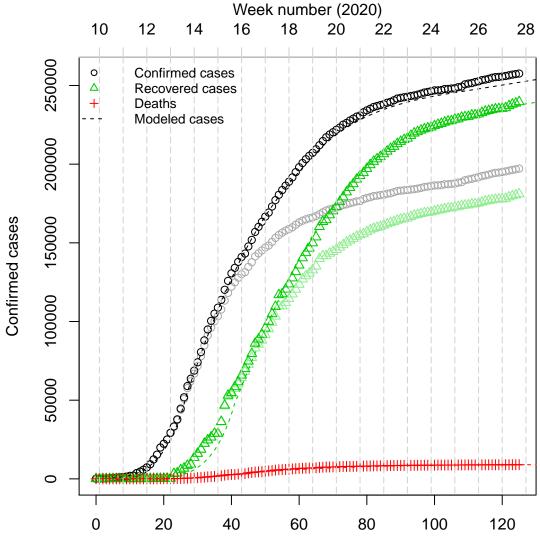
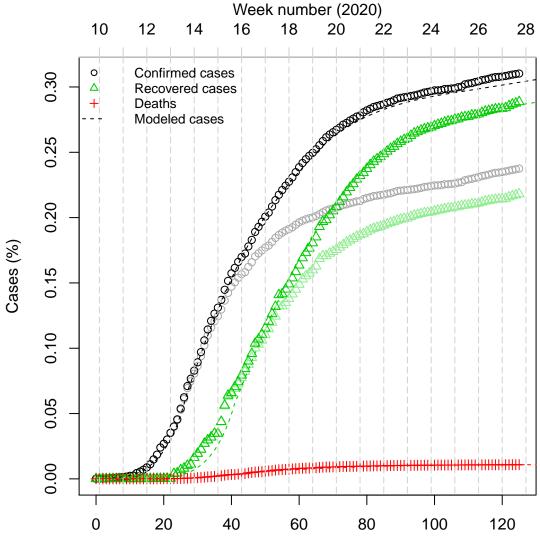
Situation vs Model COVID-19 in Germany

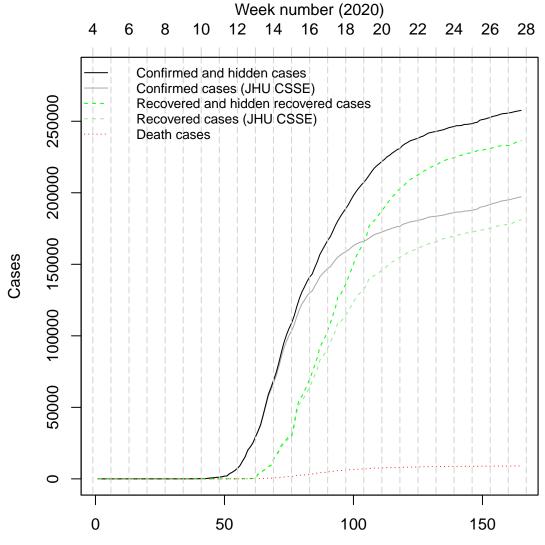


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Situation vs Model COVID-19 in Germany



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Days after 1/22/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

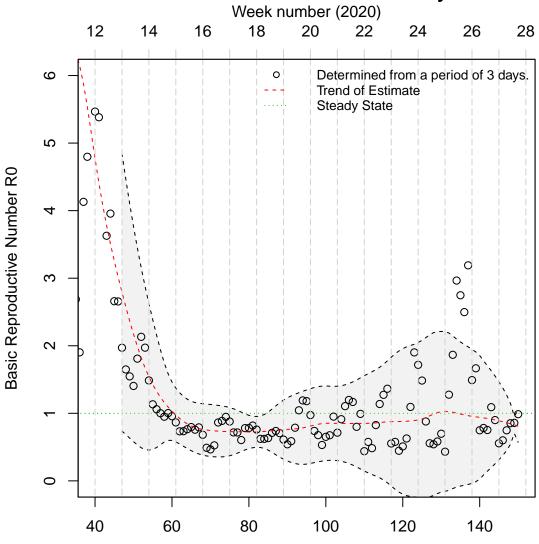
Situation COVID-19 in Germany Week number (2020) 10 22 24 26 28 Confirmed cases Recovered cases 1st phase (diffusion / no with 2nd phase (uncontrol gravith) 3rd phase (social distancing) 4th phase (lockdows) 10 4th phase (lockdown) 5th phase (exit from lockdown) ∞ log_e(Cases) 9 α

50

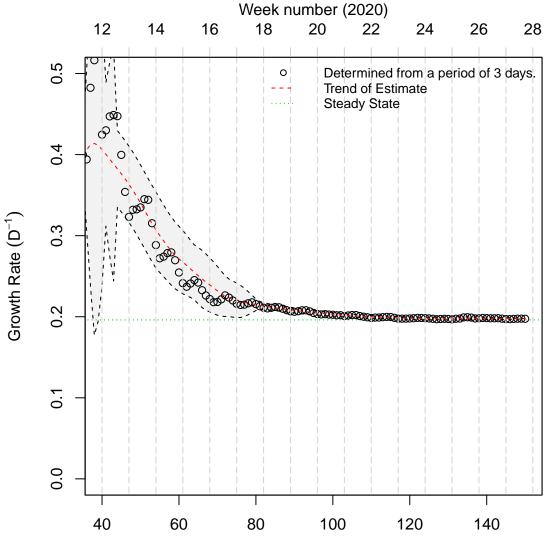
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Days after 1/22/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

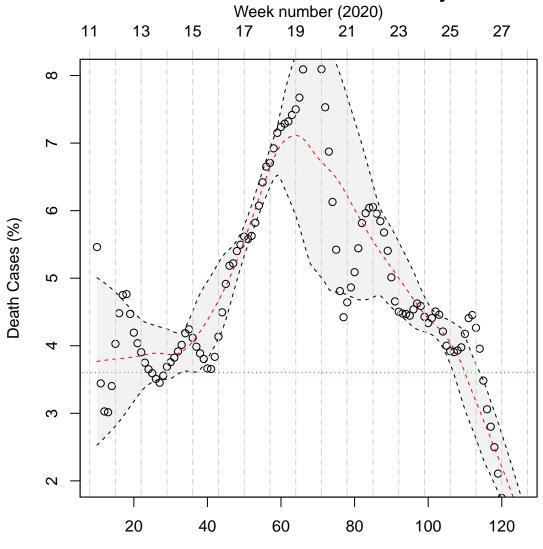
150



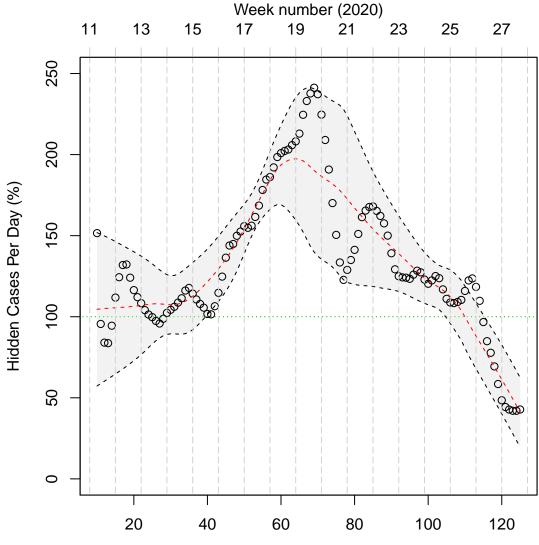
Days after 2/5/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de



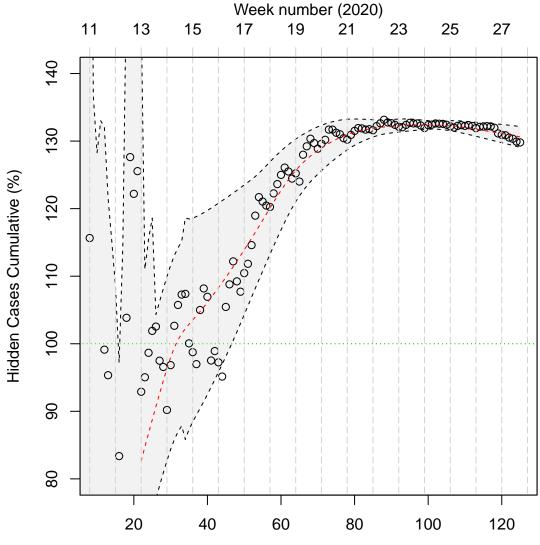
Days after 2/5/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de



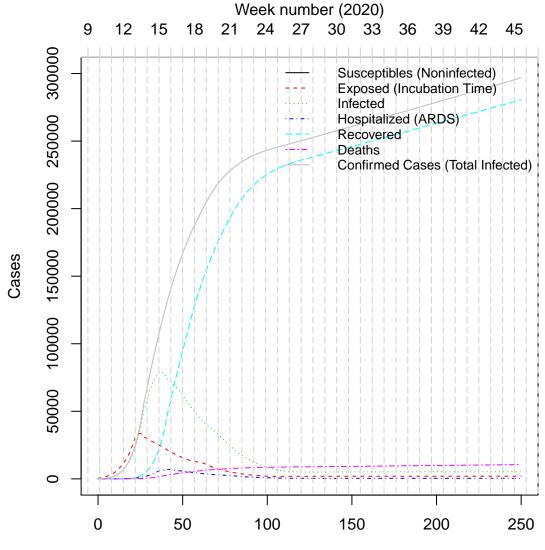
Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de



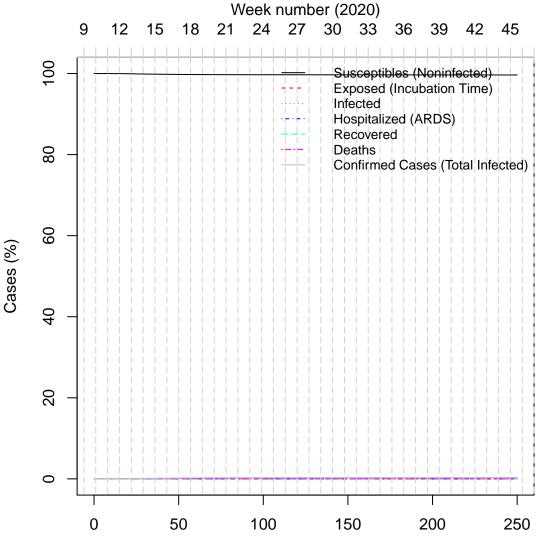
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Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

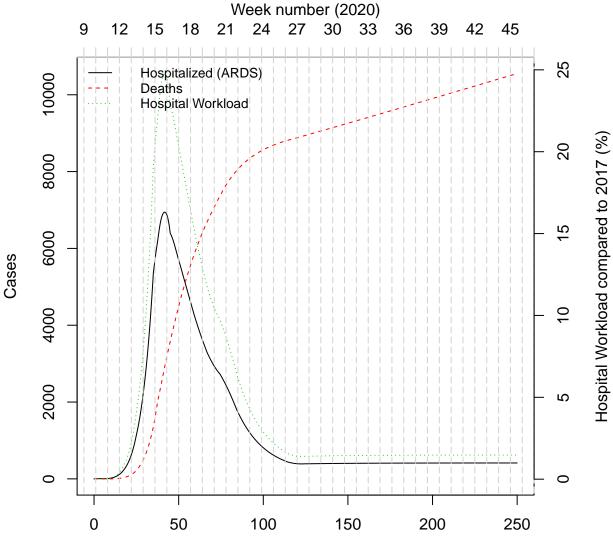


Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

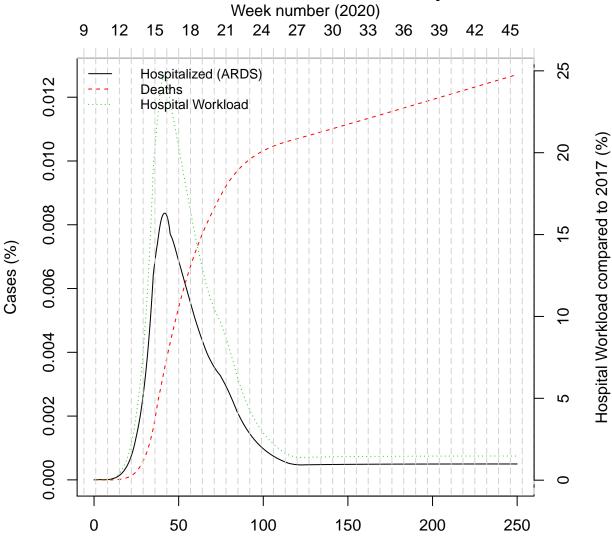


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Scenario 1 no social distancing and no lockdown Week number (2020) 24 45 12 15 18 21 36 39 42 8e+07 Susceptibles (Noninfected) Exposed (Incubation Time) Infected Hospitalized (ARDS) Recovered Deaths Confirmed Cases (Total Infected) 6e+07 Cases 4e+07 2e+07 00+00

Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

100

0

Scenario 1 no social distancing / no lockdown Week number (2020) Susceptibles (Noninfected) Exposed (Incubation Time) Infected Hospitalized (ARDS) Recovered Deaths Confirmed Cases (Total Infected) Cases (%)

Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 1 no social distancing and no lockdown Week number (2020) 45 12 15 18 36 Hospitalized (ARDS) Deaths 4000 Hospital Workload 5e+06 Hospital Workload compared to 2017 (%) 4e+06 3e+06 Cases 2e+06 1e+06 0e+00

Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

150

200

100

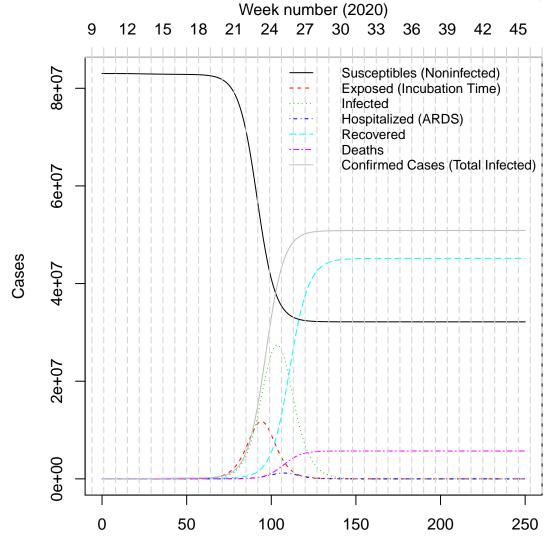
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50

Scenario 1 no social distancing and no lockdown Week number (2020) Hospitalized (ARDS) Deaths Hospital Workload Hospital Workload compared to 2017 (%) Cases (%) က

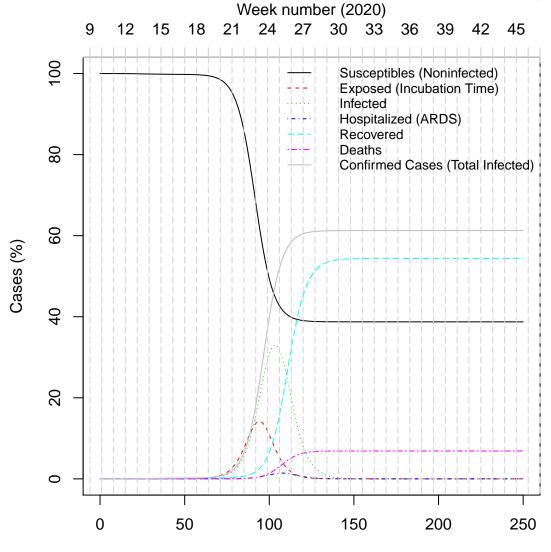
Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing



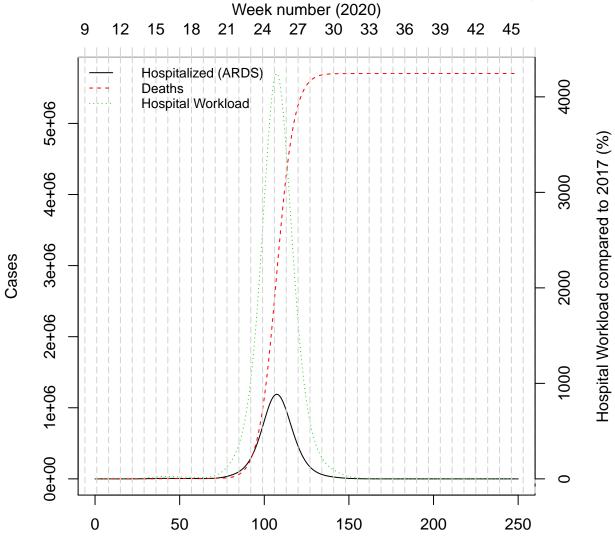
Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing



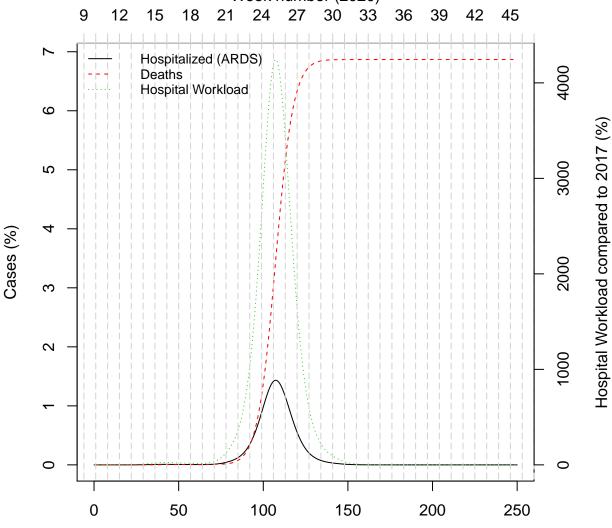
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Scenario 2 exit after day 50 without social distancing



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Scenario 2 exit after day 50 without social distancing Week number (2020)



Days after 3/1/20

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Scenario 3 exit after day 50 with social distancing Week number (2020) 9 24 45 12 15 18 21 36 39 42 8e+07 Susceptibles (Noninfected) Exposed (Incubation Time) Infected Hospitalized (ARDS) Recovered Deaths Confirmed Cases (Total Infected) 6e+07 Cases 4e+07 2e+07 00+00

Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

100

0

Scenario 3 exit after day 50 with social distancing Week number (2020) Susceptibles (Noninfected) Exposed (Incubation Time) Infected Hospitalized (ARDS) Recovered Deaths Confirmed Cases (Total Infected) Cases (%)

Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 3 exit after day 50 with social distancing Week number (2020) 45 12 15 18 36 Hospitalized (ARDS) Deaths Hospital Workload 2500 4e+06 Hospital Workload compared to 2017 (%) 2000 3e+06 1500 2e+06 1e+06 500 00+00

Cases

0

50

Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

150

200

100

Scenario 3 exit after day 50 with social distancing Week number (2020) Hospitalized (ARDS) Deaths Hospital Workload Hospital Workload compared to 2017 (%) Cases (%) α

Days after 3/1/20 Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

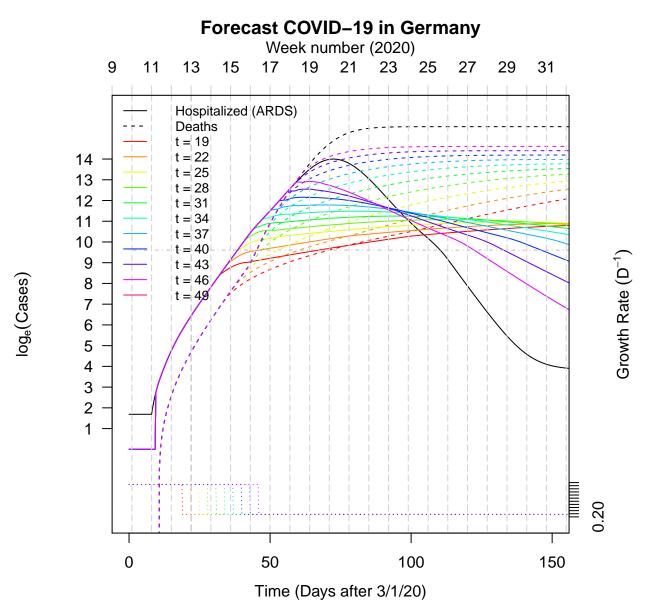
Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 6000000 Hospitalized (ARDS) 5500000 Deaths R0 = 0.45000000 R0 = 0.6R0 = 0.84500000 R0 = 1R0 = 1.24000000 R0 = 1.4R0 = 1.63500000 R0 = 1.8Growth Rate (D^{-1}) R0 = 23000000 R0 = 2.2R0 = 2.42500000 2000000 1500000 1000000 500000 0 0.32 0 50 100 150 Time (Days after 3/1/20)

Created by Sören Thiering (07/06/2020). Email: soeren.thiering@hs-anhalt.de

Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 19 25 27 29 31 6000000 Hospitalized (ARDS) 5500000 Deaths t = 195000000 t = 22t = 254500000 t = 28t = 314000000 t = 34t = 373500000 t = 40Growth Rate (D⁻¹) t = 433000000 t = 46Cases t = 492500000 2000000 1500000 1000000 500000 0 0.20 150 0 50 100

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Time (Days after 3/1/20)



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