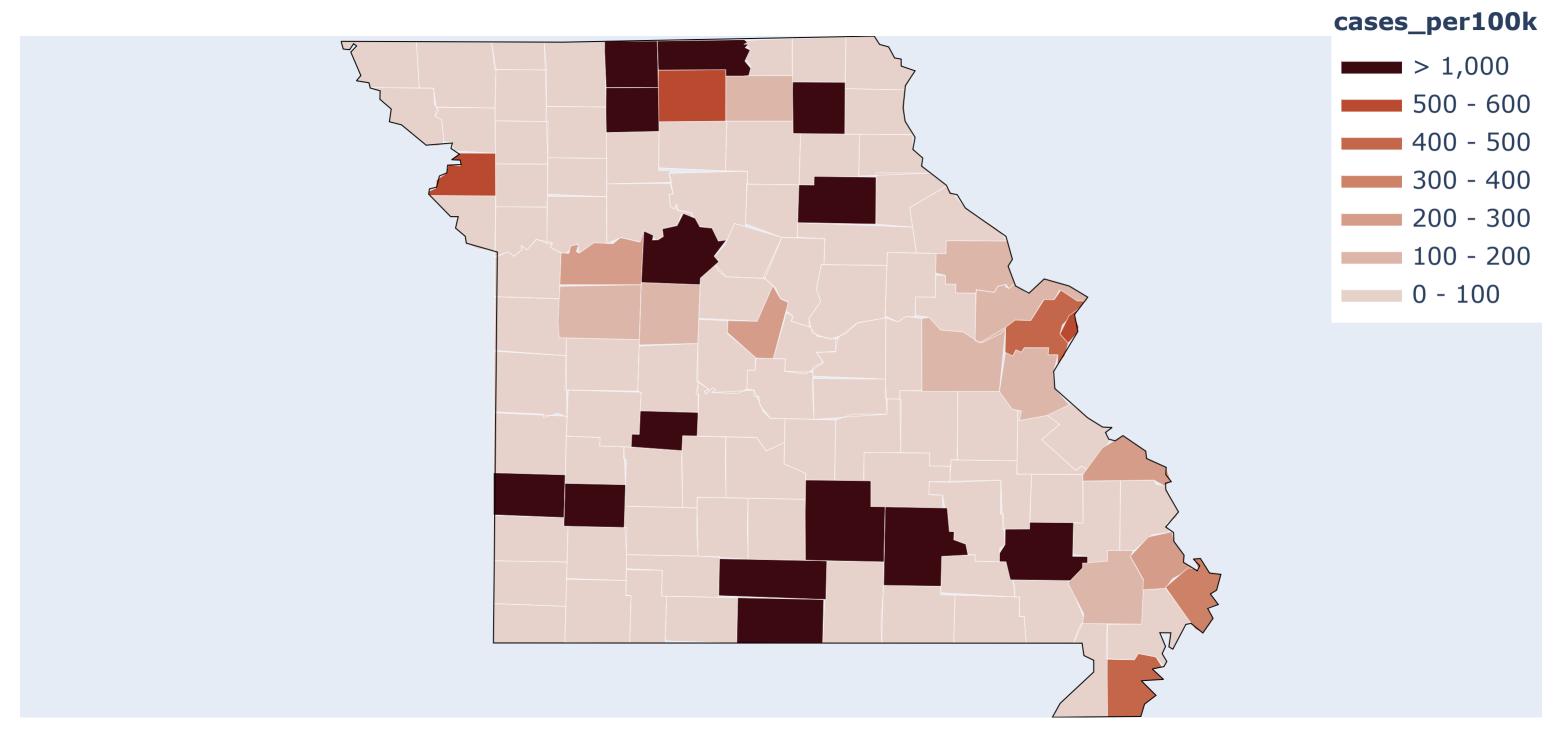
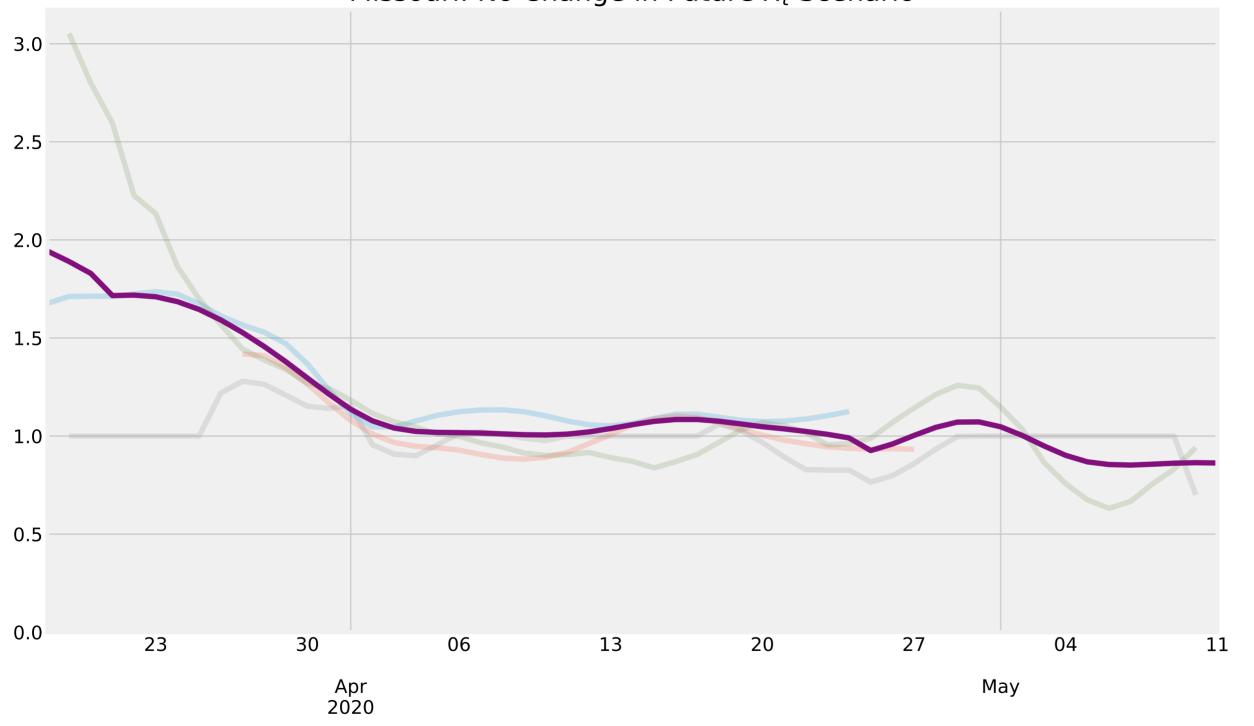
Missouri: COVID-19 Cases Per 100k Residents



Reproduction Rate (R_t) Estimates Missouri: No Change in Future R_t Scenario



rt_deaths_daily
rt_hosp_concur
rt_hosp_admits
rt_cases_daily
rt_pos_test_share_daily
rt_joint_est

Parameters Used

 $D_{incubation}: 3.0$ $D_{infectious}: 4.0$

 $D_{tohospital}$: 7.0 $D_{inhospital}$: 11.0

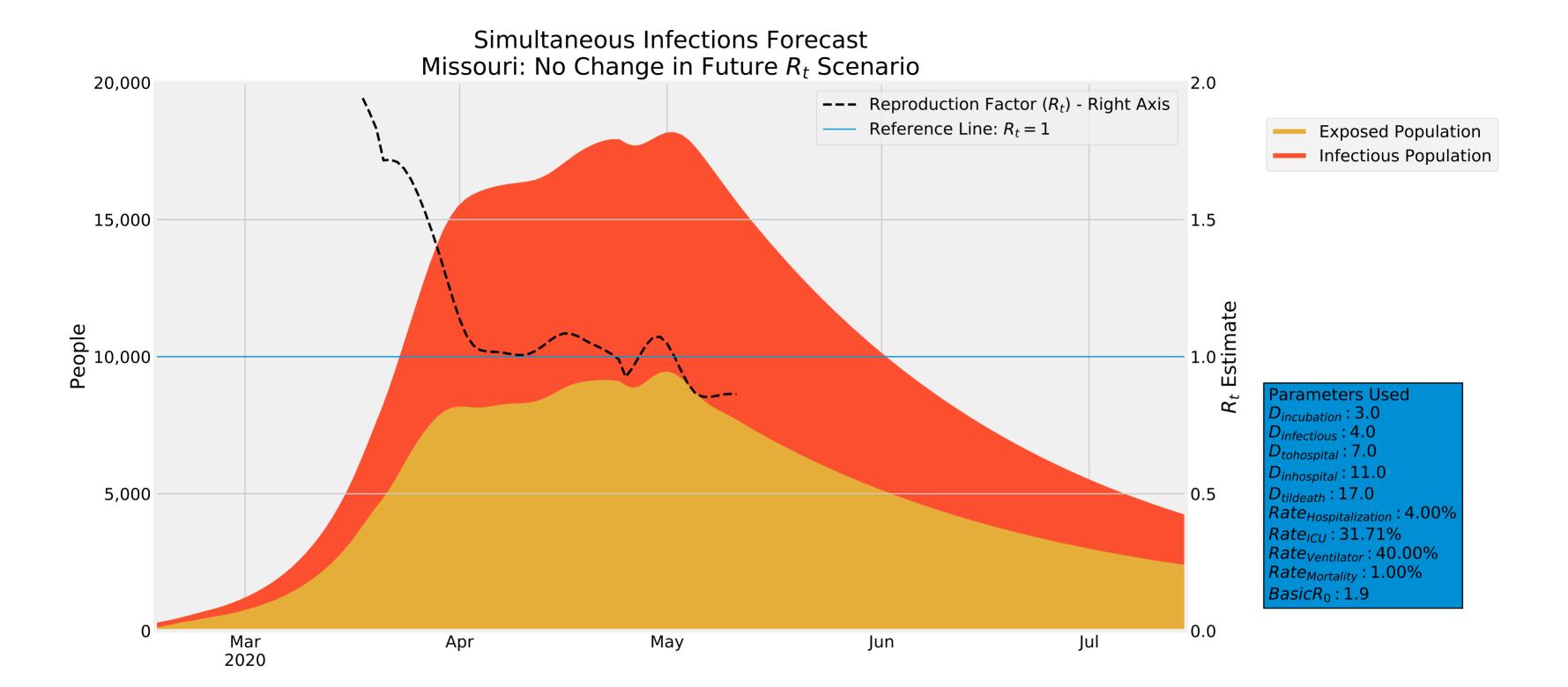
 $D_{tildeath}: 17.0$

 $Rate_{Hospitalization}: 4.00\%$

 $Rate_{ICU}$: 31.71% $Rate_{Ventilator}$: 40.00% $Rate_{Mortality}$: 1.00%

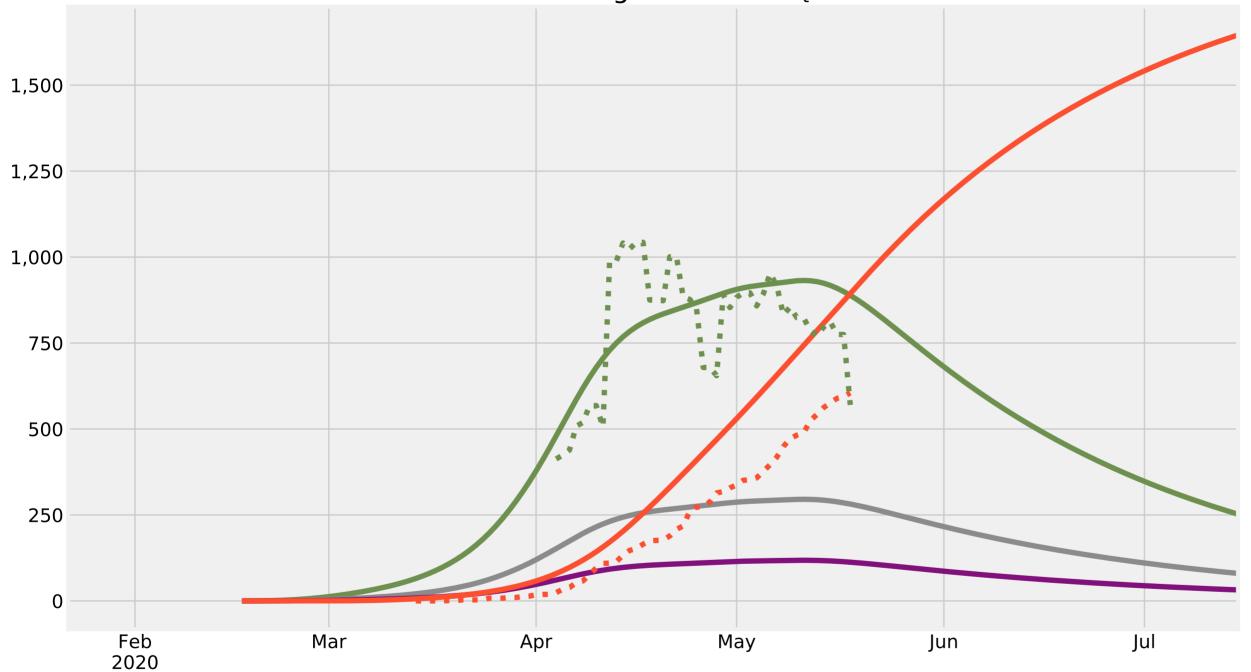
 $BasicR_0: 1.9$

Author: Michael Donnelly (twtr: @donnellymjd)



Author: Michael Donnelly (twtr: @donnellymjd) Chart created on 19 May 2020

Hospitalization and Deaths Forecast Missouri: No Change in Future R_t Scenario



Forecast Concurrent Hospitalizations

Forecast ICU Cases

Forecast Ventilations

Forecast Cumulative Deaths

Reported Concurrent Hospitalizations

Reported Total Deaths

Parameters Used

 $D_{incubation}: 3.0$ $D_{infectious}: 4.0$ $D_{tohospital}: 7.0$ $D_{inhospital}: 11.0$

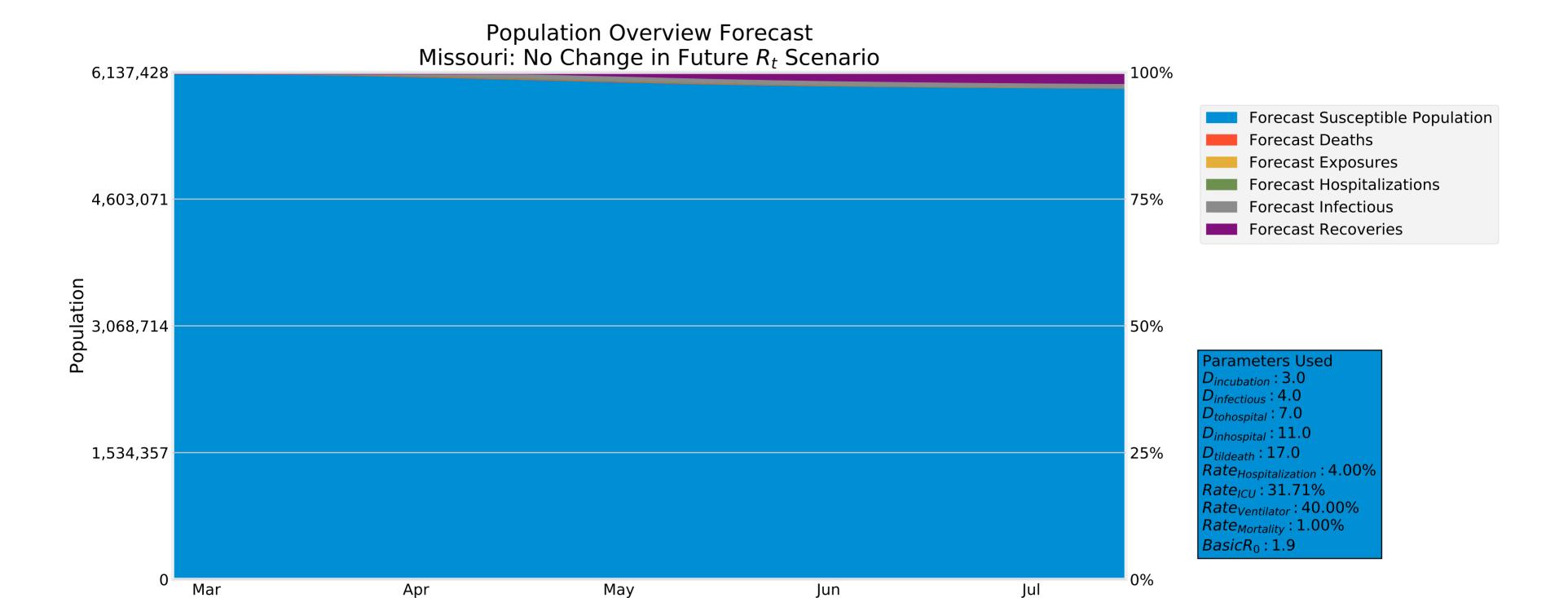
 $D_{tildeath}: 17.0$

Rate_{Hospitalization}: 4.00%

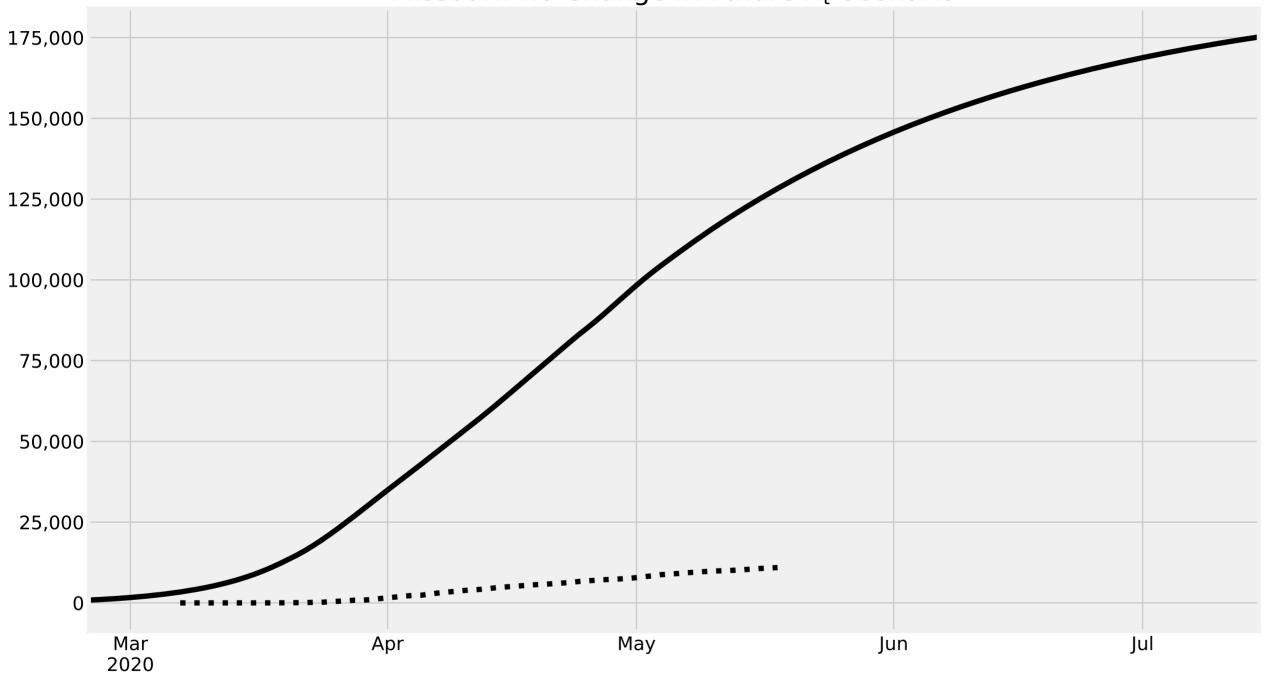
 $Rate_{ICU}$: 31.71% $Rate_{Ventilator}$: 40.00% $Rate_{Mortality}$: 1.00%

 $BasicR_0: 1.9$

Author: Michael Donnelly (twtr: @donnellymjd)



Cumulative Infections Forecast Missouri: No Change in Future R_t Scenario



Forecast Cumulative Infections

Reported Cumulative Infections

Parameters Used

 $D_{incubation}$: 3.0 $D_{infectious}$: 4.0 $D_{tohospital}$: 7.0

D_{inhospital}: 11.0

 $D_{tildeath}$: 17.0

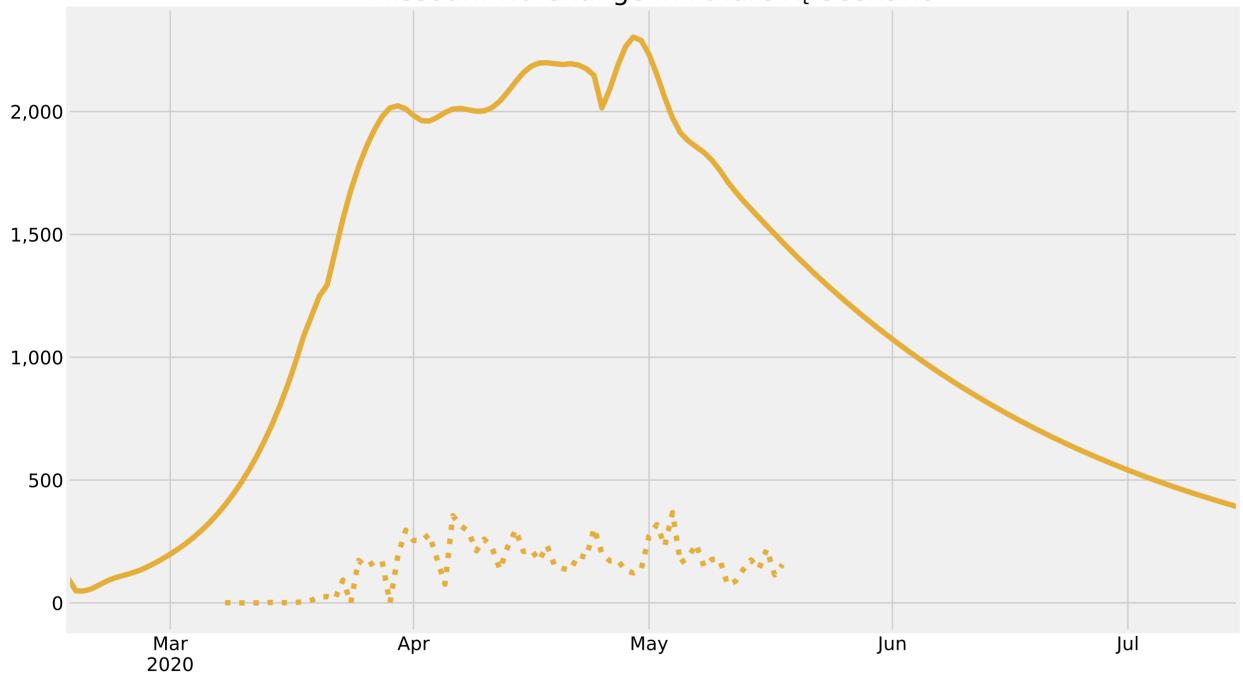
 $Rate_{Hospitalization}: 4.00\%$

Rate_{ICU}: 31.71% Rate_{Ventilator}: 40.00% Rate_{Mortality}: 1.00%

 $BasicR_0: \hat{1}.9$

Author: Michael Donnelly (twtr: @donnellymjd) Chart created on 19 May 2020

Daily Exposures Forecast Missouri: No Change in Future R_t Scenario



Forecast Daily New Infections (Exposed) Reported Daily New Infections (Exposed)

Parameters Used

 $D_{incubation}$: 3.0 $D_{infectious}$: 4.0 $D_{tohospital}$: 7.0

D_{inhospital}: 11.0 $D_{tildeath}: 17.0$

Rate_{Hospitalization}: 4.00%

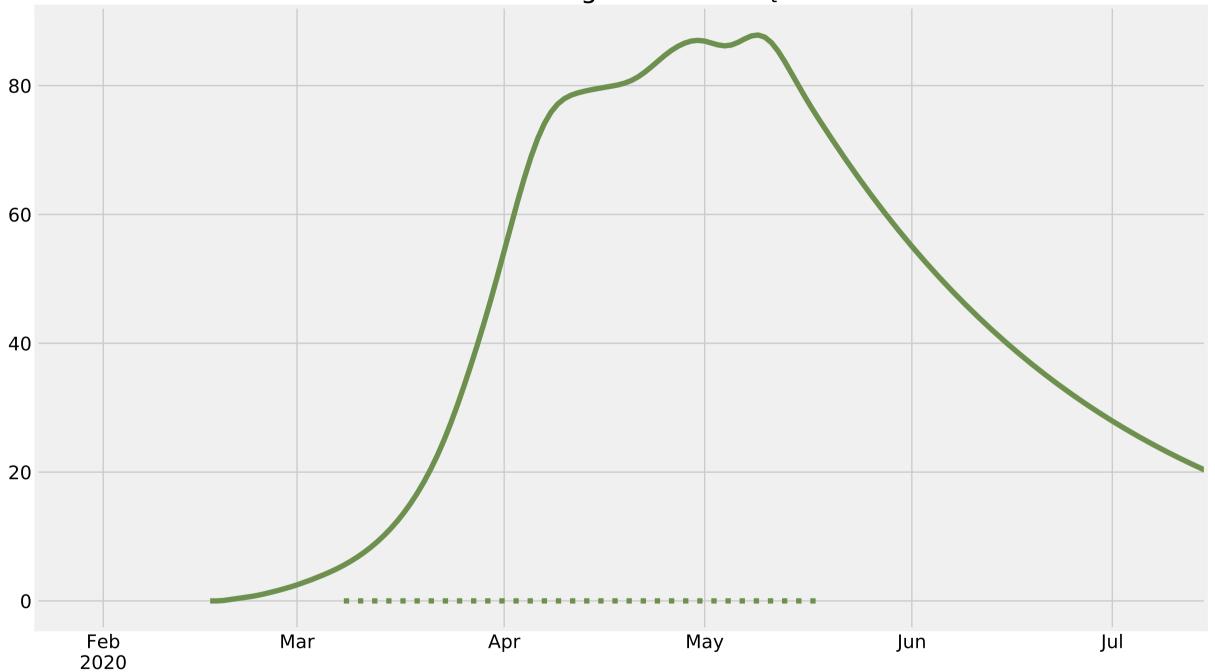
Rate_{ICU}: 31.71%

Rate_{Ventilator}: 40.00% Rate_{Mortality}: 1.00%

 $BasicR_0: 1.9$

Author: Michael Donnelly (twtr: @donnellymjd)

Daily Hospital Admissions Forecast Missouri: No Change in Future R_t Scenario



Forecast Hospital AdmissionsReported Hospital Admissions

Parameters Used

 $D_{incubation}: 3.0$

 $D_{infectious}$: 4.0 $D_{tohospital}$: 7.0

D_{inhospital}: 11.0

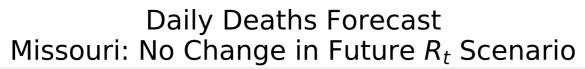
 $D_{tildeath}: 17.0$

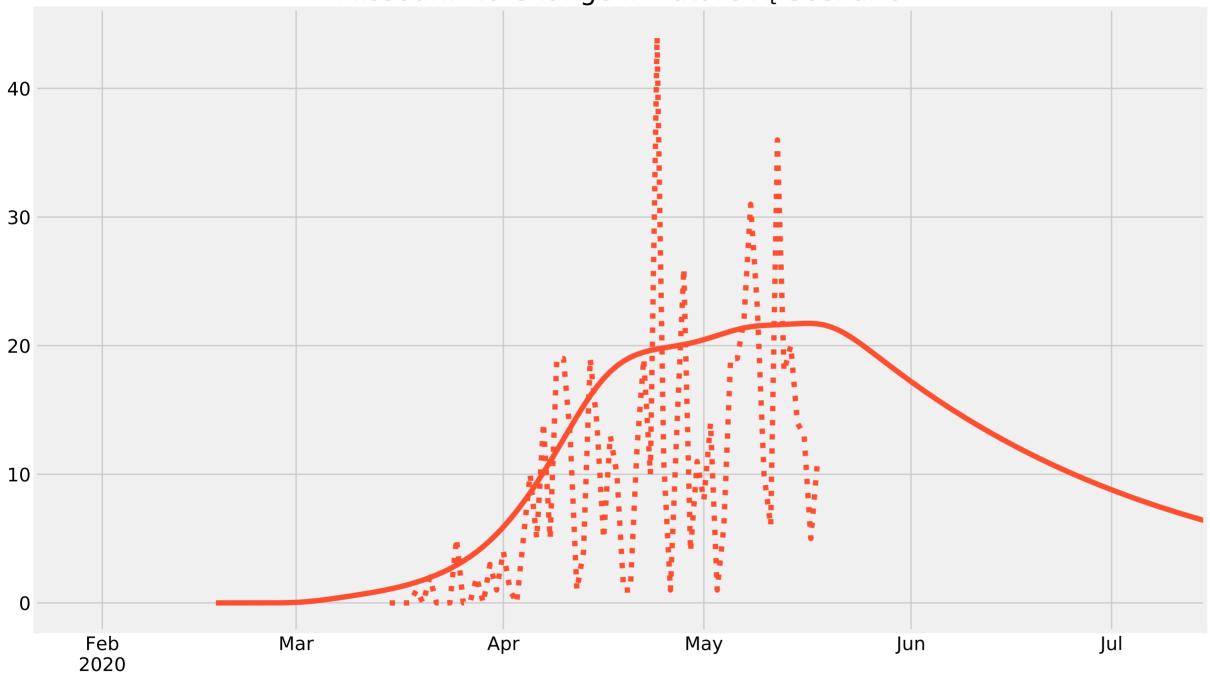
Rate_{Hospitalization}: 4.00%

 $Rate_{ICU}$: 31.71% $Rate_{Ventilator}$: 40.00% $Rate_{Mortality}$: 1.00%

 $BasicR_0: 1.9$

Author: Michael Donnelly (twtr: @donnellymjd)





Forecast Daily Deaths • • • Reported Daily Deaths

Parameters Used

 $D_{incubation}: 3.0$

 $D_{infectious}$: 4.0 $D_{tohospital}$: 7.0

D_{inhospital}: 11.0

 $D_{tildeath}: 17.0$

Rate_{Hospitalization}: 4.00%

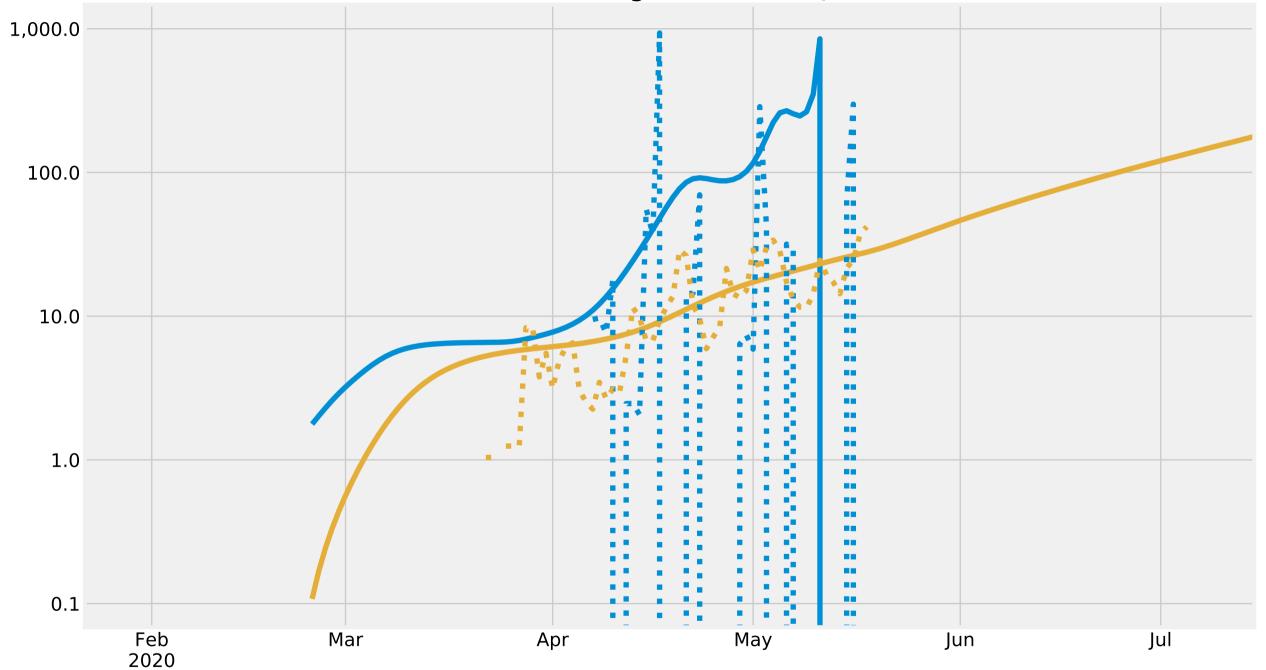
Rate_{ICU}: 31.71%

Rate_{Ventilator}: 40.00% Rate_{Mortality}: 1.00%

 $BasicR_0: 1.9$

Author: Michael Donnelly (twtr: @donnellymjd) Chart created on 19 May 2020

Doubling Rate Forecast Missouri: No Change in Future R_t Scenario



hospitalized

deaths

Reported Concurrent Hospitalizations

Reported Total Deaths

Parameters Used

 $D_{incubation}: 3.0$ $D_{infectious}: 4.0$ $D_{tohospital}: 7.0$ $D_{inhospital}: 11.0$

 $D_{tildeath}: 17.0$

 $Rate_{Hospitalization}: 4.00\%$ $Rate_{ICU}: 31.71\%$ $Rate_{Ventilator}: 40.00\%$ $Rate_{Mortality}: 1.00\%$

 $BasicR_0: 1.9$

Author: Michael Donnelly (twtr: @donnellymjd)