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Lab 6: Epidemic Modeling II

1. Start by looking at your data source (not the data itself-the source it comes from). How was it collected? What time period does it span? What is it actually measuring? Does it have any particular structure that you may need to think about when creating a model of it?

1. Make a plot of infected individuals through time for your data; does it seem like your data generally follows an epidemic curve?
2. Create a compartmental model diagram and associated system of equations describing your system that takes into account at least one of the aspects you talked about in the question above.
3. Create a function in R to simulate the dynamics of the model you describe above. Paste the code used to describe that model below.
4. Simulate **two** potential epidemics of your diseases. Create a plot for each epidemic that shows the number of individuals in each compartmental class through time. Specify initial conditions and parameter values in the caption