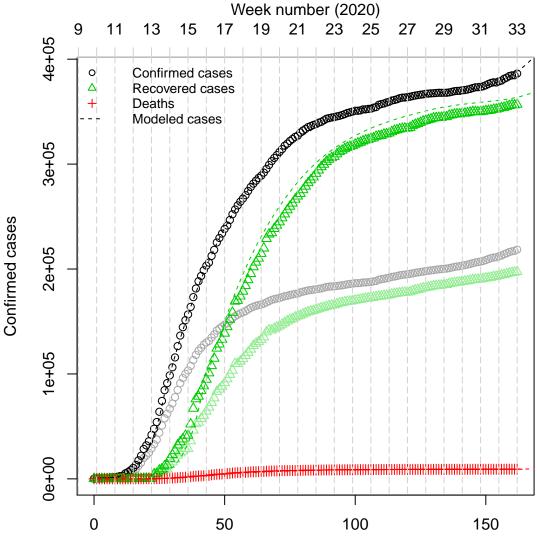
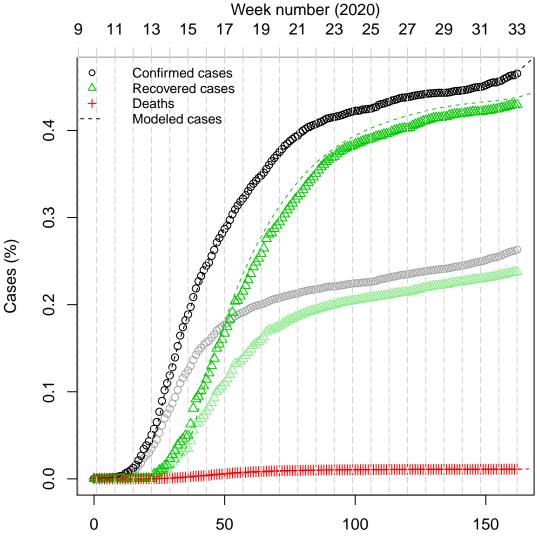
# Situation vs Model COVID-19 in Germany

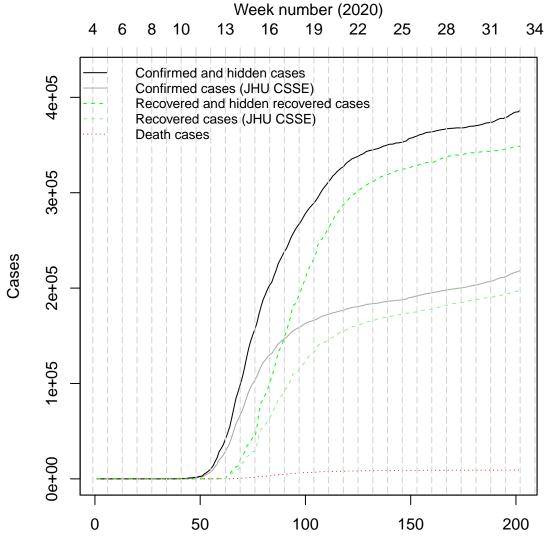


Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

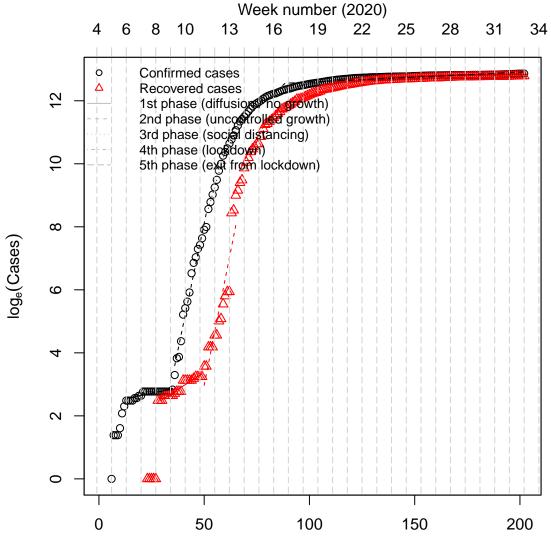
# Situation vs Model COVID-19 in Germany



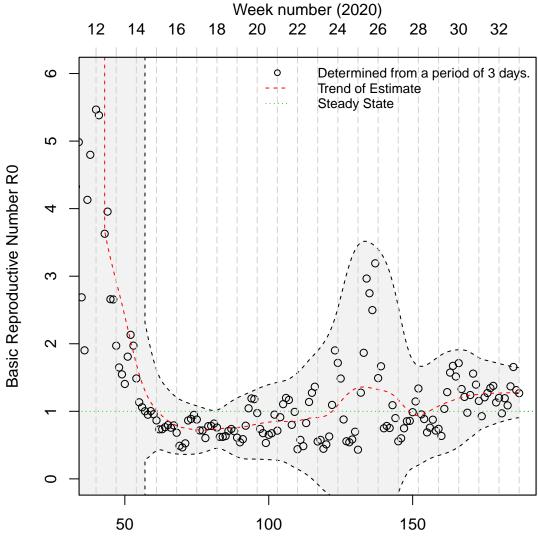
Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



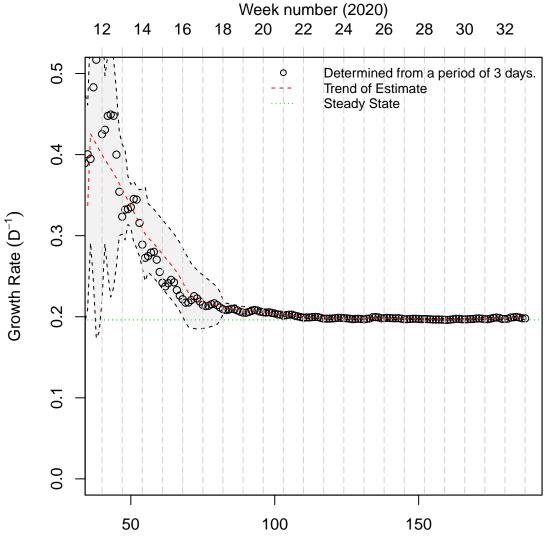
Days after 1/22/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



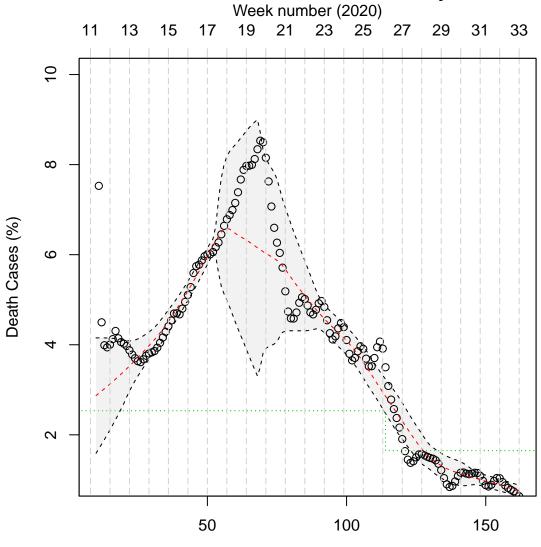
Days after 1/22/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



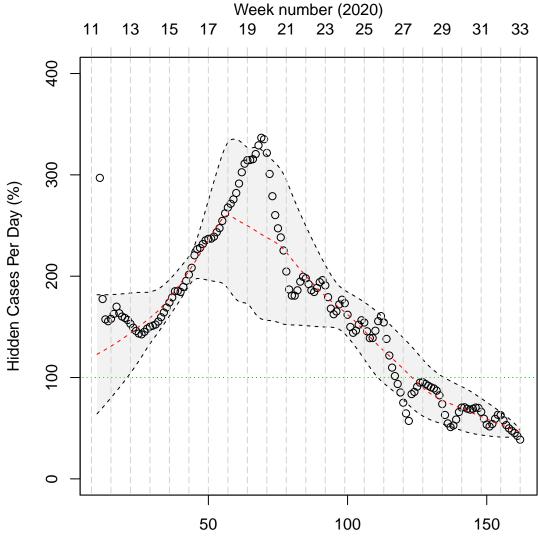
Days after 2/5/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



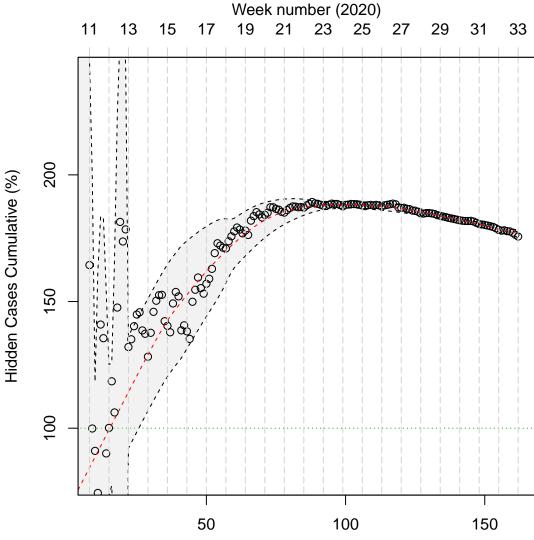
Days after 2/5/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



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

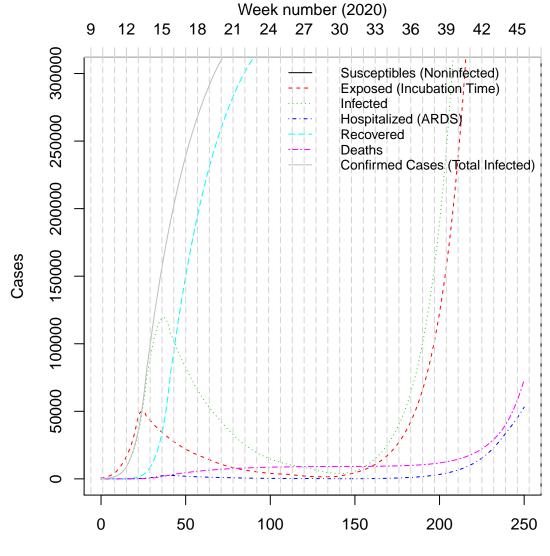


Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



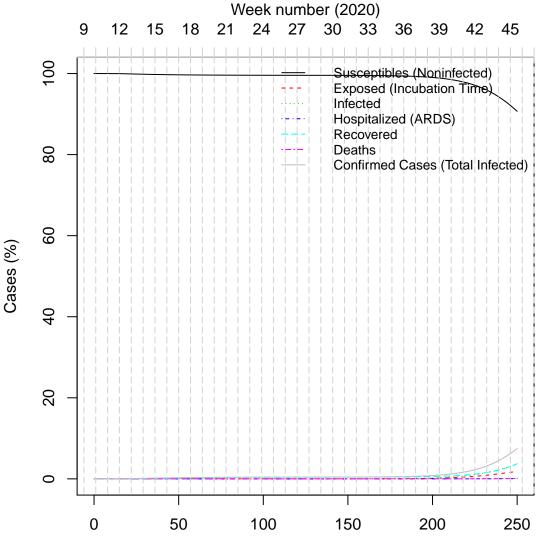
Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

## Forecast COVID-19 in Germany



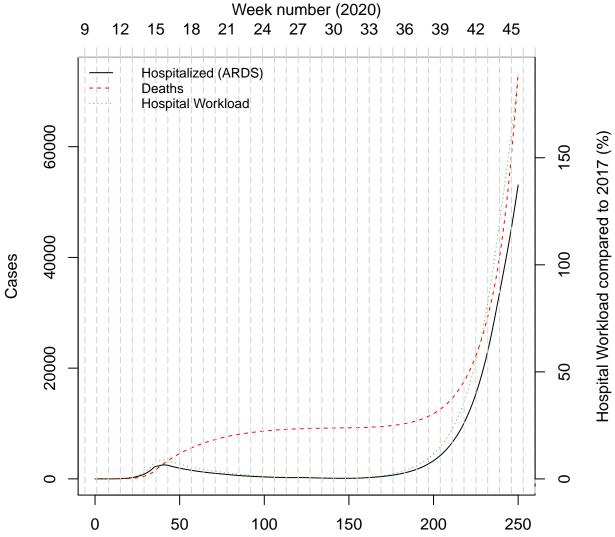
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## Forecast COVID-19 in Germany



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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) 9 45 12 15 18 21 36 39 42 Hospitalized (ARDS) Deaths 0.08 Hospital Workload Hospital Workload compared to 2017 (%) 90.0 Cases (%) 0.04 0.02 0.00

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+<del>0</del>0

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 (%)

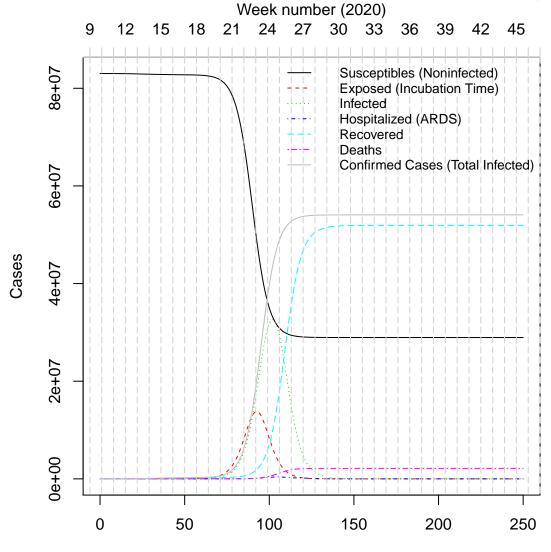
Days after 3/1/20 Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de

# 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

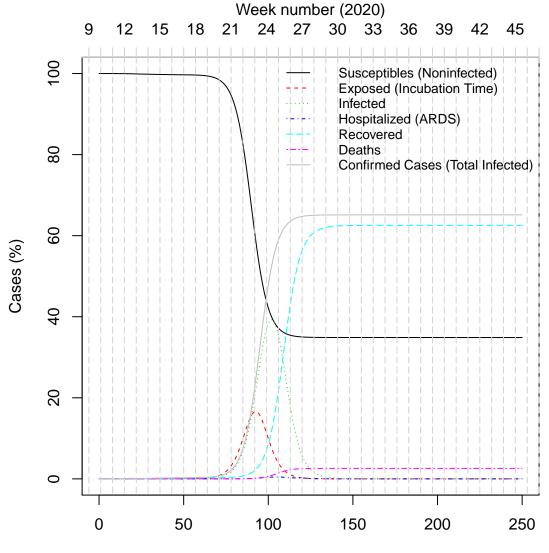
# Scenario 1 no social distancing and no lockdown Week number (2020) 24 45 12 15 18 36 Hospitalized (ARDS) Deaths 2.5 Hospital Workload Hospital Workload compared to 2017 (%) Cases (%) 1.5 0.5 0.0 250 0 50 100 150 200

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

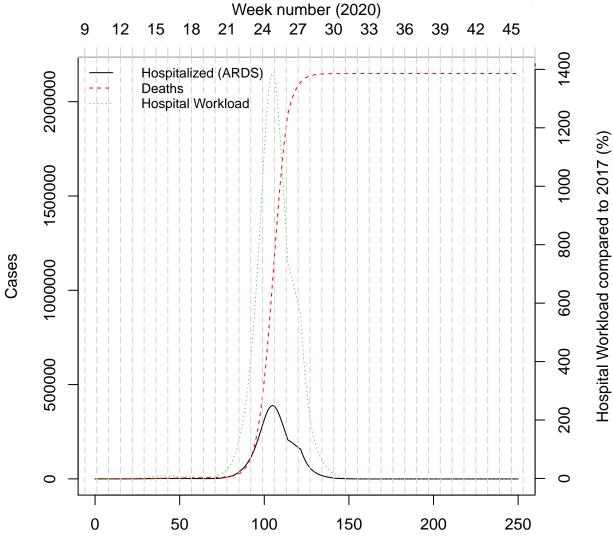


Days after 3/1/20

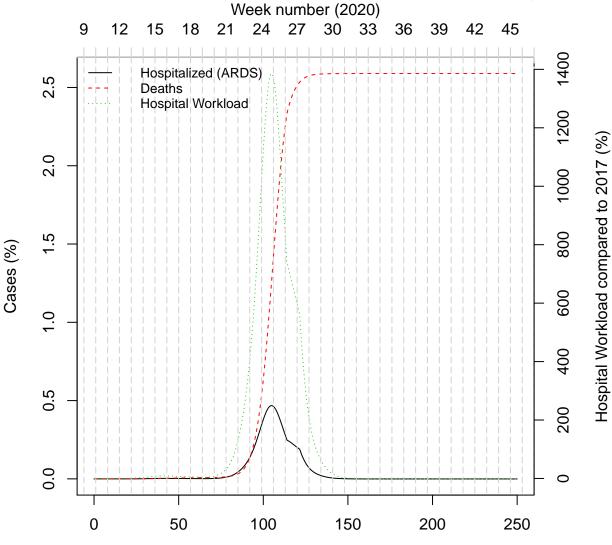
Created by Sören Thiering (08/11/2020). Email: soeren.thiering@hs-anhalt.de



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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) 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 (08/11/2020). 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) 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 3 exit after day 50 with social distancing Week number (2020) 45 12 15 18 36 1400 Hospitalized (ARDS) Deaths Hospital Workload 1200 1.5 Hospital Workload compared to 2017 (%) 1000 800 Cases (%) 009 0.5 200 0.0 0 50 100 150 200 250

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

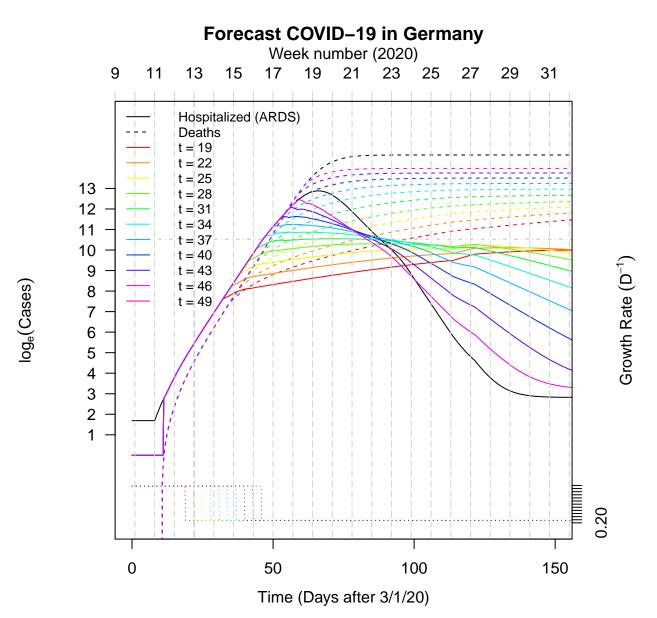
#### Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 25 27 29 31 Hospitalized (ARDS) 2200000 Deaths R0 = 0.42000000 R0 = 0.6R0 = 0.81800000 R0 = 1R0 = 1.21600000 R0 = 1.4R0 = 1.61400000 R0 = 1.8Growth Rate $(\mathsf{D}^{-1})$ R0 = 21200000 R0 = 2.2R0 = 2.4Cases 1000000 000008 600000 400000 200000 0 0.32 0 50 100 150 Time (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) 9 11 13 15 17 19 25 27 29 31 Hospitalized (ARDS) 2200000 Deaths t = 192000000 t = 22t = 251800000 t = 28t = 31 1600000 t = 34t = 371400000 t = 40Growth Rate $(\mathsf{D}^{-1})$ t = 431200000 t = 46Cases t = 491000000 000008 600000 400000 200000 0 0.20 150 0 50 100

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Time (Days after 3/1/20)



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