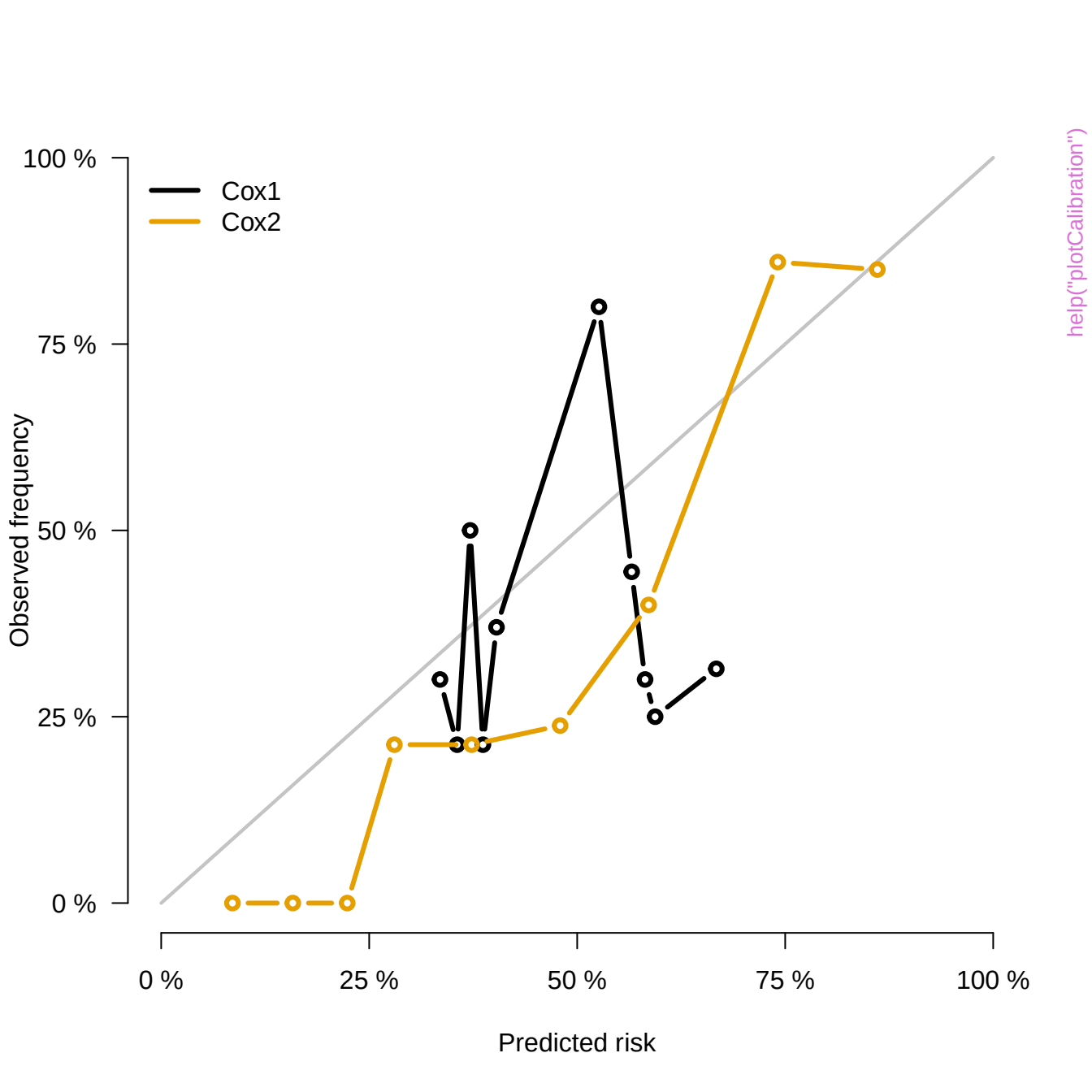

AUC
Brier
model1 64.8 [53.6;76.0] 22.3 [19.4;25.2]
model2 77.6 [68.5;86.7] 18.8 [15.1;22.6]
100 %
75 %
50 %
25 %
0 %
Observed frequency
0 %
25 %
50 %
75 %
100 %
Predicted risk
help("plotCalibration")

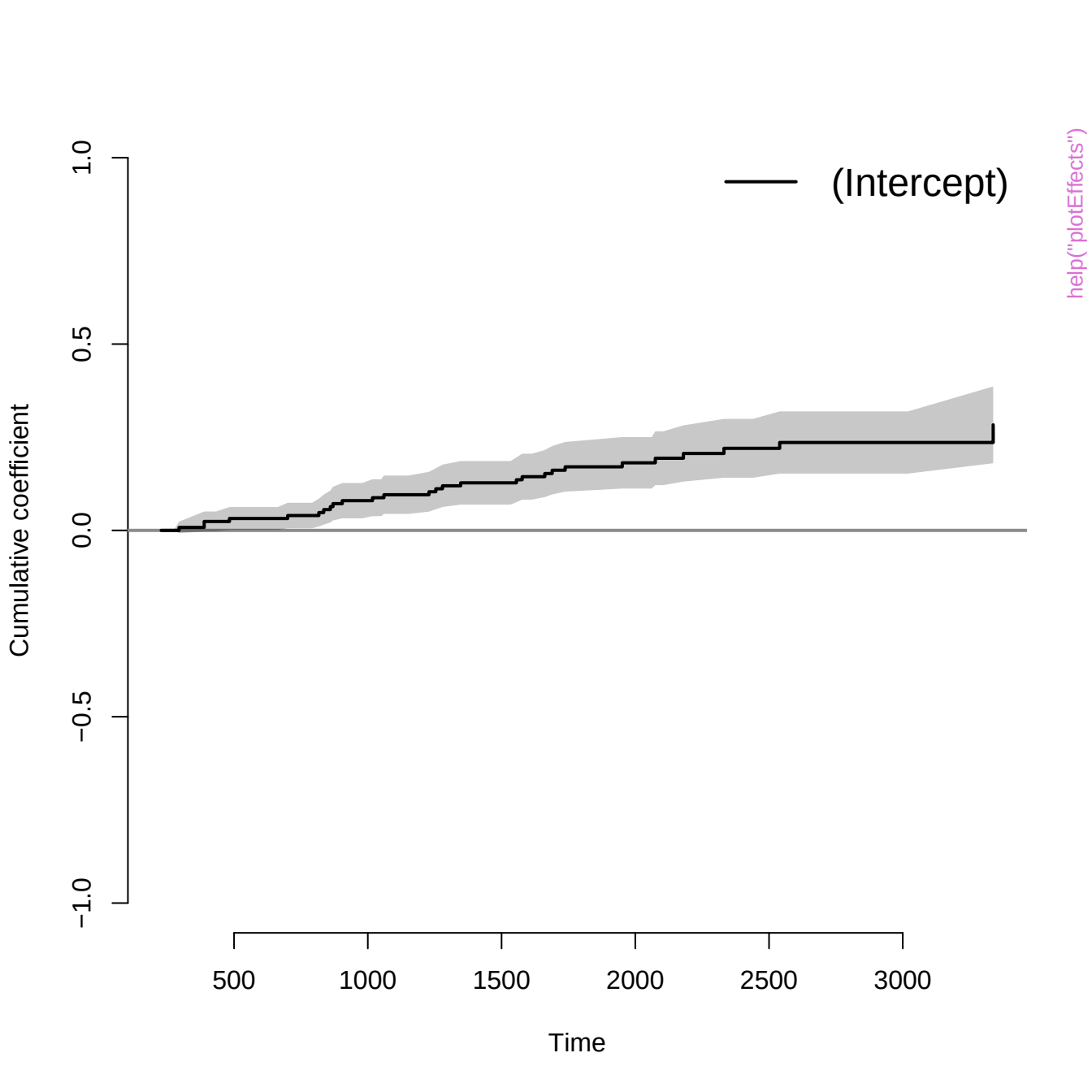

Predicted risks
Observed frequencies
100 %
75 %
50 %
25 %
0 %
Observed frequency
27.5 − 38.3
38.3 − 43.3
43.3 − 52.3
52.3 − 54.5
54.5 − 58.8
58.8 − 63.8
63.8 − 66.7
66.7 − 69.9
69.9 − 75.4
75.4 − 86.5
Risk groups
help("plotCalibration")

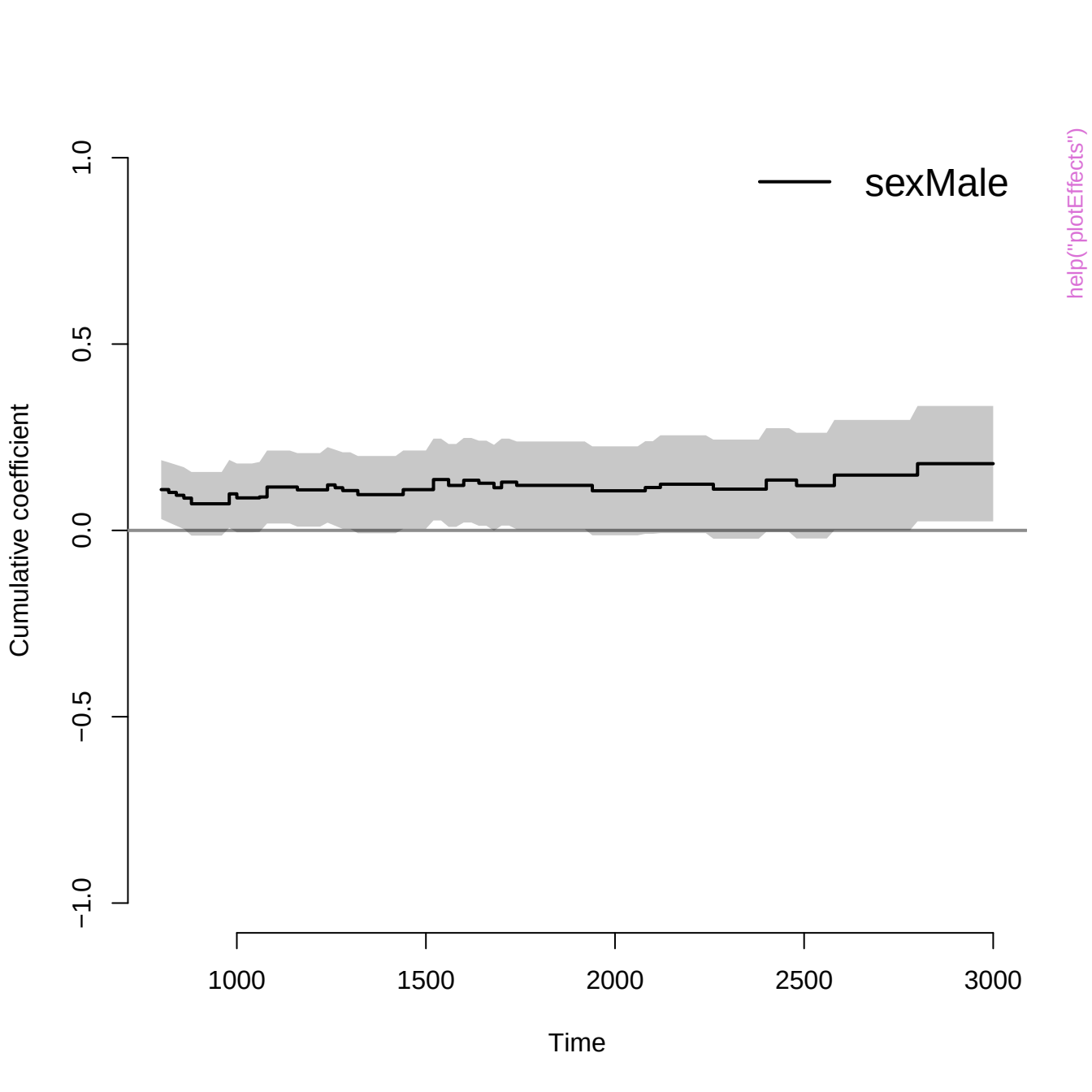

Predicted risks
Observed frequencies
100 %
75 %
50 %
25 %
0 %
Observed frequency
27.5 – 38.3
38.3 – 43.3
43.3 – 52.3
52.3 – 54.5
54.5 – 58.8
58.8 – 63.8
63.8 – 66.7
66.7 – 69.9
69.9 – 75.4
75.4 – 86.5
Risk groups
help("plotCalibration")

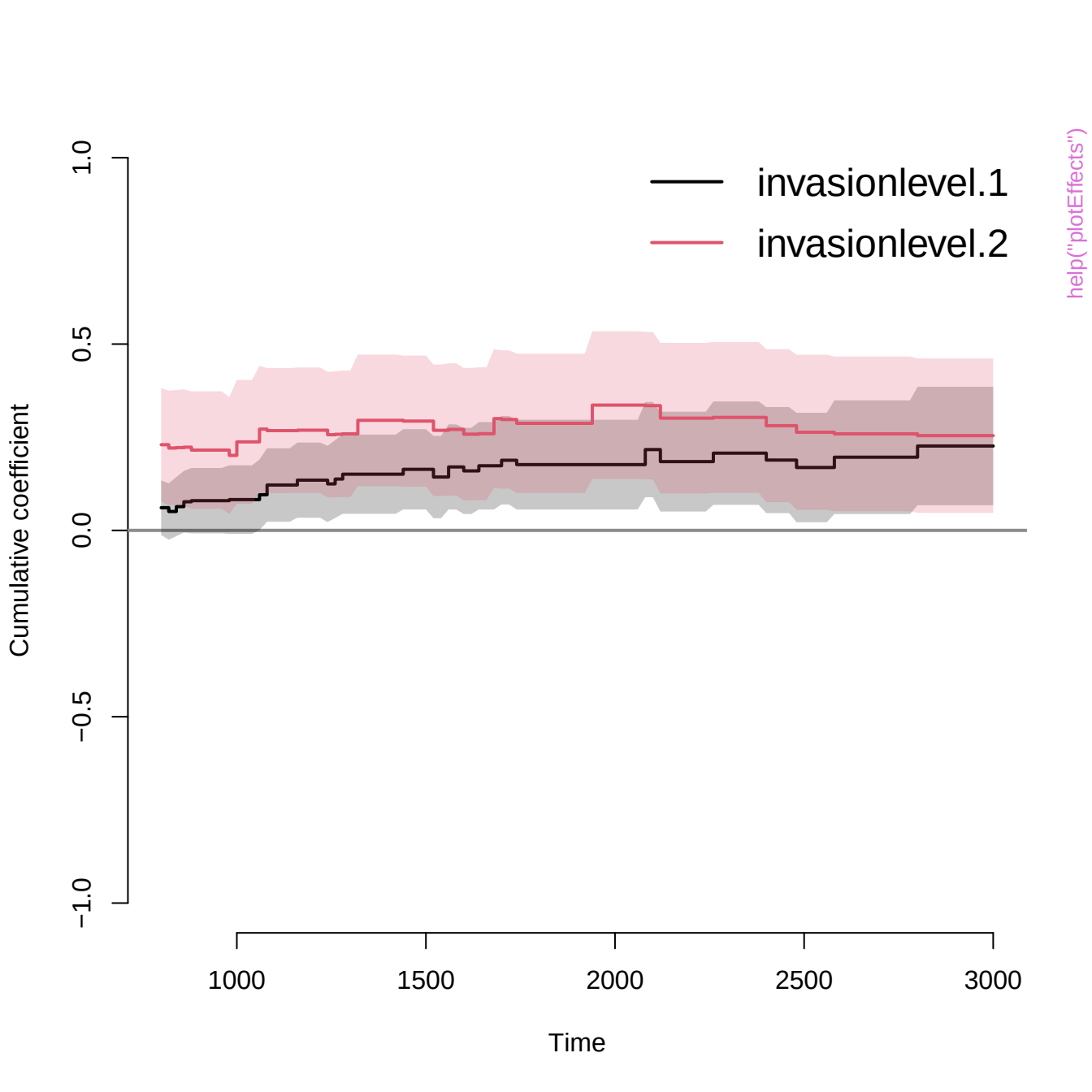

Cox1
Cox2
100 %
75 %
50 %
25 %
0 %
Observed frequency
0 %
25 %
50 %
75 %
100 %
Predicted risk
help("plotCalibration")

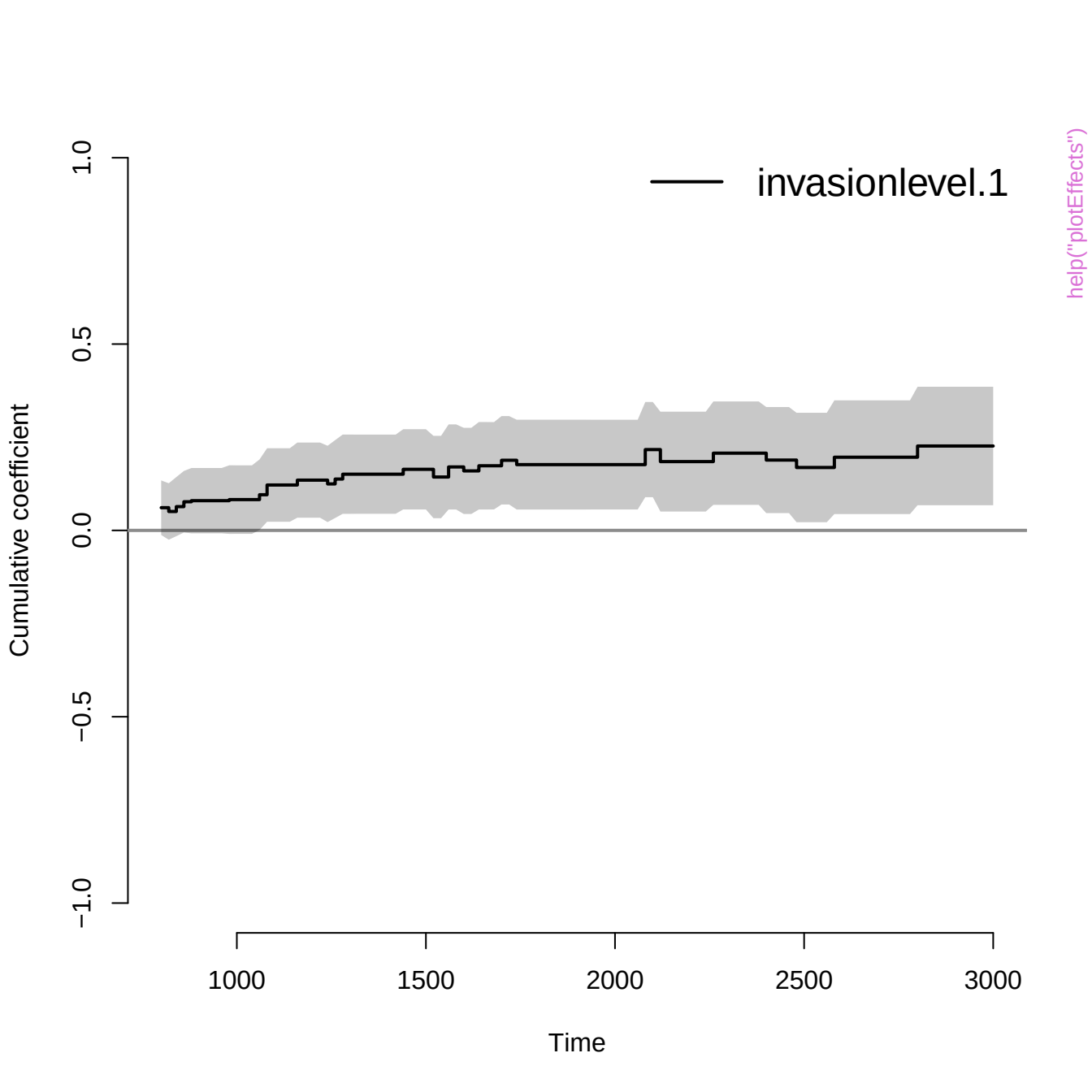

Cox1
Cox2
100 %
75 %
50 %
25 %
0 %
Observed frequency
0 %
25 %
50 %
75 %
100 %
Predicted risk
help("plotCalibration")

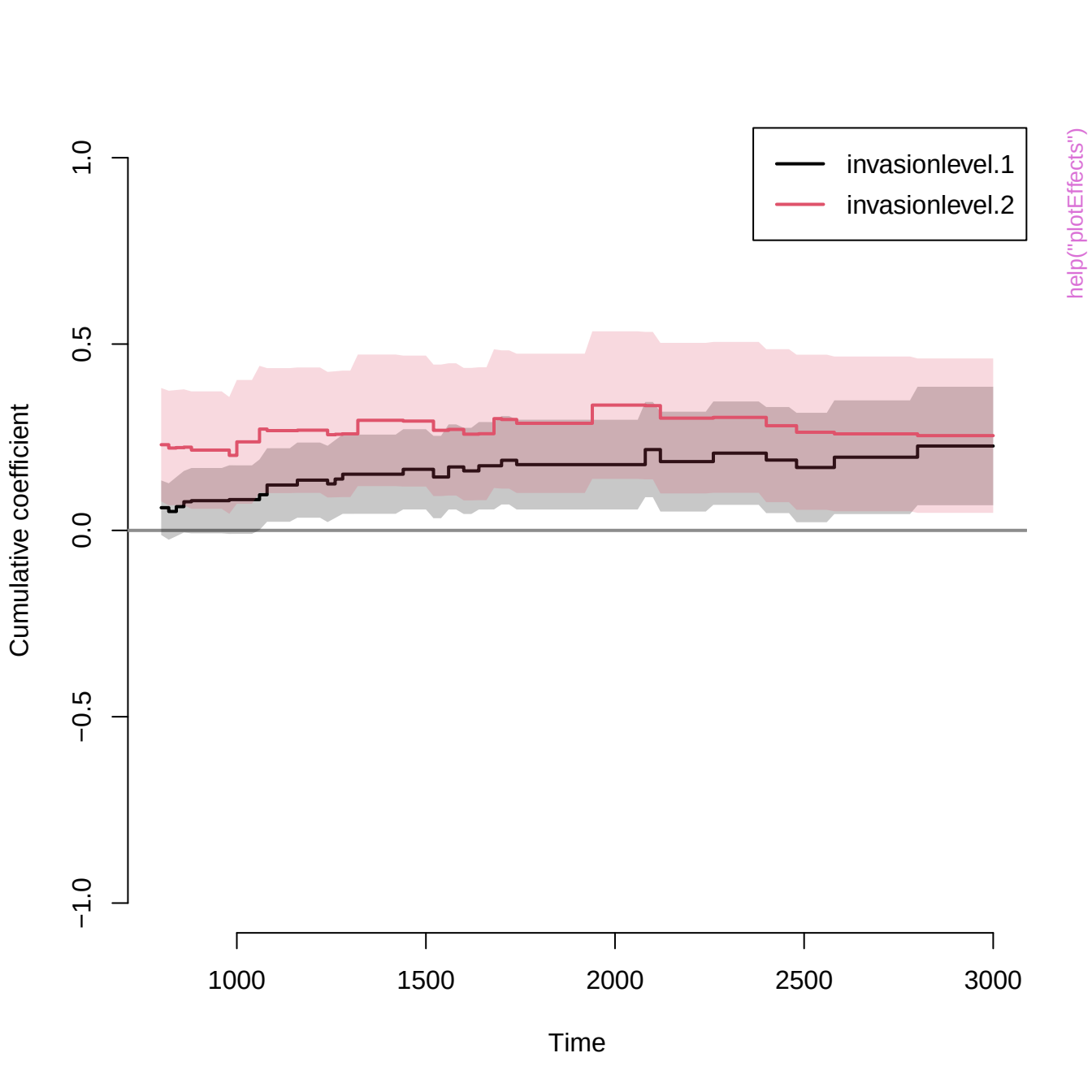

Cox1
Cox2
100 %
75 %
50 %
25 %
0 %
Observed frequency
0 %
25 %
50 %
75 %
100 %
Predicted risk
help("plotCalibration")

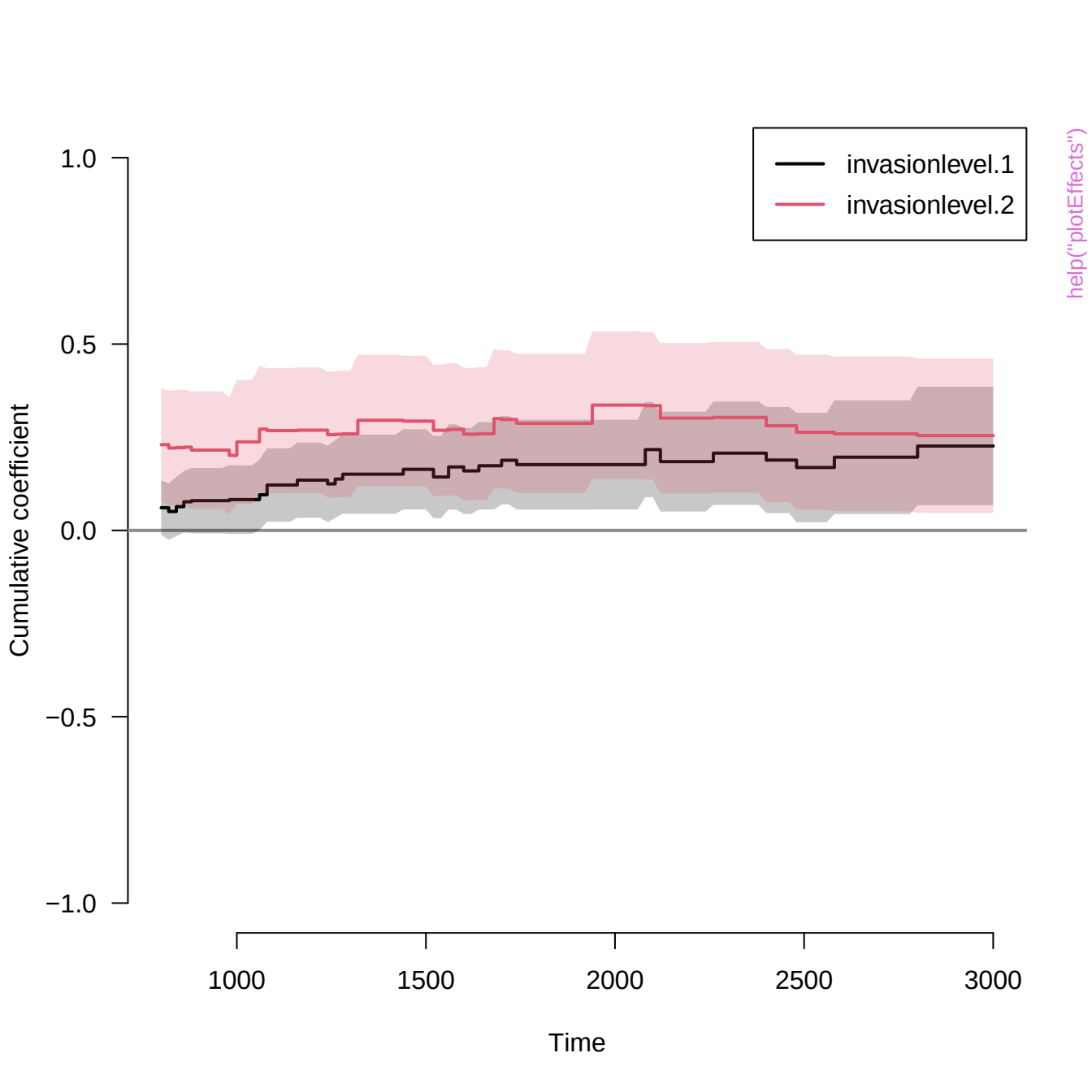

help("plotEffects")
(Intercept)
Cumulative coefficient
1.0
0.5
0.0
−0.5
−1.0
500
1000
1500
2000
2500
3000
Time

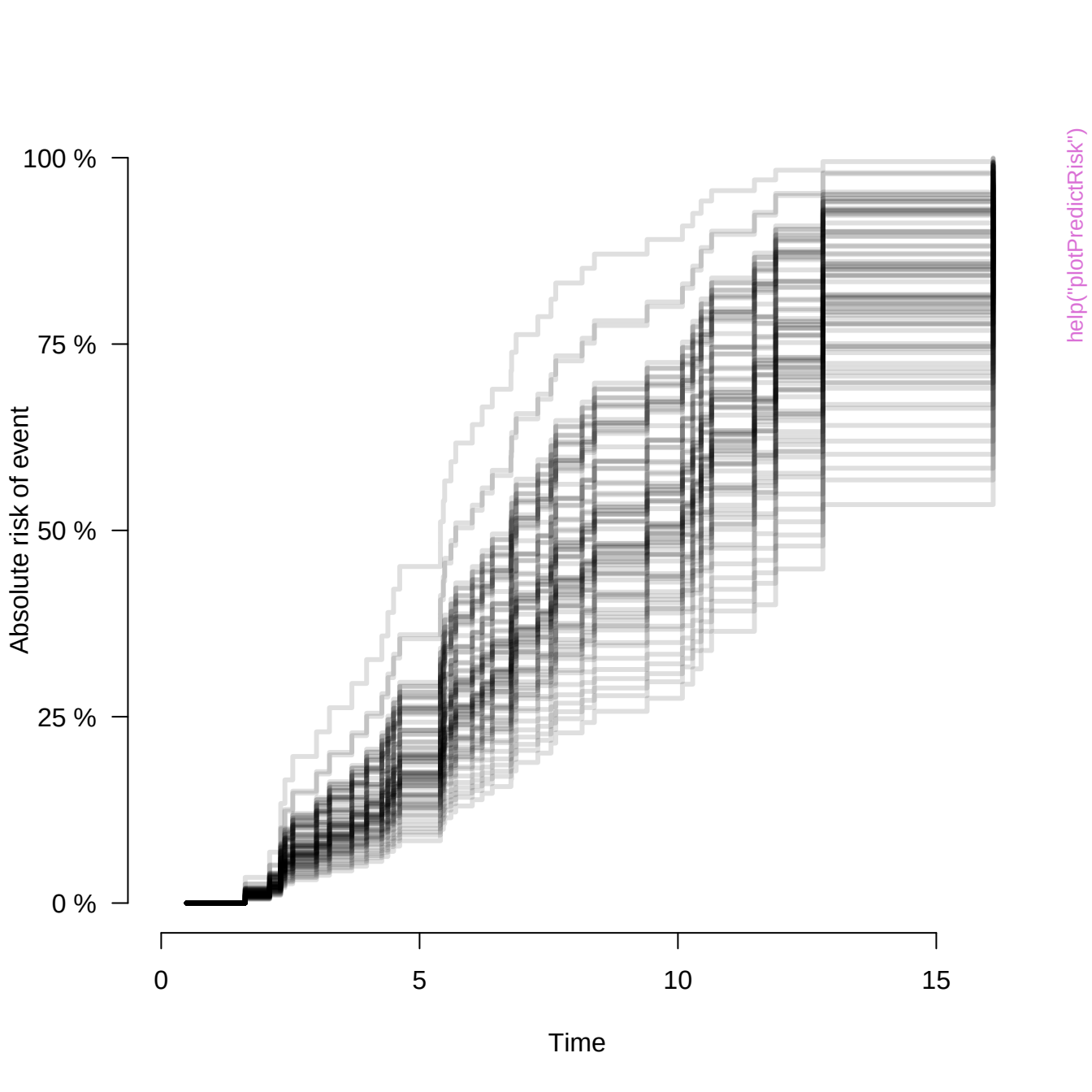

sexMale
Cumulative coefficient
1.0
0.5
0.0
−0.5
−1.0
1000
1500
2000
2500
3000
Time
help("plotEffects")

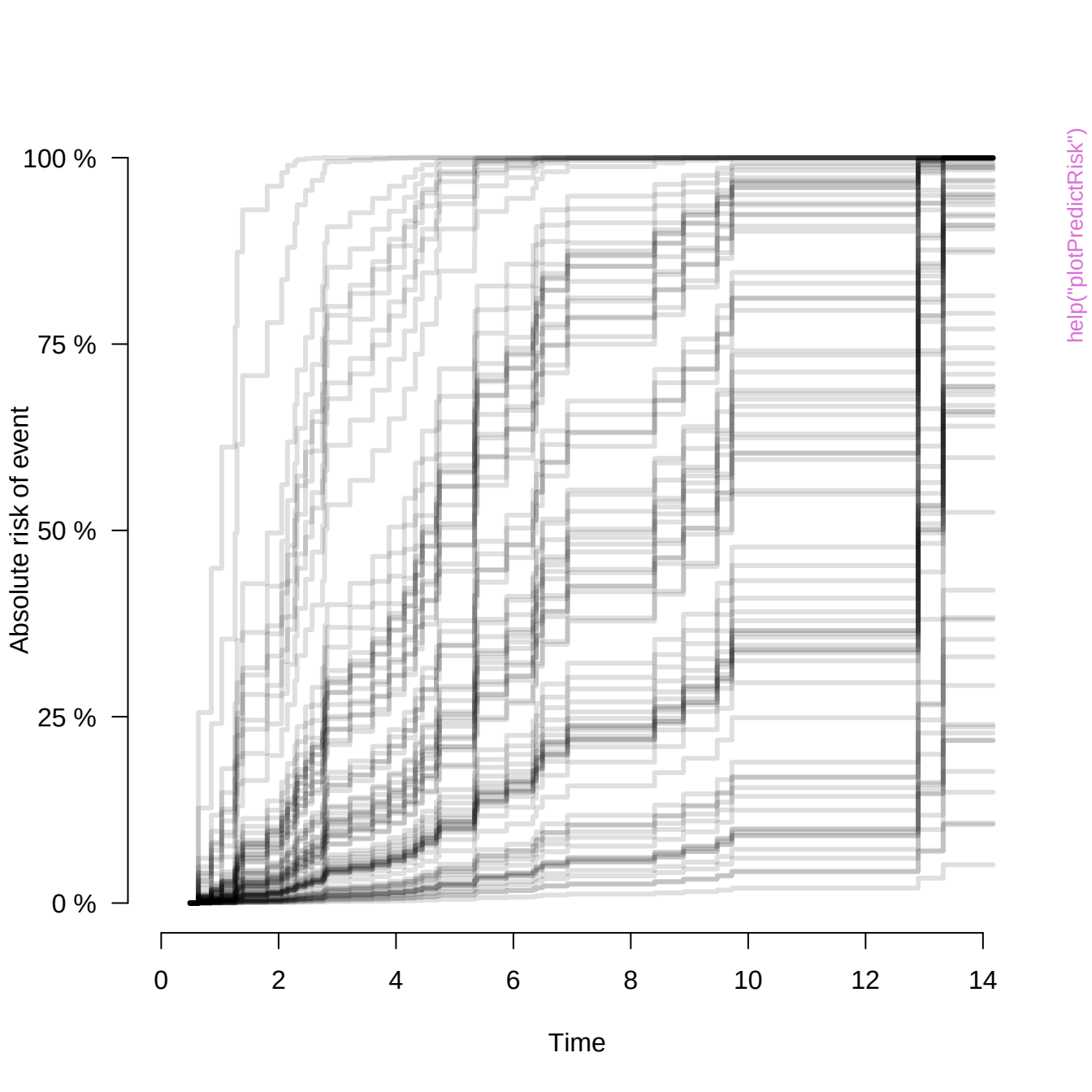

invasionlevel.1
invasionlevel.2
Cumulative coefficient
1.0
0.5
0.0
−0.5
−1.0
1000
1500
2000
2500
3000
Time
help("plotEffects")

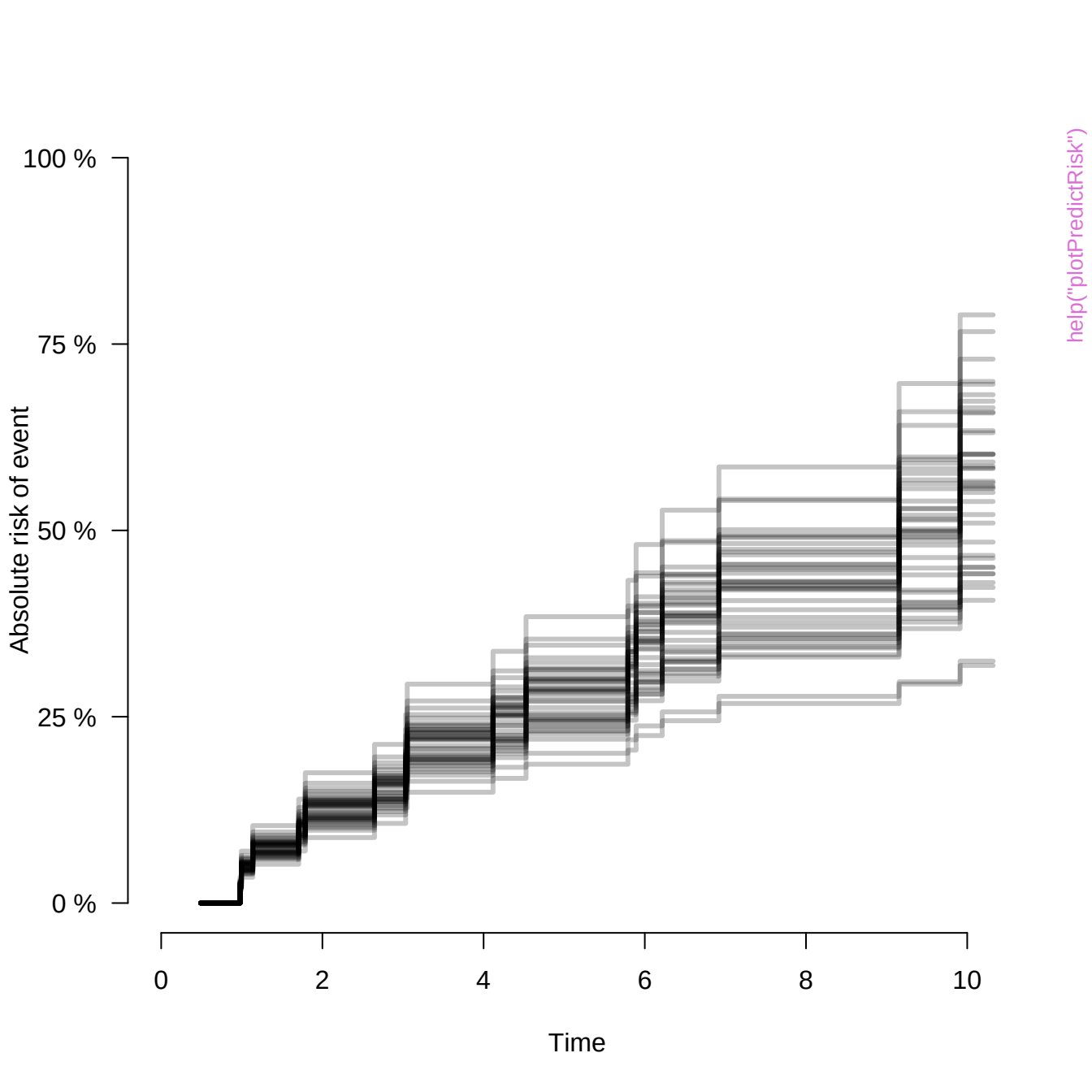

invasionlevel.1
Cumulative coefficient
1.0
0.5
0.0
−0.5
−1.0
1000
1500
2000
2500
3000
Time
help("plotEffects")

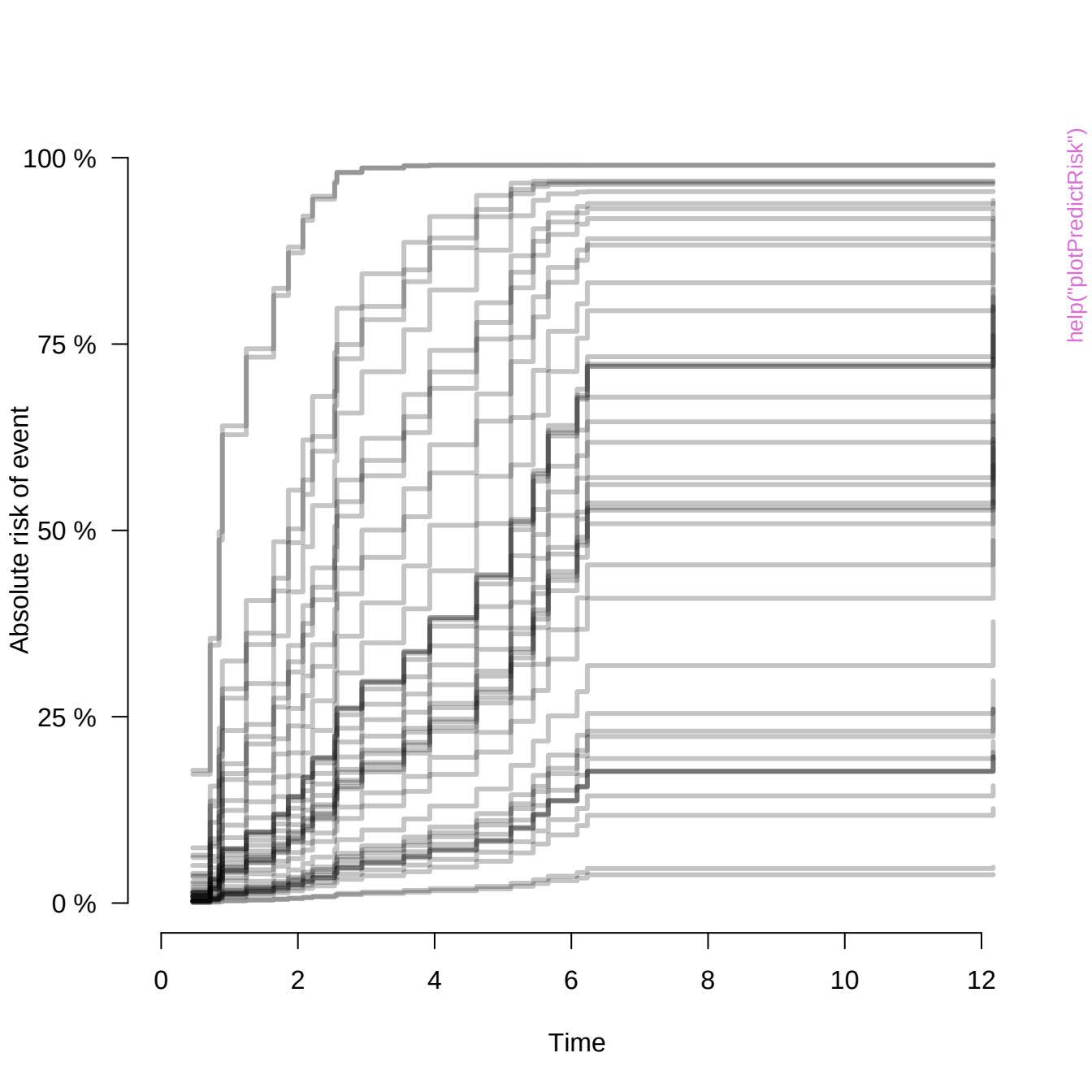

invasionlevel.1
invasionlevel.2
help("plotEffects")
Cumulative coefficient
1.0
0.5
0.0
−0.5
−1.0
1000
1500
2000
2500
3000
Time

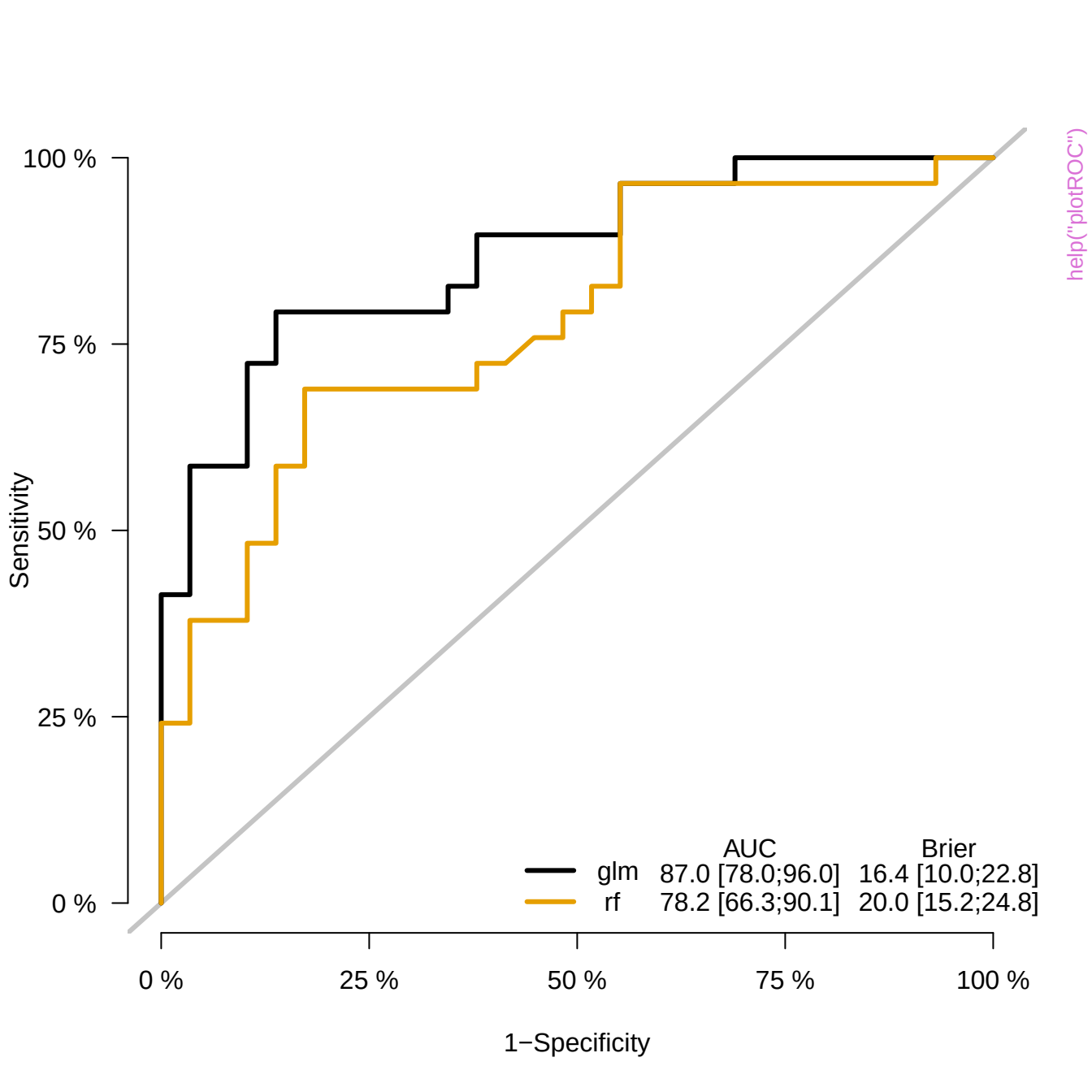

invasionlevel.1
invasionlevel.2
help("plotEffects")
1.0
0.5
0.0
−0.5
−1.0
Cumulative coefficient
1000
1500
2000
2500
3000
Time

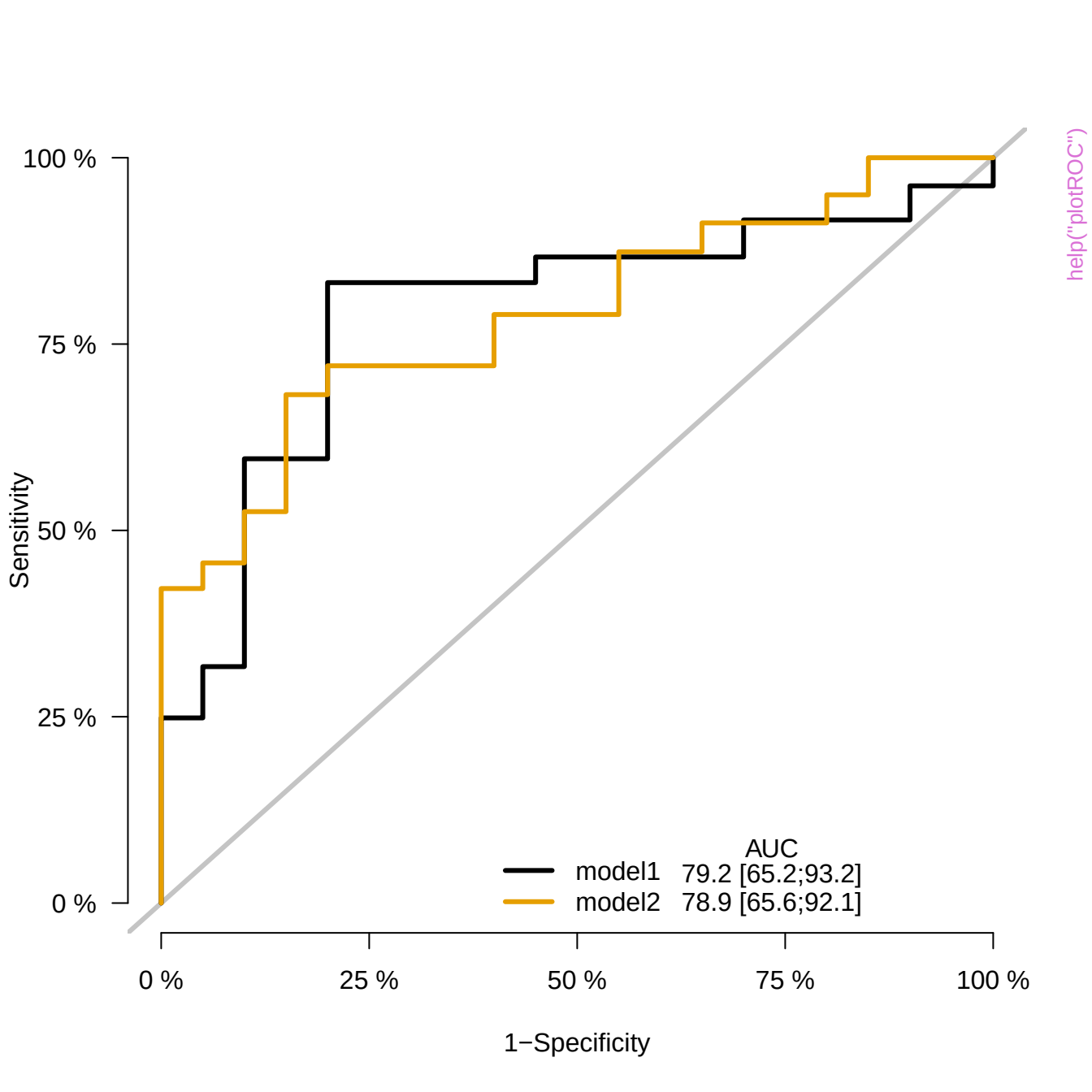

100 %
75 %
50 %
25 %
0 %
Absolute risk of event
0
5
10
15
Time
help("plotPredictRisk")

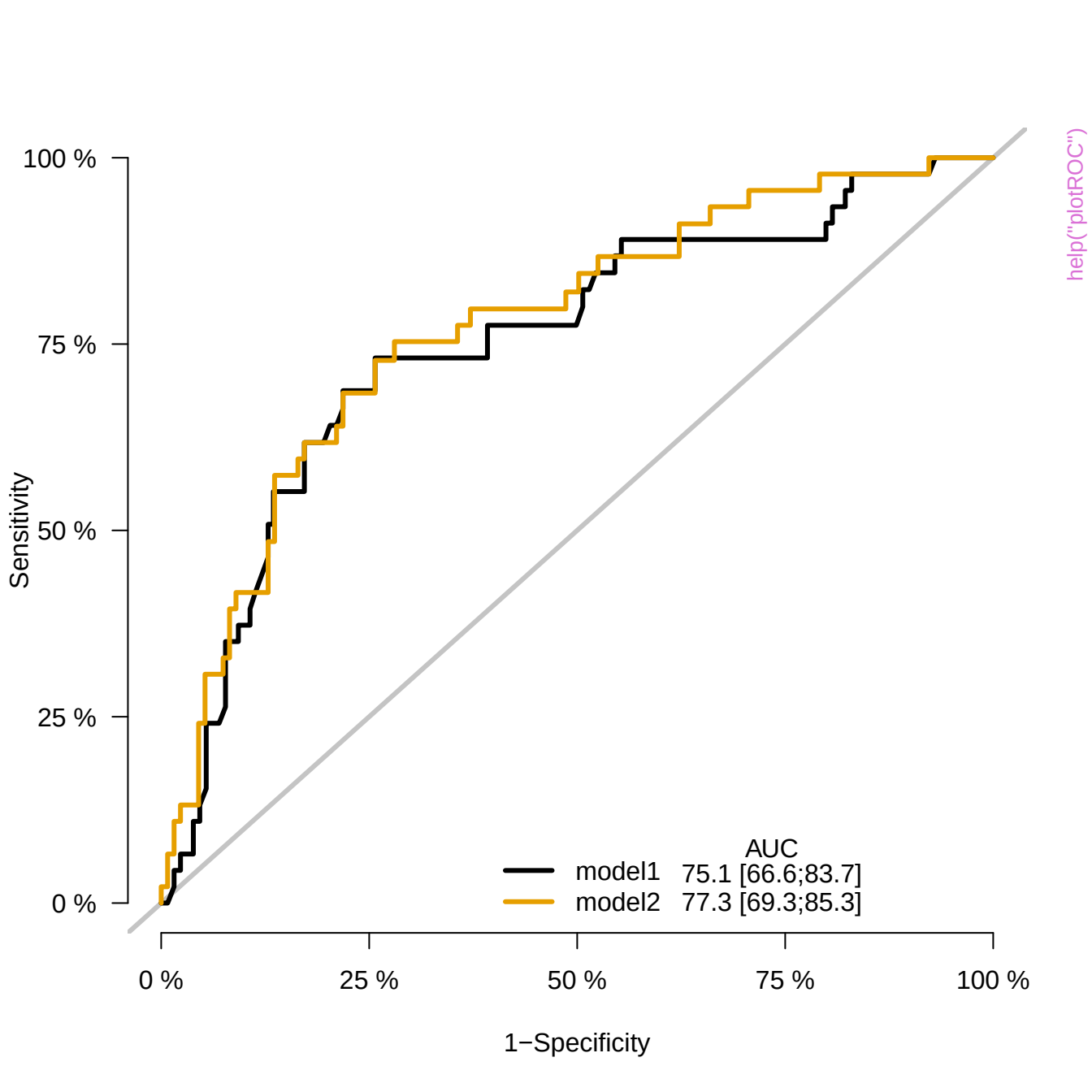

100 %
75 %
50 %
25 %
0 %
Absolute risk of event
0
2
4
6
8
10
12
14
Time
help("plotPredictRisk")

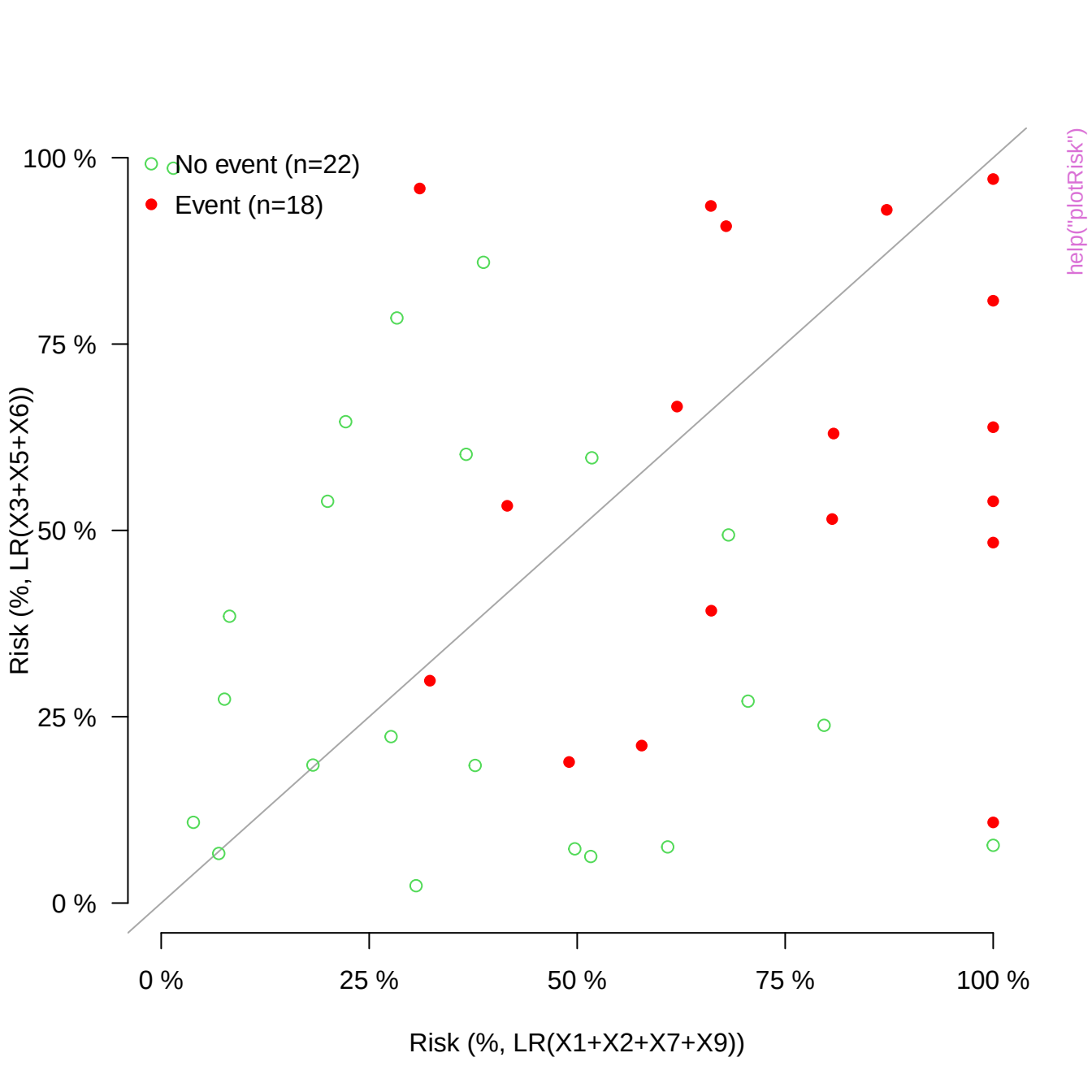

100 %
75 %
50 %
25 %
0 %
Absolute risk of event
0
2
4
6
8
10
Time
help("plotPredictRisk")

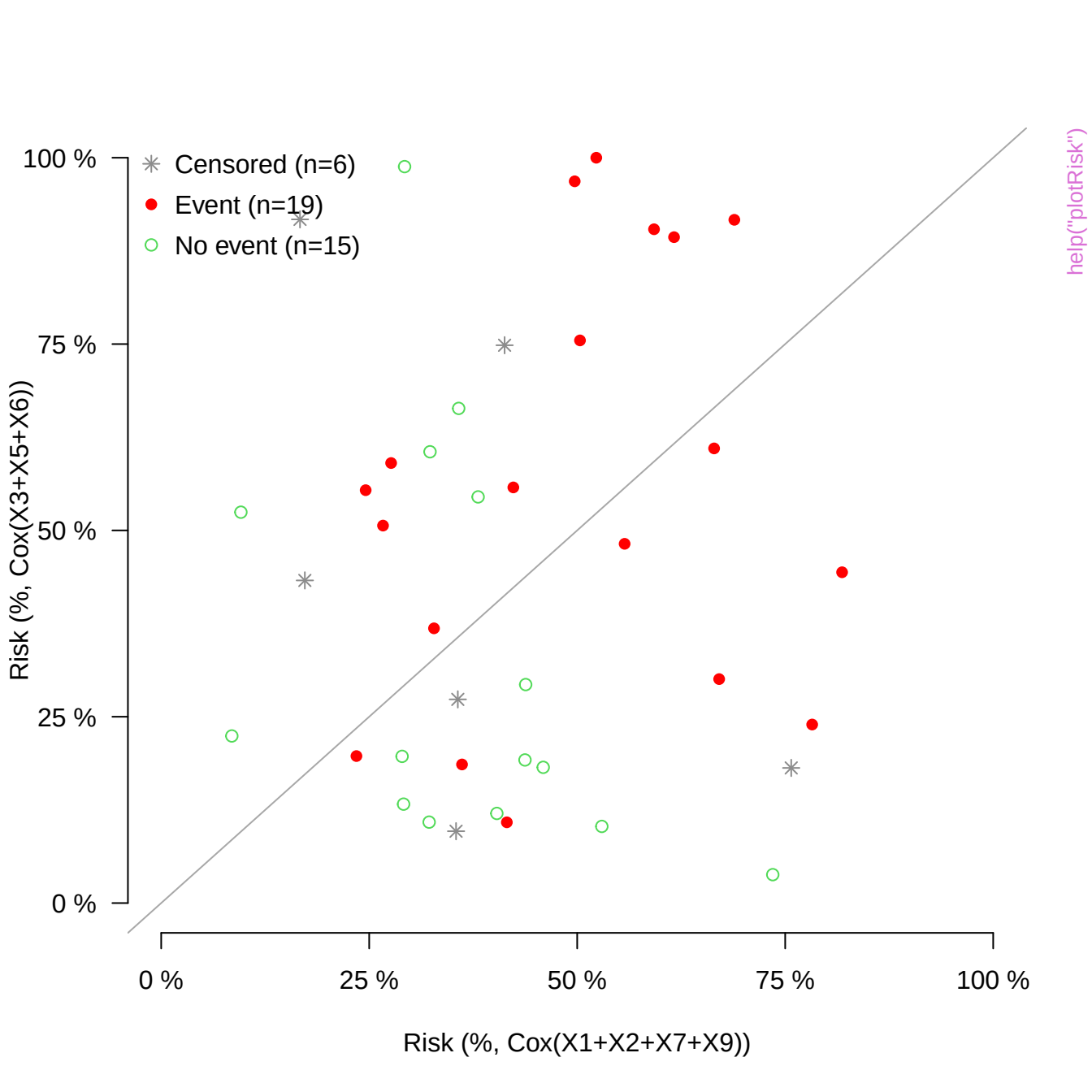

100 %
75 %
50 %
25 %
0 %
Absolute risk of event
0
2
4
6
8
10
12
Time
help("plotPredictRisk")

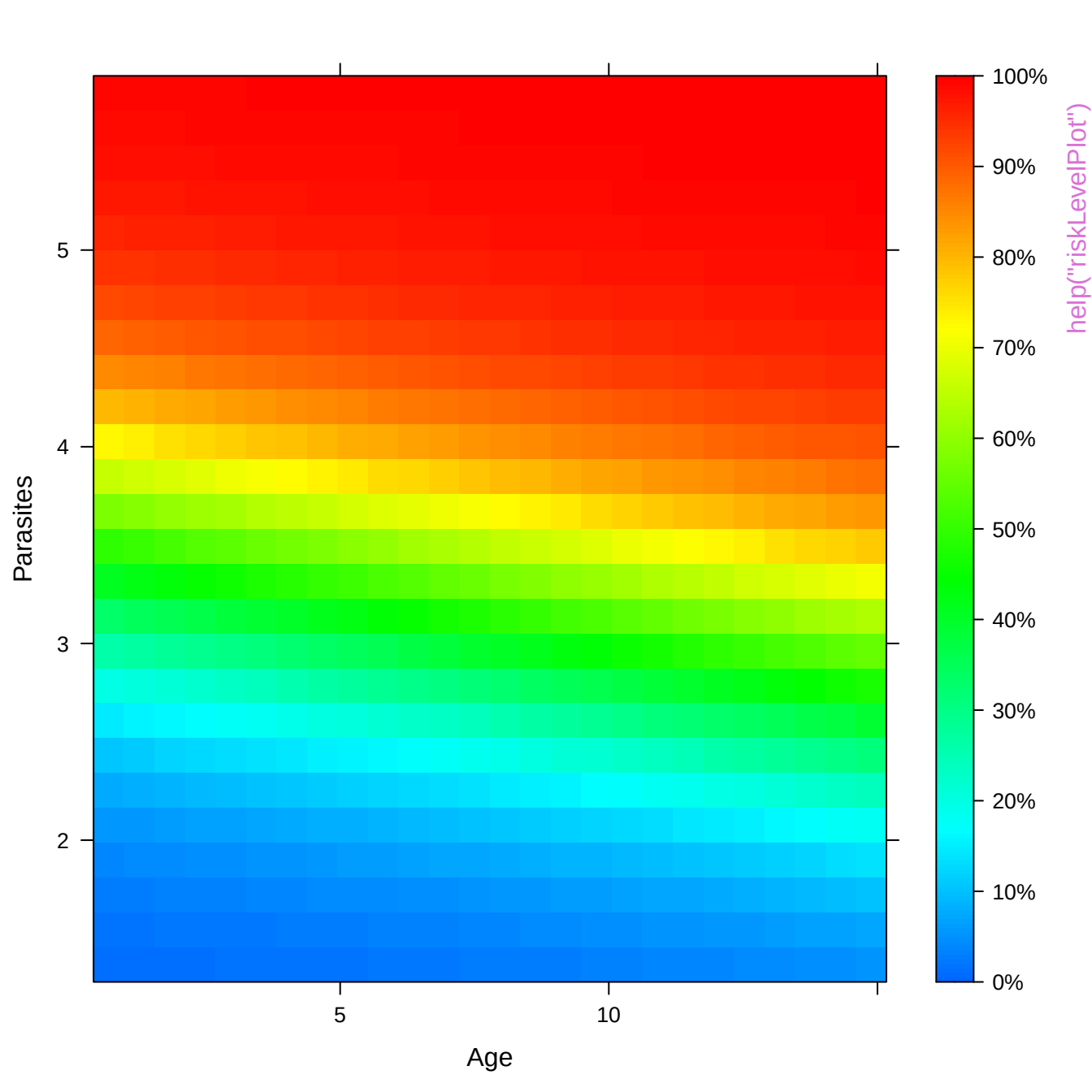

help("plotROC")
100 %
75 %
50 %
25 %
0 %
Sensitivity
AUC
Brier
glm 87.0 [78.0;96.0] 16.4 [10.0;22.8]
rf 78.2 [66.3;90.1] 20.0 [15.2;24.8]
0 %
25 %
50 %
75 %
100 %
1−Specificity

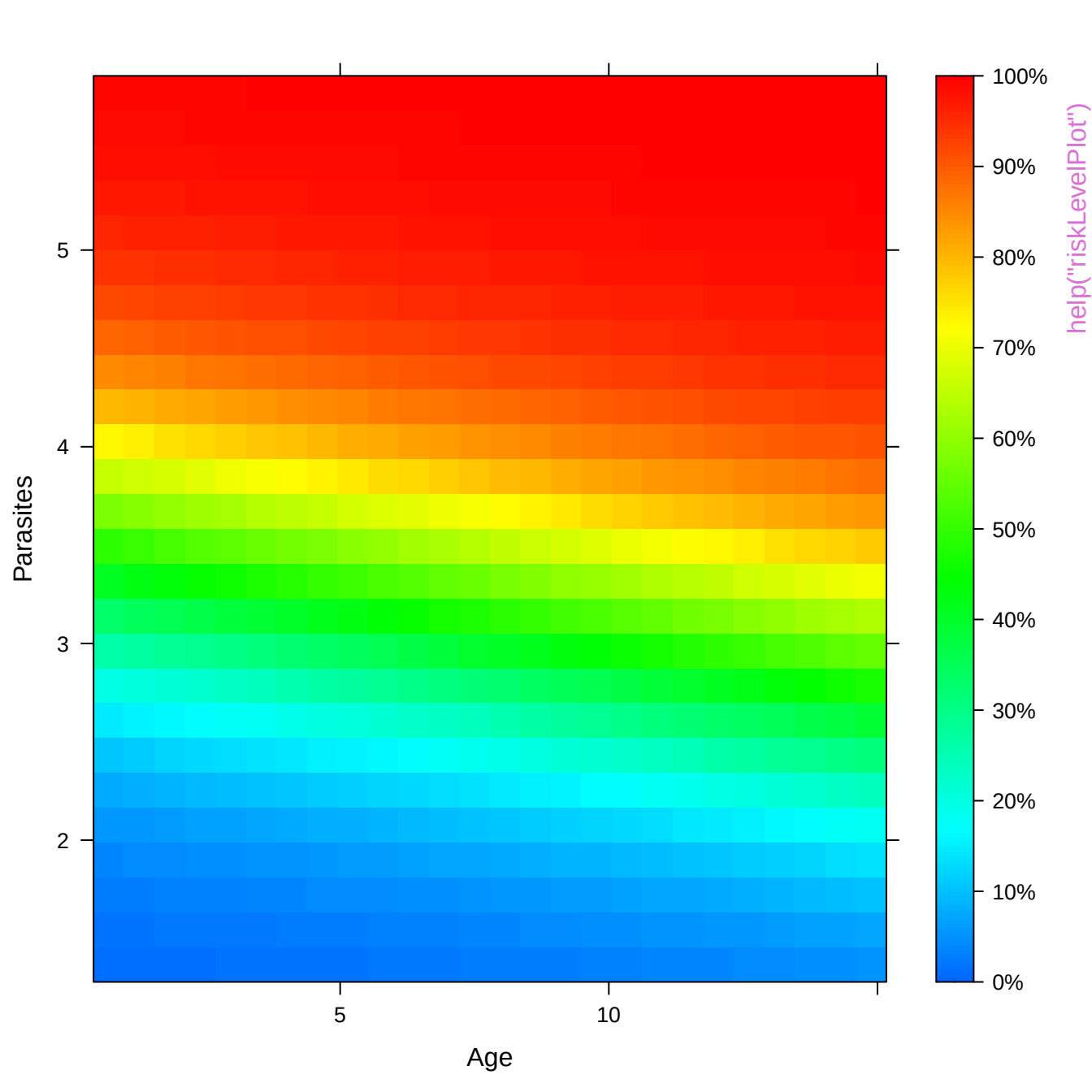

100 %
75 %
50 %
25 %
0 %
Sensitivity
0 %
25 %
50 %
75 %
100 %
1−Specificity
AUC
model1 79.2 [65.2;93.2]
model2 78.9 [65.6;92.1]
help("plotROC")

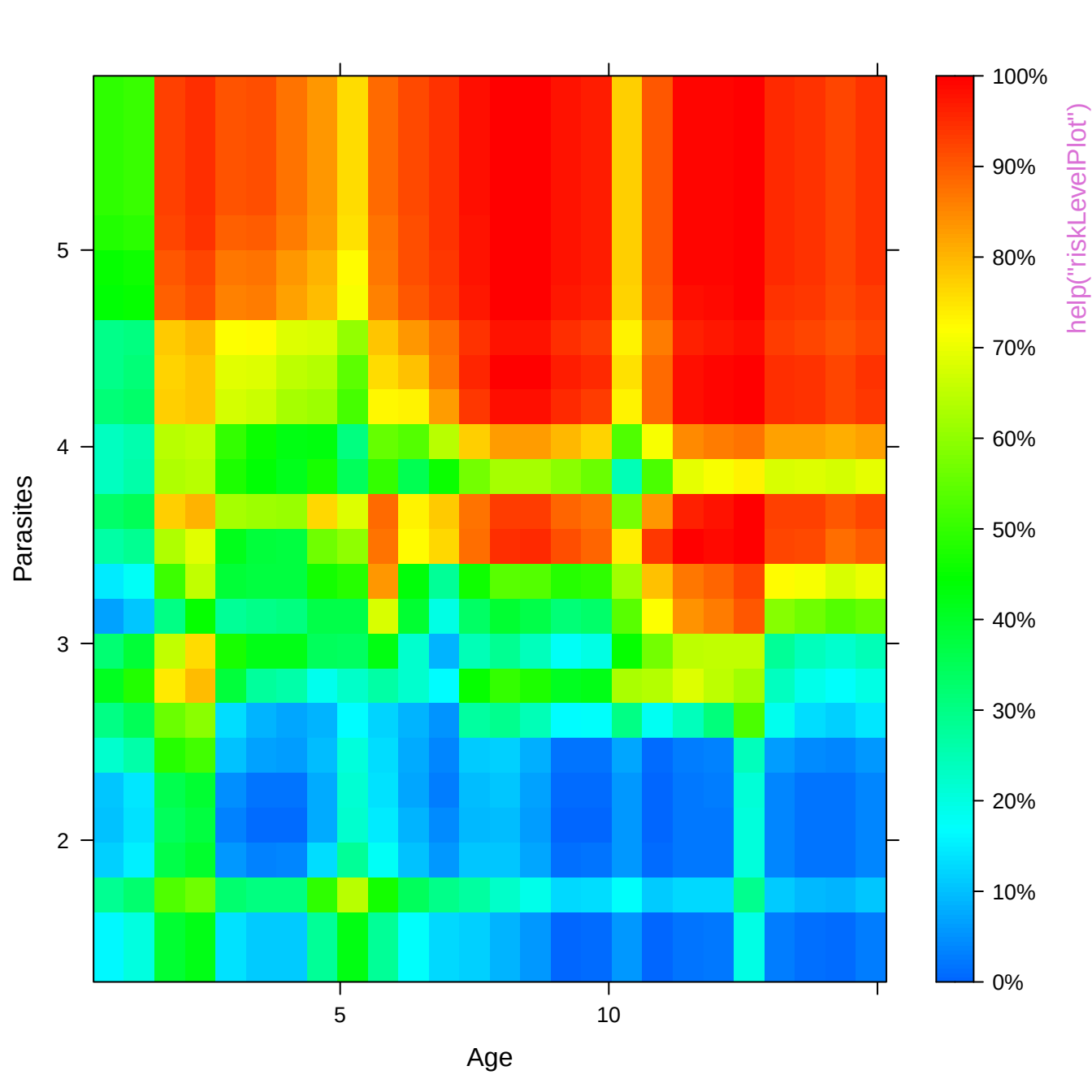

100 %
75 %
50 %
25 %
0 %
Sensitivity
0 %
25 %
50 %
75 %
100 %
1−Specificity
AUC
model1 75.1 [66.6;83.7]
model2 77.3 [69.3;85.3]
help("plotROC")

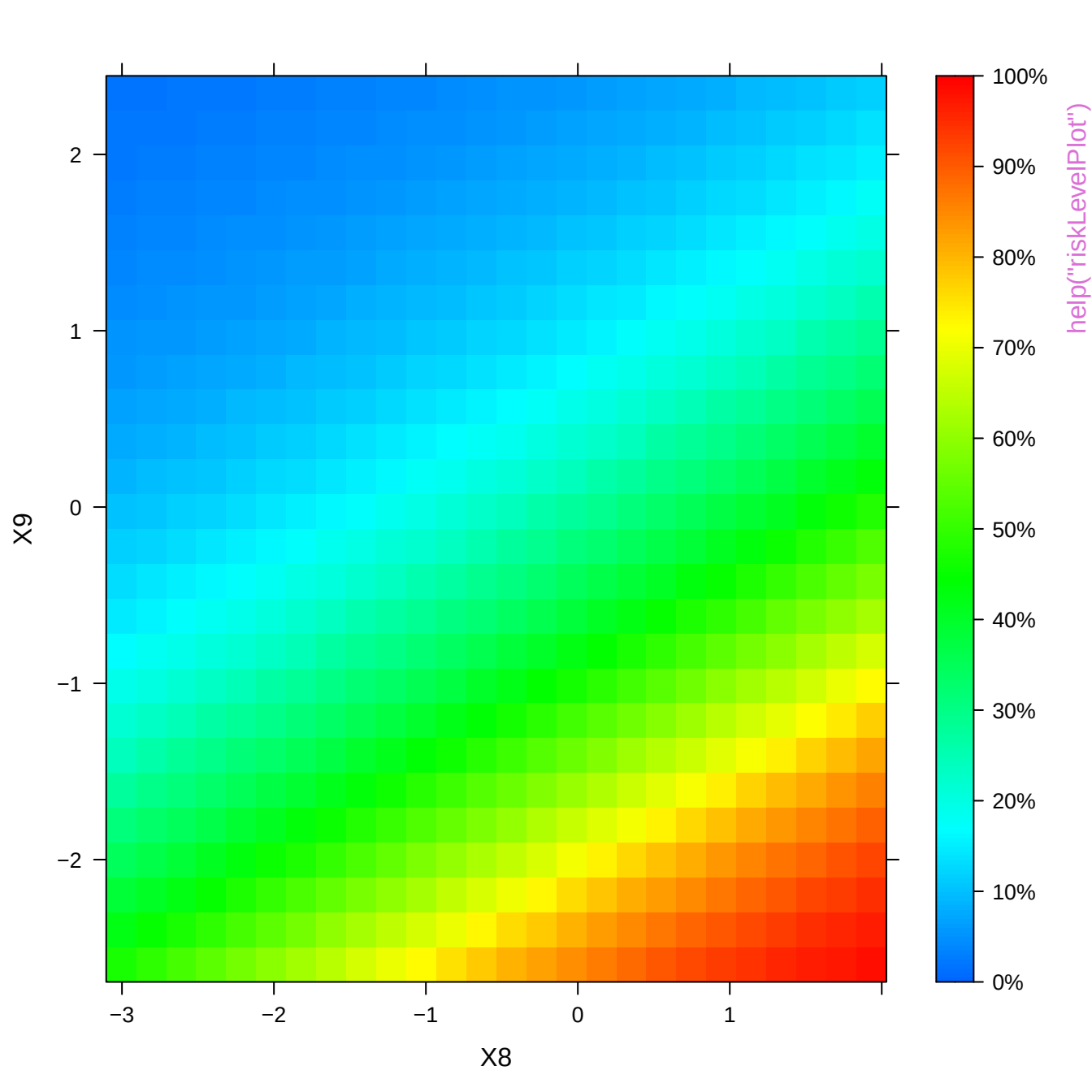

No event (n=22)
Event (n=18)
100 %
75 %
50 %
25 %
0 %
Risk (%, LR(X3+X5+X6))
0 %
25 %
50 %
75 %
100 %
Risk (%, LR(X1+X2+X7+X9))
help("plotRisk")

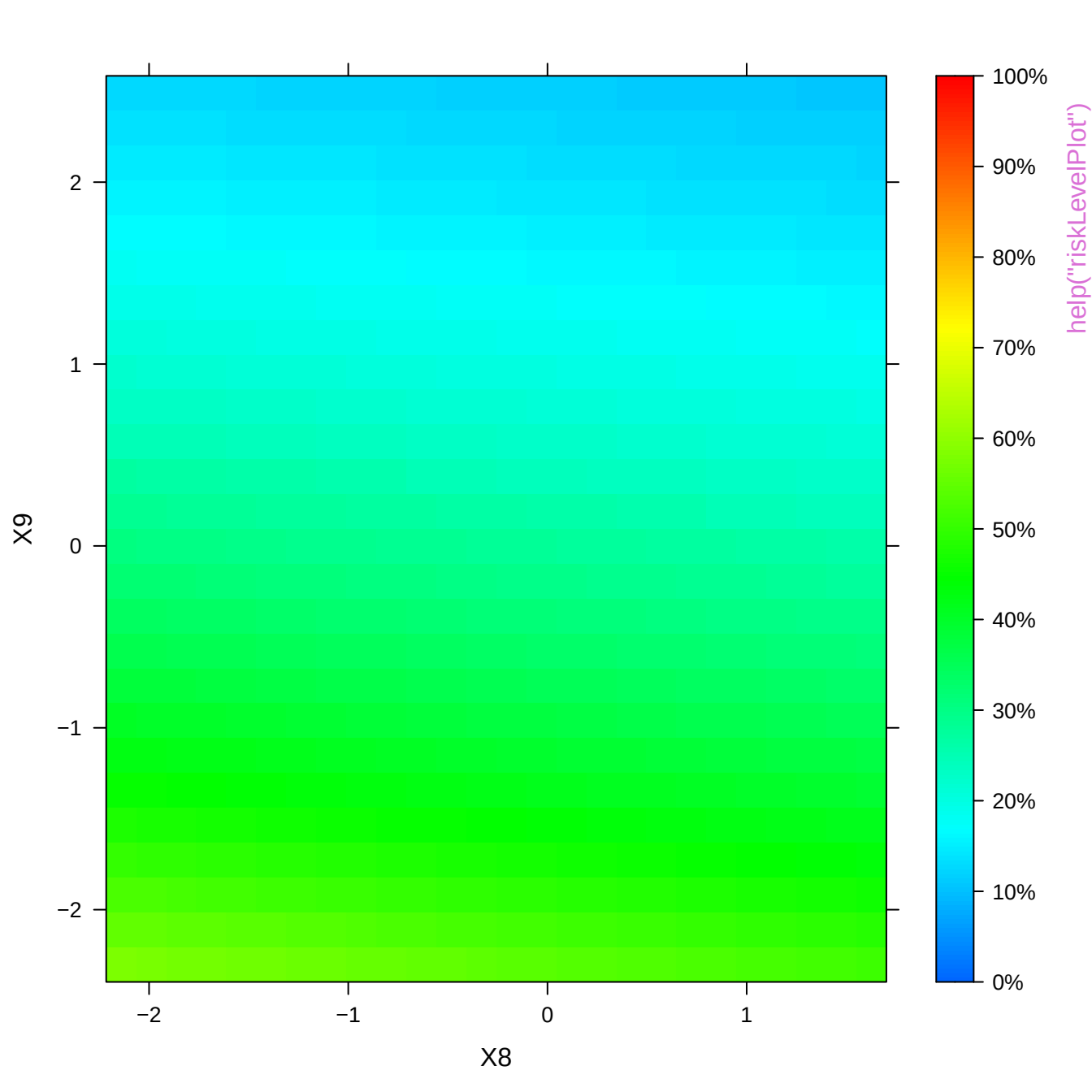

Censored (n=6)
Event (n=19)
No event (n=15)
100 %
75 %
50 %
25 %
0 %
Risk (%, Cox(X3+X5+X6))
0 %
25 %
50 %
75 %
100 %
Risk (%, Cox(X1+X2+X7+X9))
help("plotRisk")

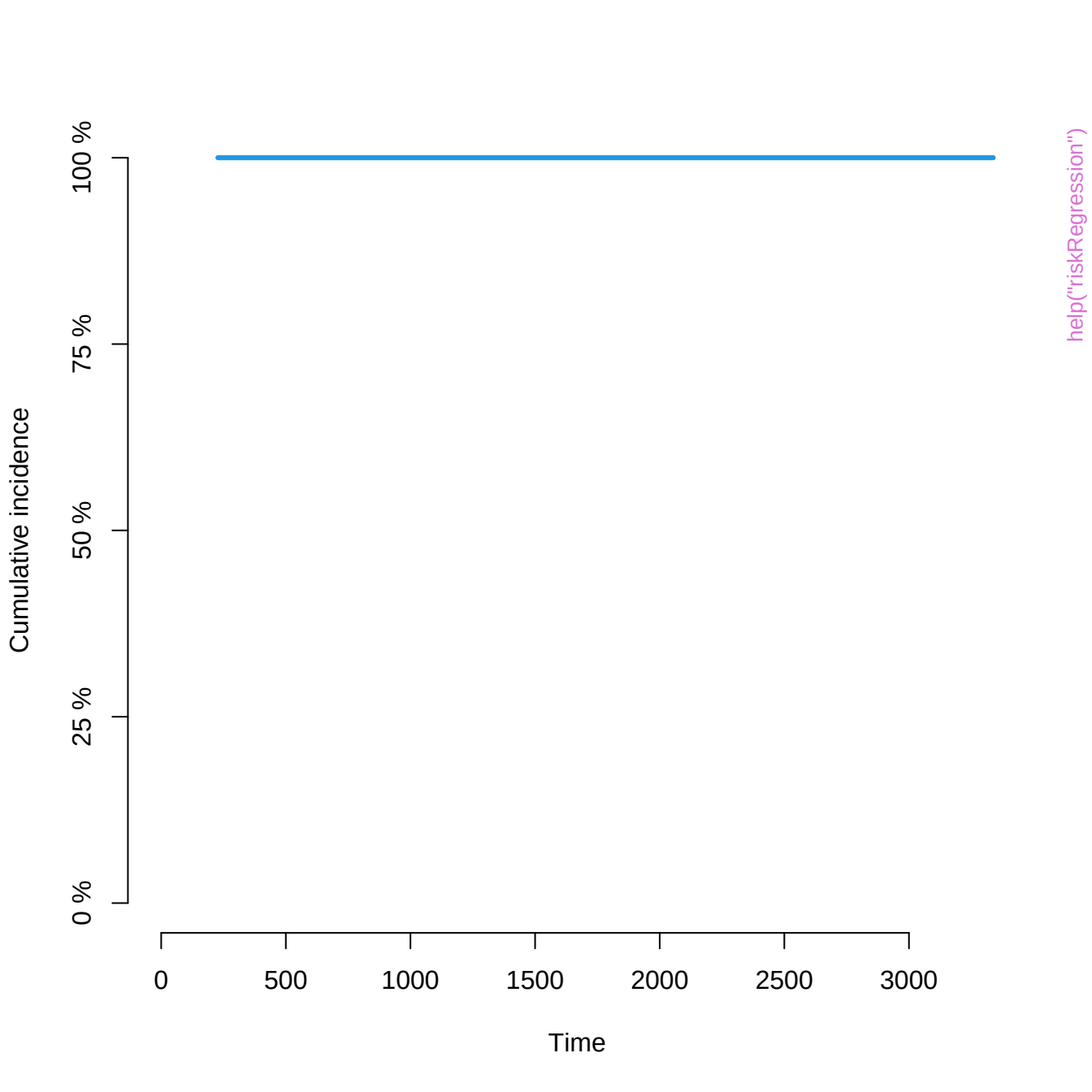

Parasites
2
3
4
5
Age
5
10
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
help("riskLevelPlot")

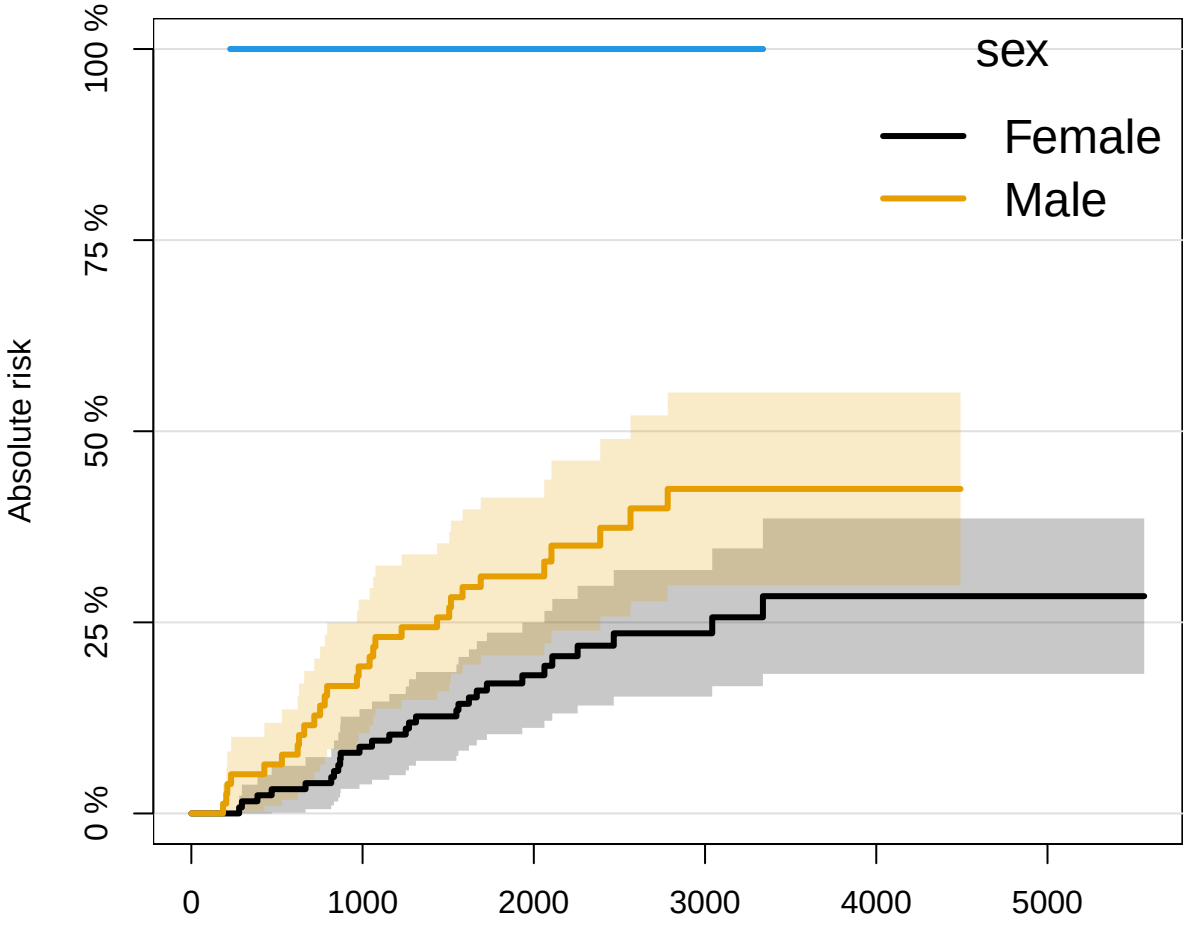

Parasites
2
3
4
5
Age
5
10
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
help("riskLevelPlot")


Parasites
5
4
3
2
5
10
Age
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
help("riskLevelPlot")


X9
2
1
0
−1
−2
X8
−3
−2
−1
0
1
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
help("riskLevelPlot")

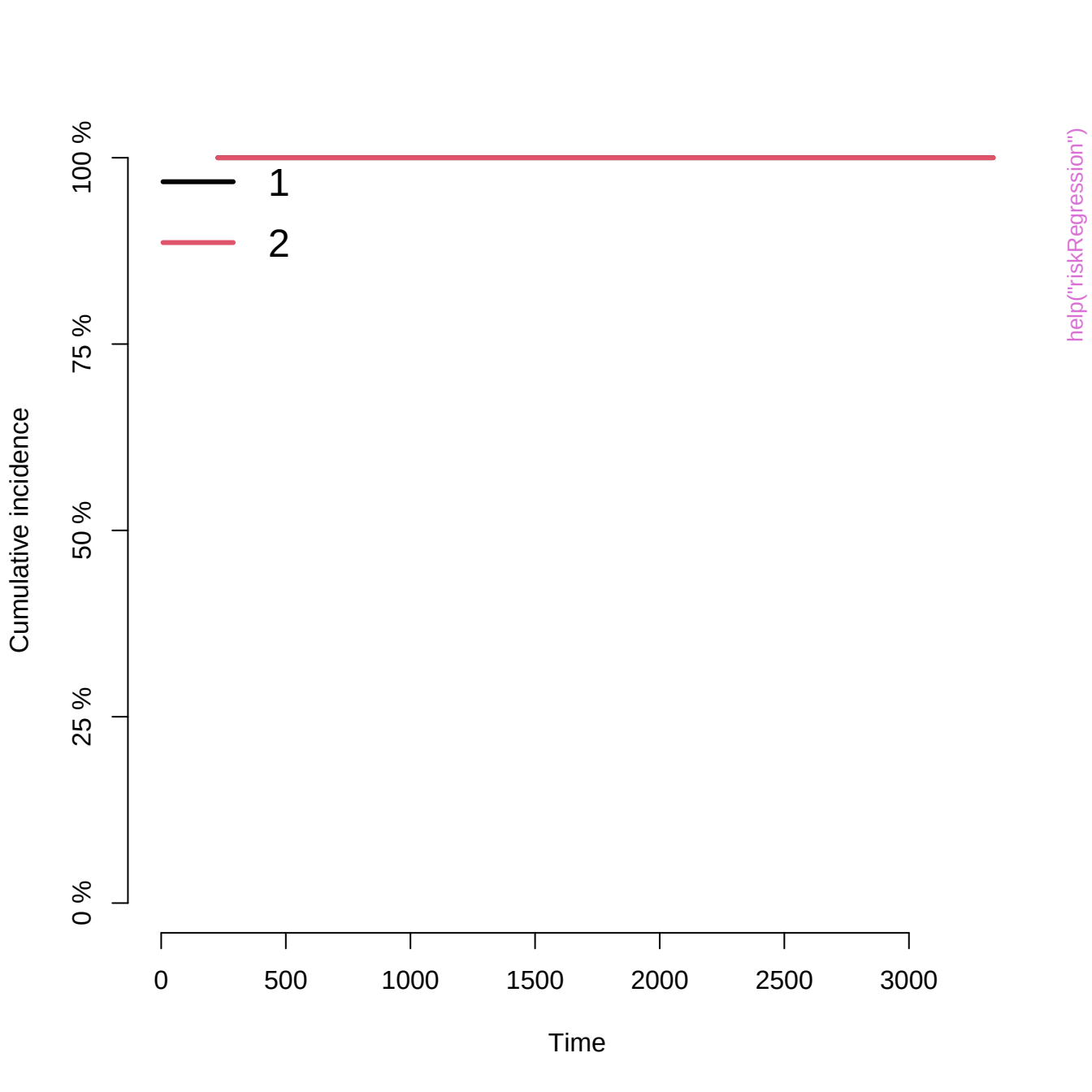

X9
2
1
0
−1
−2
X8
−2
−1
0
1
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
help("riskLevelPlot")

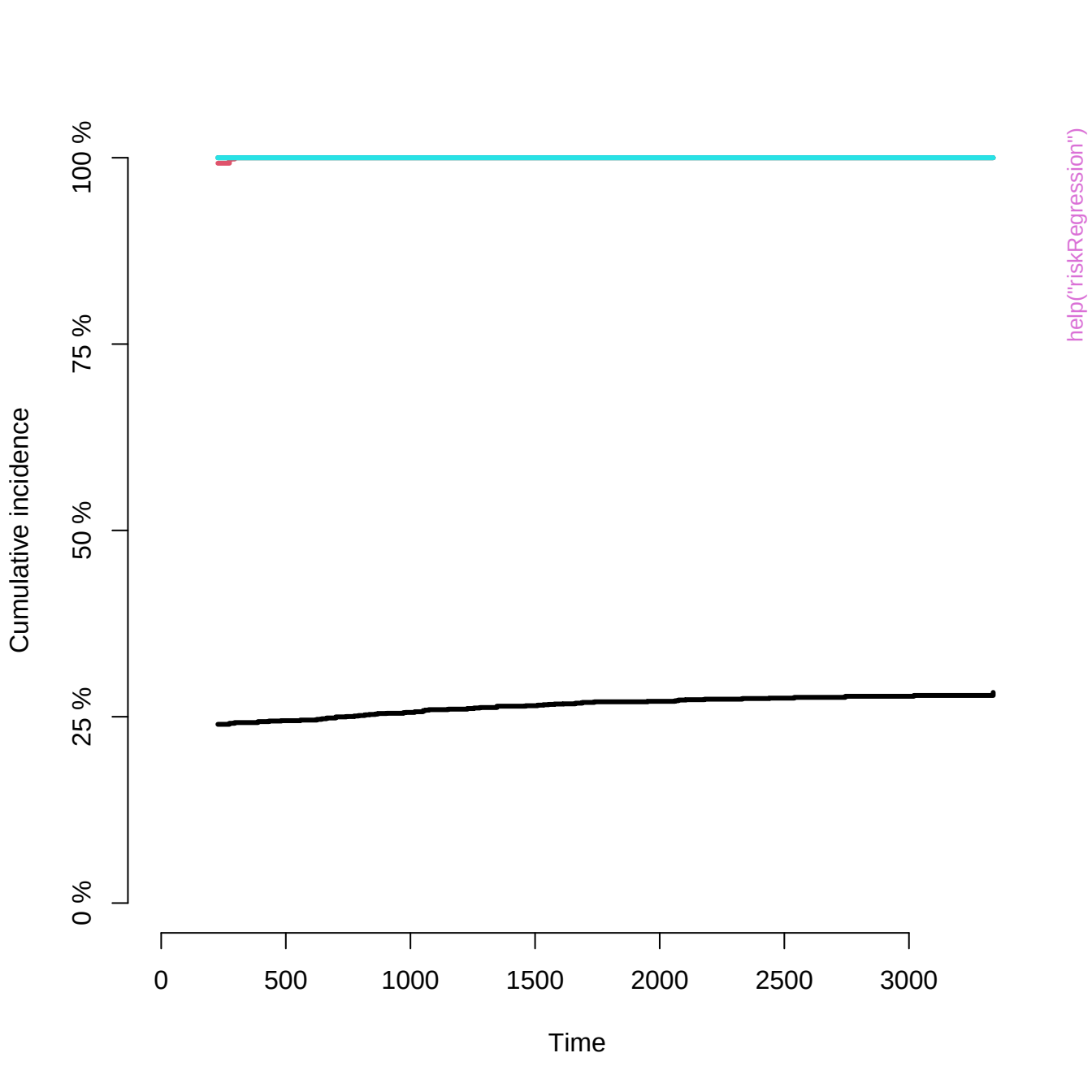

Cumulative incidence
0 %
25 %
50 %
75 %
100 %
0
500
1000
1500
2000
2500
3000
Time
help("riskRegression")

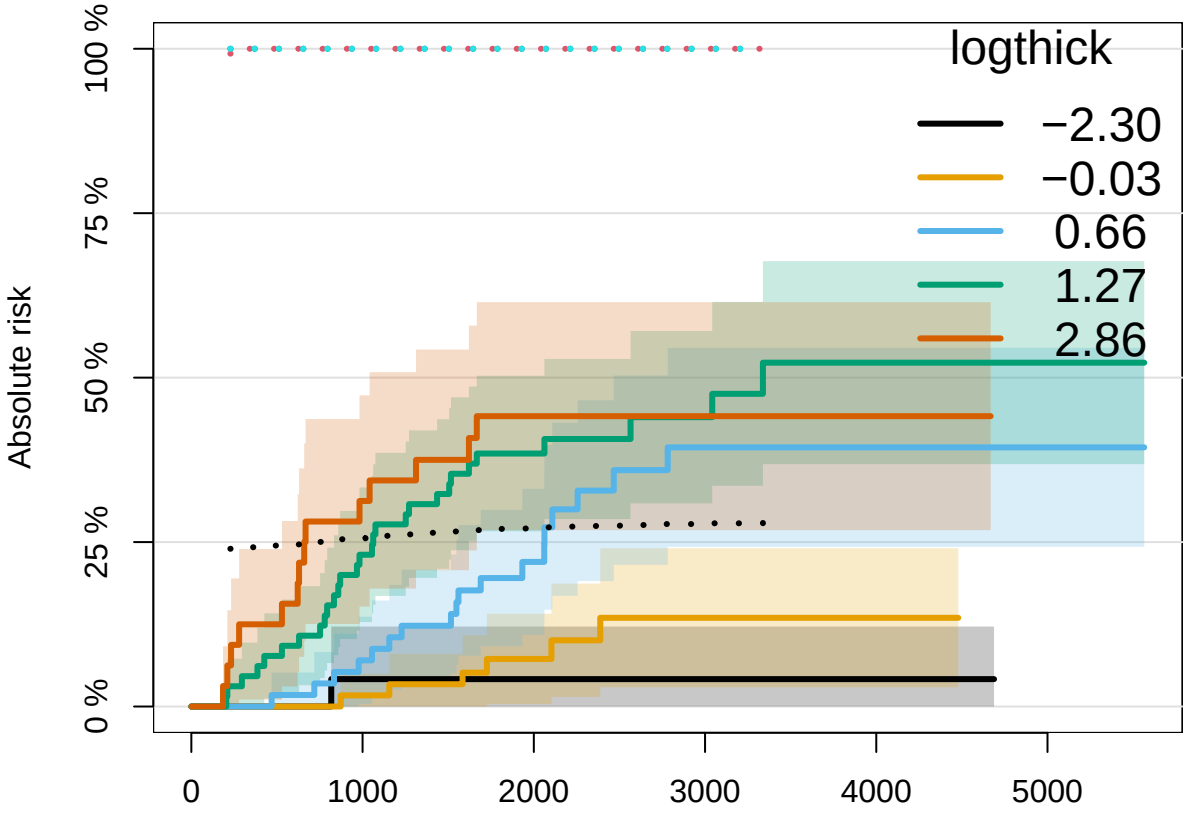


sex											
Female:	126	119	110	89	55	36	24	10	5	1	1
Male:	79	69	57	47	27	20	10	5	1	0	0

help("riskRegression")

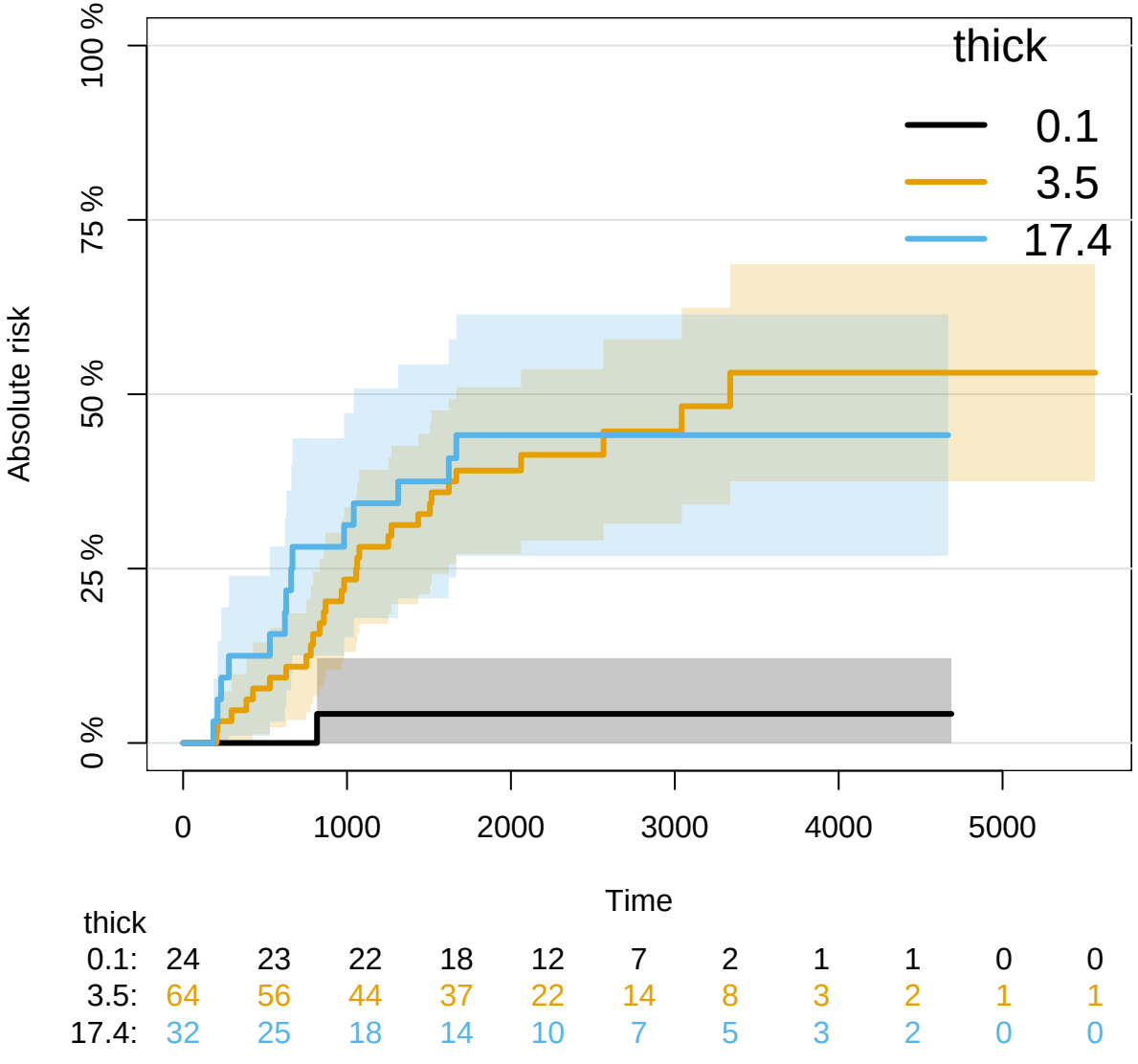

Cumulative incidence
0 %
25 %
50 %
75 %
100 %
1
2
0
500
1000
1500
2000
2500
3000
Time
help("riskRegression")


Cumulative incidence
0 %
25 %
50 %
75 %
100 %
0
500
1000
1500
2000
2500
3000
Time
help("riskRegression")

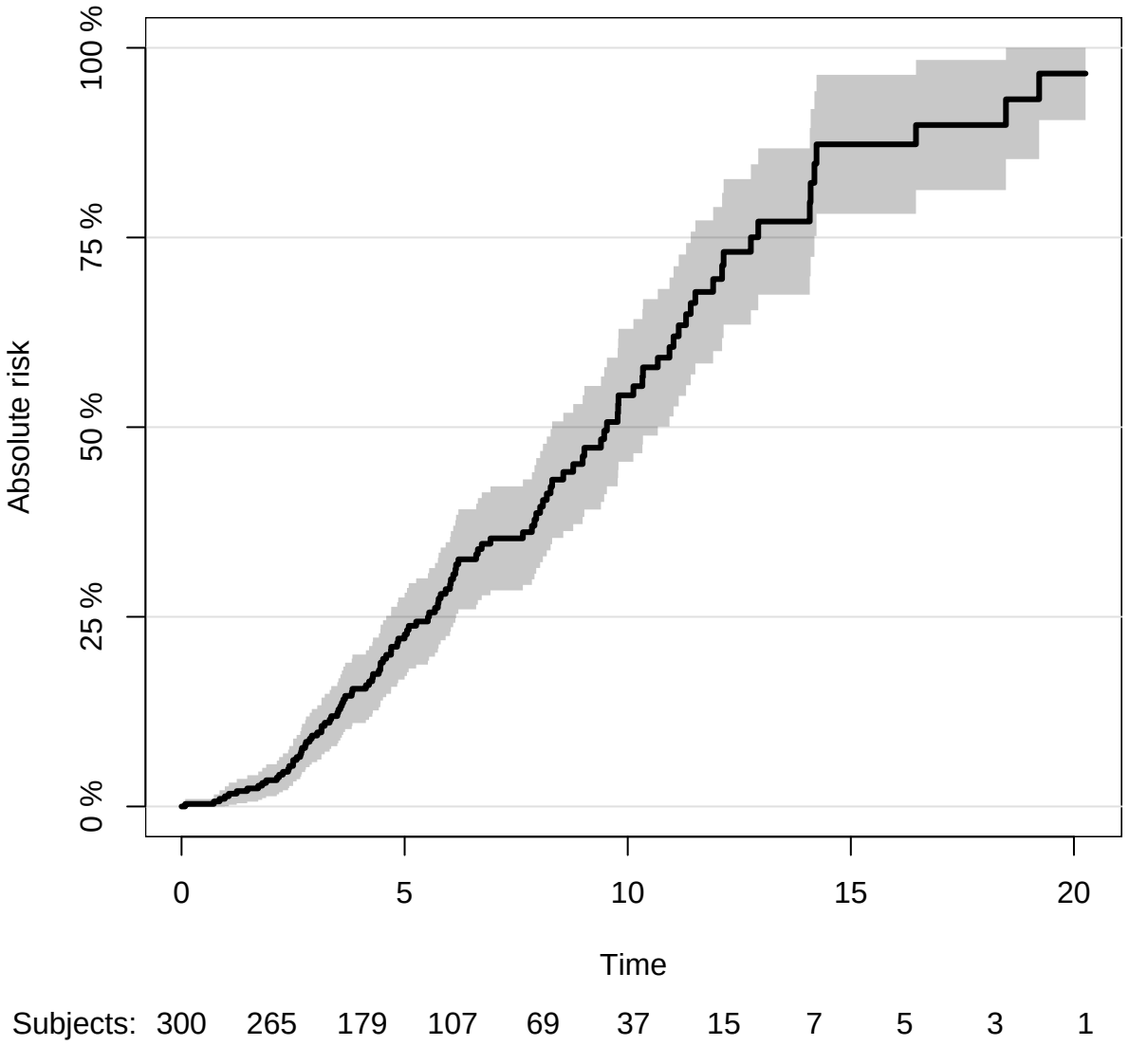


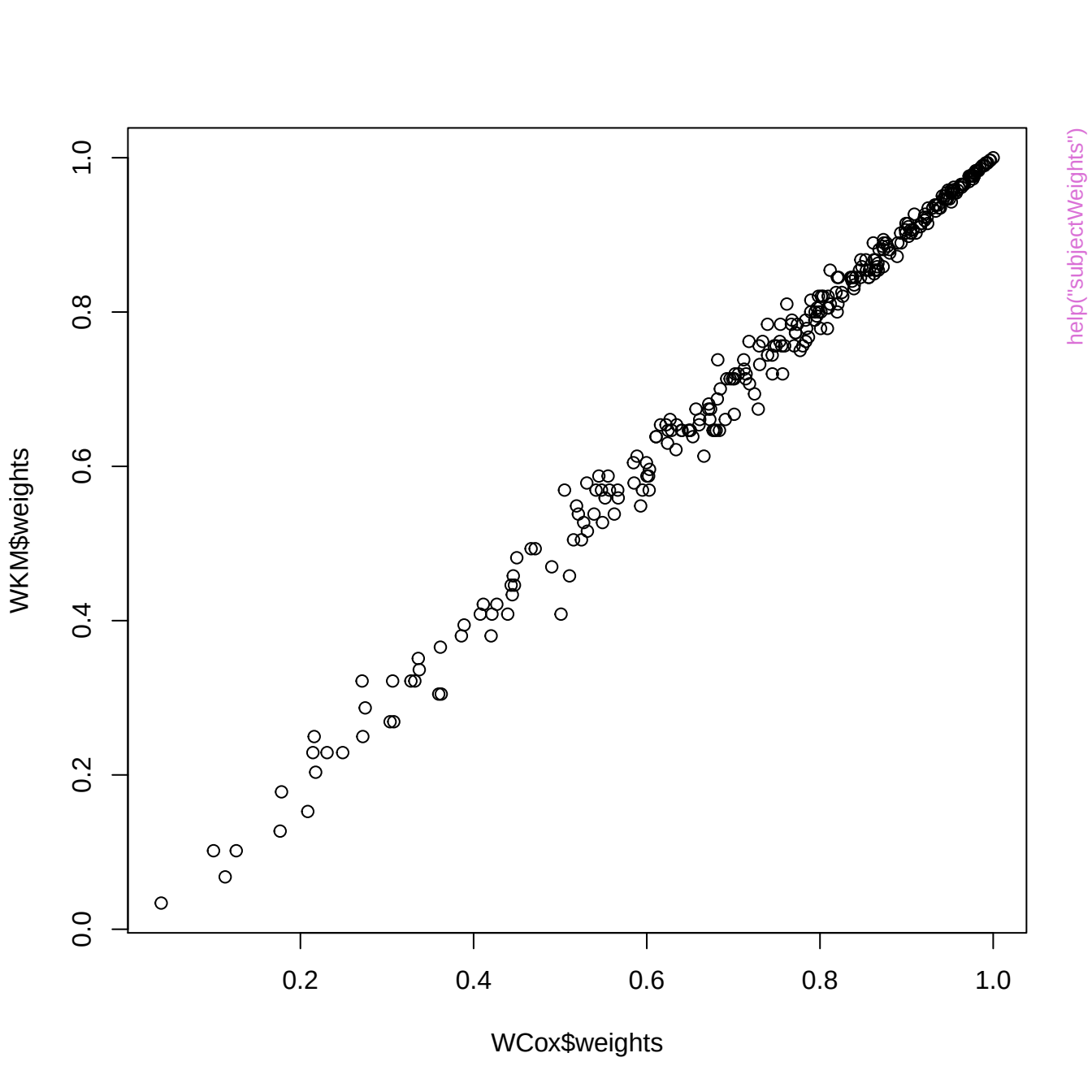
logthick											
−2.30:	24	23	22	18	12	7	2	1	1	0	0
−0.03:	60	58	57	44	26	18	12	4	1	0	0
0.66:	58	55	51	43	24	17	11	6	2	1	1
1.27:	65	56	44	37	22	14	8	3	2	1	1
2.86:	32	25	18	14	10	7	5	3	2	0	0

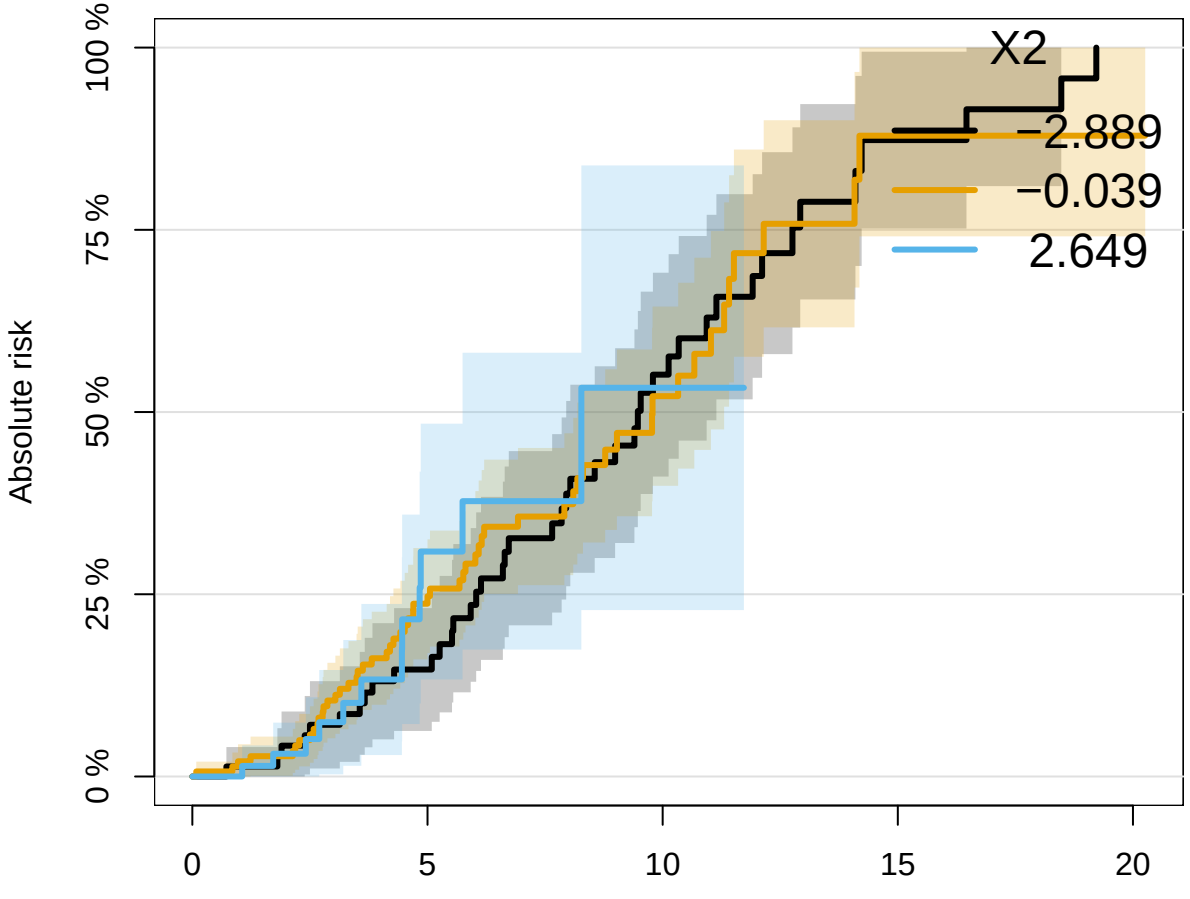
help("riskRegression")



help("riskRegression")


Absolute risk
0 %
25 %
50 %
75 %
100 %
0
5
10
15
20
Time
Subjects: 300 265 179 107 69 37 15 7 5 3 1
help("subjectWeights")


WKM$weights
WCox$weights
0.0
0.2
0.4
0.6
0.8
1.0
help("subjectWeights")



help("subjectWeights")

X2											
−2.889:	73	67	55	41	29	17	9	4	3	2	0
−0.039:	145	134	96	55	34	18	6	3	2	1	1
2.649:	73	57	25	9	5	1	0	0	0	0	0