Logistic Model from Article 2:

“The logistic model is the simplest model that shows an initial exponential growth followed by a gradual slowing down and a saturation. The cumulative incidences (the total number of cases by time ) can be approximated by

where is the exponential growth rate, and . Let ,

its solution is .

The new cases in a time period is thus

The model parameters are .

* Could we fit a logistic model in which we pick a baseline day, get for each country from that day, include random effects for r and K to allow each country to have its own rate and limiting number of total cases, and then let time be difference between baseline day and current day

ISSUES: I am not sure how to work with the limiting number of cases, K, in the model?