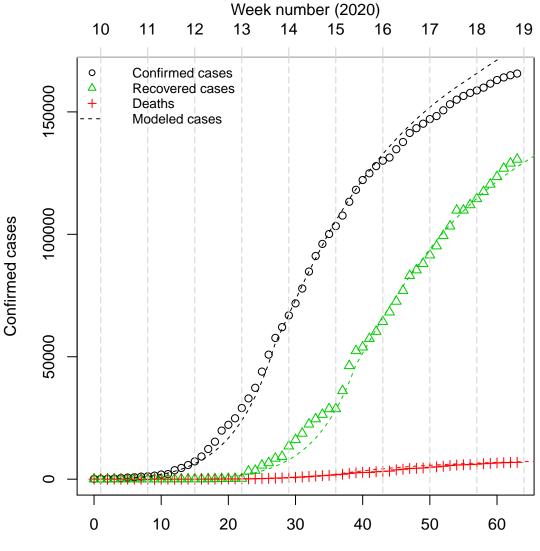
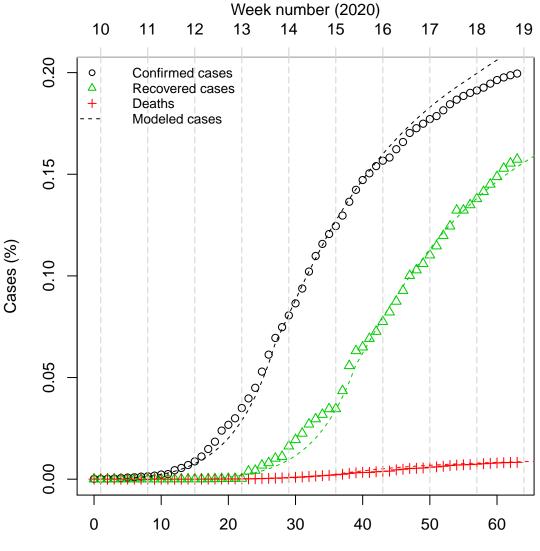
#### Situation vs Model COVID-19 in Germany

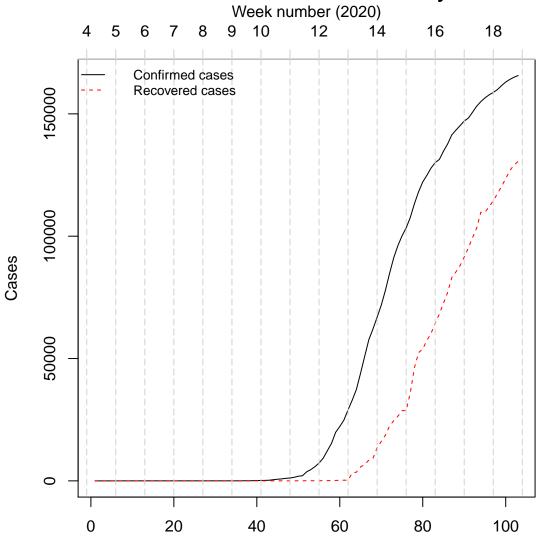


Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

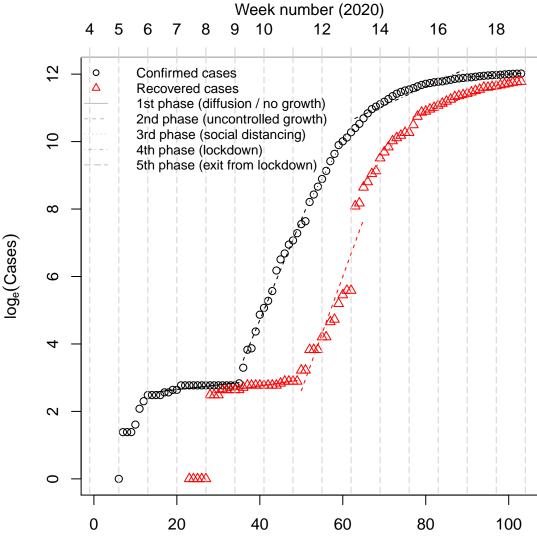
#### Situation vs Model COVID-19 in Germany



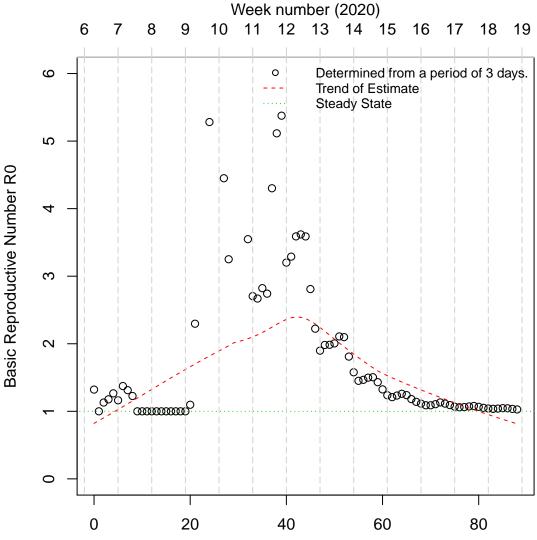
Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de



Days after 1/22/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

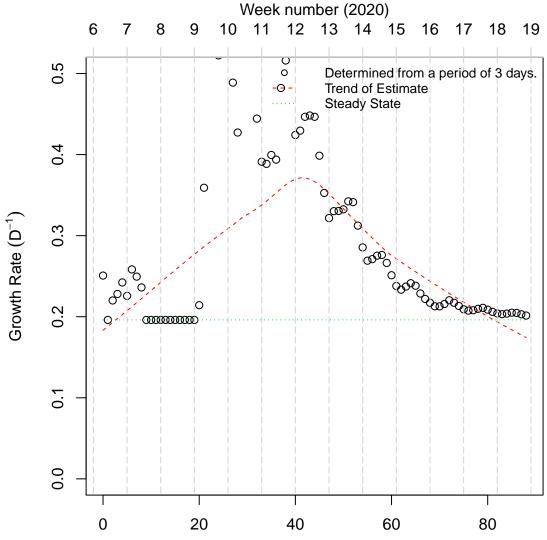


Days after 1/22/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

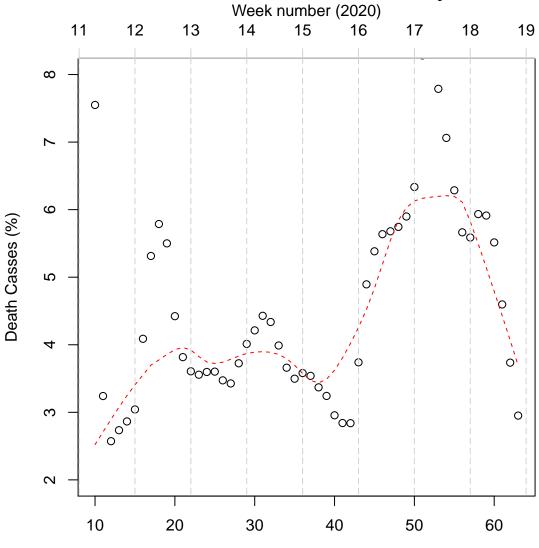


Days after 2/5/20

Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de



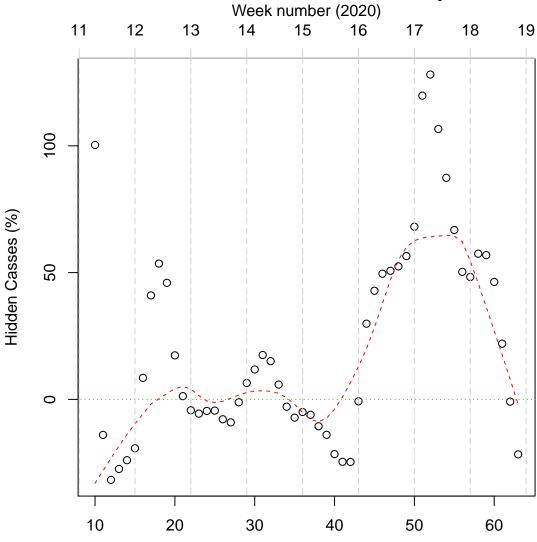
Days after 2/5/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de



Days after 3/1/20

Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

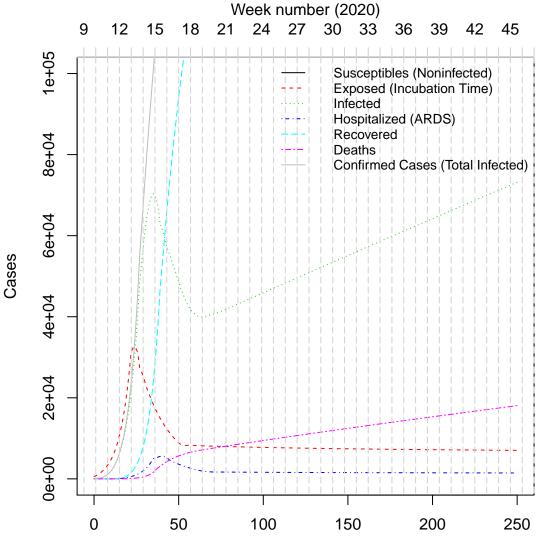
# Situation COVID-19 in Germany Week number (2020)



Days after 3/1/20

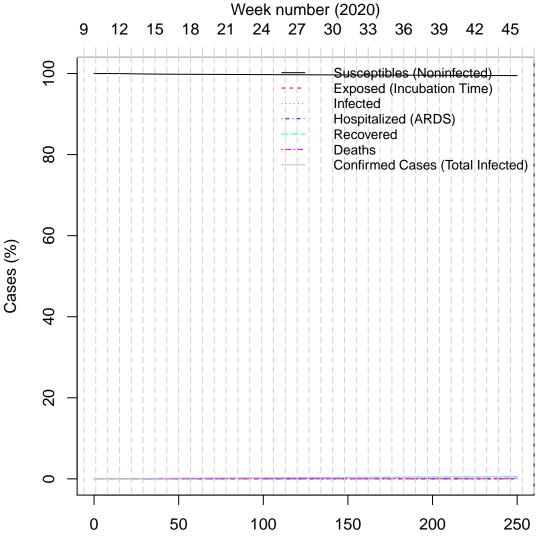
Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

#### Forecast COVID-19 in Germany



Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

#### Forecast COVID-19 in Germany



Days after 3/1/20

Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

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

Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

### Forecast COVID-19 in Germany Week number (2020) 9 45 12 15 18 36 39 42 20 Hospitalized (ARDS) Deaths 0.020 Hospital Workload Hospital Workload compared to 2017 (%) 0.015 Cases (%) 0.010 0.005 2 0.000

Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

100

0

#### 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+<del>0</del>0

Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

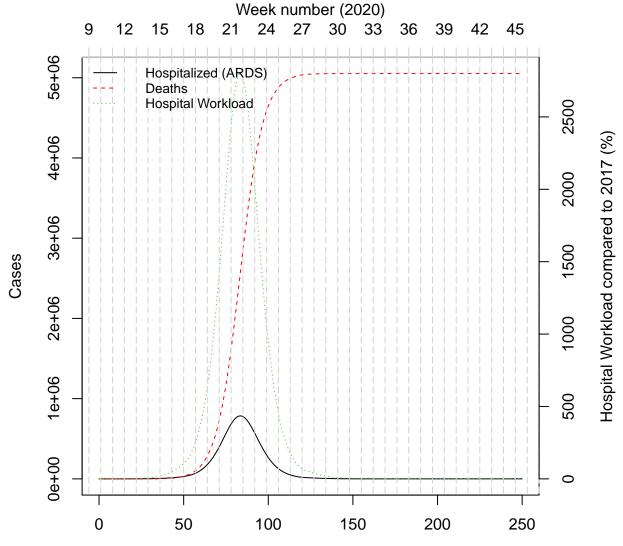
100

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 (%)

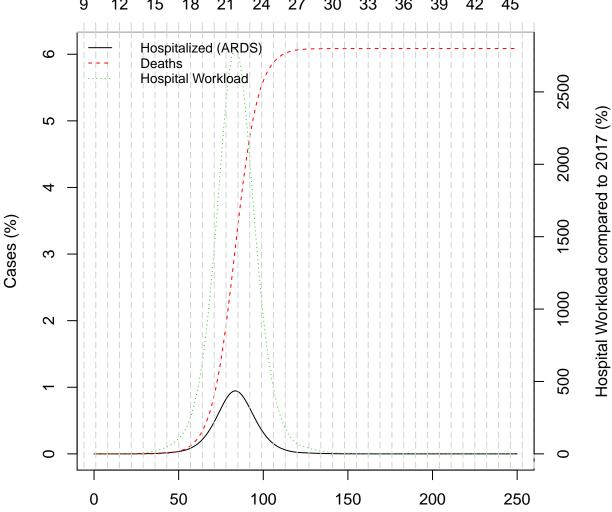
Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

#### Scenario 1 no social distancing and no lockdown



Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

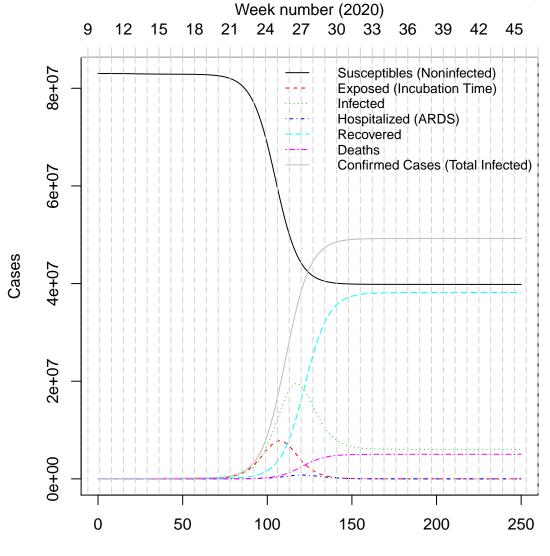
# Scenario 1 no social distancing and no lockdown Week number (2020) 9 12 15 18 21 24 27 30 33 36 39 42 45



Days after 3/1/20

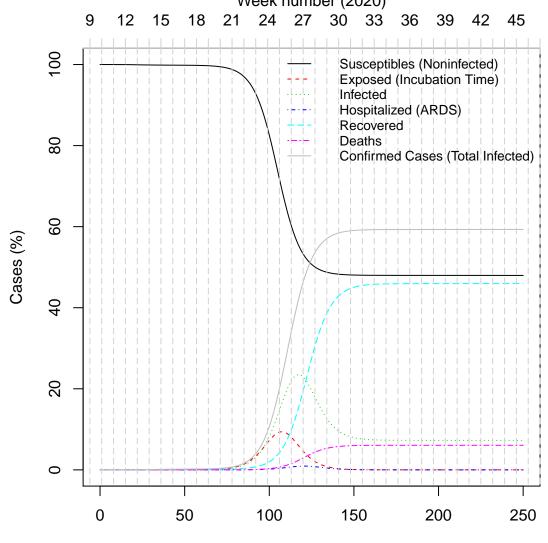
Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

## Scenario 2 exit after day 50 without social distancing



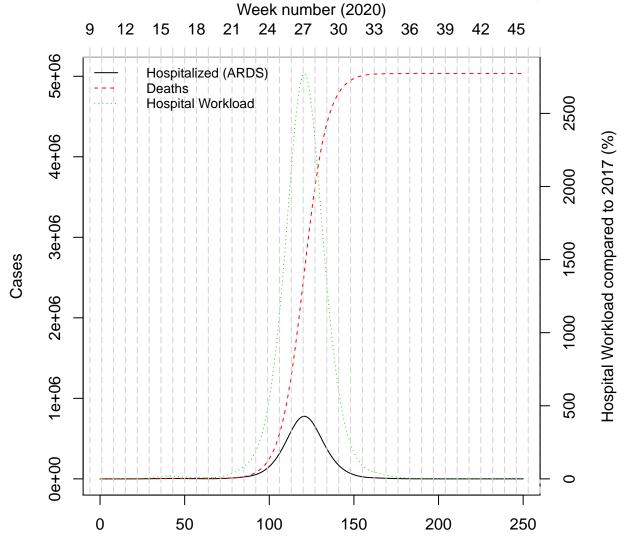
Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

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



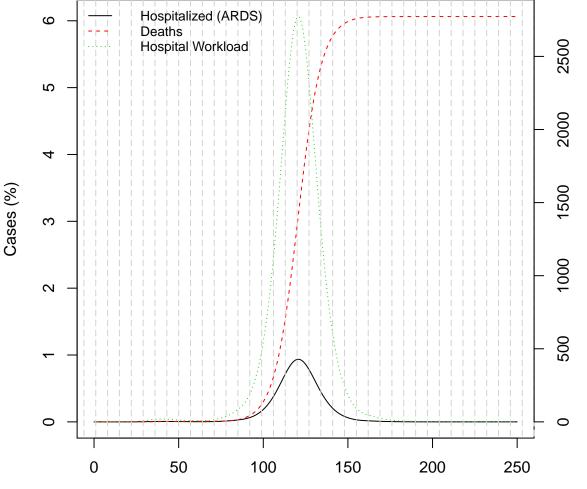
Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

#### Scenario 2 exit after day 50 without social distancing



Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

#### Scenario 2 exit after day 50 without social distancing Week number (2020) 12 15 18 36 45 Hospitalized (ARDS) Deaths 2500 Hospital Workload



Hospital Workload compared to 2017 (%)

Days after 3/1/20

Created by Sören Thiering (05/04/2020). 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+<del>0</del>0

Days after 3/1/20 Created by Sören Thiering (05/04/2020). 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 (05/04/2020). Email: soeren.thiering@hs-anhalt.de

# Scenario 3 exit after day 50 with social distancing Week number (2020) 45 12 15 18 36 3000 Hospitalized (ARDS) Deaths Hospital Workload 2500 Hospital Workload compared to 2017 (%) 2000 1500

5e+06

4e+06

3e+06

2e+06

1e+06

0e+00

0

50

Cases

100 150 200 250 Days after 3/1/20

500

Created by Sören Thiering (05/04/2020). 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 (%) $\alpha$

Days after 3/1/20 Created by Sören Thiering (05/04/2020). Email: soeren.thiering@hs-anhalt.de

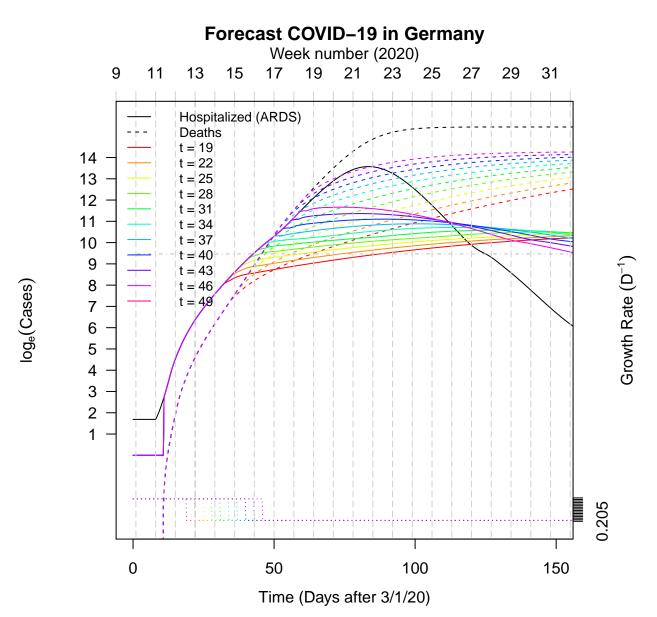
#### Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 Hospitalized (ARDS) 5000000 Deaths R0 = 0.44500000 R0 = 0.6R0 = 0.84000000 R0 = 1R0 = 1.23500000 R0 = 1.4R0 = 1.63000000 R0 = 1.8Growth Rate $(\mathsf{D}^{-1})$ R0 = 2R0 = 2.22500000 Cases R0 = 2.42000000 1500000 1000000 500000 0 0 50 100 150 Time (Days after 3/1/20)

Created by Sören Thiering (05/04/2020). 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) 5000000 Deaths t = 19 4500000 t = 22t = 254000000 t = 28t = 313500000 t = 34t = 373000000 t = 40Growth Rate (D<sup>-1</sup>) t = 43t = 462500000 Cases t = 492000000 1500000 1000000 500000 0 0.205 150 0 50 100

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Time (Days after 3/1/20)



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