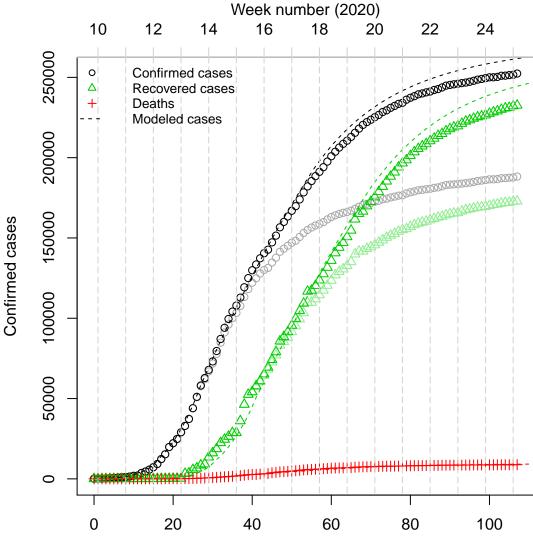
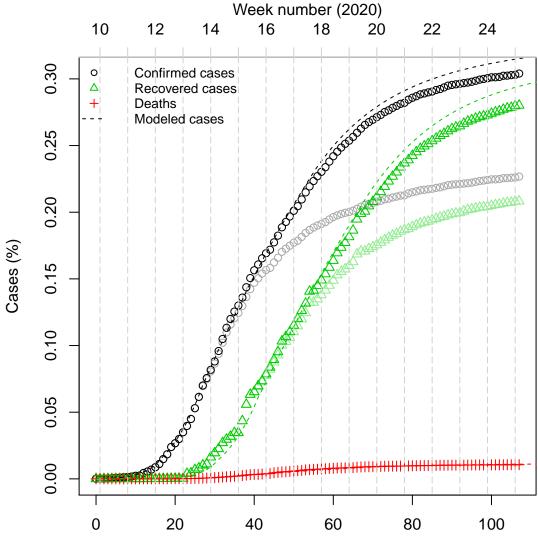
#### Situation vs Model COVID-19 in Germany



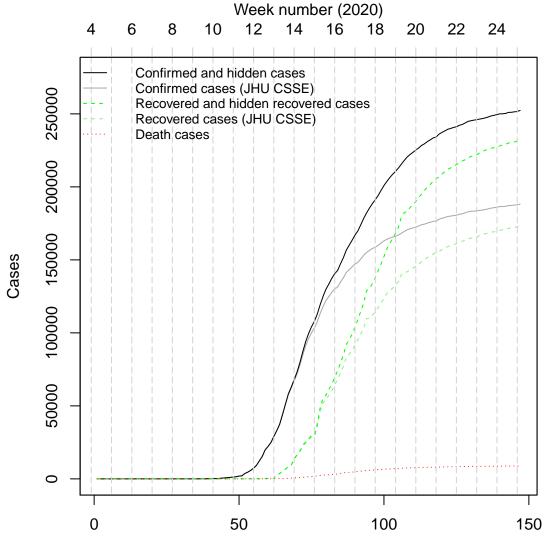
Days after 3/1/20

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



Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

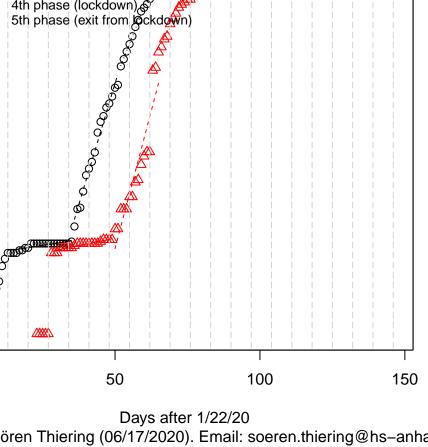


Days after 1/22/20

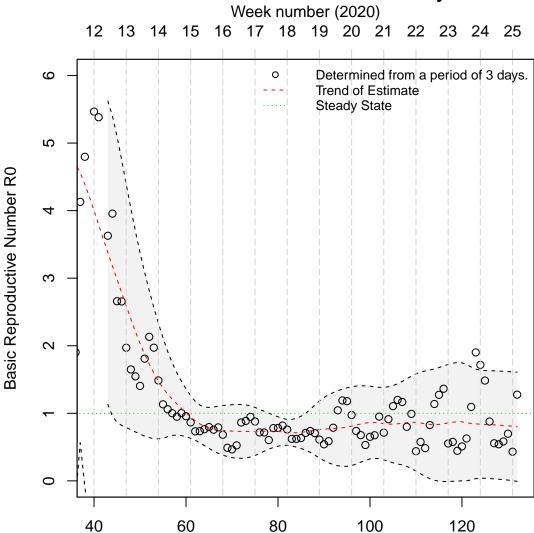
Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

#### Situation COVID-19 in Germany Week number (2020) 12 6 10 20 22 24 Confirmed cases 1st phase (diffusion / no growth) 2nd phase (uncontrolls) 12 2nd phase (uncontrolled with 3rd phase (social distanting) 4th phase (lockdown) 10 $\infty$ 9

2

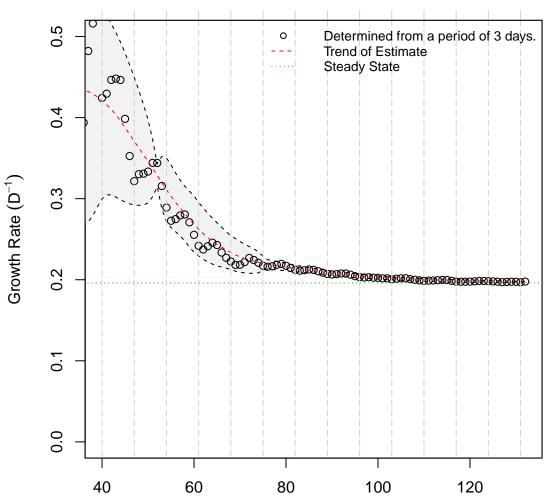


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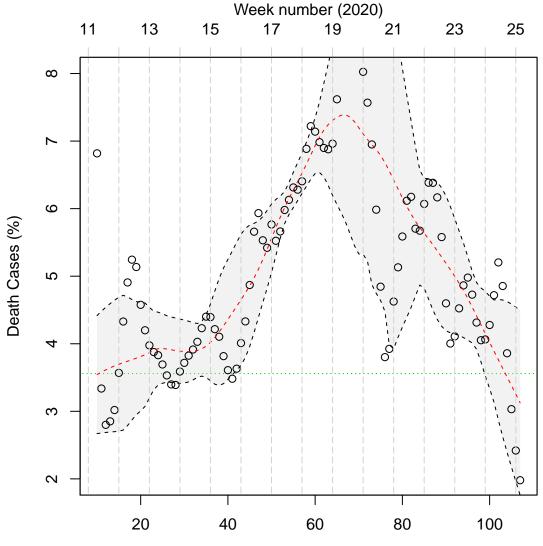
Days after 2/5/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

Week number (2020) 12 13 14 15 16 17 18 19 20 21 22 23 24 25

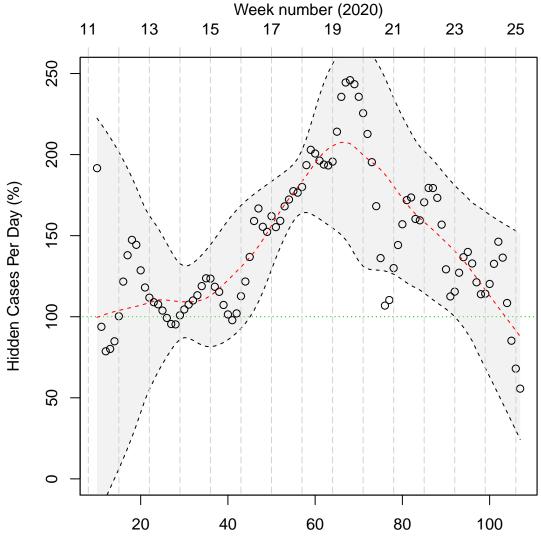


Days after 2/5/20

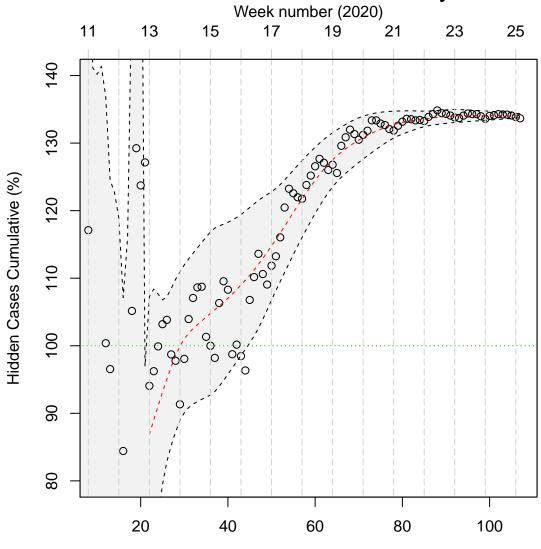
Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de



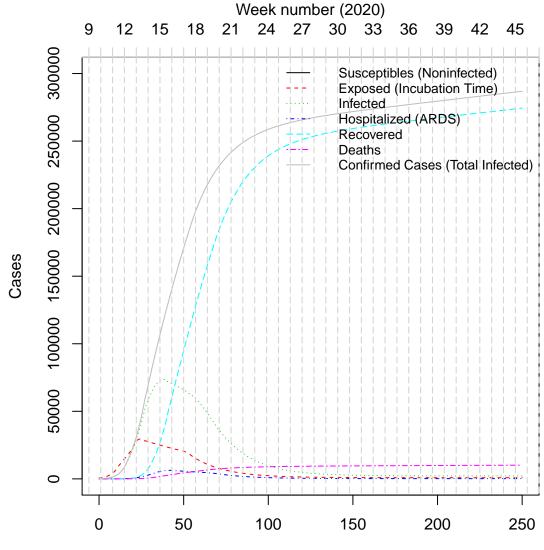
Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de



Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

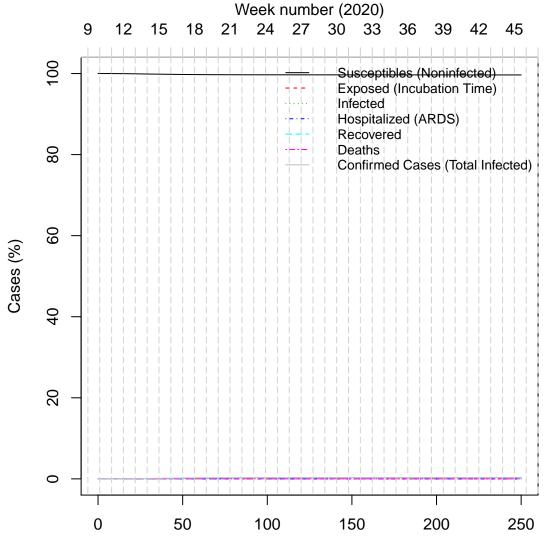


Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

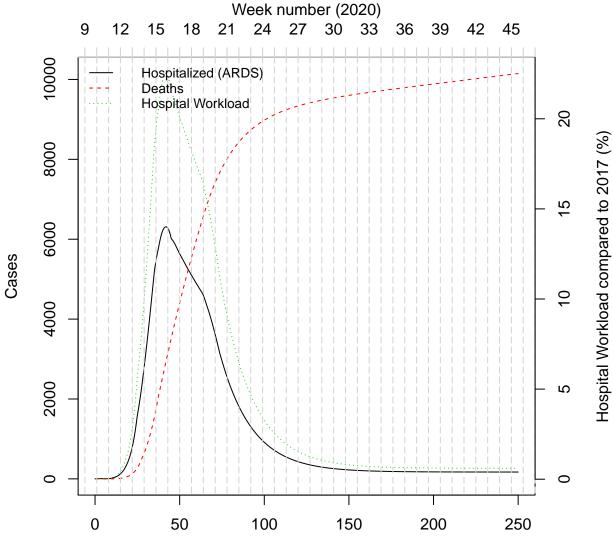


Days after 3/1/20

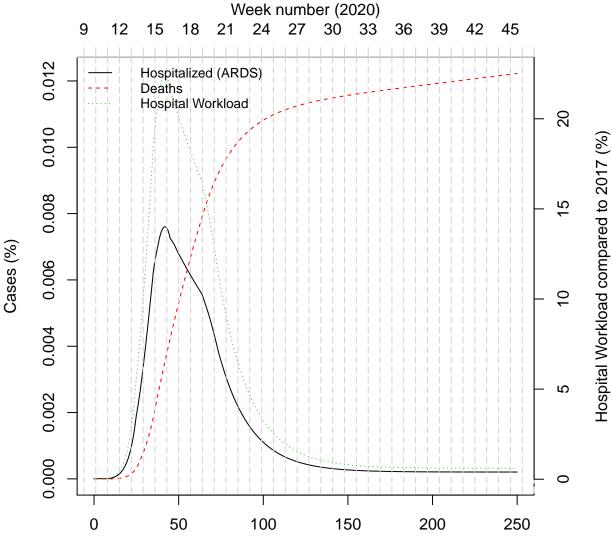
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#### Scenario 1 no social distancing and no lockdown Week number (2020) 24 45 12 15 18 21 36 39 8e+07 Susceptibles (Noninfected) Exposed (Incubation Time) Infected Hospitalized (ARDS) Recovered Deaths Confirmed Cases (Total Infected) 6e+07 Cases 4e+07 2e+07 00+<del>0</del>0

Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

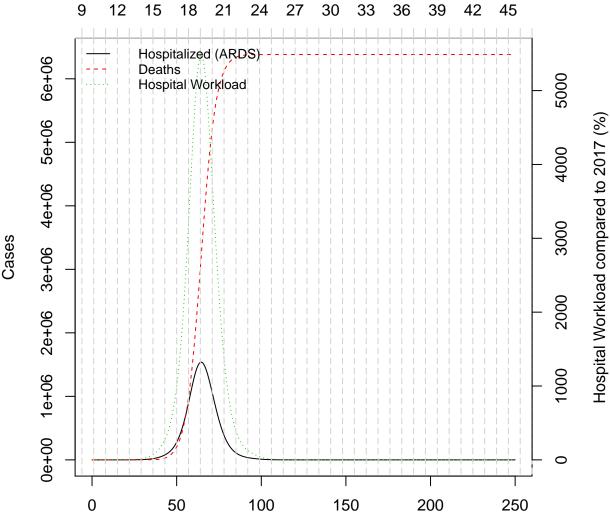
100

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 (06/17/2020). Email: soeren.thiering@hs-anhalt.de

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

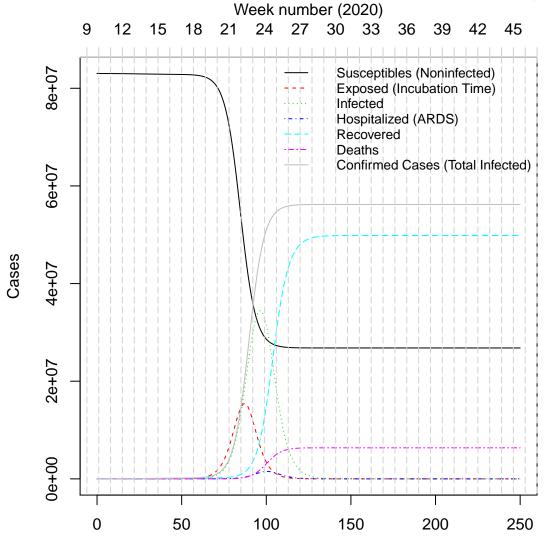


Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

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

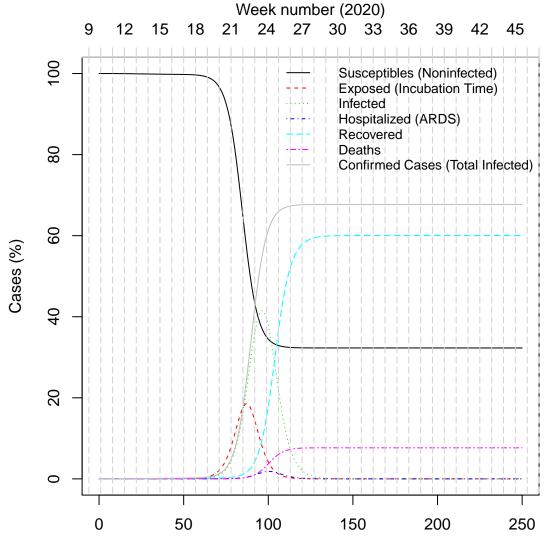
Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

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



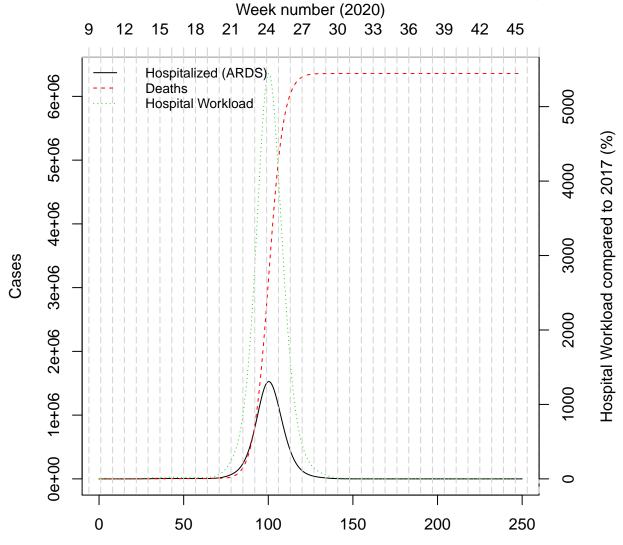
Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

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



Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

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



Days after 3/1/20 Created by Sören Thiering (06/17/2020). 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 (%)

 $\alpha$ 

Cases (%)

Days after 3/1/20 Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

#### Scenario 3 exit after day 50 with social distancing Week number (2020) 9 12 24 45 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 (06/17/2020). 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 (06/17/2020). 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 (%)

Days after 3/1/20 Created by Sören Thiering (06/17/2020). 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 (06/17/2020). Email: soeren.thiering@hs-anhalt.de

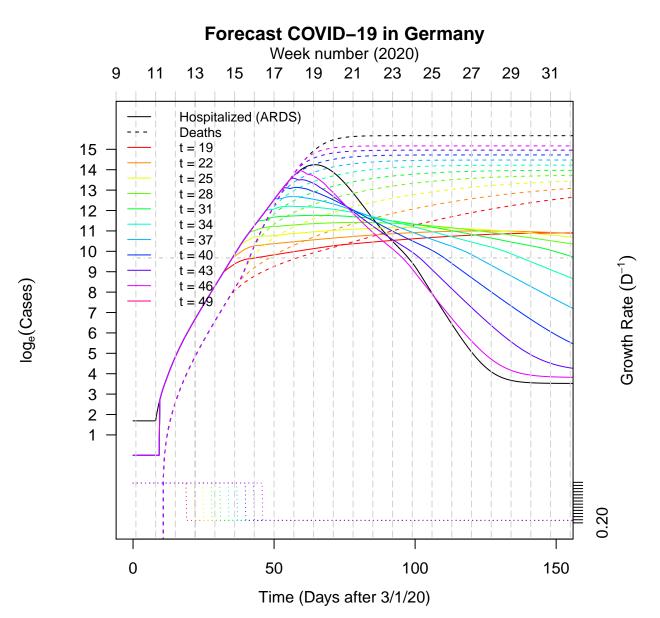
#### Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 6500000 Hospitalized (ARDS) Deaths 6000000 R0 = 0.4R0 = 0.65500000 R0 = 0.85000000 R0 = 1R0 = 1.24500000 R0 = 1.4R0 = 1.64000000 R0 = 1.8Growth Rate $(\mathsf{D}^{-1})$ 3500000 R0 = 2R0 = 2.23000000 R0 = 2.42500000 2000000 1500000 1000000 500000 0 0.32 0 50 100 150 Time (Days after 3/1/20)

Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de

#### Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 6500000 Hospitalized (ARDS) Deaths 6000000 t = 195500000 t = 22t = 255000000 t = 28t = 314500000 t = 34t = 374000000 t = 40Growth Rate $(\mathsf{D}^{-1})$ 3500000 t = 43t = 463000000 t = 492500000 2000000 1500000 1000000 500000 0 0.20 0 50 100 150

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Time (Days after 3/1/20)



Created by Sören Thiering (06/17/2020). Email: soeren.thiering@hs-anhalt.de