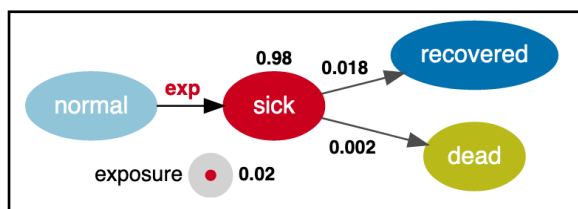


Particle People

How to Use the Model

A computer model is a helpful application that we can use to represent and study complex real-life problems.

Particle People was designed to show how Coronavirus and other diseases spread through a population. Use this guide to help you answer the questions.



Probability that ...

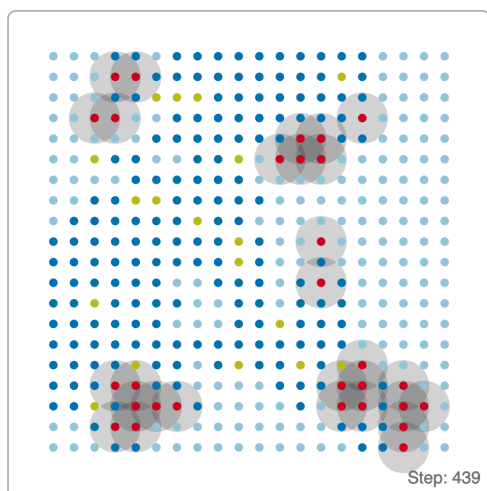
Become sick when exposed 0.02
per person per step

Stay sick 0.98
per step

Isolate when become sick 0

This chart shows the probability of getting sick, recovering and dying -

These options let you change the probability of becoming sick, staying



Options

Population 400
people

Index cases 2
people

Particle radius 4
pixels

Exposure radius 24
pixels

Minimum distance between people 20
pixels

Width 450
pixels

Height 450
pixels

Click "run" and you can see how the virus spreads across the population.

These bonus options let you set all sorts of things such as population

Particle People

Activity: Model Management

Simple - set the model to 'simple' to answer these questions

1. Try increasing the probability of people becoming sick. What changes?

2. What happens when you decrease the probability that people stay sick?

3. Find two options that reduce the spread of the virus when you increase them. What are they and why do they work?

Advanced - set the model to 'advanced' to answer these questions

4. Run the model. Do you think this advanced model is more realistic? Why?

5. Play with the 'House and School' options. What happens when houses and schools are larger? How could this affect health services (e.g. hospitals)?

Particle People

Discussion: Computer Modelling

This is a space for you to consider your thoughts about computer modelling. There is no one right answer to any of these questions but you may wish to discuss them with the person next to you.

What are the benefits of using computer modelling?

Are there any downsides or limitations to computer modelling?
