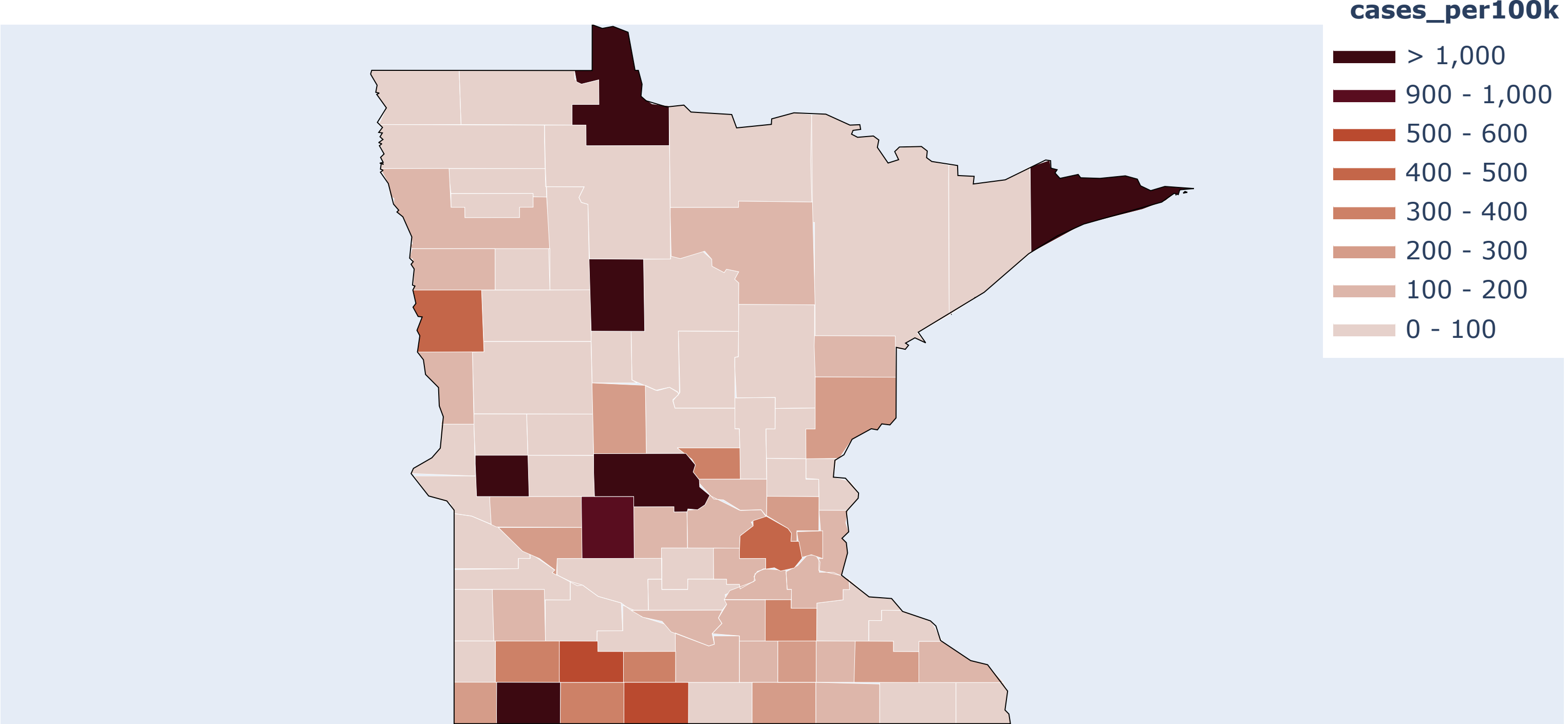
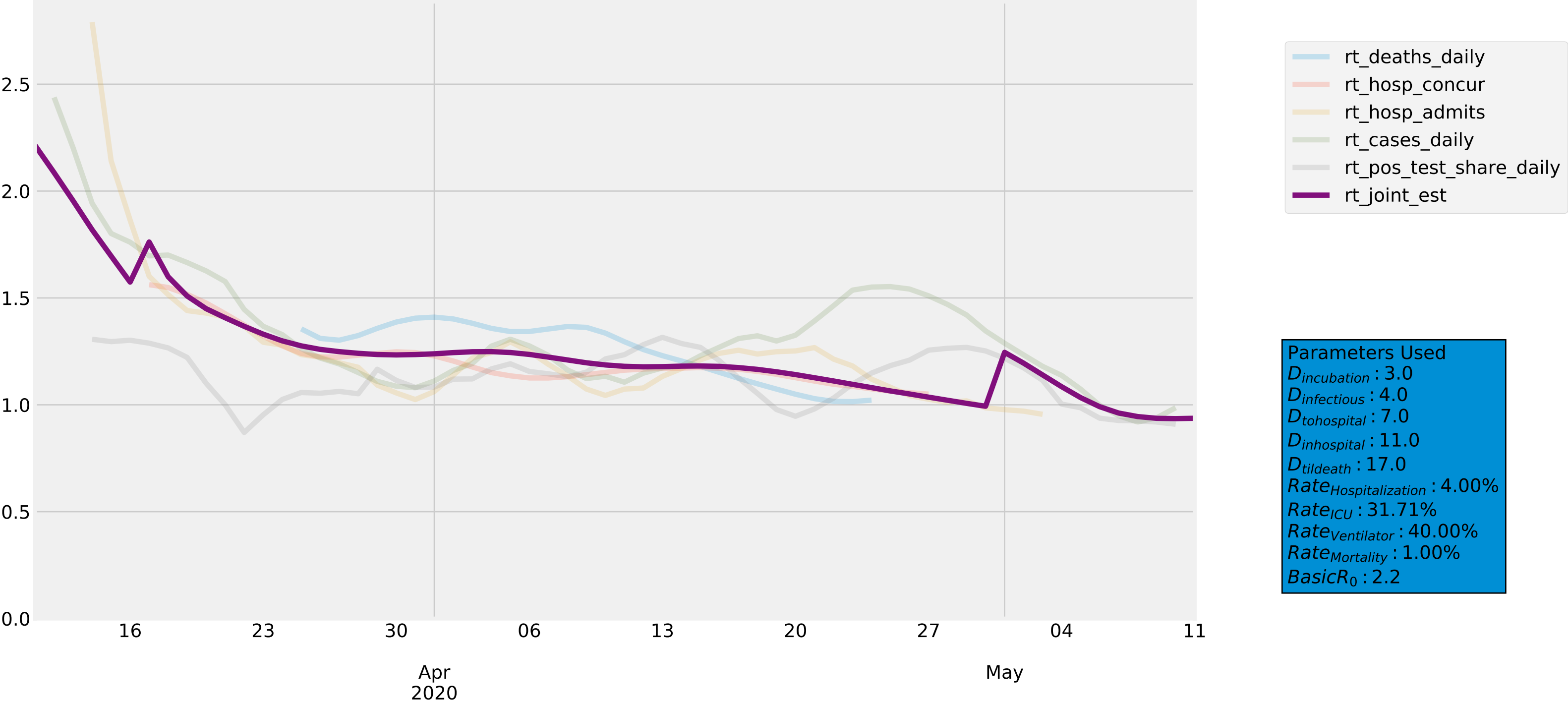


# Minnesota: COVID-19 Cases Per 100k Residents



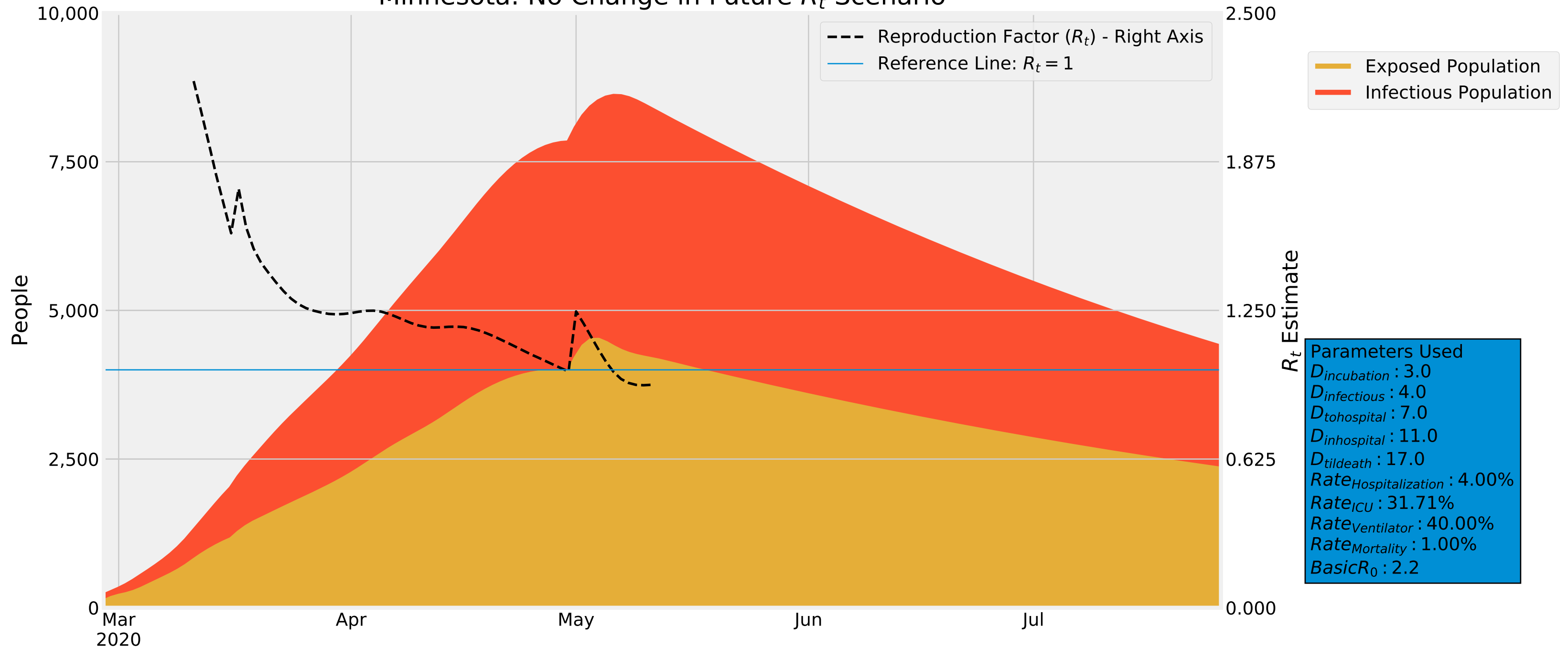
Reproduction Rate ( $R_t$ ) Estimates  
Minnesota: No Change in Future  $R_t$  Scenario



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

# Simultaneous Infections Forecast

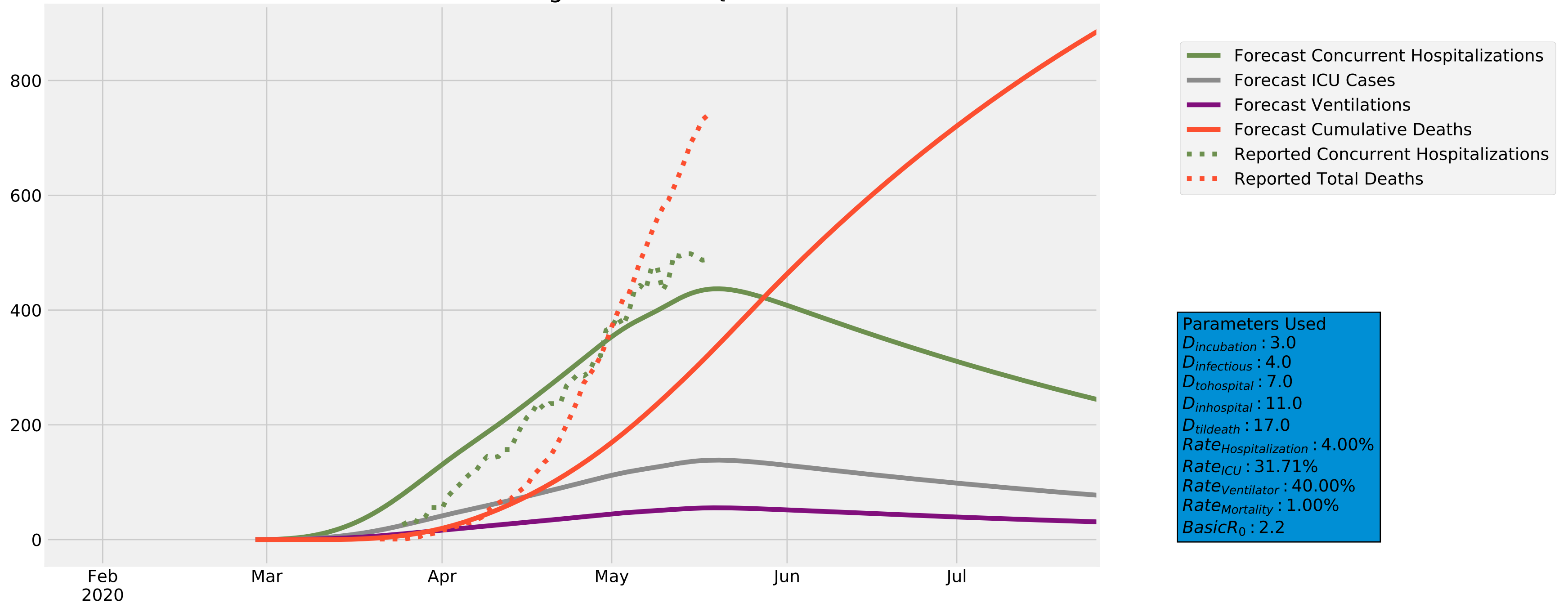
## Minnesota: No Change in Future $R_t$ Scenario



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

# Hospitalization and Deaths Forecast

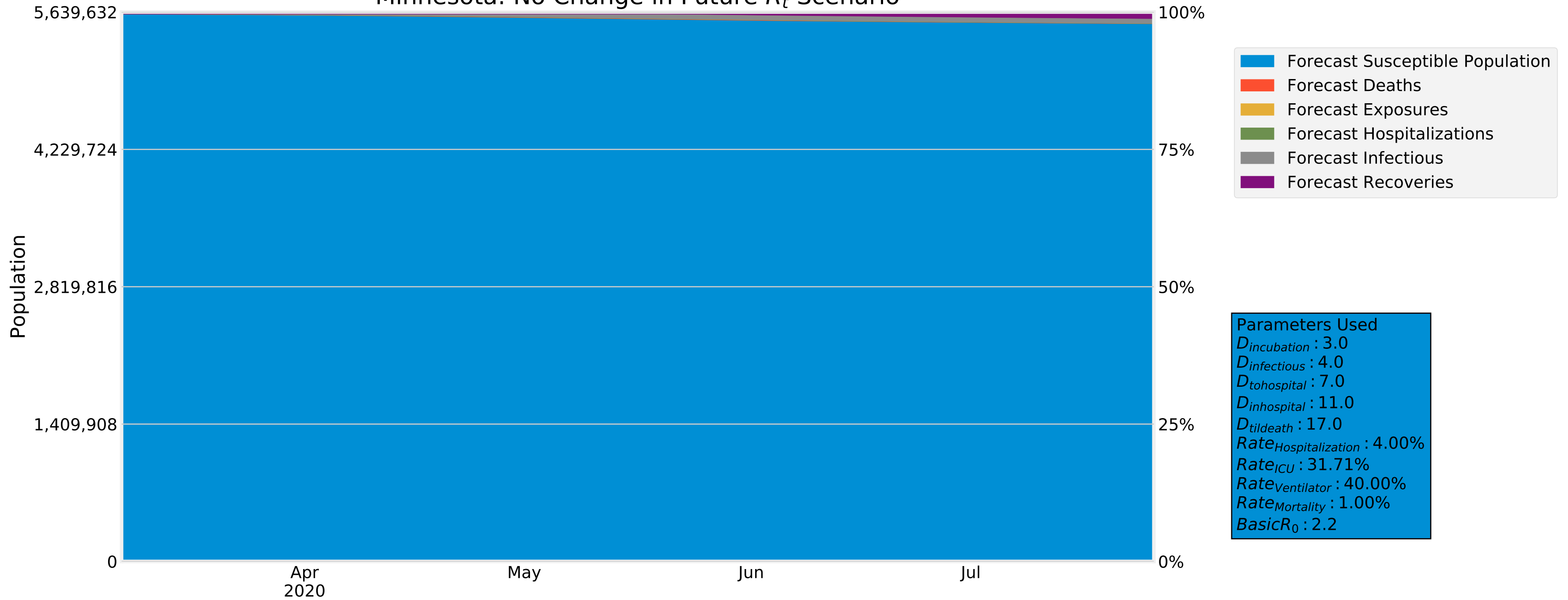
## Minnesota: No Change in Future $R_t$ Scenario



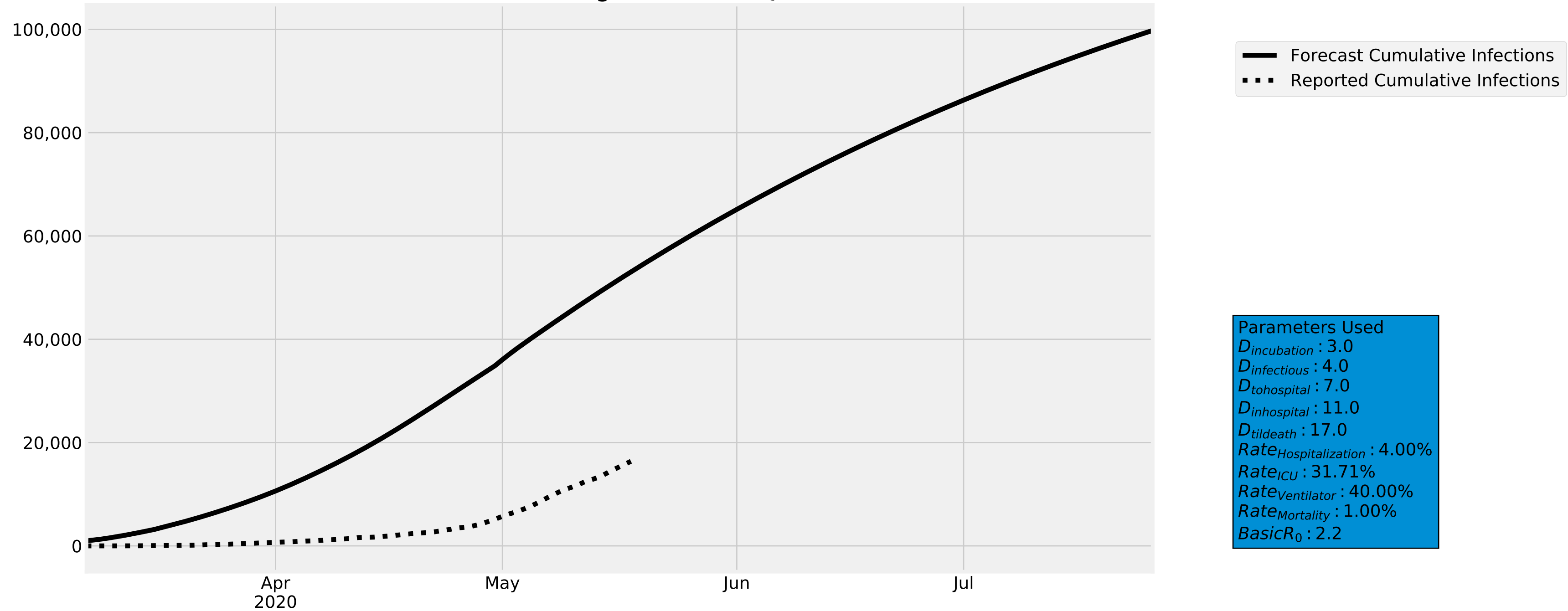
Author: Michael Donnelly (twtr: @donnellymjd)  
Chart created on 19 May 2020

# Population Overview Forecast

## Minnesota: No Change in Future $R_t$ Scenario

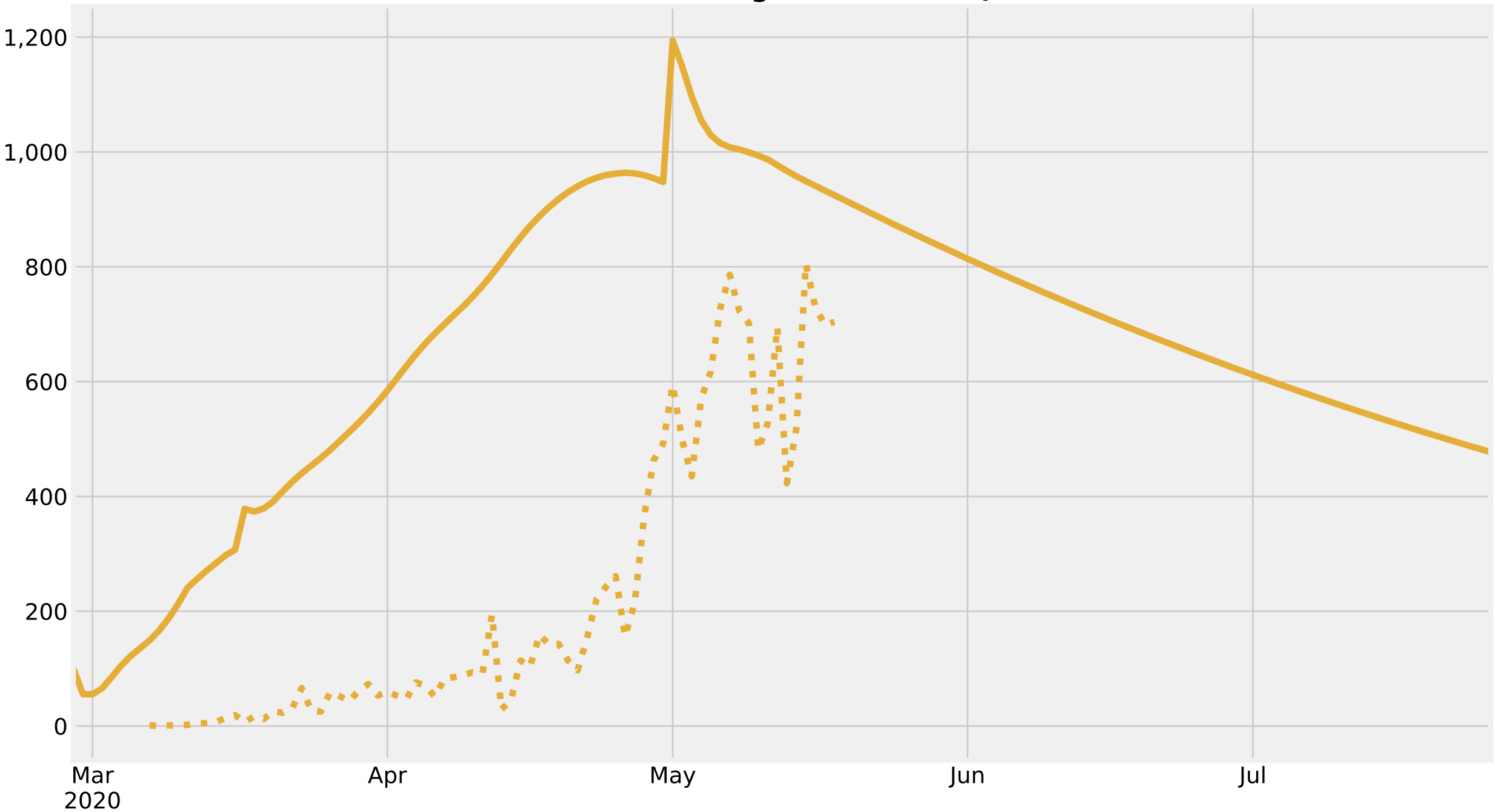


Cumulative Infections Forecast  
Minnesota: No Change in Future  $R_t$  Scenario



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%  
 $BasicR_0$  : 2.2

Daily Exposures Forecast  
Minnesota: No Change in Future  $R_t$  Scenario



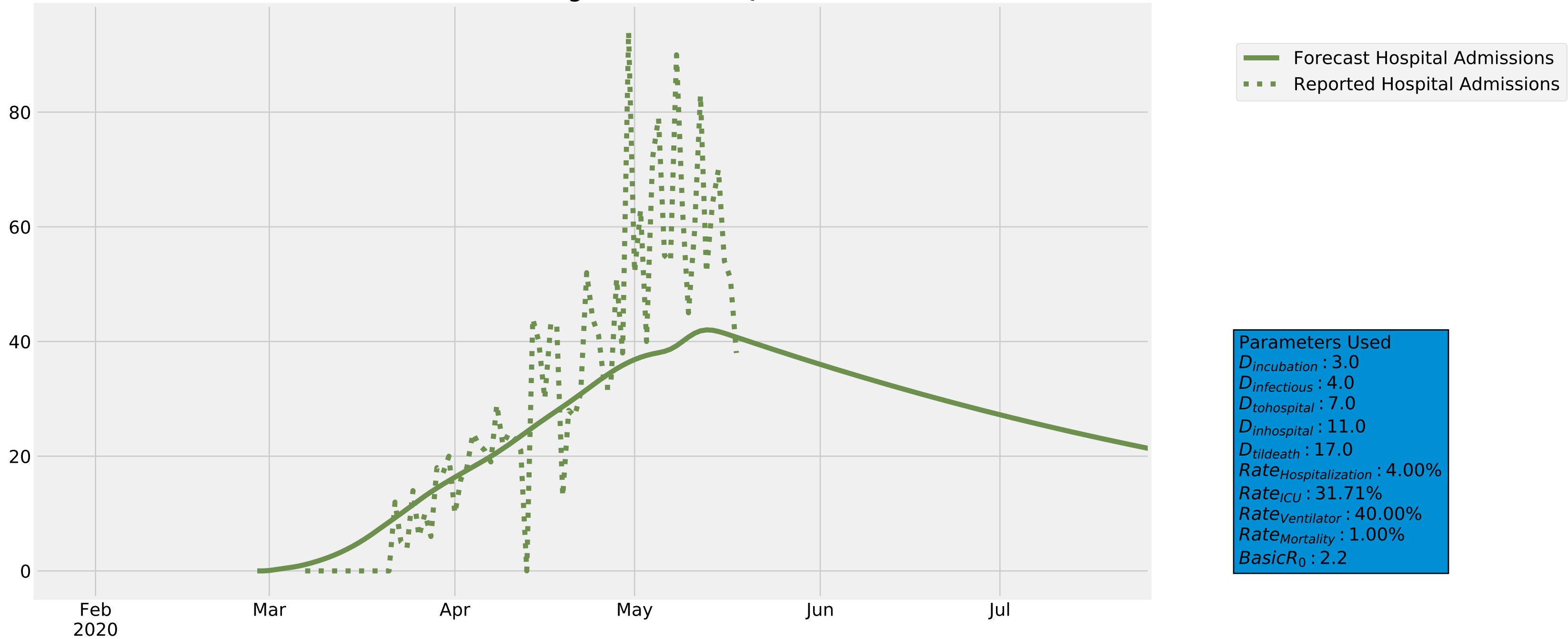
Forecast Daily New Infections (Exposed)  
Reported Daily New Infections (Exposed)

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%  
 $BasicR_0$  : 2.2

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

# Daily Hospital Admissions Forecast

## Minnesota: No Change in Future $R_t$ Scenario

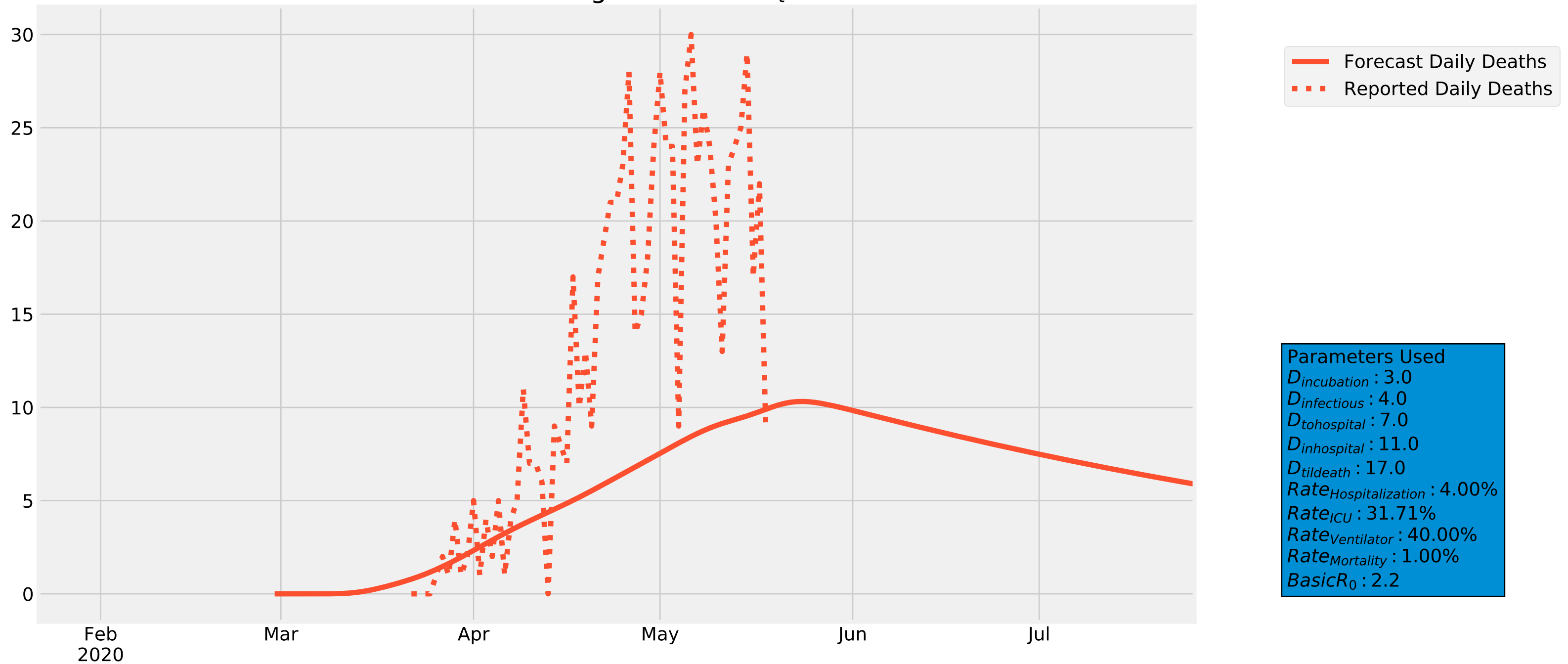


Author: Michael Donnelly (twtr: @donnellymjd)  
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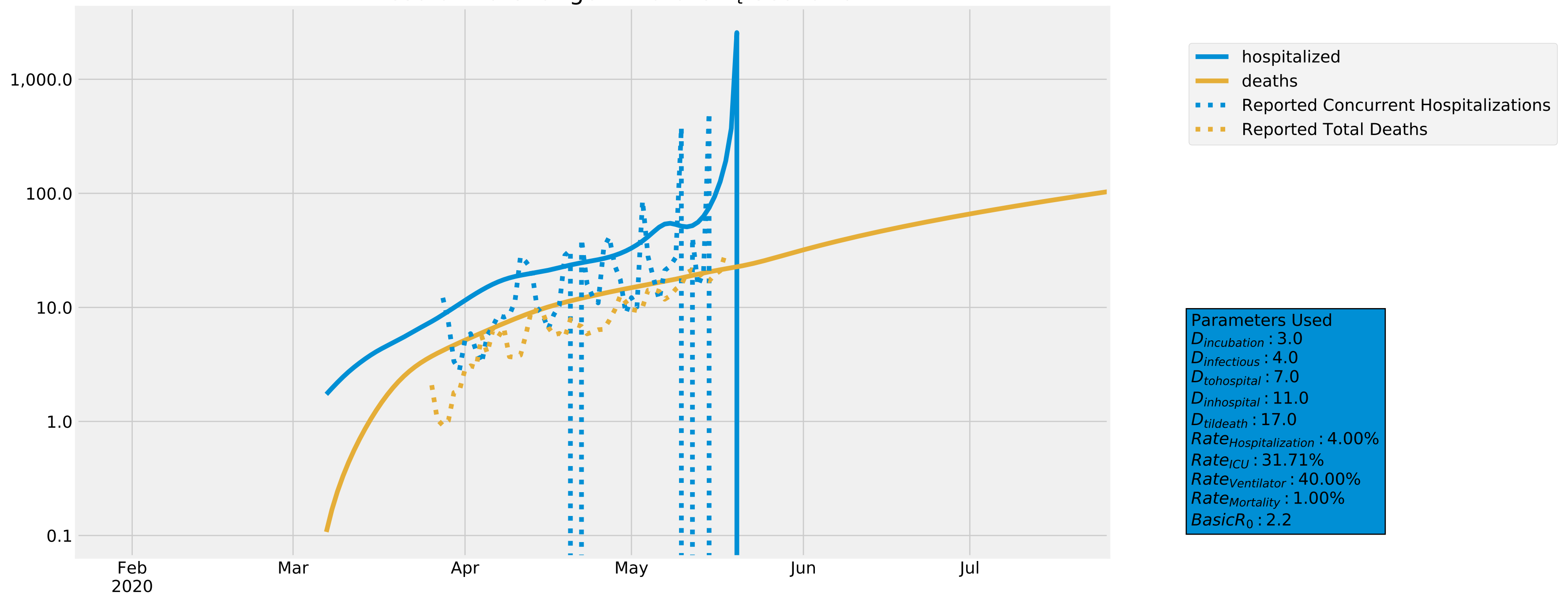
# Daily Deaths Forecast

## Minnesota: No Change in Future $R_t$ Scenario



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

# Doubling Rate Forecast Minnesota: No Change in Future $R_t$ Scenario



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