P2.1. (Estimating $R_0$ for Ebola in Sierra Leone.) Weekly Ebola incidence data for Sierra Leone are given in sierra_leone.csv (source: WHO website, http://apps.who.int/gho/data/view.ebola-sitrep.ebola-country-SLE-20150218-graph?lang=en). Estimate the initial growth rate for the outbreak. Use this in turn to estimate $R_0$. For this, you will need information about the generation interval of Ebola. A starting point is a reported symptom onset to symptom onset time of $16.1 \pm 4.4$ days reported in a contact tracing study by Maganga et al [2]. Additional information on the natural history of Ebola can be found in Chowell and Nishiura ([1]; e.g. Table 1).

References
