Introduction

SIR Model

For comparison, we select the simplest of the disease dynamic models, known as the SIR model, from which many other advanced disease models are based.

Methods

For the sake of this paper, we devised an algorithm to simulate a heterogeneous interaction between a zombie population and a non-infected population. In our model, those who were not infected were armed with one gun, with nine-rounds, and one health point (HP). Given that in the classics media adoption of zombie attacks when the subject is bitten, they convert to a zombie. We also assume that all the shots are lethal, however it would be easy to implement a simple probabilistic model that would assume some are misfires; however, in our case this would be overkill for the dynamics of the problem.

At the creation of the script, a certain amount of N users are randomly assigned throughout a specified square enclosure, no one is allowed to leave this box.

Results

Conclusion