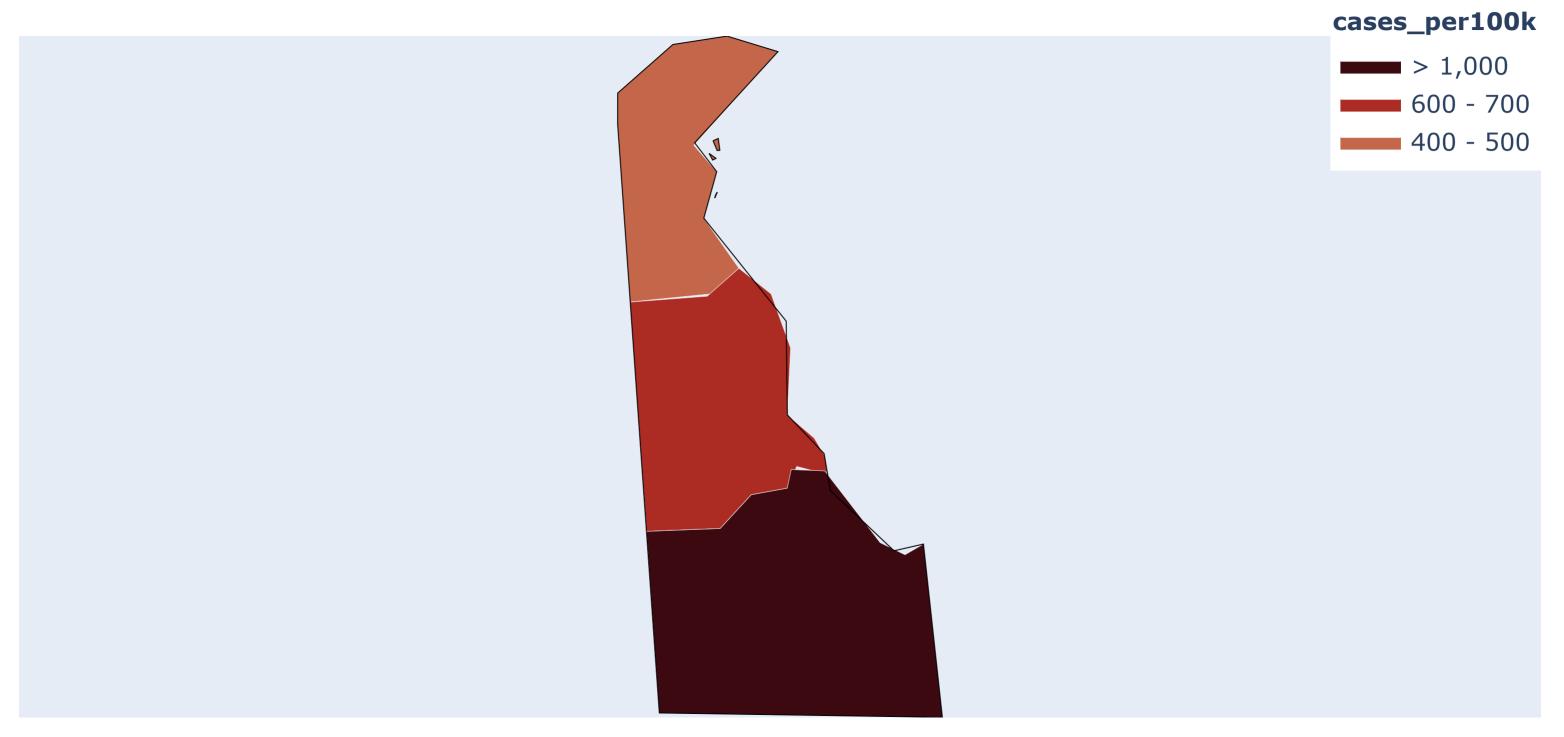
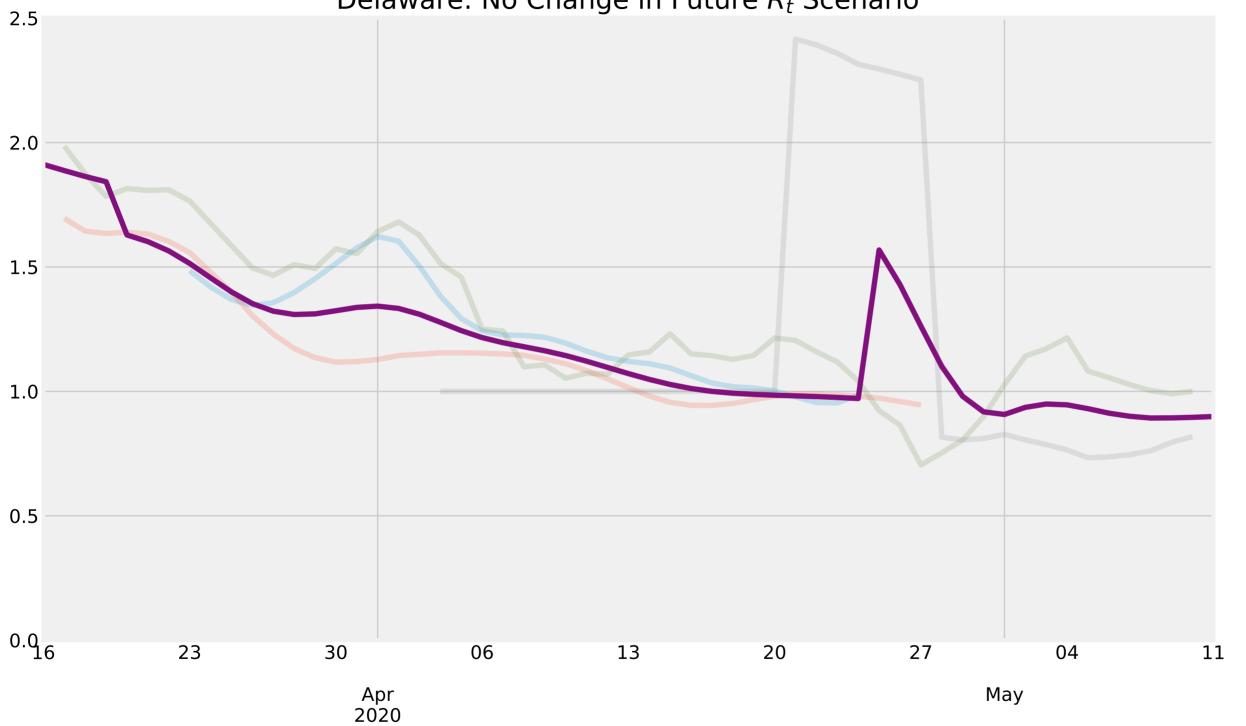
### Delaware: COVID-19 Cases Per 100k Residents



### Reproduction Rate $(R_t)$ Estimates Delaware: 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

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

 $D_{inhospital}:11.0$ 

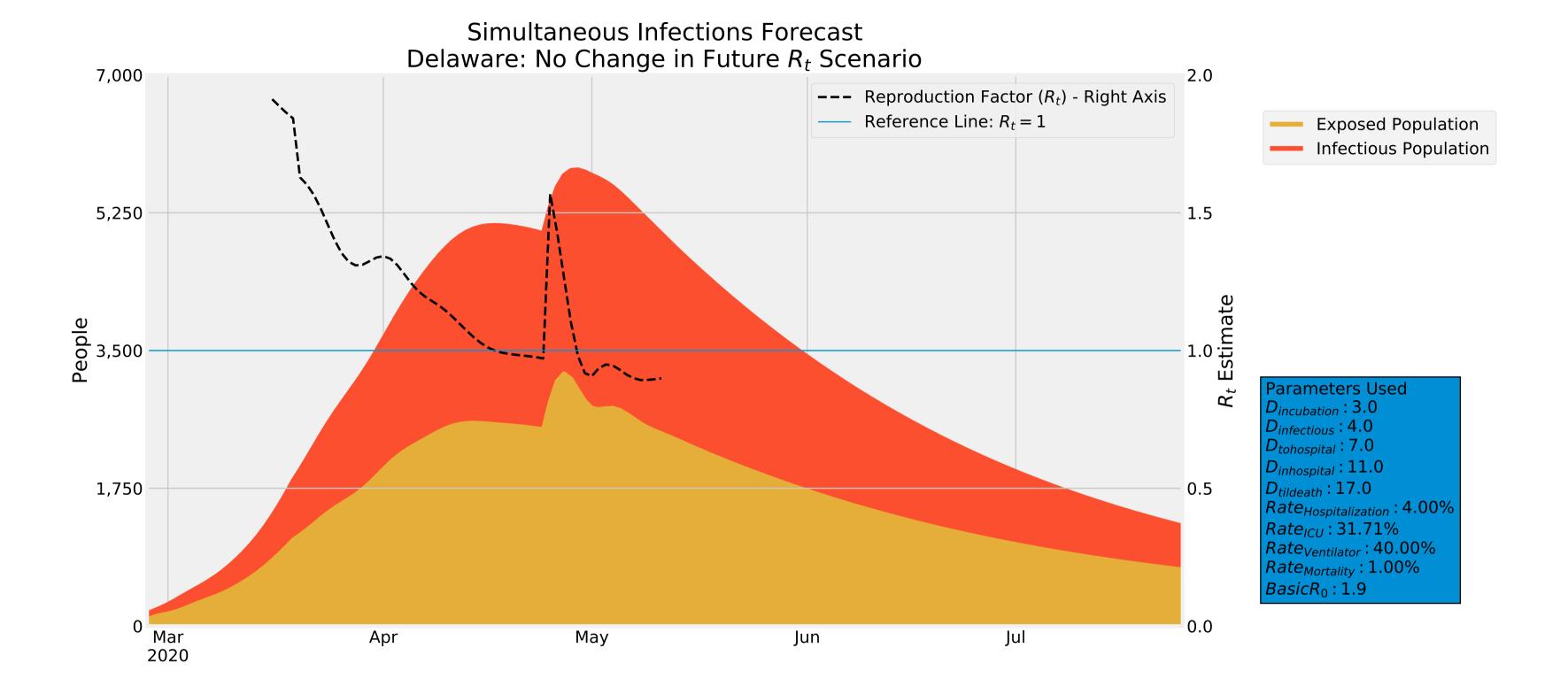
 $D_{tildeath}: 17.0$ 

 $Rate_{Hospitalization}: 4.00\%$ 

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

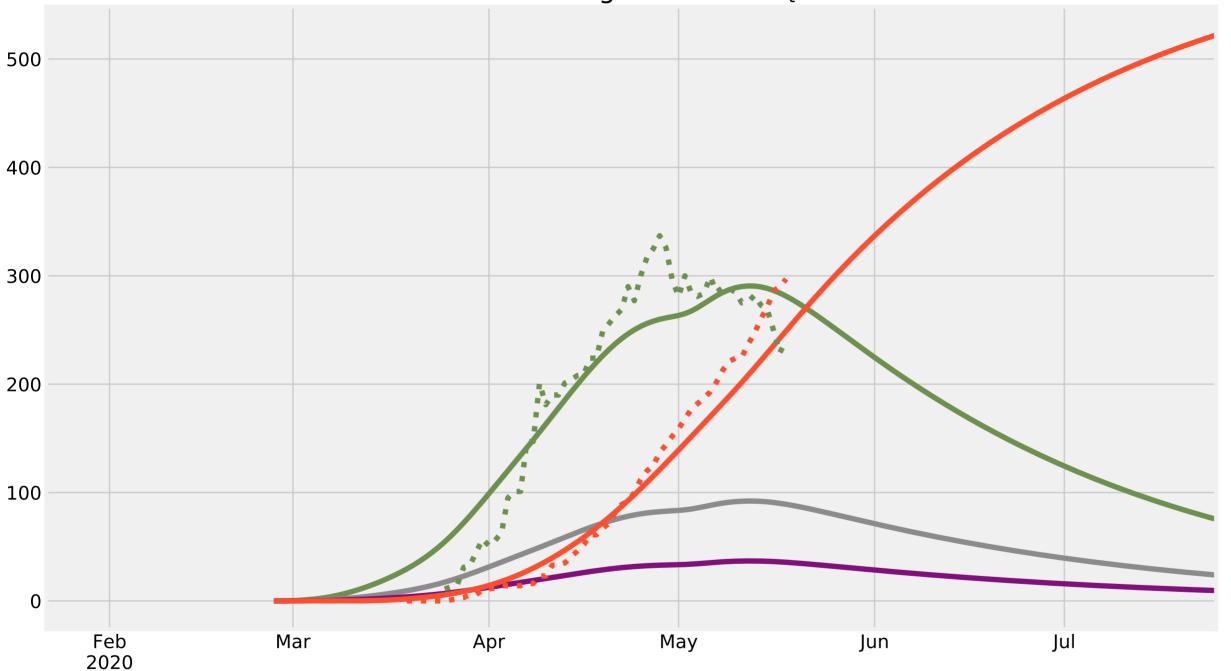
 $BasicR_0: 1.9$ 

Author: Michael Donnelly (twtr: @donnellymjd)



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### Hospitalization and Deaths Forecast Delaware: 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<sub>inhospital</sub>: 11.0

 $D_{tildeath}: 17.0$ 

 $Rate_{Hospitalization}: 4.00\%$ 

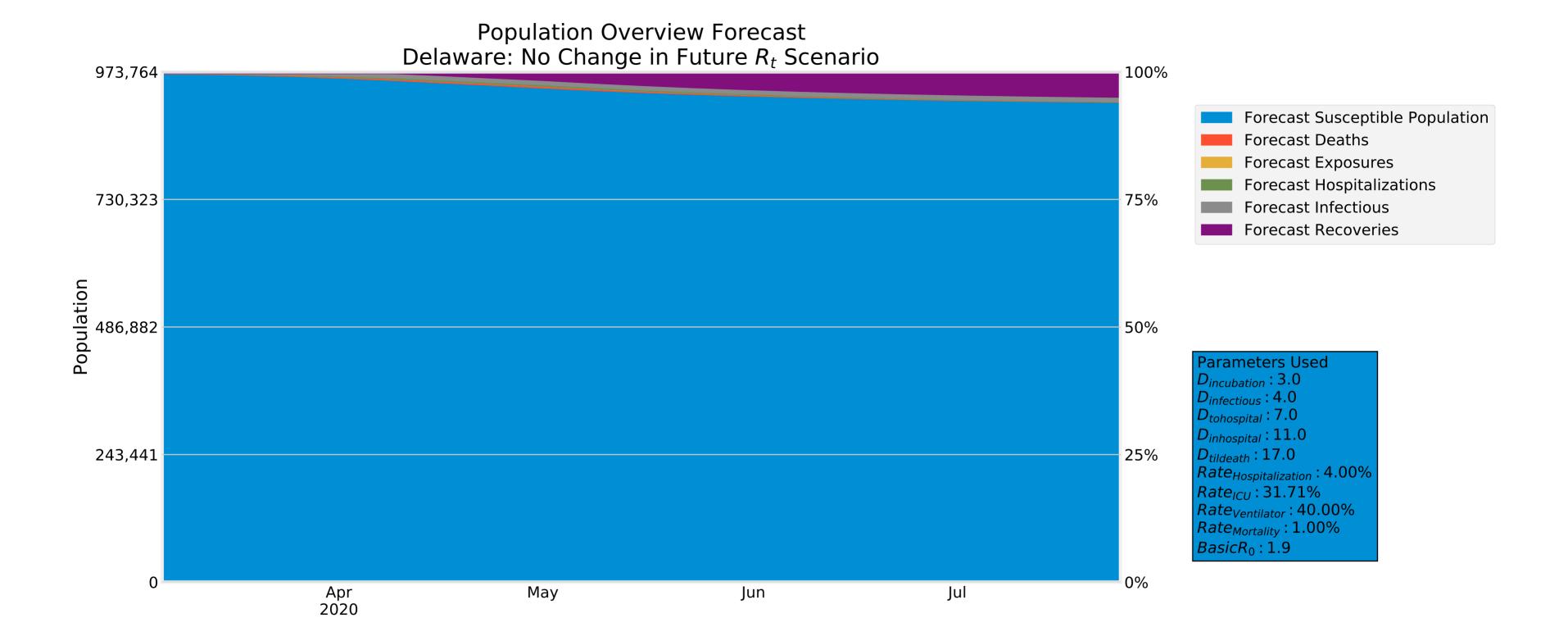
Rate<sub>ICU</sub>: 31.71%

Rate<sub>Ventilator</sub>: 40.00%

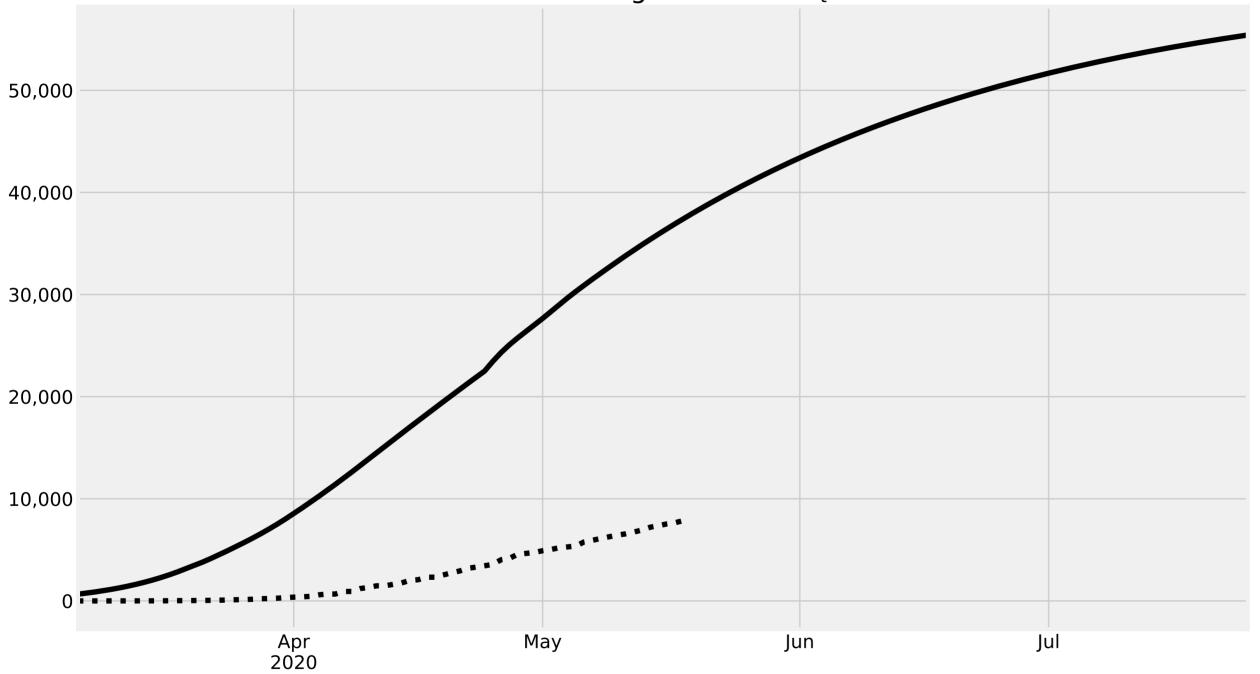
Rate<sub>Mortality</sub>: 1.00%

 $BasicR_0: 1.9$ 

Author: Michael Donnelly (twtr: @donnellymjd)



#### **Cumulative Infections Forecast** Delaware: 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<sub>inhospital</sub>: 11.0

 $D_{tildeath}$ : 17.0

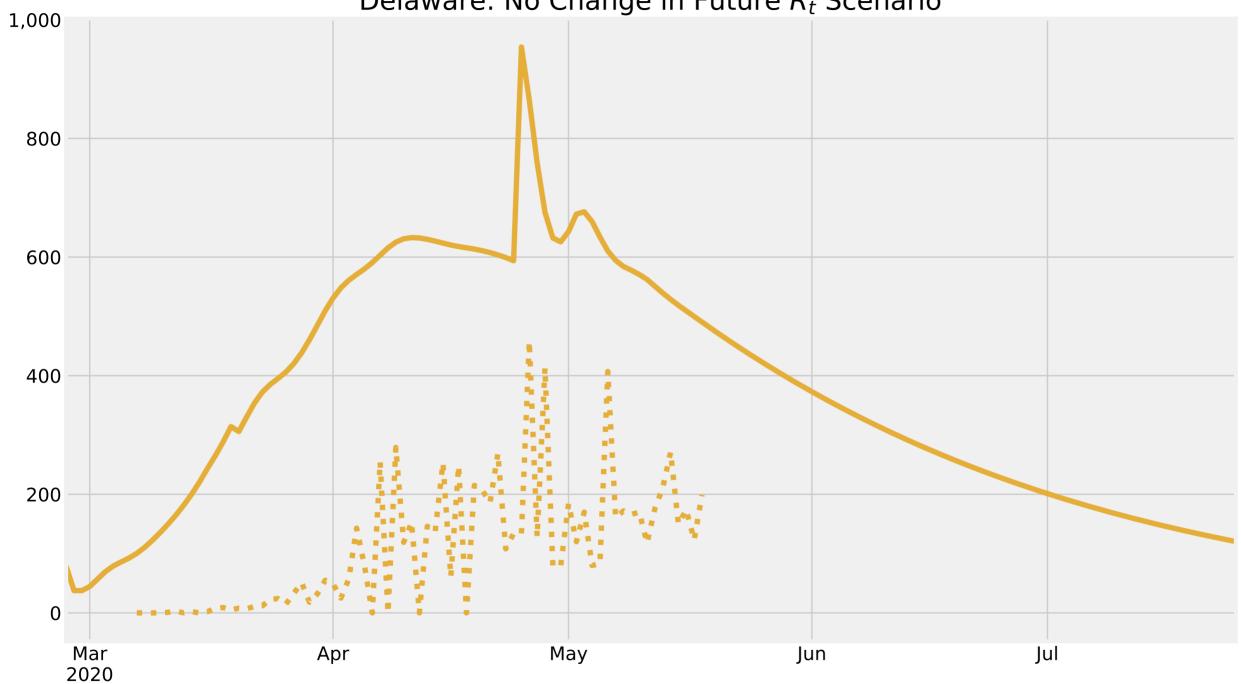
Rate<sub>Hospitalization</sub>: 4.00%

Rate<sub>ICU</sub>: 31.71%

Rate<sub>Ventilator</sub>: 40.00% Rate<sub>Mortality</sub>: 1.00%

 $BasicR_0: 1.9$ 

Daily Exposures Forecast Delaware: 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<sub>inhospital</sub>: 11.0  $D_{tildeath}: 17.0$ 

Rate<sub>Hospitalization</sub>: 4.00%

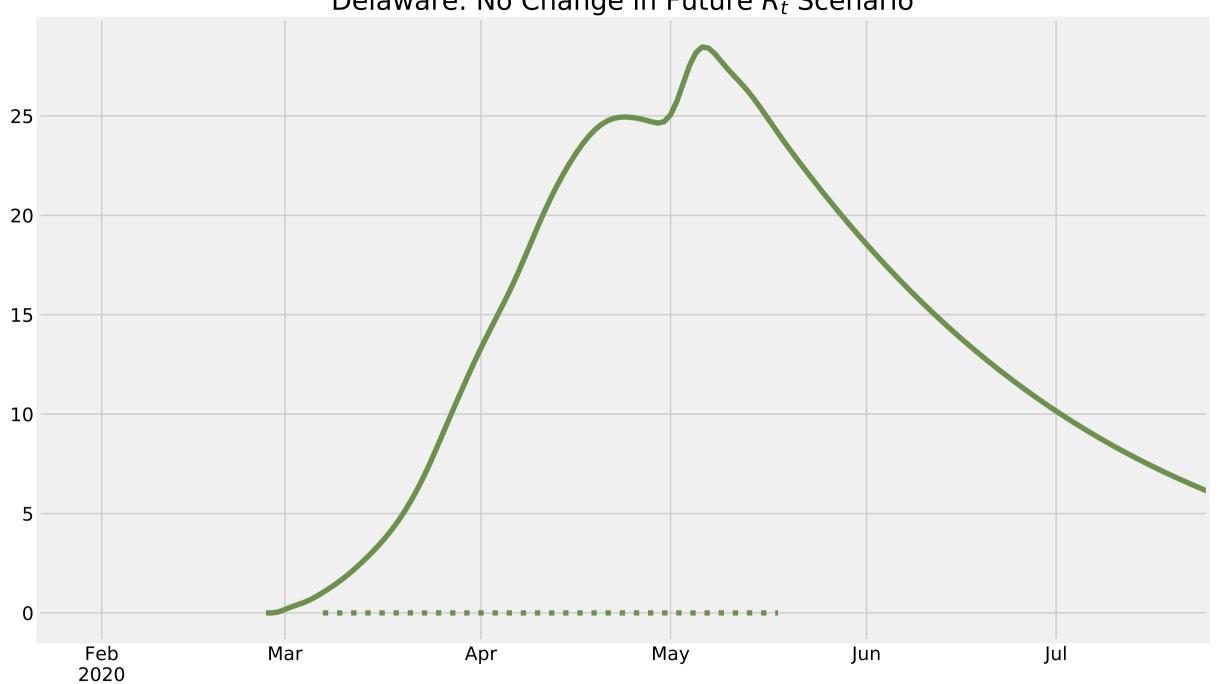
*Rate<sub>ICU</sub>*: 31.71%

Rate<sub>Ventilator</sub>: 40.00%

Rate<sub>Mortality</sub>: 1.00%

 $BasicR_0: 1.9$ 

# Daily Hospital Admissions Forecast Delaware: 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

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

 $D_{tildeath}: 17.0$ 

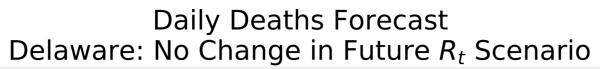
Rate<sub>Hospitalization</sub>: 4.00%

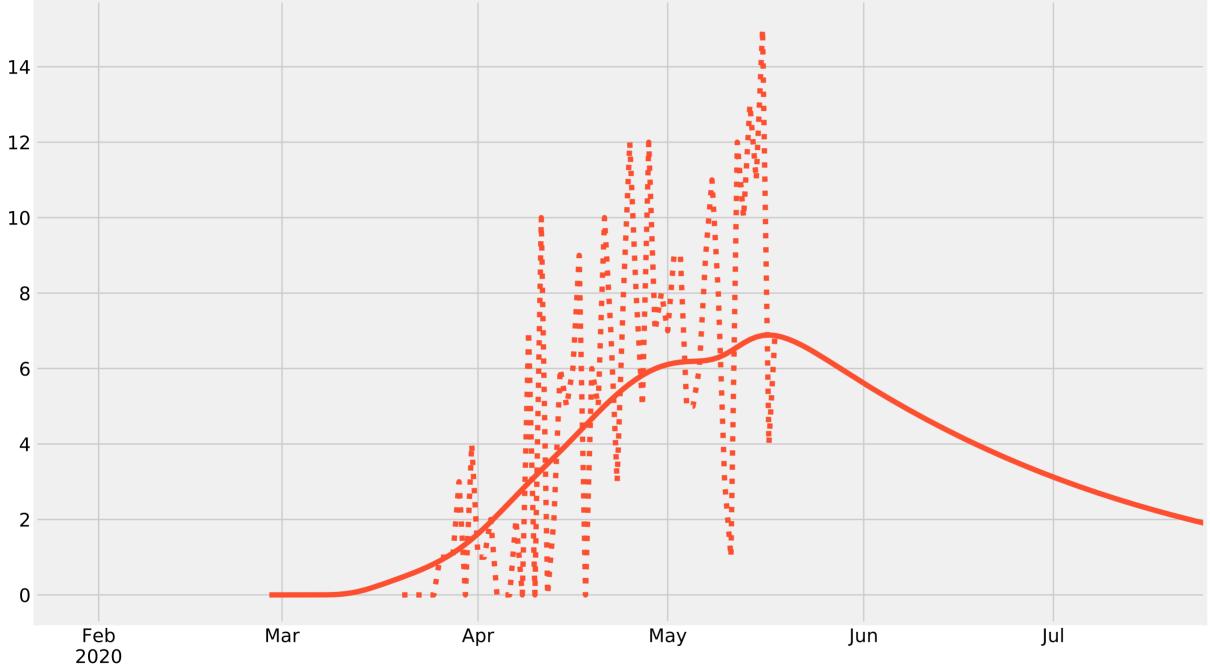
Rate<sub>ICU</sub>: 31.71%

 $Rate_{Ventilator}$ : 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<sub>inhospital</sub>: 11.0

 $D_{tildeath}: 17.0$ 

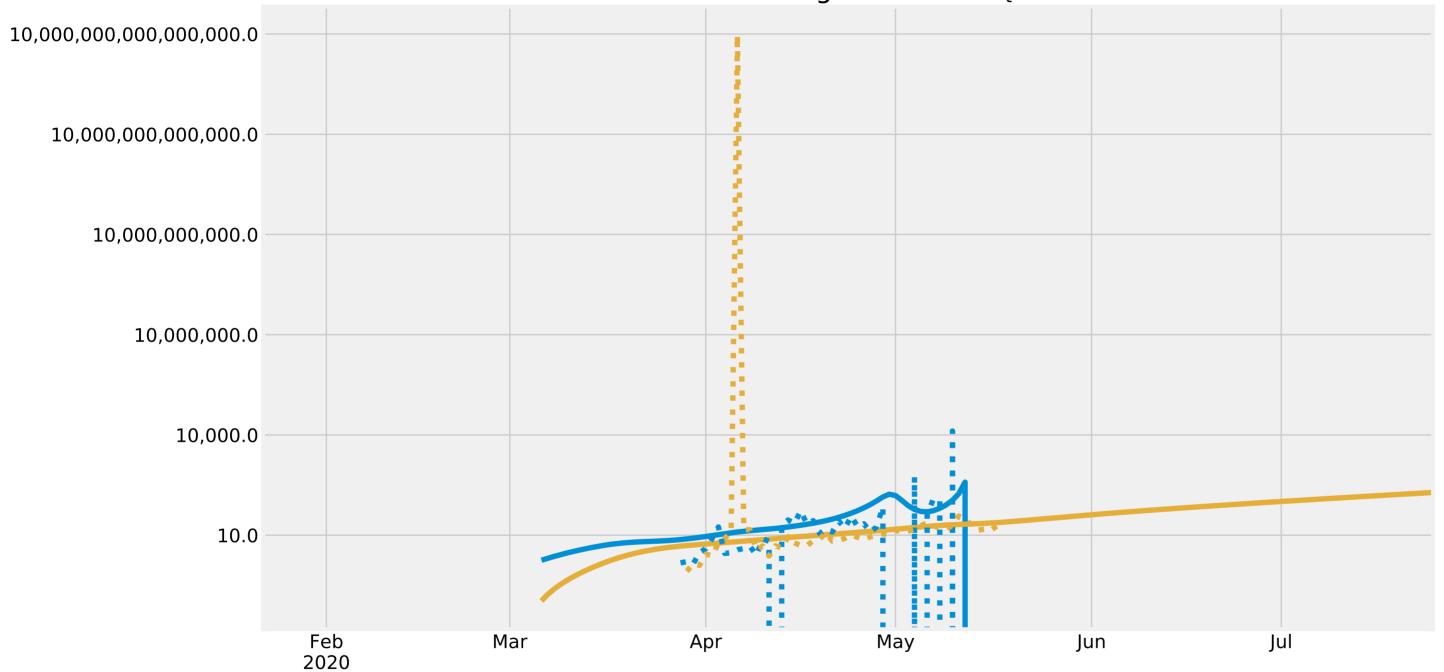
Rate<sub>Hospitalization</sub>: 4.00%

Rate<sub>ICU</sub>: 31.71%

Rate<sub>Ventilator</sub>: 40.00% Rate<sub>Mortality</sub>: 1.00%

 $BasicR_0: 1.9$ 

# Doubling Rate Forecast Delaware: 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<sub>inhospital</sub>: 11.0

 $D_{tildeath}: 17.0$ 

Rate<sub>Hospitalization</sub>: 4.00%

*Rate<sub>ICU</sub>*: 31.71%

Rate<sub>Ventilator</sub>: 40.00%

Rate<sub>Mortality</sub>: 1.00%

 $BasicR_0: 1.9$