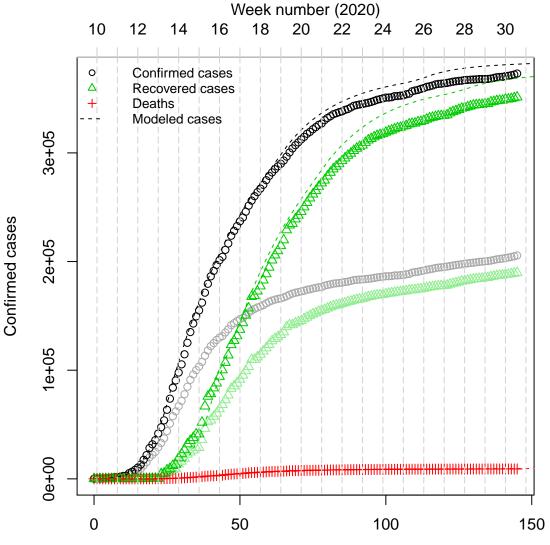
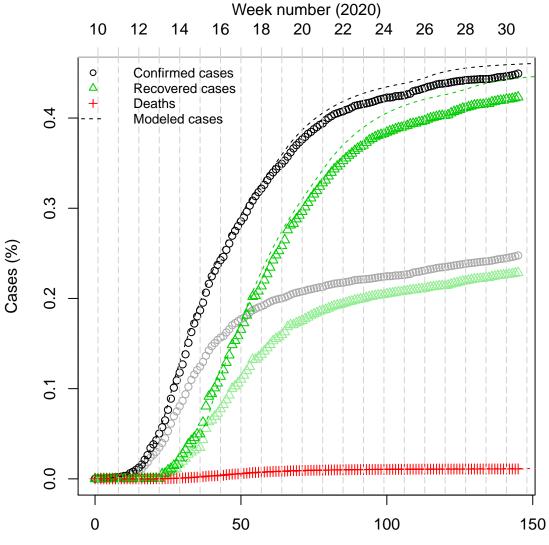
Situation vs Model COVID-19 in Germany



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Situation vs Model COVID-19 in Germany



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Week number (2020) 14 16 18 20 22 24 26 28 30 10 12 4e+05 Confirmed and hidden cases Confirmed cases (JHU CSSE) Recovered and hidden recovered cases Recovered cases (JHU CSSE) Death cases 3e+05 2e+05 1e+05 00+00

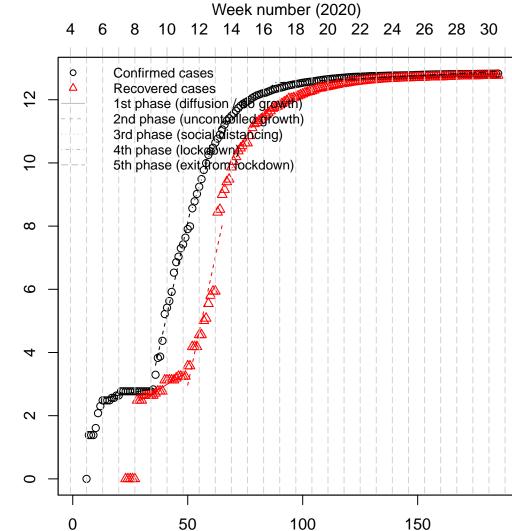
Cases

0

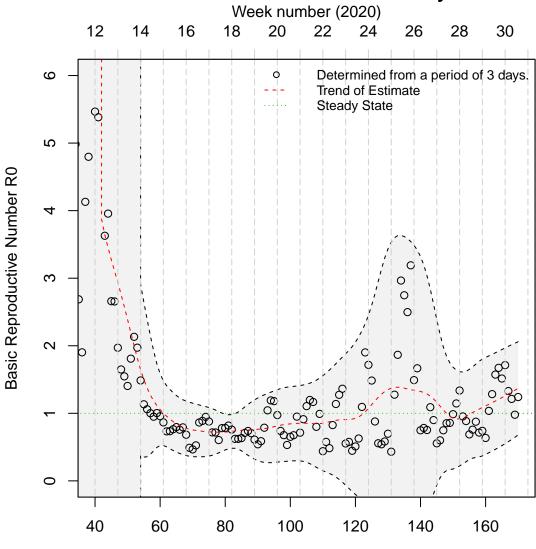
50

Days after 1/22/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

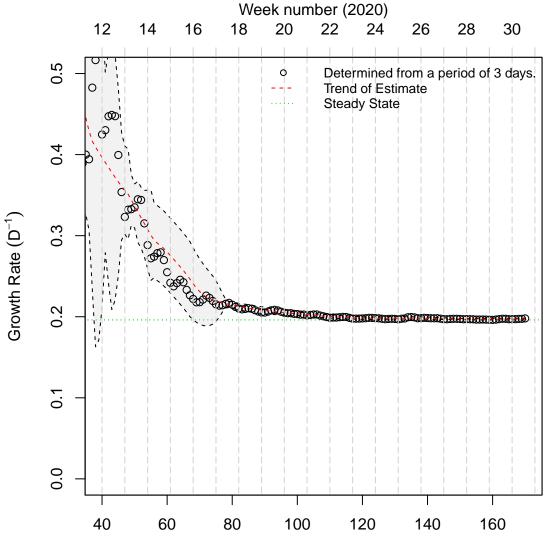
150



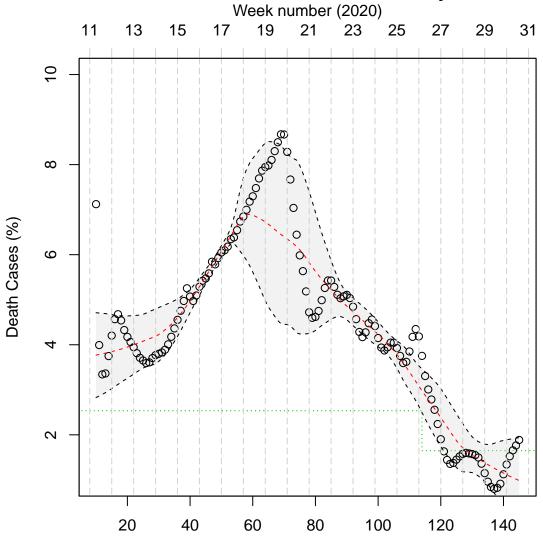
Days after 1/22/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de



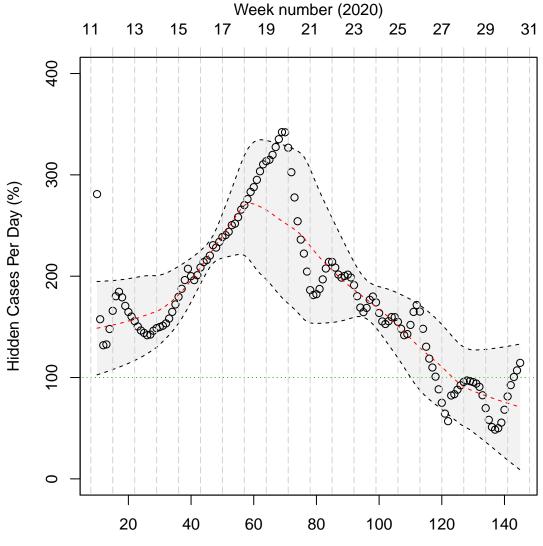
Days after 2/5/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de



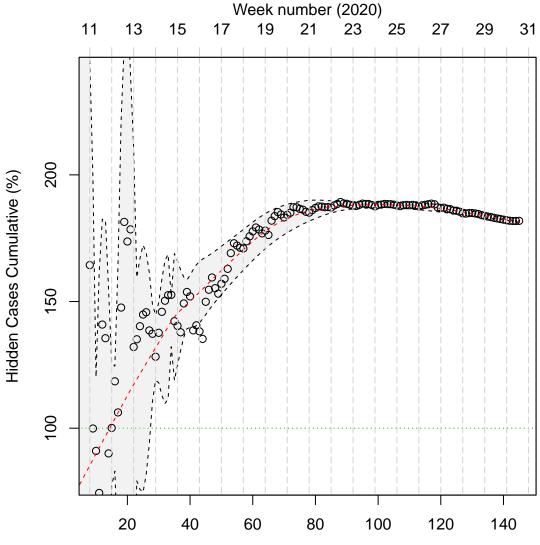
Days after 2/5/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de



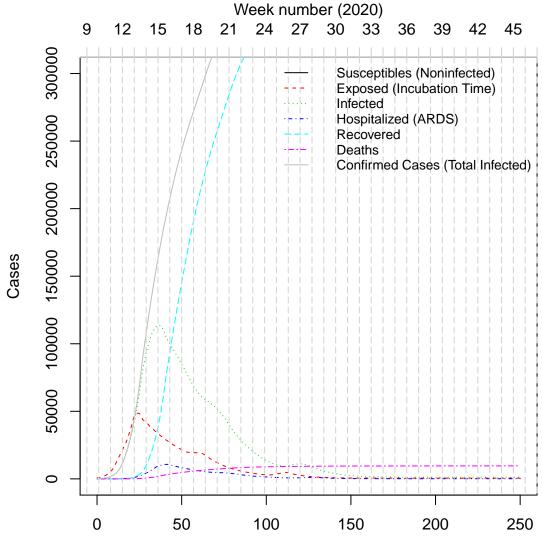
Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de



Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

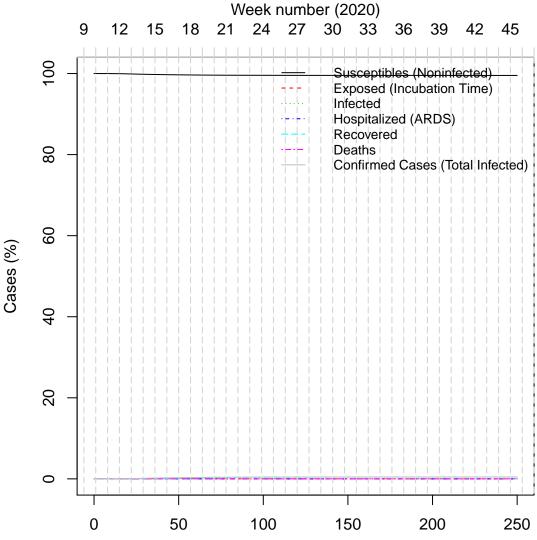


Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de



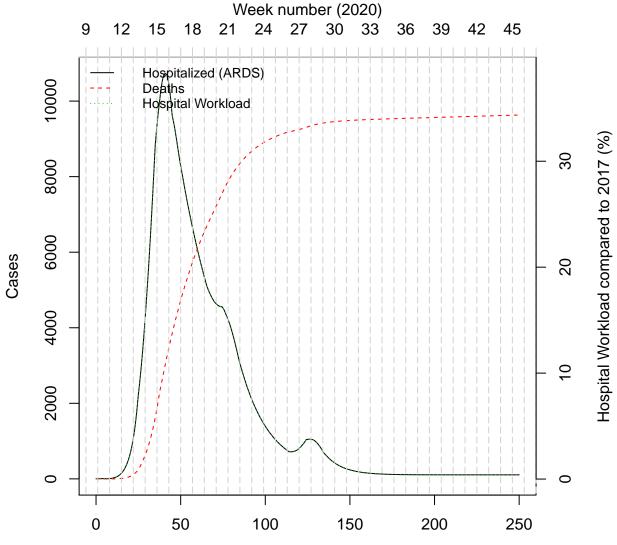
Days after 3/1/20

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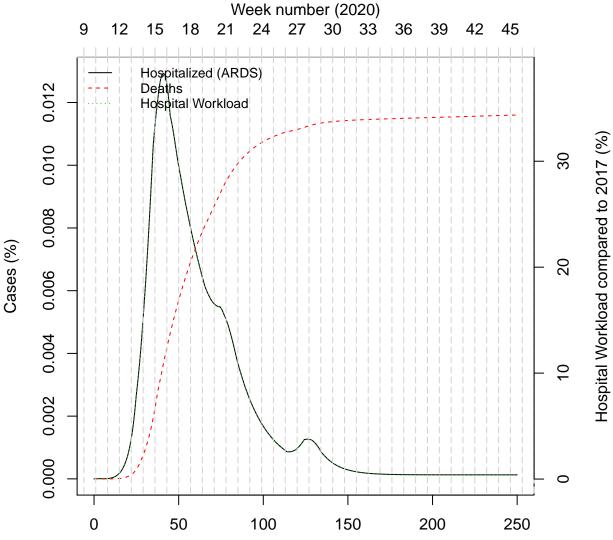


Days after 3/1/20

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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 (07/26/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

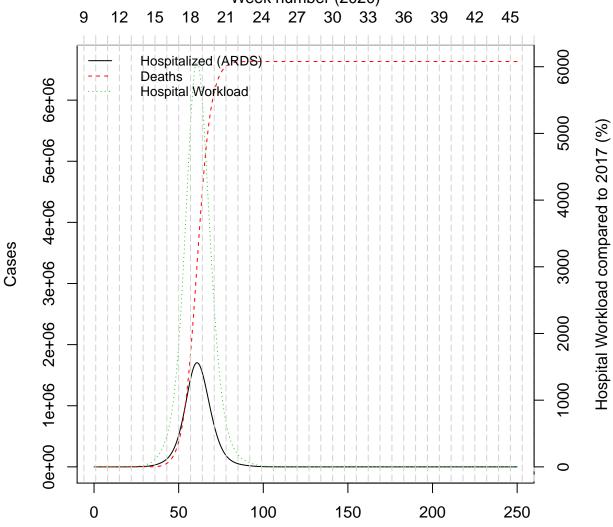
100

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 (%)

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Scenario 1 no social distancing and no lockdown Week number (2020)



Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 1 no social distancing and no lockdown Week number (2020) 12 15 18 36 45 0009 ∞ Hospitalized (ARDS) Deaths Hospital Workload Hospital Workload compared to 2017 (%) 9 Cases (%) α

Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

150

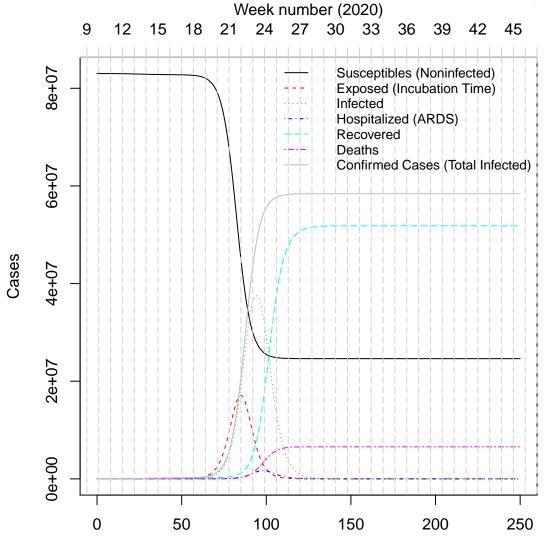
200

250

100

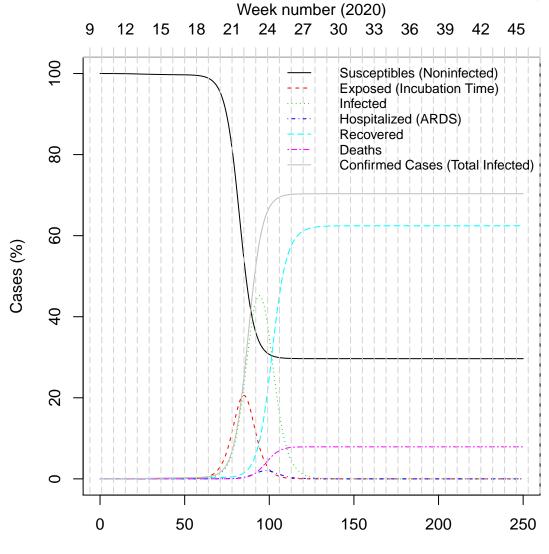
50

Scenario 2 exit after day 50 without social distancing



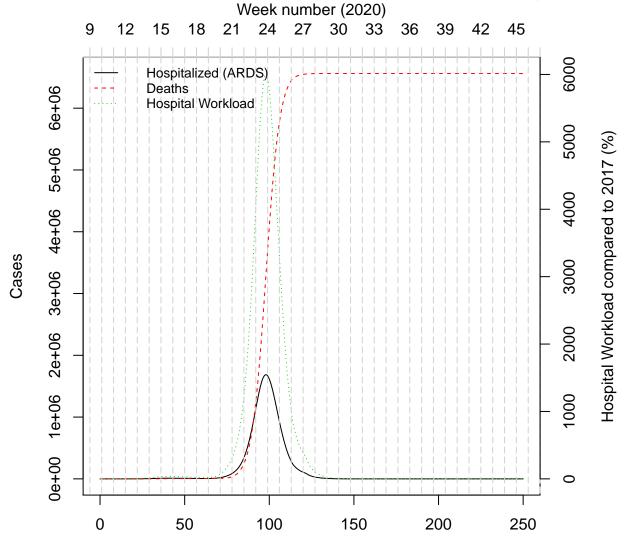
Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing



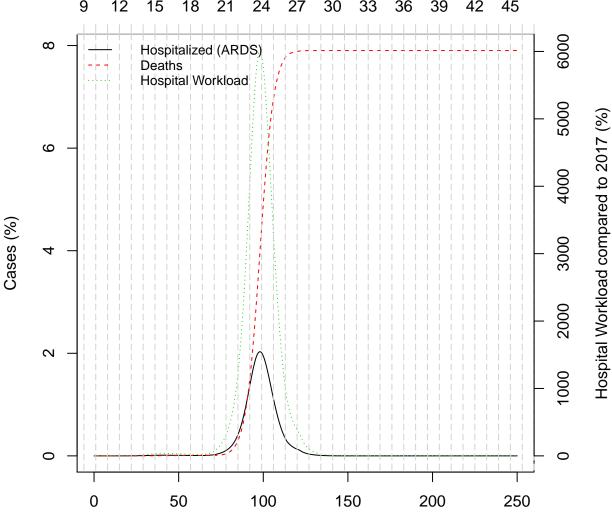
Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing



Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 2 exit after day 50 without social distancing Week number (2020) 9 12 15 18 21 24 27 30 33 36 39 42 45



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 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 (07/26/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

100

0

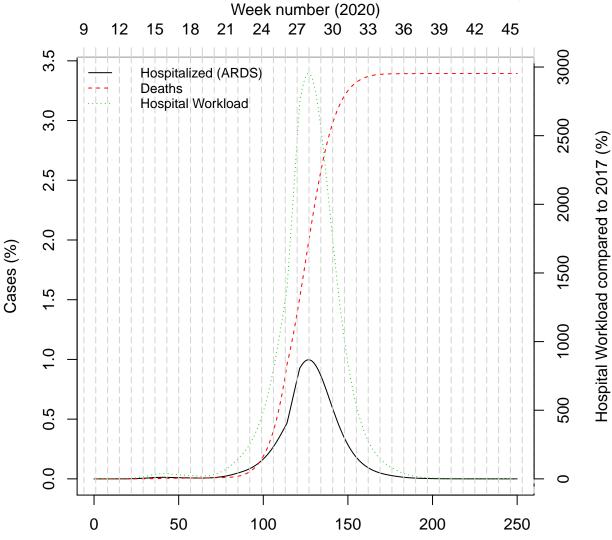
Scenario 3 exit after day 50 with social distancing Week number (2020) Susceptibles (Noninfected) Exposed (Incubation Time) Infected Hospitalized (ARDS) Recovered Deaths Confirmed Cases (Total Infected) Cases (%)

Days after 3/1/20 Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

Scenario 3 exit after day 50 with social distancing Week number (2020) Hospitalized (ARDS) Deaths Hospital Workload Hospital Workload compared to 2017 (%) Cases 500000 1000000

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Scenario 3 exit after day 50 with social distancing



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Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 Hospitalized (ARDS) 6500000 Deaths 6000000 R0 = 0.4R0 = 0.65500000 R0 = 0.8R0 = 15000000 R0 = 1.24500000 R0 = 1.4R0 = 1.64000000 R0 = 1.8Growth Rate (D^{-1}) R0 = 23500000 R0 = 2.23000000 R0 = 2.42500000 2000000 1500000 1000000 500000 0 0.32 0 50 100 150

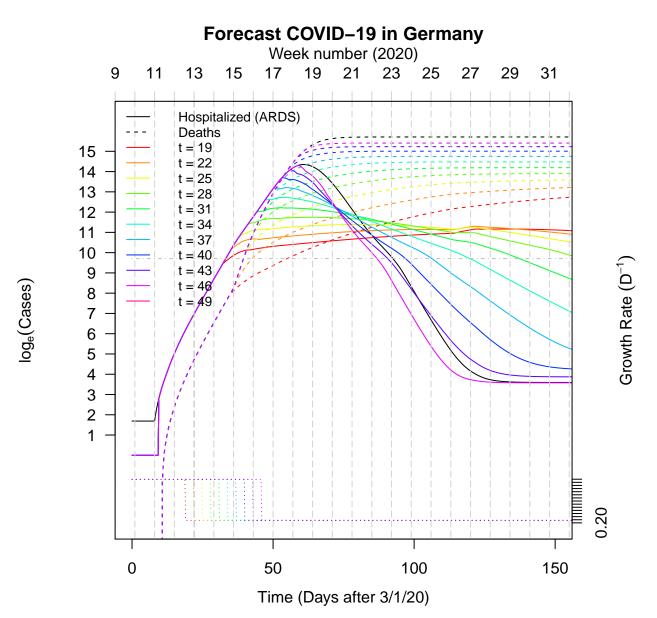
Created by Sören Thiering (07/26/2020). Email: soeren.thiering@hs-anhalt.de

Time (Days after 3/1/20)

Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 Hospitalized (ARDS) 6500000 Deaths 6000000 t = 19t = 225500000 t = 25t = 285000000 t = 314500000 t = 34t = 374000000 t = 40Growth Rate (D^{-1}) t = 433500000 t = 463000000 t = 492500000 2000000 1500000 1000000 500000 0 0.20 0 50 100 150

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Time (Days after 3/1/20)



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