

Title: Employees receiving inpatient treatment for common mental disorders in Germany: Factors associated with time to first and full return to work; *Journal of Occupational Rehabilitation*;
Authors: Alexandra Sikora, Gundolf Schneider, Uta Wegewitz, Ute Bültmann;
Corresponding author: Alexandra Sikora, Federal Institute for Occupational Safety and Health (BAuA),
 Sikora.Alexandra@baua.bund.de

Supplementary Material 1. Fitting null models.

1.1 Time to first RTW: Estimation results for several survival curves, no covariates

Akaike's information criterion and Bayesian information criterion

Model	N	ll(null)	ll(model)	df	AIC	BIC
<u>exponential</u>	269	-640.7057	-640.7057	1	1283.411	1287.006
<u>weibull</u>	269	-543.0385	-543.0385	2	1090.077	1097.266
<u>gompertz</u>	269	.	-513.4695	2	1030.939	1038.128
<u>lognormal</u>	269	.	-502.4559	2	1008.912	1016.101
<u>loglogistic</u>	269	.	-499.183	2	1002.366	1009.555
<u>ggamma</u>	269	.	-494.4236	3	994.8472	1005.631

Note: BIC uses N = number of observations. See [\[R\] BIC note](#).

Likelihood-ratio tests found statistically significant differences between the loglogistic, lognormal and the ggamma function ($p < .01$; $p < .001$). The ggamma model best described the time to first RTW.

1.2 Time to full RTW: Estimation results for several survival curves, no covariates

Akaike's information criterion and Bayesian information criterion

Model	N	ll(null)	ll(model)	df	AIC	BIC
<u>exponential</u>	269	-616.739	-616.739	1	1235.478	1239.073
<u>weibull</u>	269	-549.6345	-549.6345	2	1103.269	1110.458
<u>gompertz</u>	269	.	-552.9167	2	1109.833	1117.023
<u>lognormal</u>	269	.	-540.6879	2	1085.376	1092.565
<u>loglogistic</u>	269	.	-544.7304	2	1093.461	1100.65
<u>ggamma</u>	269	.	-540.5368	3	1087.074	1097.858

Note: BIC uses N = number of observations. See [\[R\] BIC note](#).

Based on the AIC and BIC for the empty model, a lognormal survival function would be most preferable, but a likelihood-ratio test found no significant differences between the lognormal and the ggamma function ($p = 0.58$). It was, therefore, continued with the ggamma survival function.