

## Supplementary material

### Long-term trajectories of densely reported depressive symptoms during an extended period of the COVID-19 pandemic in Switzerland: social worries matter

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## Final Latent Growth Model: formal description and illustration

The selection procedure based on the BIC criterion yielded the following final Latent Growth Model:

$$\log(E[Depression_t]) = \beta_0 + \sum_{j=2}^9 \beta_j Canton_j + \beta_{10} Worries\_Econ_{2t} + \beta_{11} Worries\_Health_{2t} + \beta_{12} Worries\_Social_{2t} + \beta_{13} Age_2 + \beta_{14} Age_3 + \beta_{15} t + \beta_{16} t^2 + \beta_{17} t^3 + \beta_{18} Gender_2 + \beta_{19} Income_2 + \beta_{20} Income_3 + \sum_{j=2}^9 \sum_{k=1}^3 \beta_{21,j,k} Canton_j \times t^k + \sum_{k=1}^3 \beta_{22,k} Worries\_Econ_{2t} \times t^k + \sum_{k=1}^3 \beta_{23,k} Worries\_Health_{2t} \times t^k + \sum_{k=1}^3 \beta_{24,k} Worries\_Social_{2t} \times t^k + \sum_{j=2}^9 \sum_{k=1}^3 \beta_{25,j,k} Age_j \times t^k + (b_0 + b_1 t + b_2 t^2 + b_3 t^3)$$

where:  $Canton_2$  = Basel-Landschaft,  $Canton_3$  = Basel-Stadt,  $Canton_4$  = Fribourg,  $Canton_5$  = Graubünden,

$Canton_6$  = Luzern,  $Canton_7$  = Neuchâtel,  $Canton_8$  = St.Gallen,  $Canton_9$  = [Zürich](#)

$Gender_2$  = Male

$Income_2$  = CHF 6000 - 15000

$Income_3$  = > CHF 15000

$Age_2$  = [30-65] years

$Age_3$  = [65+] years

$Worries\_Econ_{2t}$  = Yes (at time  $t$ )

$Worries\_Health_{2t}$  = Yes (at time  $t$ )

$Worries\_Social_{2t}$  = Yes (at time  $t$ )

$t$  is the time index, Number of Days from the beginning of the study

$\mathbf{b} = (b_0, b_1, b_2, b_3)^T$  is a vector of random parameters, Normally distributed:  $\mathbf{b} \sim N_4(\mathbf{0}, \mathbf{\Sigma}_b)$ , with

$$\mathbf{\Sigma}_b = \text{diag}(\sigma_{b_0}^2, \sigma_{b_1}^2, \sigma_{b_2}^2, \sigma_{b_3}^2)$$

$Depression_t$  is distributed as  $Poisson(E[Depression_t])$

Notice that, with these definitions, the reference categories are:  $Canton_1$  = Bern,  $Gender_1$  = Female,  $Age_1$  = [18-30] years,  $Income_1$  = < CHF 6000,  $Worries\_Econ_{1t}$  = No,  $Worries\_Health_{1t}$  = No,  $Worries\_Social_{1t}$  = No

The contributions of the fixed covariates and the individual heterogeneity, captured by the random parameters, in determining the individual trajectory are illustrated in Fig. S1.

Table 1S a-b: Predictors of **depression symptom score** trajectories as selected into the final latent growth model; coefficients are on the log-ratio scale

<b>a) Main effects</b>			
<b>Predictors</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>p-value<sup>1</sup></b>
(Intercept) <sup>2</sup>	0.69	0.13	<b>&lt;0.001</b>
Canton [BL]	0.27	0.12	<b>0.025</b>
Canton [BS]	0.72	0.12	<b>&lt;0.001</b>
Canton [FR]	0.26	0.12	<b>0.030</b>
Canton [GR]	-0.37	0.16	<b>0.021</b>
Canton [LU]	0.08	0.14	0.583
Canton [NE]	0.32	0.12	<b>0.009</b>
Canton [SG]	0.01	0.15	0.940
Canton [ZH]	0.25	0.11	<b>0.025</b>
worries_econ [yes]	0.16	0.02	<b>&lt;0.001</b>
worries_health [yes]	0.18	0.02	<b>&lt;0.001</b>
worries_social [yes]	0.26	0.02	<b>&lt;0.001</b>
age [30-65]	-0.88	0.09	<b>&lt;0.001</b>
age [65+]	-1.40	0.10	<b>&lt;0.001</b>
n.days [1st degree; linear]	-30.96	29.72	0.298
n.days [2nd degree; quadratic]	-88.84	32.78	<b>0.007</b>
n.days [3rd degree; cubic]	109.04	21.64	<b>&lt;0.001</b>
gender [male]	-0.33	0.05	<b>&lt;0.001</b>
income [CHF 6000 - 15000]	-0.05	0.05	0.299
income [> CHF 15000]	-0.26	0.09	<b>0.006</b>

<b>b) first-order interactions</b>			
<b>Predictors</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>p-value<sup>1</sup></b>
Canton [BL] * n.days [1st degree]	-18.11	28.69	0.528
Canton [BL] * n.days [2nd degree]	54.42	32.08	<b>0.090</b>
Canton [BL] * n.days [3rd degree]	-56.41	20.86	<b>0.007</b>
Canton [BS] * n.days [1st degree]	-25.30	28.35	0.372
Canton [BS] * n.days [2nd degree]	59.96	31.78	<b>0.059</b>
Canton [BS] * n.days [3rd degree]	-65.20	20.57	<b>0.002</b>
Canton [FR] * n.days [1st degree]	-46.89	28.39	<b>0.099</b>
Canton [FR] * n.days [2nd degree]	39.34	31.78	0.216
Canton [FR] * n.days [3rd degree]	-36.54	20.75	<b>0.078</b>
Canton [GR] * n.days [1st degree]	43.16	46.92	0.358
Canton [GR] * n.days [2nd degree]	-55.13	50.25	0.273
Canton [GR] * n.days [3rd degree]	15.67	31.01	0.613
Canton [LU] * n.days [1st degree]	10.55	48.93	0.829
Canton [LU] * n.days [2nd degree]	24.89	50.51	0.622
Canton [LU] * n.days [3rd degree]	-25.53	28.41	0.369
Canton [NE] * n.days [1st degree]	-83.57	28.84	<b>0.004</b>
Canton [NE] * n.days [2nd degree]	27.23	32.26	0.399
Canton [NE] * n.days [3rd degree]	-24.23	21.24	0.254
Canton [SG] * n.days [1st degree]	21.07	34.75	0.544
Canton [SG] * n.days [2nd degree]	-47.98	38.96	0.218
Canton [SG] * n.days [3rd degree]	3.89	25.91	0.881
Canton [ZH] * n.days [1st degree]	-35.61	27.87	0.201
Canton [ZH] * n.days [2nd degree]	57.55	31.35	<b>0.066</b>
Canton [ZH] * n.days [3rd degree]	-65.95	20.08	<b>0.001</b>
worries_econ [yes] * n.days [1st degree]	8.89	4.73	<b>0.060</b>
worries_econ [yes] * n.days [2nd degree]	3.74	3.97	0.346
worries_econ [yes] * n.days [3rd degree]	-3.75	3.71	0.313
worries_health [yes] * n.days [1st degree]	23.00	4.82	<b>&lt;0.001</b>
worries_health [yes] * n.days [2nd degree]	9.60	4.02	<b>0.017</b>
worries_health [yes] * n.days [3rd degree]	-7.75	3.84	<b>0.043</b>
worries_social [yes] * n.days [1st degree]	8.86	4.67	<b>0.058</b>

worries_social [yes] * n.days [2nd degree]	-0.42	3.97	0.917
worries_social [yes] * n.days [3rd degree]	-5.44	3.79	0.151
age [30-65] * n.days [1st degree]	-17.55	13.27	0.186
age [30-65] * n.days [2nd degree]	-27.34	12.65	<b>0.031</b>
age [30-65] * n.days [3rd degree]	25.01	10.67	<b>0.019</b>
age [65+] * n.days [1st degree]	-27.60	14.15	<b>0.051</b>
age [65+] * n.days [2nd degree]	-49.10	13.60	<b>&lt;0.001</b>
age [65+] * n.days [3rd degree]	45.96	11.55	<b>&lt;0.001</b>

<sup>1</sup>p-values ≤ 0.05 in **red**, p-values > 0.05 but ≤ 0.10 in **blue**, p-values >0.10 in **black**

<sup>2</sup> the intercept refers to the baseline categories of the categorical covariates and to the origin (i.e. 0 value) of the continuous covariates. It should be read as the log(expected depression score) at day 0 (1<sup>st</sup> July 2020) for a female, age [18-30], with no worries, living in canton Bern and having income < 6000 ChF.

Table 2S a-b: Predictors of depression symptom score trajectories as selected into the final latent growth model assuming **Negative Binomial distribution** for the response; coefficients are on the log-ratio scale

<b>a) Main effects</b>			
<b>Predictors</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>p-value<sup>1</sup></b>
(Intercept) <sup>2</sup>	0.78	0.14	<b>&lt;0.001</b>
Canton [BL]	0.29	0.13	<b>0.020</b>
Canton [BS]	0.73	0.12	<b>&lt;0.001</b>
Canton [FR]	0.29	0.13	<b>0.019</b>
Canton [GR]	-0.32	0.19	<b>0.083</b>
Canton [LU]	0.16	0.18	0.364
Canton [NE]	0.33	0.13	<b>0.011</b>
Canton [SG]	0.09	0.16	0.571
Canton [ZH]	0.28	0.12	<b>0.022</b>
worries_econ [yes]	0.22	0.03	<b>&lt;0.001</b>
worries_health [yes]	0.19	0.03	<b>&lt;0.001</b>
worries_social [yes]	0.37	0.03	<b>&lt;0.001</b>
age [30-65]	-0.85	0.09	<b>&lt;0.001</b>
age [65+]	-1.35	0.09	<b>&lt;0.001</b>
n.days [1st degree; linear]	10.11	41.50	0.807
n.days [2nd degree; quadratic]	-102.23	45.86	<b>0.026</b>
n.days [3rd degree; cubic]	113.53	26.63	<b>&lt;0.001</b>
gender [male]	-0.33	0.04	<b>&lt;0.001</b>
income [CHF 6000 - 15000]	-0.04	0.05	0.445
income [> CHF 15000]	-0.24	0.09	<b>0.011</b>

<b>b) first-order interactions</b>			
<b>Predictors</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>p-value<sup>1</sup></b>
Canton [BL] * n.days [1st degree]	-40.13	40.85	0.326
Canton [BL] * n.days [2nd degree]	80.60	45.61	<b>0.077</b>
Canton [BL] * n.days [3rd degree]	-72.49	26.34	<b>0.006</b>
Canton [BS] * n.days [1st degree]	-45.55	40.67	0.263
Canton [BS] * n.days [2nd degree]	79.46	45.45	<b>0.080</b>
Canton [BS] * n.days [3rd degree]	-76.09	26.15	<b>0.004</b>
Canton [FR] * n.days [1st degree]	-76.74	40.75	<b>0.060</b>
Canton [FR] * n.days [2nd degree]	76.15	45.48	<b>0.094</b>
Canton [FR] * n.days [3rd degree]	-64.37	26.15	<b>0.014</b>
Canton [GR] * n.days [1st degree]	17.49	74.37	0.814
Canton [GR] * n.days [2nd degree]	-20.30	79.49	0.798
Canton [GR] * n.days [3rd degree]	-7.59	43.46	0.861
Canton [LU] * n.days [1st degree]	-42.26	78.43	0.590
Canton [LU] * n.days [2nd degree]	68.36	80.94	0.398
Canton [LU] * n.days [3rd degree]	-43.20	41.43	0.297
Canton [NE] * n.days [1st degree]	-102.22	41.00	<b>0.013</b>
Canton [NE] * n.days [2nd degree]	62.39	45.71	0.172
Canton [NE] * n.days [3rd degree]	-41.75	26.56	0.116
Canton [SG] * n.days [1st degree]	-28.05	50.72	0.580
Canton [SG] * n.days [2nd degree]	10.92	57.21	0.849
Canton [SG] * n.days [3rd degree]	-31.47	33.72	0.351
Canton [ZH] * n.days [1st degree]	-57.42	40.41	0.155
Canton [ZH] * n.days [2nd degree]	88.48	45.22	<b>0.050</b>
Canton [ZH] * n.days [3rd degree]	-88.79	25.77	<b>0.001</b>
worries_econ [yes] * n.days [1st degree]	10.13	5.52	<b>0.066</b>
worries_econ [yes] * n.days [2nd degree]	-3.57	4.85	0.462
worries_econ [yes] * n.days [3rd degree]	-2.50	4.87	0.607
worries_health [yes] * n.days [1st degree]	13.49	5.67	<b>0.017</b>
worries_health [yes] * n.days [2nd degree]	8.75	5.08	<b>0.085</b>
worries_health [yes] * n.days [3rd degree]	-11.04	5.16	<b>0.032</b>
worries_social [yes] * n.days [1st degree]	11.31	5.61	<b>0.044</b>

worries_social [yes] * n.days [2nd degree]	-8.80	5.18	<b>0.089</b>
worries_social [yes] * n.days [3rd degree]	-1.32	5.27	0.803
age [30-65] * n.days [1st degree]	-32.81	11.70	<b>0.005</b>
age [30-65] * n.days [2nd degree]	-7.67	9.53	0.421
age [30-65] * n.days [3rd degree]	14.55	8.47	<b>0.086</b>
age [65+] * n.days [1st degree]	-46.64	12.43	<b>&lt;0.001</b>
age [65+] * n.days [2nd degree]	-19.87	10.18	0.051
age [65+] * n.days [3rd degree]	30.81	9.10	<b>0.001</b>

<sup>1</sup>p-values ≤ 0.05 in **red**, p-values > 0.05 but ≤ 0.10 in **blue**, p-values >0.10 in **black**

<sup>2</sup> the intercept refers to the baseline categories of the categorical covariates and to the origin (i.e. 0 value) of the continuous covariates. It should be read as the log(expected depression score) at day 0 (1<sup>st</sup> July 2020) for a female, age [18-30], with no worries, living in canton Bern and having income < 6000 ChF.



Table 3S a-b: Predictors of -- trajectories as selected into the final latent growth model; coefficients are on the log-ratio scale

<b>a) Main effects</b>			
<b>Predictors (main effects)</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>p-value<sup>1</sup></b>
(Intercept) <sup>2</sup>	-0.12	0.14	0.411
Canton [BL]	0.10	0.13	0.455
Canton [BS]	0.31	0.13	<b>0.018</b>
Canton [FR]	0.37	0.13	<b>0.005</b>
Canton [GR]	-0.16	0.19	0.379
Canton [LU]	0.02	0.17	0.900
Canton [NE]	0.22	0.13	0.106
Canton [SG]	0.10	0.16	0.549
Canton [ZH]	0.03	0.12	0.835
worries_econ [yes]	0.14	0.02	<b>&lt;0.001</b>
worries_health [yes]	0.21	0.02	<b>&lt;0.001</b>
worries_social [yes]	0.23	0.02	<b>&lt;0.001</b>
age [30-65]	-0.86	0.10	<b>&lt;0.001</b>
age [65+]	-0.96	0.10	<b>&lt;0.001</b>
n.days [1st degree]	-7.87	38.51	0.838
n.days [2nd degree]	-33.04	41.00	0.420
n.days [3rd degree]	33.24	25.29	0.189
sex [male]	-0.27	0.05	<b>&lt;0.001</b>
income [CHF 6000 - 15000]	-0.19	0.05	<b>&lt;0.001</b>
income [> CHF 15000]	-0.49	0.11	<b>&lt;0.001</b>

<b>b) first-order interactions</b>			
<b>Predictors</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>p-value<sup>1</sup></b>

Canton [BL] * n.days [1 <sup>st</sup> degree]	-38.50	37.32	0.302
Canton [BL] * n.days [2 <sup>nd</sup> degree]	40.80	40.36	0.312
Canton [BL] * n.days [3 <sup>rd</sup> degree]	-21.71	24.50	0.376
Canton [BS] * n.days [1 <sup>st</sup> degree]	-35.34	37.10	0.341
Canton [BS] * n.days [2 <sup>nd</sup> degree]	56.09	40.19	0.163
Canton [BS] * n.days [3 <sup>rd</sup> degree]	-29.89	24.34	0.219
Canton [FR] * n.days [1 <sup>st</sup> degree]	-40.06	37.05	0.280
Canton [FR] * n.days [2 <sup>nd</sup> degree]	42.50	40.12	0.289
Canton [FR] * n.days [3 <sup>rd</sup> degree]	-32.75	24.26	0.177
Canton [GR] * n.days [1 <sup>st</sup> degree]	-42.80	66.12	0.517
Canton [GR] * n.days [2 <sup>nd</sup> degree]	45.85	68.86	0.506
Canton [GR] * n.days [3 <sup>rd</sup> degree]	-16.97	39.19	0.665
Canton [LU] * n.days [1 <sup>st</sup> degree]	69.83	67.93	0.304
Canton [LU] * n.days [2 <sup>nd</sup> degree]	-25.07	68.31	0.714
Canton [LU] * n.days [3 <sup>rd</sup> degree]	12.55	35.72	0.725
Canton [NE] * n.days [1 <sup>st</sup> degree]	-72.34	37.45	<b>0.053</b>
Canton [NE] * n.days [2 <sup>nd</sup> degree]	36.58	40.48	0.366
Canton [NE] * n.days [3 <sup>rd</sup> degree]	-0.19	24.81	0.994
Canton [SG] * n.days [1 <sup>st</sup> degree]	-68.48	46.89	0.144
Canton [SG] * n.days [2 <sup>nd</sup> degree]	54.59	51.11	0.285
Canton [SG] * n.days [3 <sup>rd</sup> degree]	-26.01	31.89	0.415
Canton [ZH] * n.days [1 <sup>st</sup> degree]	-29.49	36.52	0.419
Canton [ZH] * n.days [2 <sup>nd</sup> degree]	46.87	39.74	0.238
Canton [ZH] * n.days [3 <sup>rd</sup> degree]	-23.44	23.67	0.322
worries_econ [yes] *n.days [1 <sup>st</sup> degree]	13.79	5.73	<b>0.016</b>
worries_econ [yes] * n.days [2 <sup>nd</sup> degree]	8.21	5.00	0.101
worries_econ [yes] * n.days [3 <sup>rd</sup> degree]	1.97	4.78	0.680
worries_health [yes] * n.days [1 <sup>st</sup> degree]	18.35	5.75	<b>0.001</b>
worries_health [yes] * n.days [2 <sup>nd</sup> degree]	11.98	5.03	<b>0.017</b>
worries_health [yes] * n.days [3 <sup>rd</sup> degree]	4.76	4.81	0.323
worries_social [yes] * n.days [1 <sup>st</sup> degree]	10.10	5.76	<b>0.080</b>
worries_social [yes] * n.days [2 <sup>nd</sup> degree]	1.00	5.14	0.846
worries_social [yes] * n.days [3 <sup>rd</sup> degree]	-7.65	5.05	0.129

age [30-65] * n.days [1 <sup>st</sup> degree]	-32.54	14.87	<b>0.029</b>
age [30-65] * n.days [2 <sup>nd</sup> degree]	-23.34	12.47	<b>0.061</b>
age [30-65] * n.days [3 <sup>rd</sup> degree]	25.25	10.99	<b>0.022</b>
age_3cat [65+] * n.days [1 <sup>st</sup> degree]	-26.34	15.64	<b>0.092</b>
age_3cat [65+] * n.days [2 <sup>nd</sup> degree]	-33.54	13.20	<b>0.011</b>
age_3cat [65+] * n.days [3 <sup>rd</sup> degree]	31.80	11.64	<b>0.006</b>

<sup>1</sup>p-values ≤ 0.05 in **red**, p-values > 0.05 but ≤ 0.10 in **blue**, p-values >0.10 in **black**

<sup>2</sup> the intercept refers to the baseline categories of the categorical covariates and to the origin (i.e. 0 value) of the continuous covariates. It should be read as the log(expected depression score) at day 0 (1<sup>st</sup> July 2020) for a female, age [18-30], with no worries, living in canton Bern and having income < 6000 ChF.

Table 4S a-b: Predictors of **stress symptom score** trajectories as selected into the final latent growth model; coefficients are on the log-ratio scale

<b>a) Main effects</b>			
<b>Predictors (main effects)</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>p-value<sup>1</sup></b>
(Intercept) <sup>2</sup>	-0.12	0.14	0.411
Canton [BL]	0.10	0.13	0.455
Canton [BS]	0.31	0.13	<b>0.018</b>
Canton [FR]	0.37	0.13	<b>0.005</b>
Canton [GR]	-0.16	0.19	0.379
Canton [LU]	0.02	0.17	0.900
Canton [NE]	0.22	0.13	0.106
Canton [SG]	0.10	0.16	0.549
Canton [ZH]	0.03	0.12	0.835
worries_econ [yes]	0.14	0.02	<b>&lt;0.001</b>
worries_health [yes]	0.21	0.02	<b>&lt;0.001</b>
worries_social [yes]	0.23	0.02	<b>&lt;0.001</b>
age [30-65]	-0.86	0.10	<b>&lt;0.001</b>
age [65+]	-0.96	0.10	<b>&lt;0.001</b>
n.days [1st degree]	-7.87	38.51	0.838
n.days [2nd degree]	-33.04	41.00	0.420
n.days [3rd degree]	33.24	25.29	0.189
sex [male]	-0.27	0.05	<b>&lt;0.001</b>
income [CHF 6000 - 15000]	-0.19	0.05	<b>&lt;0.001</b>
income [> CHF 15000]	-0.49	0.11	<b>&lt;0.001</b>

<b>b) first-order interactions</b>			
<b>Predictors</b>	<b>Estimate</b>	<b>Std. Error</b>	<b>p-value<sup>1</sup></b>
Canton [BL] * n.days [1 <sup>st</sup> degree]	-38.50	37.32	0.302
Canton [BL] * n.days [2 <sup>nd</sup> degree]	40.80	40.36	0.312
Canton [BL] * n.days [3 <sup>rd</sup> degree]	-21.71	24.50	0.376
Canton [BS] * n.days [1 <sup>st</sup> degree]	-35.34	37.10	0.341
Canton [BS] * n.days [2 <sup>nd</sup> degree]	56.09	40.19	0.163
Canton [BS] * n.days [3 <sup>rd</sup> degree]	-29.89	24.34	0.219
Canton [FR] * n.days [1 <sup>st</sup> degree]	-40.06	37.05	0.280
Canton [FR] * n.days [2 <sup>nd</sup> degree]	42.50	40.12	0.289
Canton [FR] * n.days [3 <sup>rd</sup> degree]	-32.75	24.26	0.177
Canton [GR] * n.days [1 <sup>st</sup> degree]	-42.80	66.12	0.517
Canton [GR] * n.days [2 <sup>nd</sup> degree]	45.85	68.86	0.506
Canton [GR] * n.days [3 <sup>rd</sup> degree]	-16.97	39.19	0.665
Canton [LU] * n.days [1 <sup>st</sup> degree]	69.83	67.93	0.304
Canton [LU] * n.days [2 <sup>nd</sup> degree]	-25.07	68.31	0.714
Canton [LU] * n.days [3 <sup>rd</sup> degree]	12.55	35.72	0.725
Canton [NE] * n.days [1 <sup>st</sup> degree]	-72.34	37.45	<b>0.053</b>
Canton [NE] * n.days [2 <sup>nd</sup> degree]	36.58	40.48	0.366
Canton [NE] * n.days [3 <sup>rd</sup> degree]	-0.19	24.81	0.994
Canton [SG] * n.days [1 <sup>st</sup> degree]	-68.48	46.89	0.144
Canton [SG] * n.days [2 <sup>nd</sup> degree]	54.59	51.11	0.285
Canton [SG] * n.days [3 <sup>rd</sup> degree]	-26.01	31.89	0.415
Canton [ZH] * n.days [1 <sup>st</sup> degree]	-29.49	36.52	0.419
Canton [ZH] * n.days [2 <sup>nd</sup> degree]	46.87	39.74	0.238
Canton [ZH] * n.days [3 <sup>rd</sup> degree]	-23.44	23.67	0.322
worries_econ [yes] * n.days [1 <sup>st</sup> degree]	13.79	5.73	<b>0.016</b>
worries_econ [yes] * n.days [2 <sup>nd</sup> degree]	8.21	5.00	0.101
worries_econ [yes] * n.days [3 <sup>rd</sup> degree]	1.97	4.78	0.680
worries_health [yes] * n.days [1 <sup>st</sup> degree]	18.35	5.75	<b>0.001</b>
worries_health [yes] * n.days [2 <sup>nd</sup> degree]	11.98	5.03	<b>0.017</b>
worries_health [yes] * n.days [3 <sup>rd</sup> degree]	4.76	4.81	0.323
worries_social [yes] * n.days [1 <sup>st</sup> degree]	10.10	5.76	<b>0.080</b>

worries_social [yes] * n.days [2 <sup>nd</sup> degree]	1.00	5.14	0.846
worries_social [yes] * n.days [3 <sup>rd</sup> degree]	-7.65	5.05	0.129
age [30-65] * n.days [1 <sup>st</sup> degree]	-32.54	14.87	<b>0.029</b>
age [30-65] * n.days [2 <sup>nd</sup> degree]	-23.34	12.47	<b>0.061</b>
age [30-65] * n.days [3 <sup>rd</sup> degree]	25.25	10.99	<b>0.022</b>
age_3cat [65+] * n.days [1 <sup>st</sup> degree]	-26.34	15.64	<b>0.092</b>
age_3cat [65+] * n.days [2 <sup>nd</sup> degree]	-33.54	13.20	<b>0.011</b>
age_3cat [65+] * n.days [3 <sup>rd</sup> degree]	31.80	11.64	<b>0.006</b>

<sup>1</sup>p-values ≤ 0.05 in **red**, p-values > 0.05 but ≤ 0.10 in **blue**, p-values >0.10 in **black**

<sup>2</sup> the intercept refers to the baseline categories of the categorical covariates and to the origin (i.e. 0 value) of the continuous covariates. It should be read as the log(expected depression score) at day 0 (1<sup>st</sup> July 2020) for a female, age [18-30], with no worries, living in canton Bern and having income < 6000 ChF.

Table 5S: Number of monthly follow-up questionnaires answered, classified by sex, age and income (extended version)

	Number of responses (absolute frequencies and %)												
	1	2	3	4	5	6	7	8	9	10	11	12	13
<b>sex</b>													
female	618	1166	751	389	407	312	252	175	165	149	158	80	85
	13.13	24.77	15.95	8.26	8.65	6.63	5.35	3.72	3.51	3.17	3.36	1.70	1.81
male	543	985	649	335	420	270	212	184	159	141	126	74	77
	13.01	23.59	15.54	8.02	10.06	6.47	5.08	4.41	3.81	3.38	3.02	1.77	1.84
<b>age</b>													
<30	167	156	109	57	50	33	25	12	20	13	10	5	6
	25.19	23.53	16.44	8.60	7.54	4.98	3.77	1.81	3.02	1.96	1.51	0.75	0.90
30-65	705	1263	895	452	463	340	293	219	208	177	172	80	75
	13.20	23.64	16.75	8.46	8.67	6.36	5.48	4.10	3.89	3.31	3.22	1.50	1.40
65+	288	732	396	215	314	209	146	128	96	100	102	69	81
	10.01	25.45	13.77	7.48	10.92	7.27	5.08	4.45	3.34	3.48	3.55	2.40	2.82
<b>income</b>													
< CHF 6000	442	759	480	241	258	179	126	101	89	89	103	50	56
	14.87	25.53	16.15	8.11	8.68	6.02	4.24	3.40	2.99	2.99	3.46	1.68	1.88
CHF 6000 - 15000	554	1081	717	384	461	307	266	204	186	157	135	82	
	12.01	23.43	15.54	8.32	9.99	6.66	5.77	4.42	4.03	3.40	2.93	1.78	1.71
> CHF 15000	51	109	87	45	49	38	36	26	26	22	19	7	9
	9.73	20.80	16.60	8.59	9.35	7.25	6.87	4.96	4.96	4.20	3.63	1.34	1.72

Figure 1S: The Figure reports the observed and estimated trajectories for a real participant to the Corona Immunitas study: a woman, at age 65+, with income in the class CHF 6000 – 15000, living in Canton Zürich, and having no economic, health or social worries. The black dots are the observed depression scores, the blue curve is the trajectory in time predicted by fixed effects of the covariates, and the green curve is her trajectory in time, predicted by the fixed effects plus the individual random effect, specific for this participant.

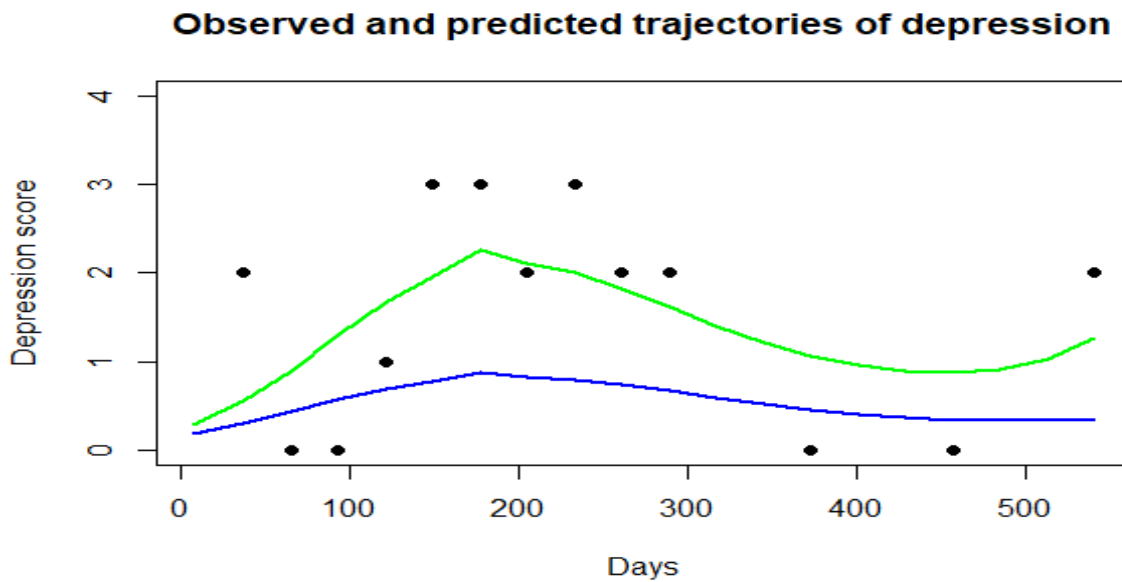
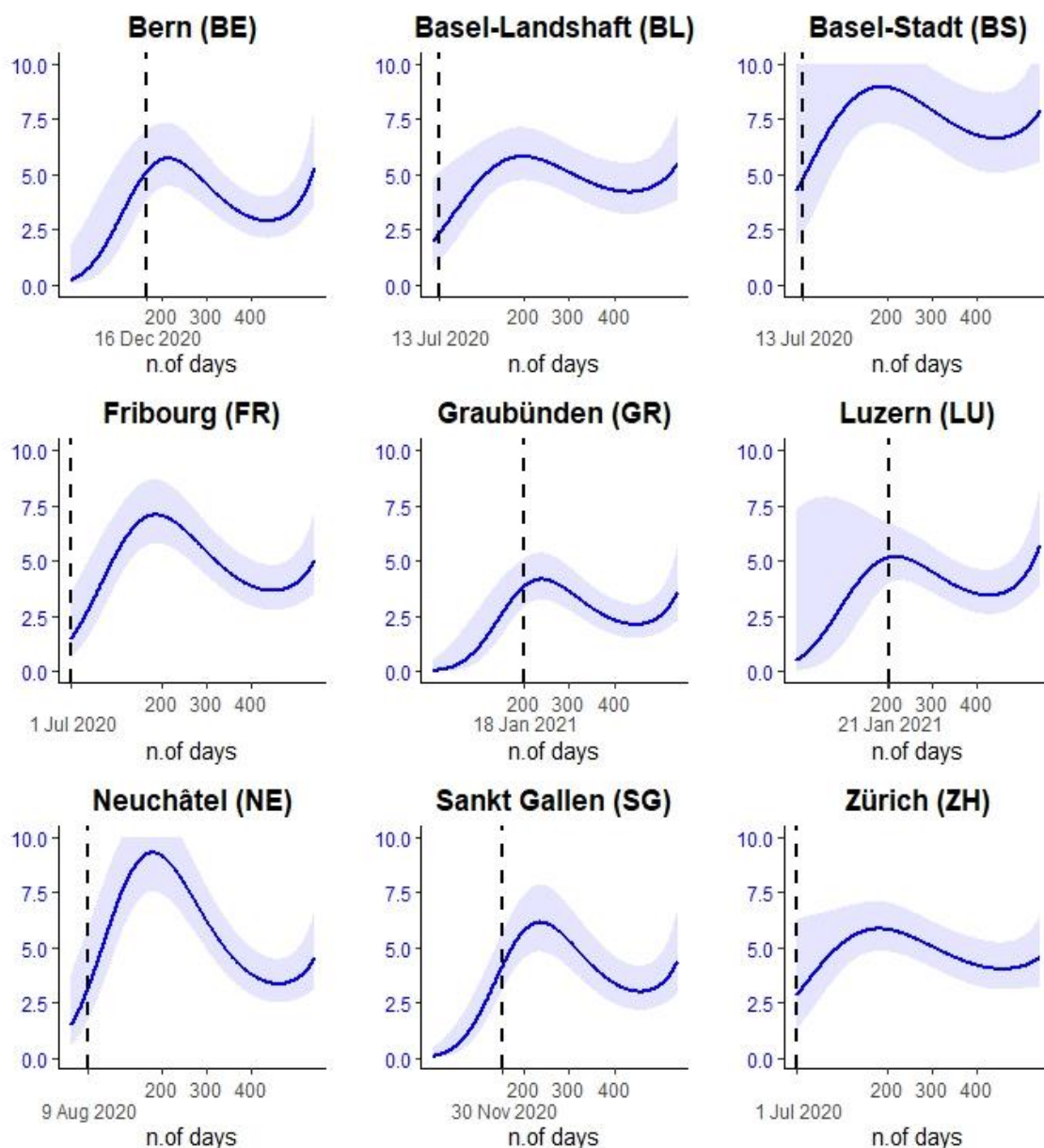




Figure 2S: Trajectories<sup>1</sup> of predicted mean depression symptom score by canton<sup>2</sup>. Vertical dashed line refers to the day in which the first questionnaire was answered in each canton



<sup>1</sup> “n.days” is the number of days since the beginning of the study, ranging from the 1st of July 2020 (n.days = 0) to the 21st of December 2021 (n.day = 539). Trajectories for cantons which entered later into the study are estimated back-extrapolating the third order polynomial estimated with the available data.