**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;

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**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    |
|------------|-----|----------|-----------|----|--------|--------|
| exponential | 269 | -640.7057 | -640.7057 | 1  | 1283.411 | 1287.006 |
| weibull    | 269 | -543.0385 | -543.0385 | 2  | 1090.077 | 1097.266 |
| gompertz   | 269 | -513.4695 | -513.4695 | 2  | 1030.939 | 1038.128 |
| lognormal  | 269 | -502.4559 | -502.4559 | 2  | 1008.912 | 1016.101 |
| loglogistic| 269 | -499.183  | -499.183  | 2  | 1002.366 | 1009.555 |
| ggamma     | 269 | -494.4236 | -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    |
|------------|-----|----------|-----------|----|--------|--------|
| exponential | 269 | -616.739 | -616.739  | 1  | 1235.478 | 1239.073 |
| weibull    | 269 | -549.6345| -549.6345 | 2  | 1103.269 | 1110.458 |
| gompertz   | 269 | -552.9167| -552.9167 | 2  | 1109.833 | 1117.023 |
| lognormal  | 269 | -540.6879| -540.6879 | 2  | 1085.376 | 1092.565 |
| loglogistic| 269 | -544.7304| -544.7304 | 2  | 1093.461 | 1100.65  |
| ggamma     | 269 | -540.5368| -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.