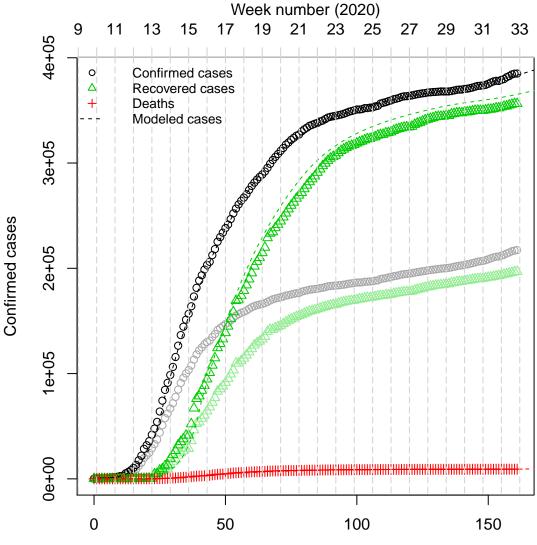
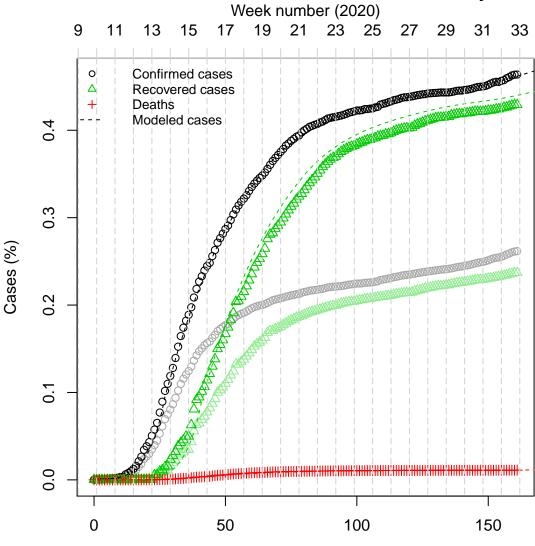
#### Situation vs Model COVID-19 in Germany

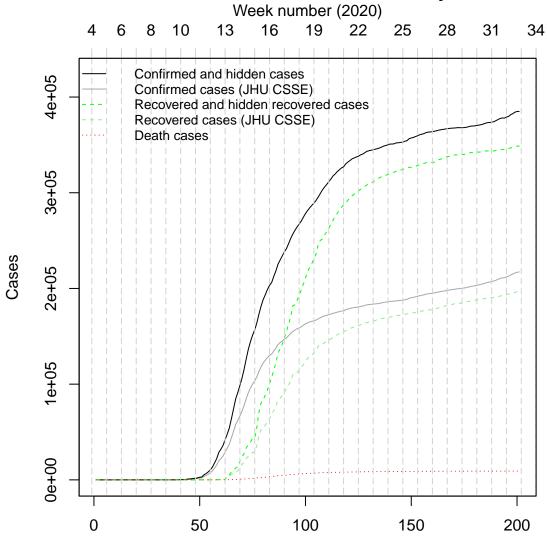


Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

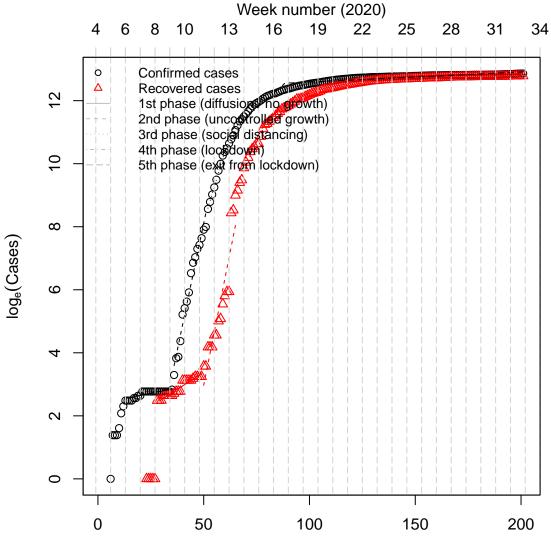
### Situation vs Model COVID-19 in Germany



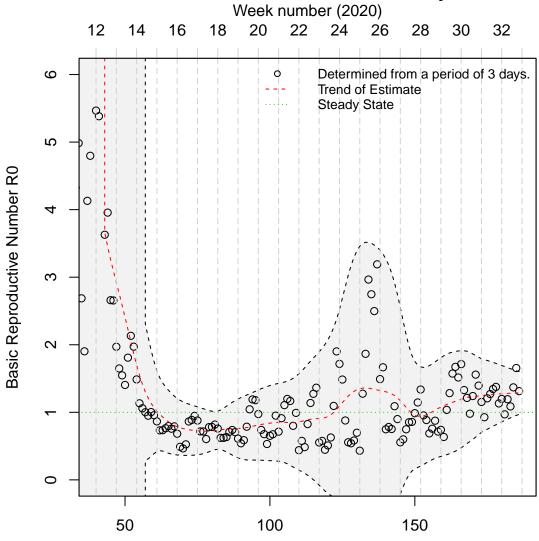
Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de



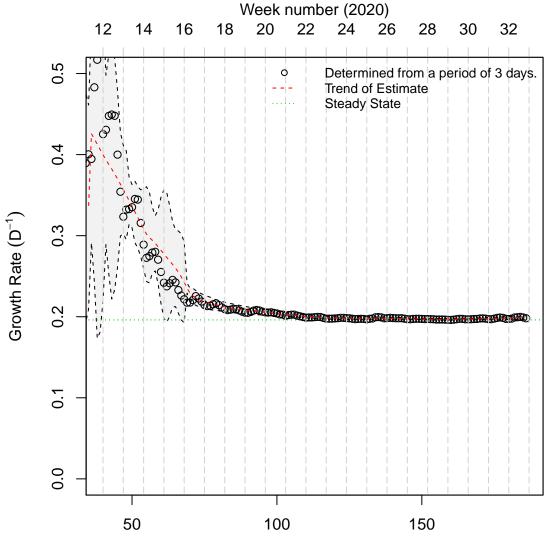
Days after 1/22/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de



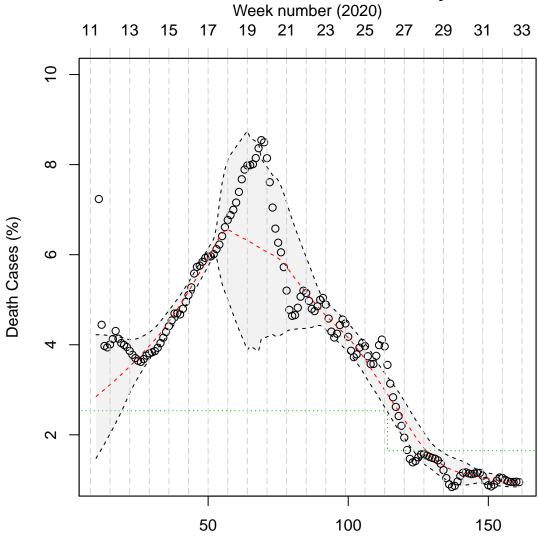
Days after 1/22/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de



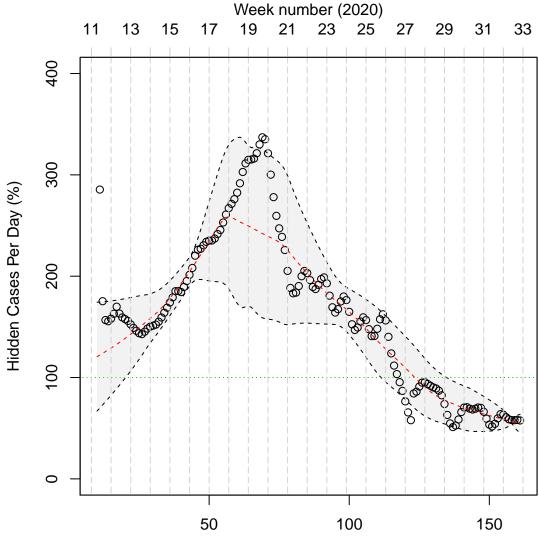
Days after 2/5/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de



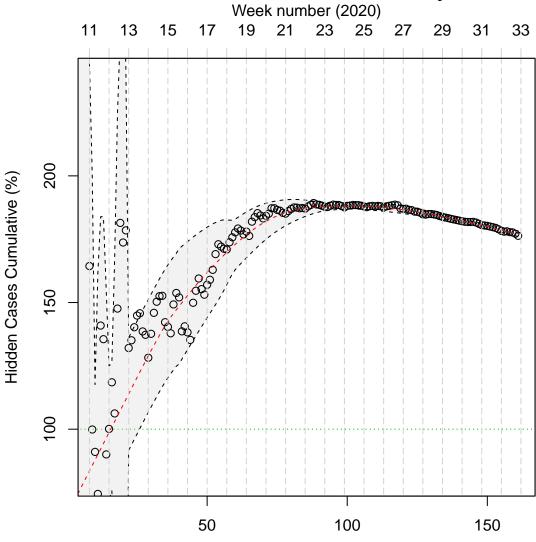
Days after 2/5/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de



Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

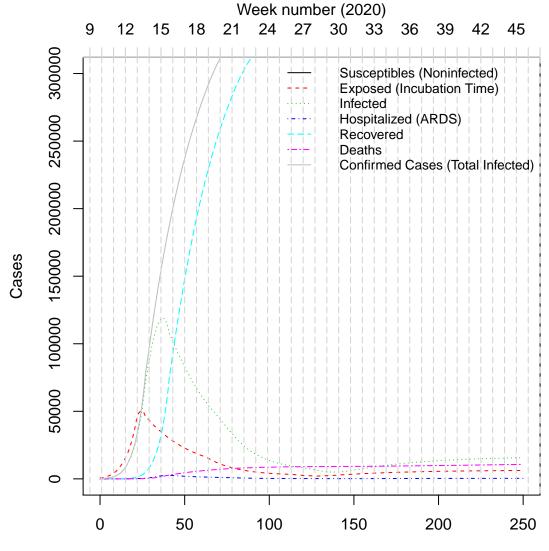


Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de



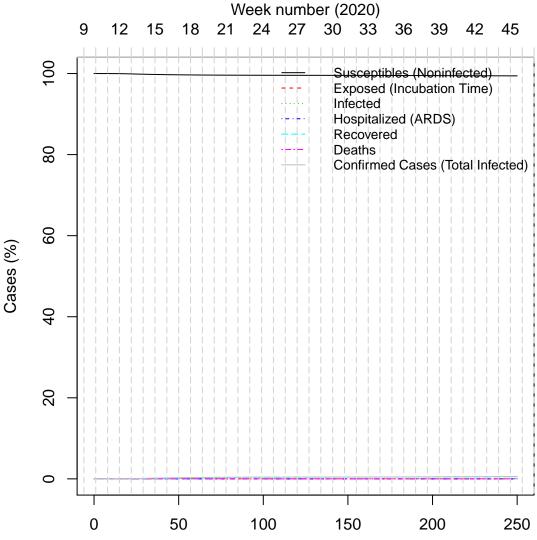
Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

#### Forecast COVID-19 in Germany



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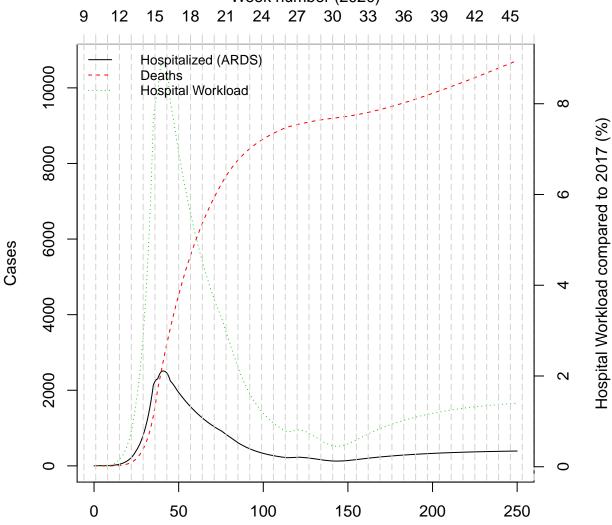
#### Forecast COVID-19 in Germany



Days after 3/1/20

Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

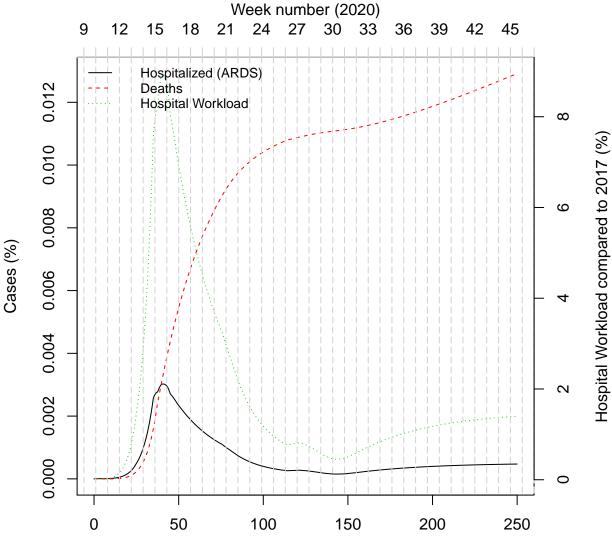
# Forecast COVID-19 in Germany Week number (2020)



Days after 3/1/20

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## Forecast COVID-19 in Germany



Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

### 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 (08/10/2020). 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 (08/10/2020). 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 (%)

Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

## Scenario 1 no social distancing and no lockdown Week number (2020) 45 12 15 18 36 Hospitalized (ARDS) Deaths 2.5 1200 Hospital Workload Hospital Workload compared to 2017 (%) 800 1.5 Cases (%) 900 0.5 0.0

Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

150

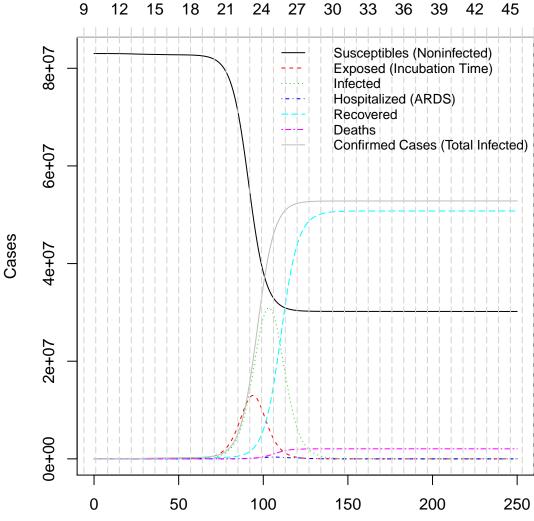
200

250

100

0

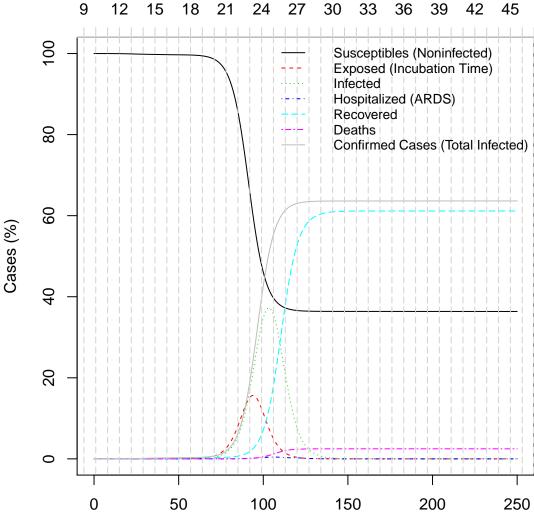
## Scenario 2 exit after day 50 without social distancing Week number (2020)



Days after 3/1/20

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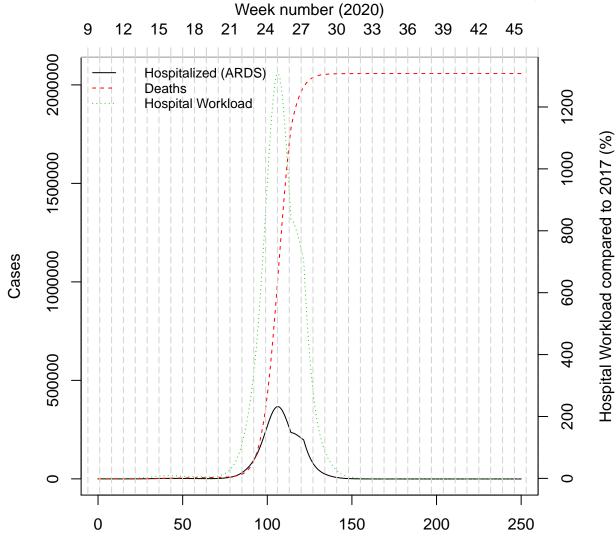
# Scenario 2 exit after day 50 without social distancing Week number (2020)



Days after 3/1/20

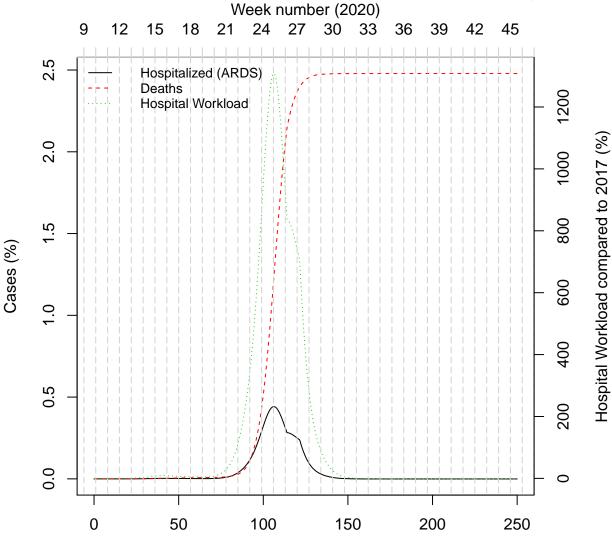
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#### Scenario 2 exit after day 50 without social distancing



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



Days after 3/1/20 Created by Sören Thiering (08/10/2020). 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 0 50 100 150 200 250

Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

#### 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 (08/10/2020). 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 (08/10/2020). 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 Hospital Workload compared to 2017 (%) 1.5 800 Cases (%) 900 0.5 0.0

Days after 3/1/20 Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

150

200

250

100

0

#### Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 19 25 27 29 31 2200000 Hospitalized (ARDS) Deaths 2000000 R0 = 0.4R0 = 0.61800000 R0 = 0.8R0 = 11600000 R0 = 1.2R0 = 1.41400000 R0 = 1.6R0 = 1.8Growth Rate (D<sup>-1</sup>) 1200000 R0 = 2R0 = 2.2Cases 1000000 R0 = 2.4800000 600000 400000 200000 0 0.32 0 50 100 150

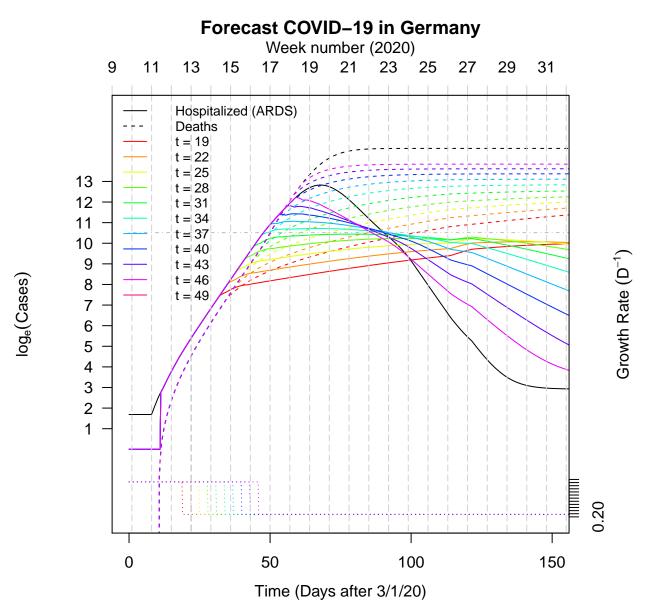
Created by Sören Thiering (08/10/2020). Email: soeren.thiering@hs-anhalt.de

Time (Days after 3/1/20)

#### Forecast COVID-19 in Germany Week number (2020) 9 11 13 15 17 19 25 27 29 31 2200000 Hospitalized (ARDS) Deaths 2000000 t = 19t = 22 1800000 t = 25t = 281600000 t = 31 t = 341400000 t = 37 t = 40Growth Rate $(\mathsf{D}^{-1})$ 1200000 t = 43t = 46Cases 1000000 t = 49800000 600000 400000 200000 0 0.20 150 0 50 100

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Time (Days after 3/1/20)



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