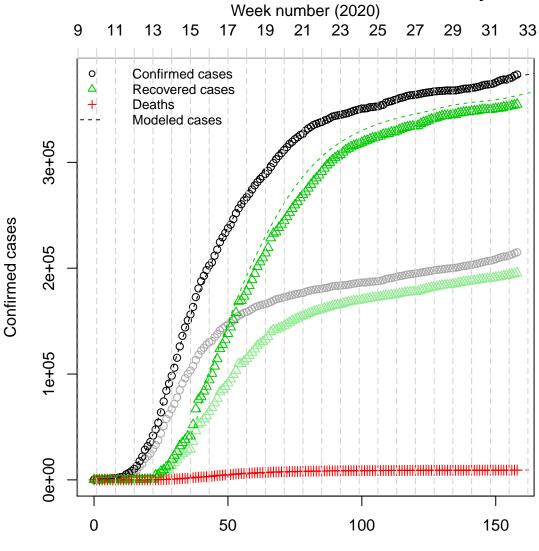
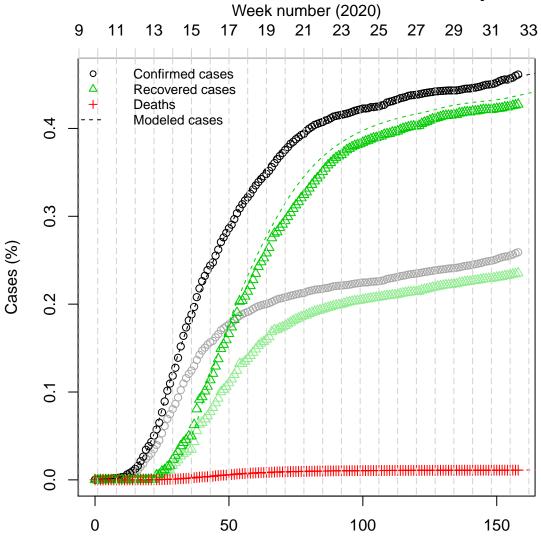


Situation vs Model COVID-19 in Germany

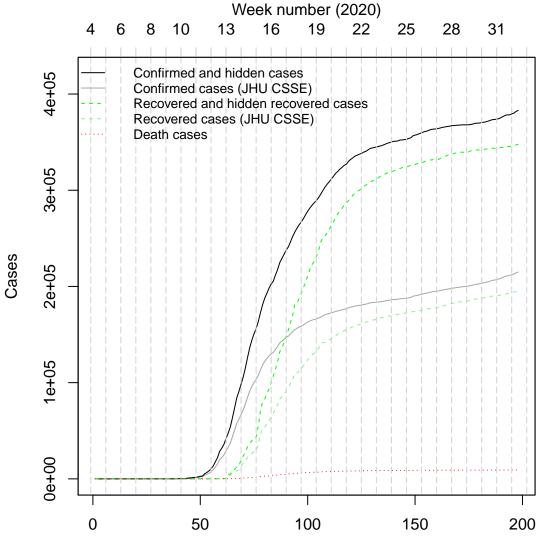


Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

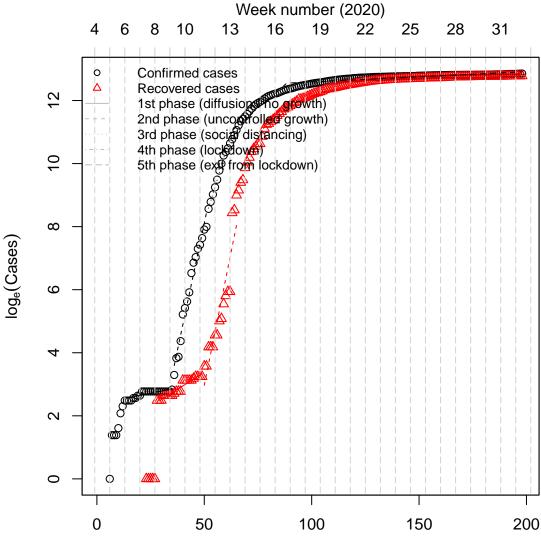
Situation vs Model COVID-19 in Germany



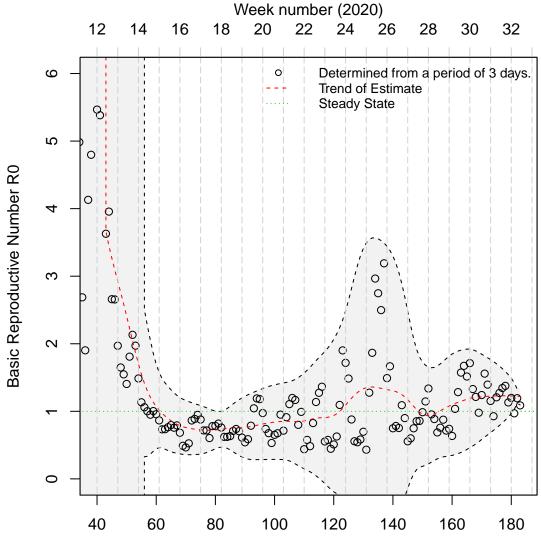
Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de



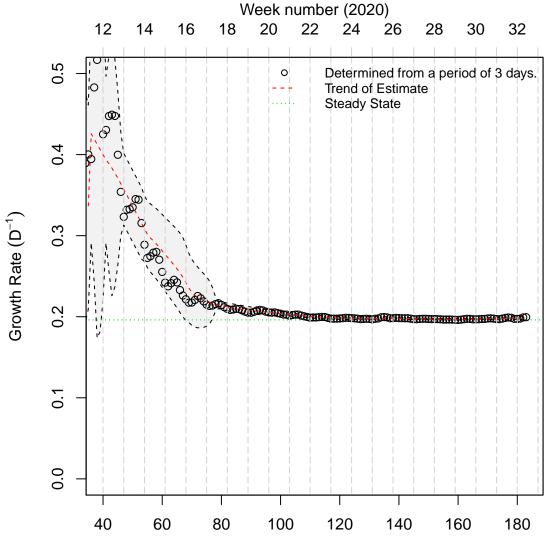
Days after 1/22/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de



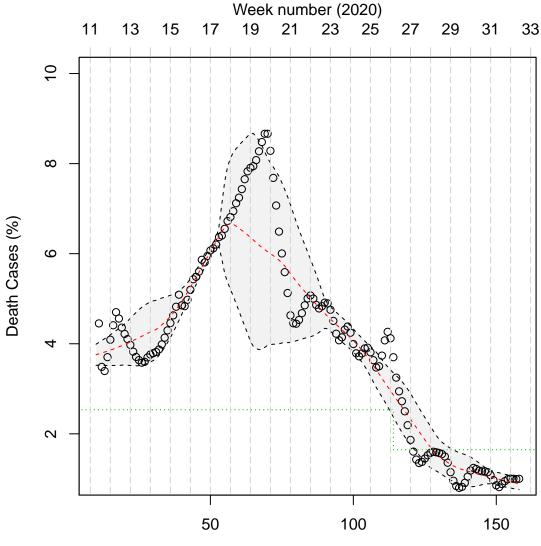
Days after 1/22/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de



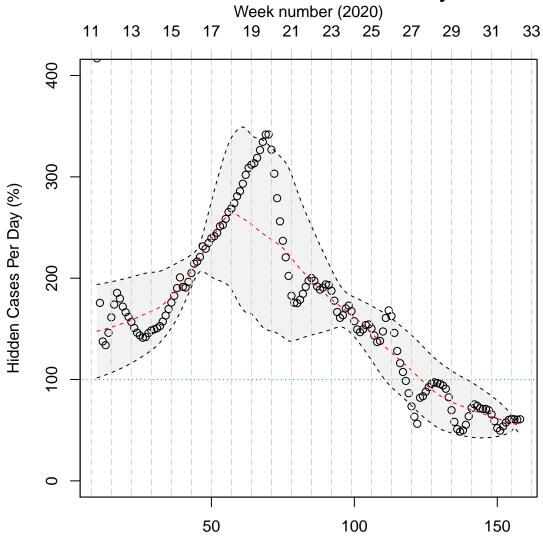
Days after 2/5/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de



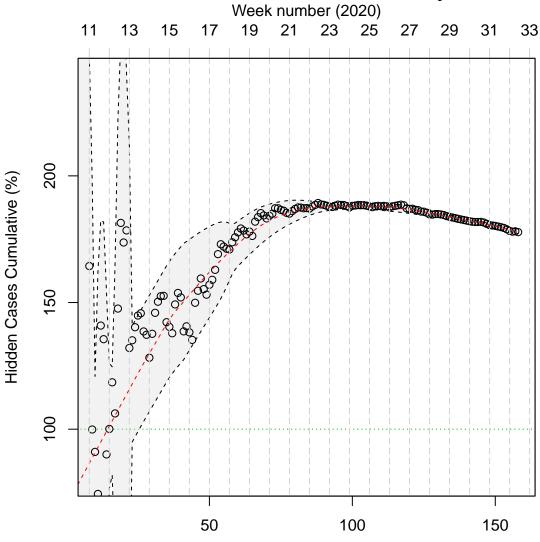
Days after 2/5/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de



Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

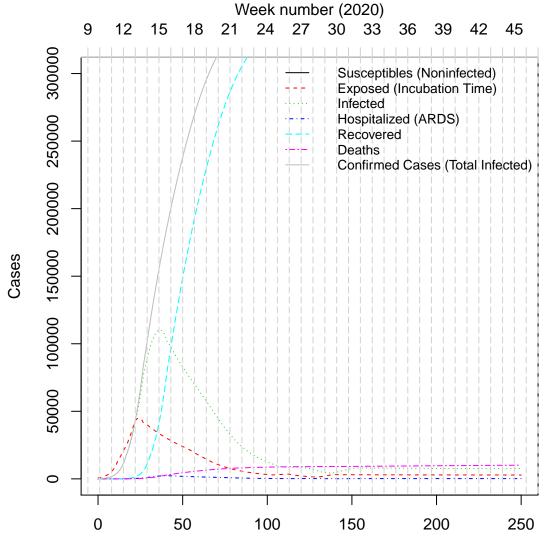


Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de



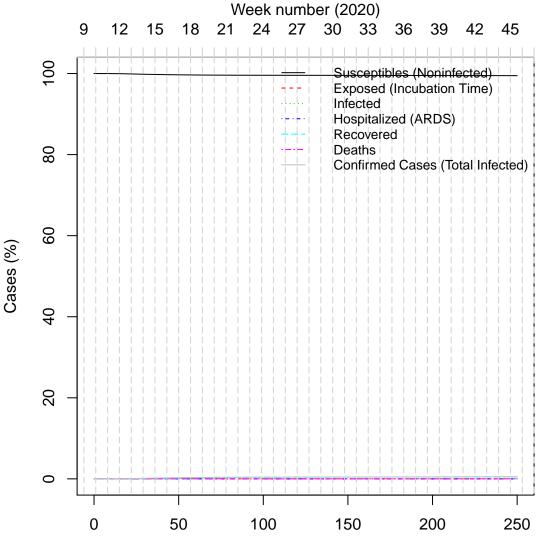
Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

Forecast COVID-19 in Germany



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Forecast COVID-19 in Germany



Days after 3/1/20

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Forecast COVID-19 in Germany Week number (2020) Hospitalized (ARDS) ∞ Deaths Hospital Workload Hospital Workload compared to 2017 (%) Cases α

Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

Forecast COVID-19 in Germany Week number (2020) 45 12 15 18 36 39 42 0.012 Hospitalized (ARDS) ∞ Deaths Hospital Workload 0.010 Hospital Workload compared to 2017 (%) 9 0.008 Cases (%) 900.0 0.004 α 0.002

0.000

0

50

100

Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

200

150

Scenario 1 no social distancing and no lockdown Week number (2020) 24 45 12 15 18 21 36 39 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 (08/08/2020). 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 (08/08/2020). Email: soeren.thiering@hs-anhalt.de

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

Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 1 no social distancing and no lockdown Week number (2020) 12 45 15 18 36 3.0 Hospitalized (ARDS) Deaths Hospital Workload 1500 2.5 Hospital Workload compared to 2017 (%) 2.0 Cases (%) 1.5 0.5 0.0

Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

150

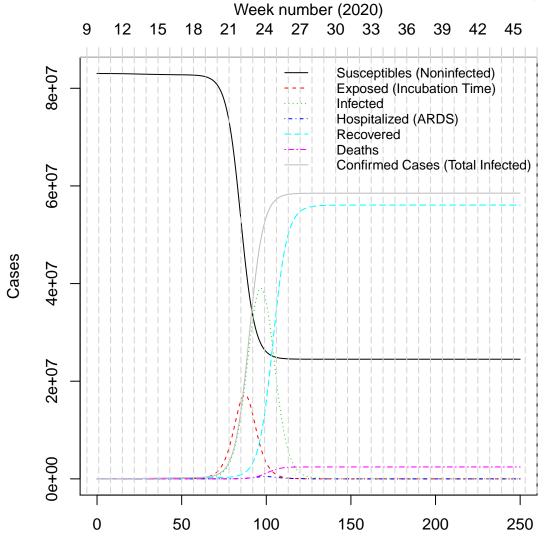
200

100

0

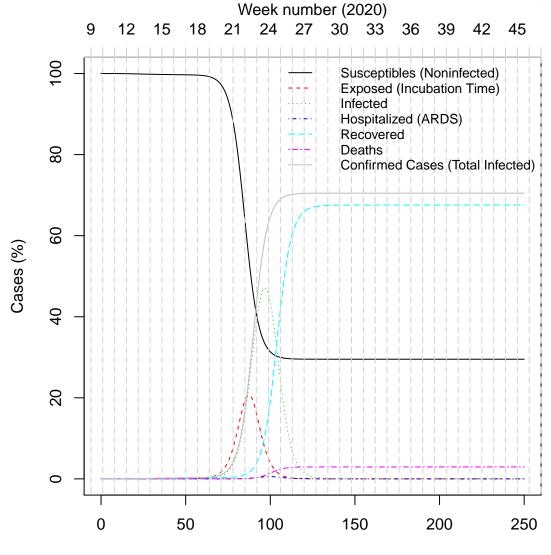
50

Scenario 2 exit after day 50 without social distancing



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Scenario 2 exit after day 50 without social distancing



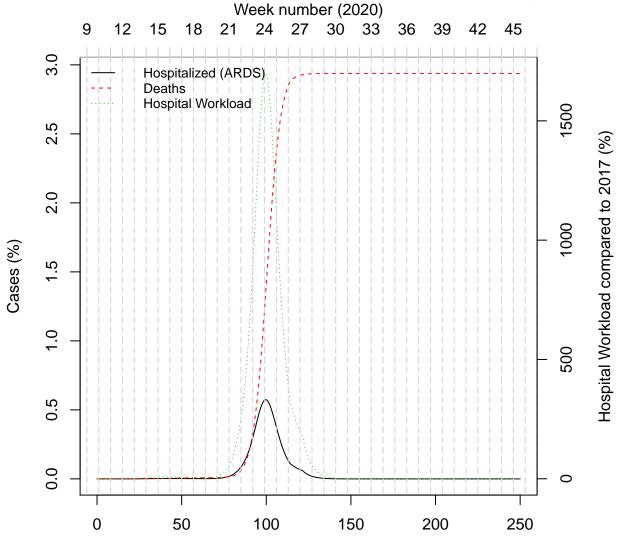
Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing Week number (2020) Hospitalized (ARDS) Deaths Hospital Workload Hospital Workload compared to 2017 (%)

Cases

Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing



Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 3 exit after day 50 with social distancing Week number (2020) 9 24 45 12 15 18 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 (08/08/2020). 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 (08/08/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 3 exit after day 50 with social distancing Week number (2020) 45 12 15 18 36 39 Hospitalized (ARDS) Deaths 800 Hospital Workload 8e+05 Hospital Workload compared to 2017 (%) 6e+05 Cases 4e+05 2e+05 00+00

Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

150

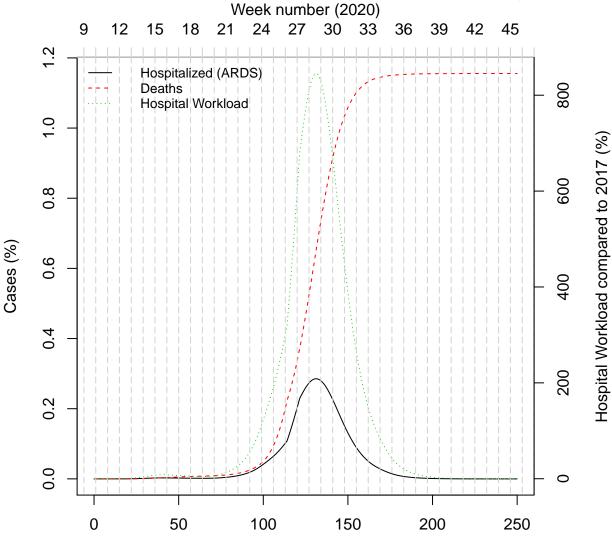
200

100

0

50

Scenario 3 exit after day 50 with social distancing



Days after 3/1/20 Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

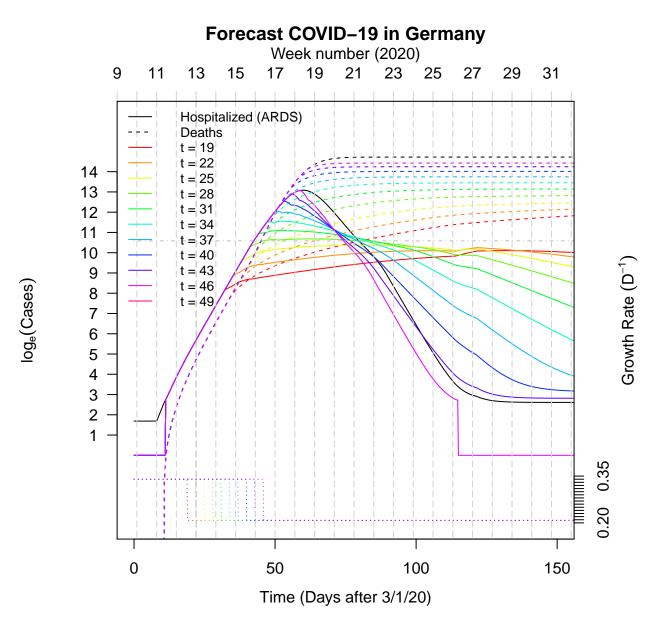
Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 Hospitalized (ARDS) 2400000 Deaths R0 = 0.42200000 R0 = 0.6R0 = 0.82000000 R0 = 11800000 R0 = 1.2R0 = 1.41600000 R0 = 1.6R0 = 1.81400000 Growth Rate (D^{-1}) R0 = 2R0 = 2.21200000 Cases R0 = 2.41000000 000008 600000 400000 200000 0 0.32 0 50 100 150 Time (Days after 3/1/20)

Created by Sören Thiering (08/08/2020). Email: soeren.thiering@hs-anhalt.de

Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 19 25 27 29 31 Hospitalized (ARDS) 2400000 Deaths t = 192200000 t = 22 t = 252000000 t = 281800000 t = 31 t = 341600000 t = 37t = 401400000 Growth Rate (D^{-1}) t = 43t = 461200000 Cases t = 491000000 800000 600000 400000 200000 0 0.35 0.20 0 50 100 150

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Time (Days after 3/1/20)



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