

**AMSC/MATH 420, Spring 2014**  
**Modeling Epidemics: Team Homework 1**  
due Monday February 17

Think of the cumulative number of cases in the data you download as the “infectious” population in the “SI” model discussed in the first two epidemiology lectures. For each of the two cities assigned to your team, find the parameter values for this model that fit the cumulative data as best you can. Then, find parameter values that best fit the new monthly diagnoses. Graph the residuals for each of your four fits. What do you think are the most important features of the data that cannot be fit with the SI model?