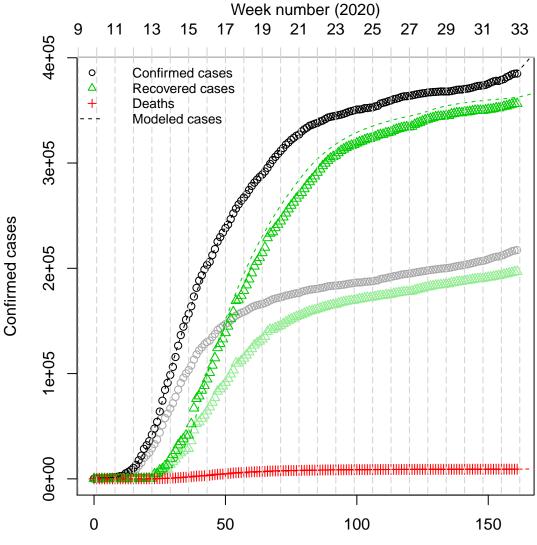
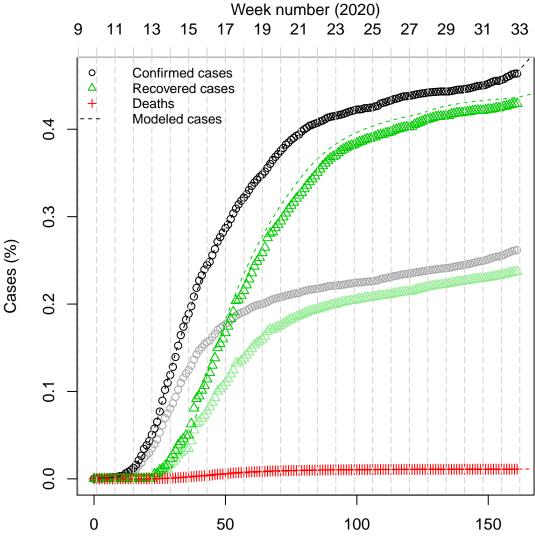
Situation vs Model COVID-19 in Germany

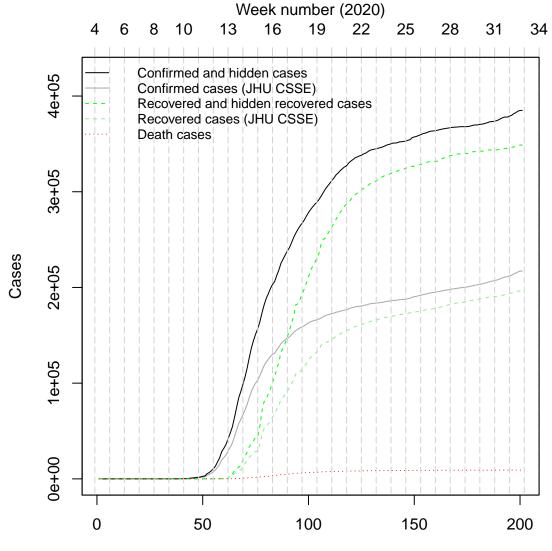


Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

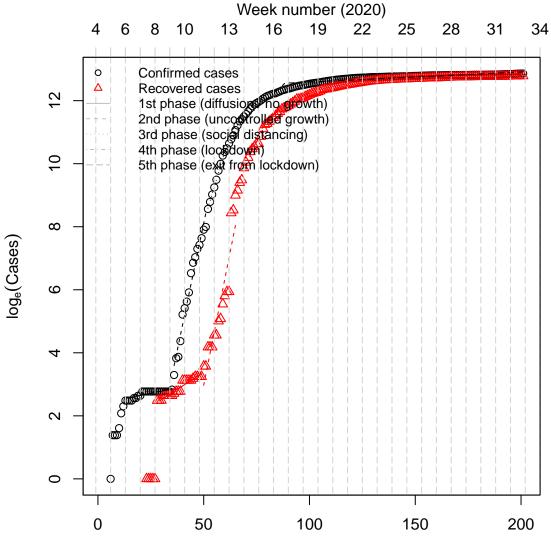
Situation vs Model COVID-19 in Germany



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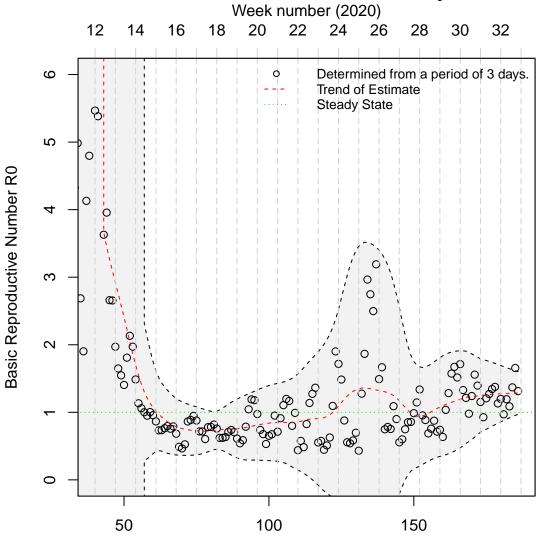


Days after 1/22/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

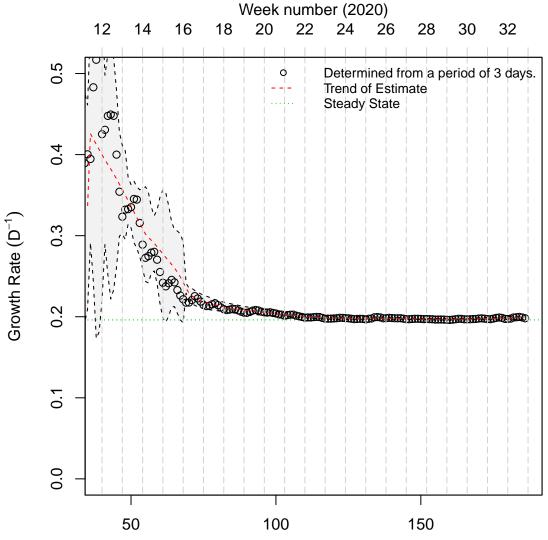


Days after 1/22/20

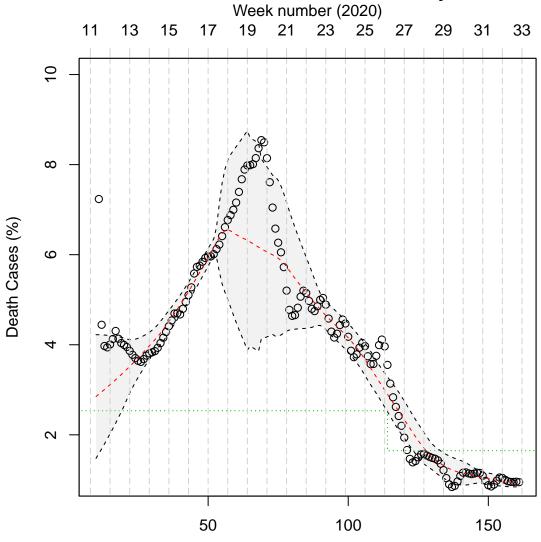
Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



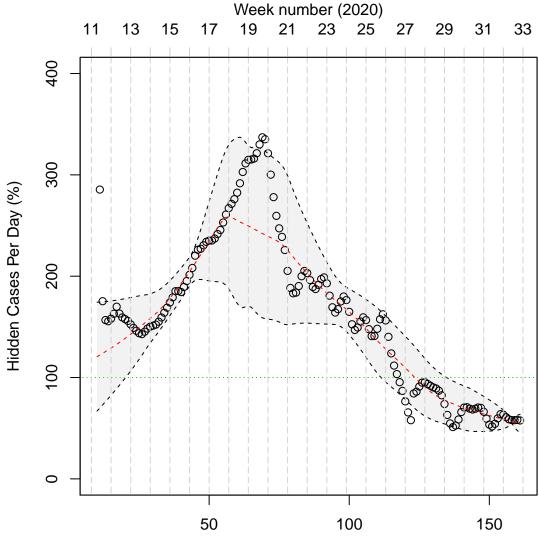
Days after 2/5/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



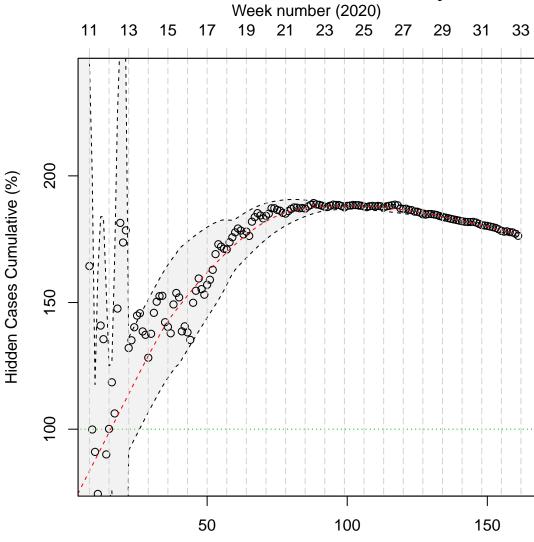
Days after 2/5/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

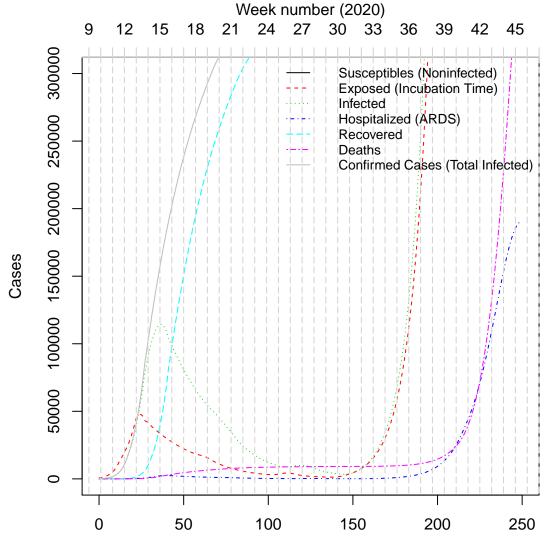


Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



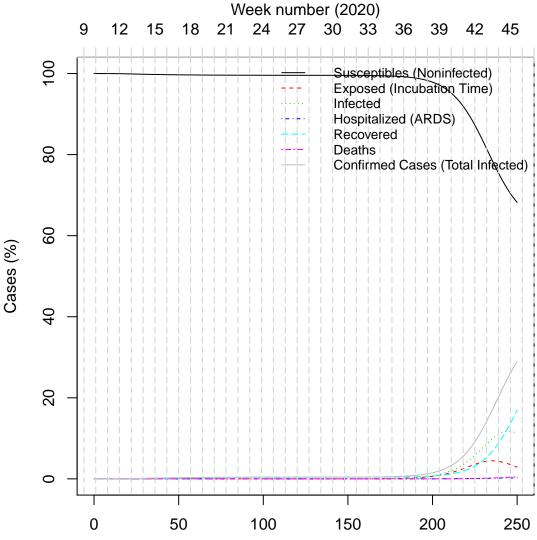
Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

Forecast COVID-19 in Germany



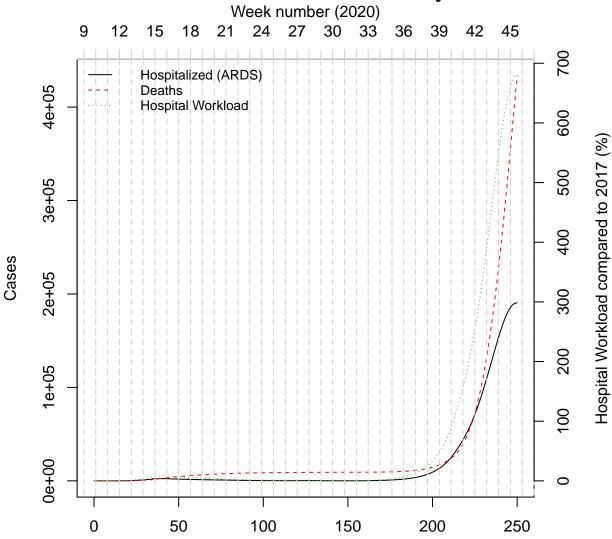
Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

Forecast COVID-19 in Germany



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Forecast COVID-19 in Germany



Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

Forecast COVID-19 in Germany Week number (2020) 45 12 15 18 36 39 42 700 Hospitalized (ARDS) 0.5 Deaths Hospital Workload 009 Hospital Workload compared to 2017 (%) 500 400 0.3 Cases (%) 300 200 0.1 0.0

Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

150

200

100

0

50

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 (08/11/2020). 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 (08/11/2020). 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 (08/11/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 1 no social distancing and no lockdown Week number (2020) 24 45 12 15 18 36 Hospitalized (ARDS) Deaths 1500 Hospital Workload Hospital Workload compared to 2017 (%)

3.0

2.5

1.5

0.5

0.0

0

50

Cases (%)

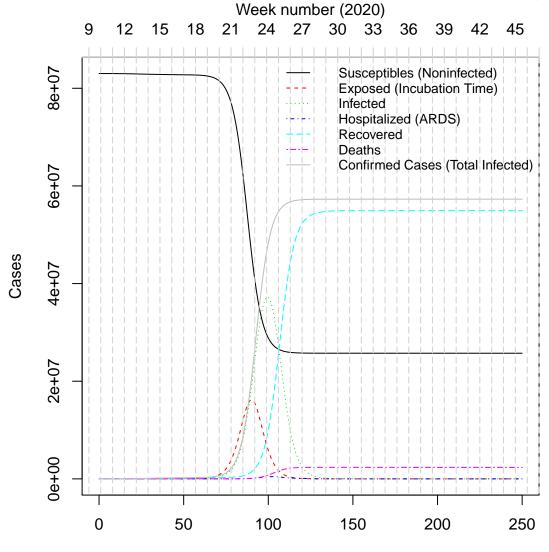
Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

150

200

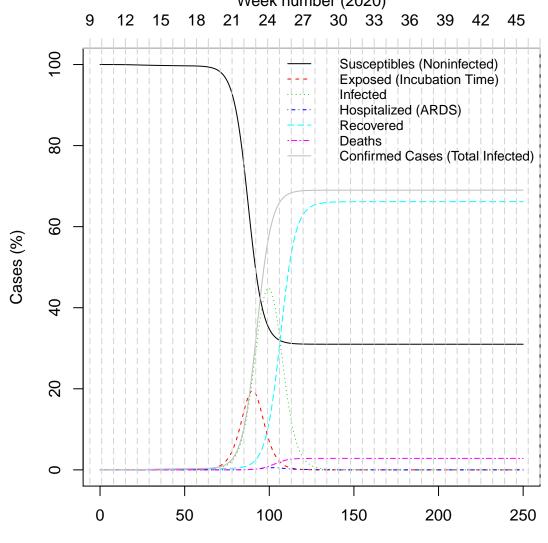
100

Scenario 2 exit after day 50 without social distancing



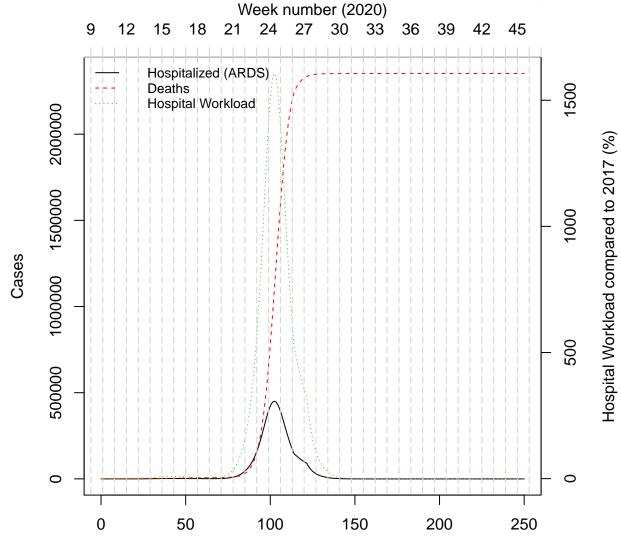
Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

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



Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing



Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing Week number (2020) 9 45 12 15 18 36 39 Hospitalized (ARDS) Deaths 1500 Hospital Workload Hospital Workload compared to 2017 (%) 0.5

2.5

2.0

1.5

0.0

0

50

Cases (%)

Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

150

200

100

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 (08/11/2020). 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 (08/11/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 3 exit after day 50 with social distancing Week number (2020) 45 12 15 18 36 39 1000 Hospitalized (ARDS) 1e+06 Deaths Hospital Workload Hospital Workload compared to 2017 (%) 800 8e+05 009 6e+05 4e+05 400 2e+05 200 00+00

Cases

0

50

Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

150

200

100

Scenario 3 exit after day 50 with social distancing Week number (2020) 45 12 15 18 36 39 1000 Hospitalized (ARDS) Deaths Hospital Workload Hospital Workload compared to 2017 (%) 009 Cases (%) 9.0 200 0.2 0.0

Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

100

0

Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 2400000 Hospitalized (ARDS) Deaths 2200000 R0 = 0.4R0 = 0.62000000 R0 = 0.8R0 = 11800000 R0 = 1.2R0 = 1.41600000 R0 = 1.6R0 = 1.81400000 Growth Rate (D^{-1}) R0 = 21200000 R0 = 2.2Cases R0 = 2.41000000 800000 600000 400000 200000 0 0.32 0 50 100 150

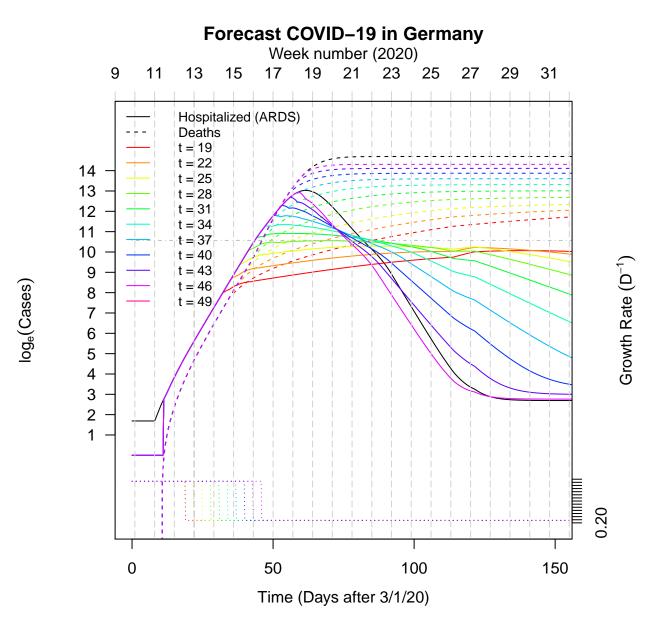
Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

Time (Days after 3/1/20)

Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 19 25 27 29 31 2400000 Hospitalized (ARDS) Deaths 2200000 t = 19t = 22 2000000 t = 25t = 281800000 t = 31 t = 341600000 t = 37t = 401400000 Growth Rate (D^{-1}) t = 431200000 t = 46Cases t = 491000000 800000 600000 400000 200000 0 0.20 0 50 100 150

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Time (Days after 3/1/20)



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