Pandemic velocity: forecasting COVID-19 in the U.S. with a machine learning & Bayesian time series compartmental model, supplemental material

Gregory L. Watson¹, Di Xiong¹, Lu Zhang¹, Joseph A. Zoller¹, John Shamshoian¹, Phillip Sundin¹, Teresa Bufford¹, Anne W. Rimoin², Marc A. Suchard^{1,3}, Christina M. Ramirez¹

1 Department of Biostatistics, Fielding School of Public Health, University of California, Los Angeles, California, United States of America

2 Department of Epidemiology, Fielding School of Public Health, University of California, Los Angeles, California, United States of America

3 Departments of Computational Medicine and Human Genetics, David Geffen School of Medicine, University of California, Los Angeles, California, United States of America

	Final Day of Training Data	Random Forest	AR-1
	August 31, 2020	7.27	7.58
	September $30, 2020$	8.31	7.22
	October 31, 2020	11.4	12.35
	November 30, 2020	18.19	21.06

Table S2. Death Model Comparison

The median state mean absolute error (MAE) for the random forest death model and a state-specific AR-1 model over the 21 days subsequent to the last day of the training data. The random forest death model performed better on 3 of the 4 evaluation periods. The greater MAE for later months is likely a result of the number of deaths increasing substantially over the course of the pandemic.