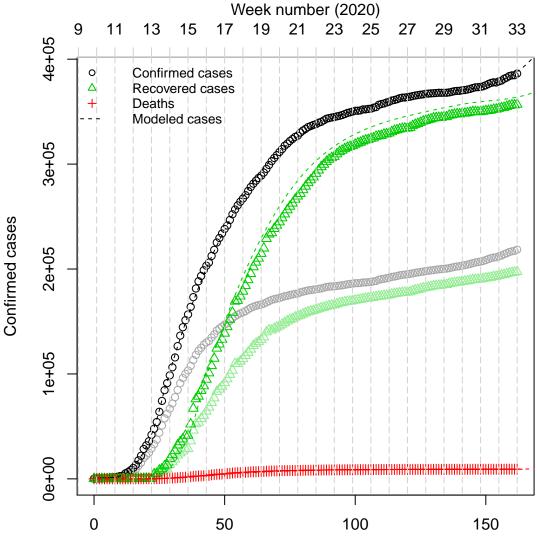
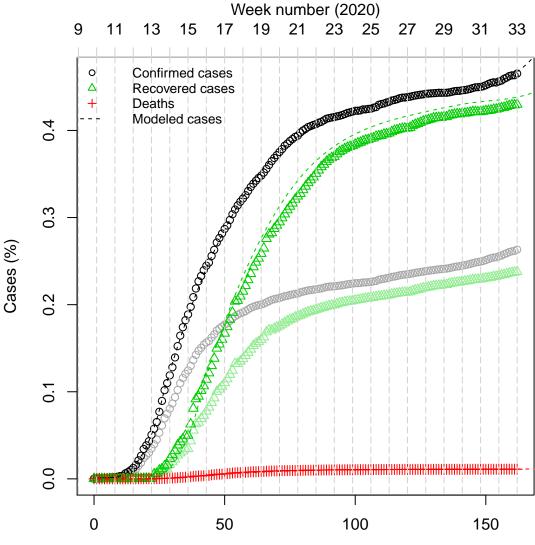
#### Situation vs Model COVID-19 in Germany

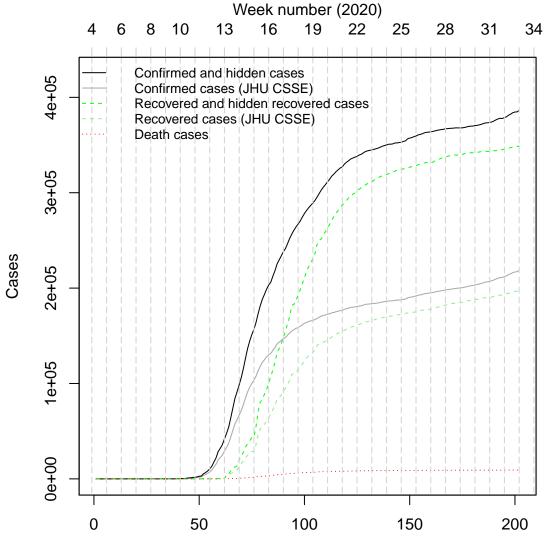


Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

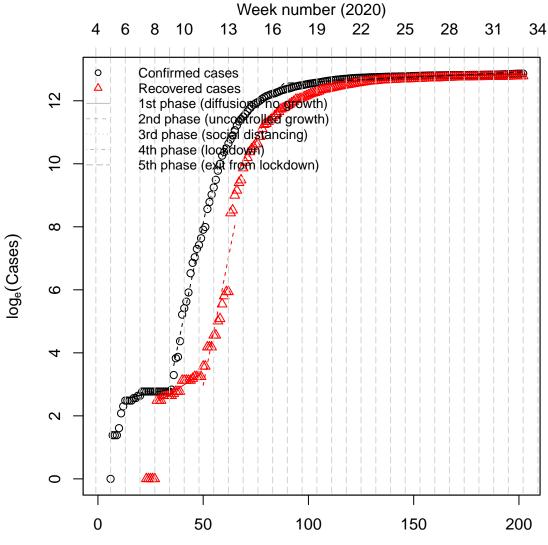
#### Situation vs Model COVID-19 in Germany



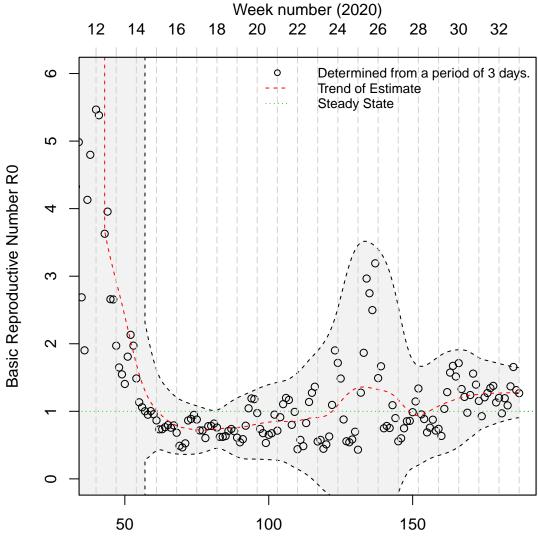
Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de



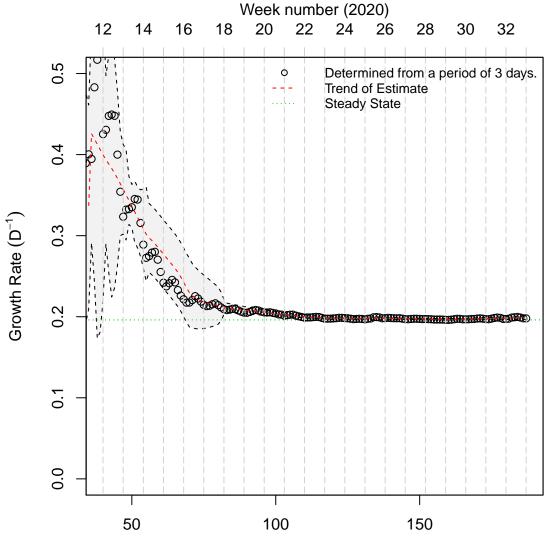
Days after 1/22/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de



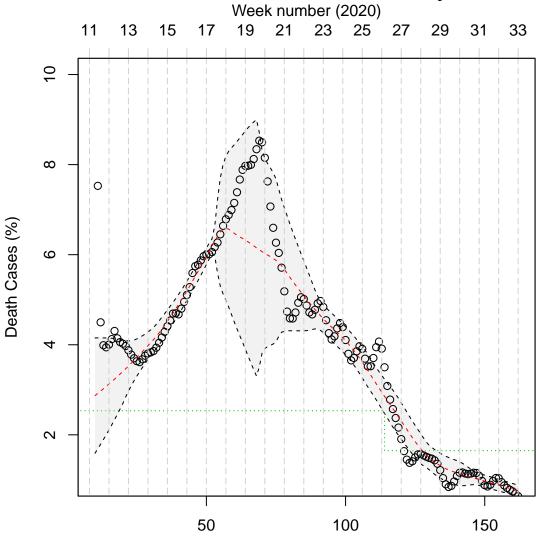
Days after 1/22/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de



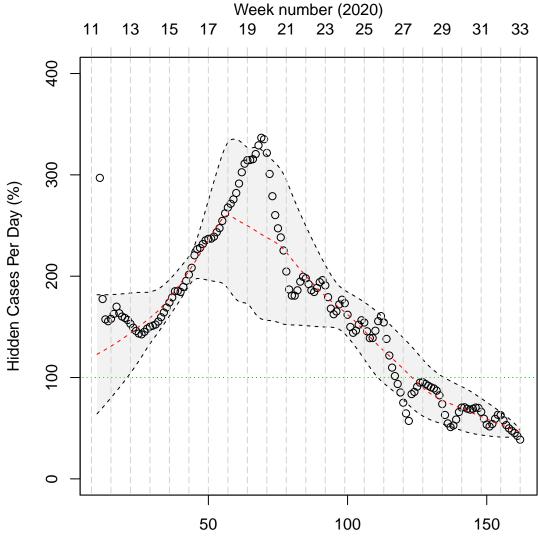
Days after 2/5/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de



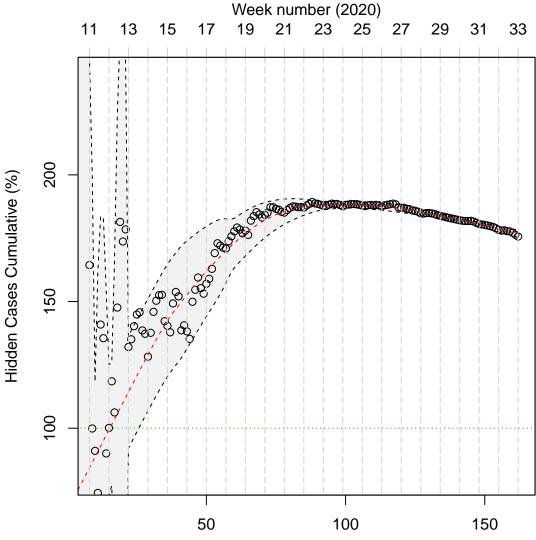
Days after 2/5/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de



Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

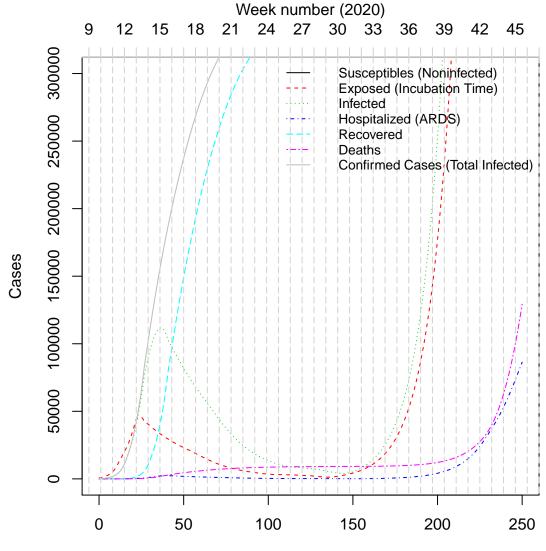


Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de



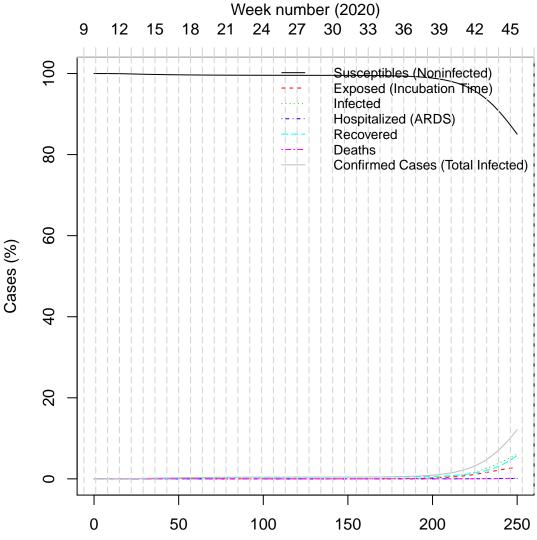
Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

#### Forecast COVID-19 in Germany



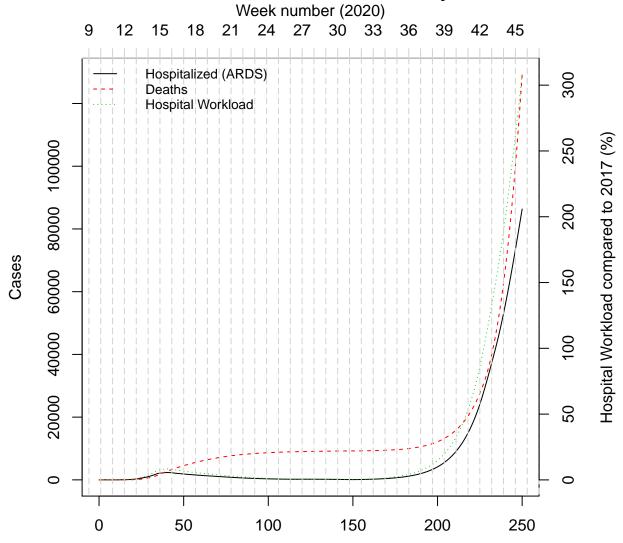
Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

#### Forecast COVID-19 in Germany



Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

### Forecast COVID-19 in Germany



Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

#### Forecast COVID-19 in Germany Week number (2020) 45 12 15 18 36 39 42 Hospitalized (ARDS) 0.15 300 Deaths Hospital Workload Hospital Workload compared to 2017 (%) 250 0.10 200 Cases (%) 150 0.05 100 0.00

Days after 3/1/20 Created by Sören Thiering (08/12/2020). 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+<del>0</del>0

Days after 3/1/20 Created by Sören Thiering (08/12/2020). 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 (08/12/2020). 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 (08/12/2020). Email: soeren.thiering@hs-anhalt.de

# Scenario 1 no social distancing and no lockdown Week number (2020) 12 24 45 15 18 36 Hospitalized (ARDS) Deaths 1500 Hospital Workload 2.5 Hospital Workload compared to 2017 (%) 2.0 1.5 0.5 0.0

Cases (%)

0

50

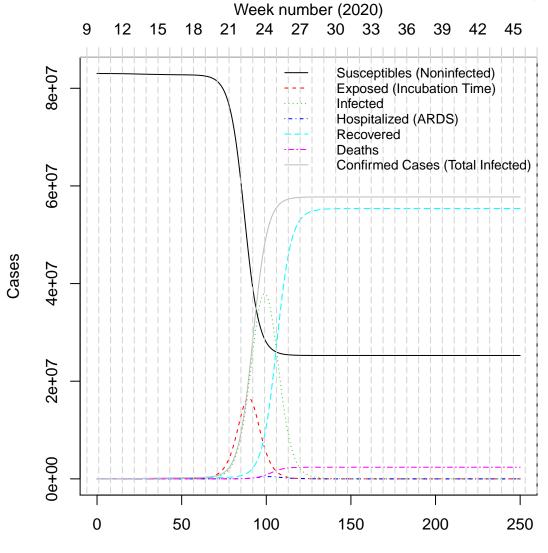
Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

150

200

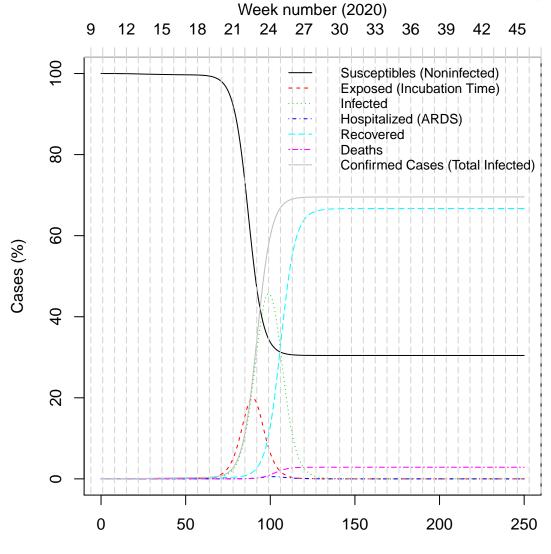
100

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



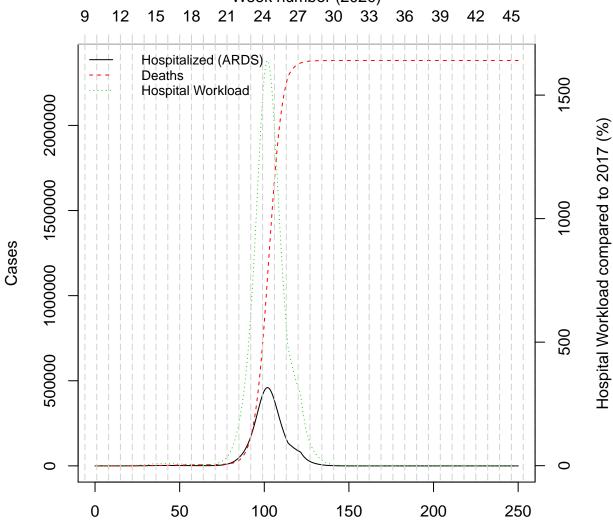
Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

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



Days after 3/1/20 Created by Sören Thiering (08/12/2020). 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 (08/12/2020). 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 2.5 Hospital Workload compared to 2017 (%) 2.0 1.5 0.5

Cases (%)

0.0

0

50

Days after 3/1/20 Created by Sören Thiering (08/12/2020). 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+<del>0</del>0

Days after 3/1/20 Created by Sören Thiering (08/12/2020). 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 (08/12/2020). 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 800 Hospital Workload compared to 2017 (%)

1e+06

8e+05

6e+05

4e+05

2e+05

00+<del>0</del>0

0

50

Cases

Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

150

200

100

## Scenario 3 exit after day 50 with social distancing Week number (2020) 24 45 12 15 18 36 39 Hospitalized (ARDS) Deaths Hospital Workload 800 Hospital Workload compared to 2017 (%) 1.0 0.8 Cases (%) 9.0 0.0

Days after 3/1/20 Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

150

200

100

0

50

#### 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 = 0.62000000 R0 = 0.8R0 = 11800000 R0 = 1.2R0 = 1.41600000 R0 = 1.6R0 = 1.81400000 Growth Rate $(\mathsf{D}^{-1})$ R0 = 2R0 = 2.21200000 Cases R0 = 2.41000000 800000 600000 400000 200000 0 0.32 0 50 100 150

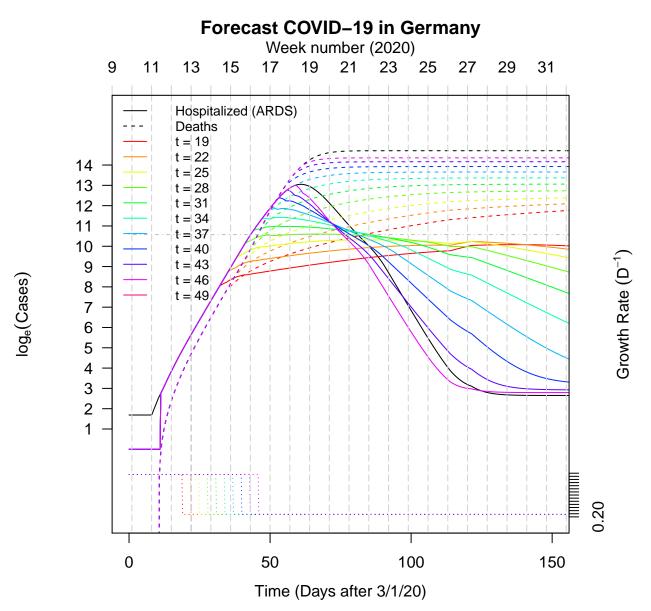
Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

Time (Days after 3/1/20)

#### Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 19 25 27 29 31 Hospitalized (ARDS) 2400000 Deaths t = 192200000 t = 22 2000000 t = 25t = 281800000 t = 31 t = 341600000 t = 37t = 401400000 Growth Rate $(\mathsf{D}^{-1})$ t = 43t = 461200000 Cases t = 491000000 800000 600000 400000 200000 0 0.20 0 50 100 150

Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de

Time (Days after 3/1/20)



Created by Sören Thiering (08/12/2020). Email: soeren.thiering@hs-anhalt.de