

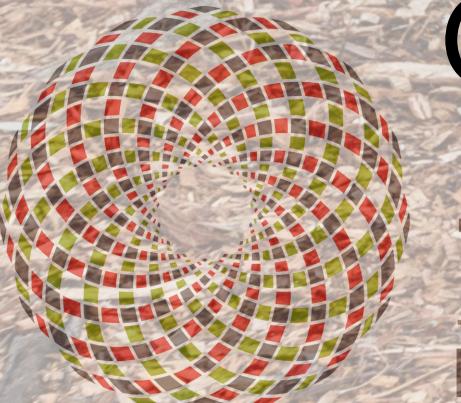


Te Matatini o te Horapa:

A Network Based Contagion Model for Aotearoa/NZ

Presenter: Dion O'Neale

Team: Emily Harvey, Oliver McLaren, Frankie Patten-Elliott, David Wu, Adrian Ortiz-Cervantes, Steven Turnbull, Demi Vasques, James Gilmour & others

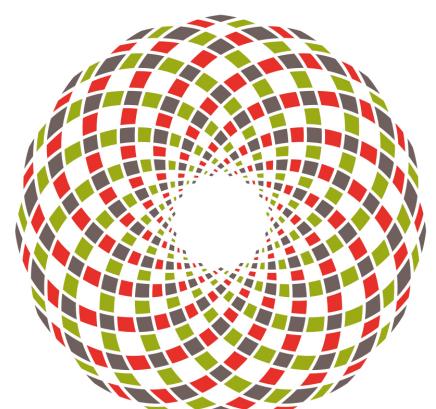


Te Pūnaha Matatini
Data ▪ Knowledge ▪ Insight

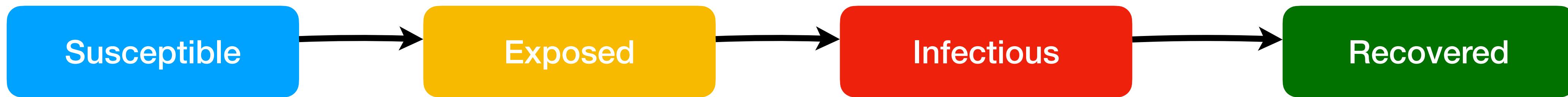
Dion O'Neale: d.oneale@auckland.ac.nz

What might a contagion model tell us:

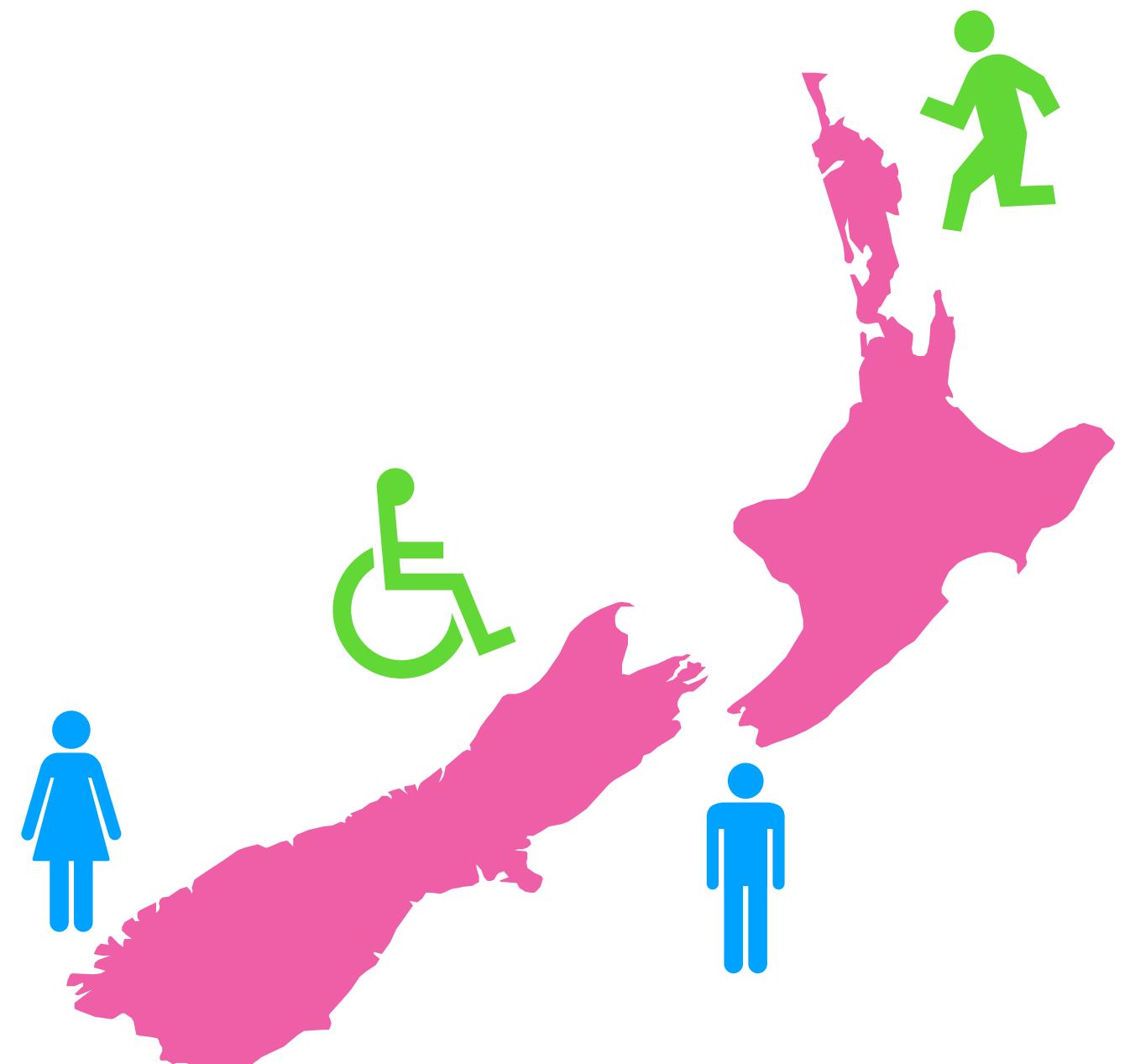
- *How many* people will get infected?
 - Everyone or just some of us?
 - How many people will be infected on a particular day?
- *Who* will get infected?
- *Where/how* will people get infected? (What factors drive infection risk?)
- What will happen to them?
- How confident are we in these numbers? How much do they vary?



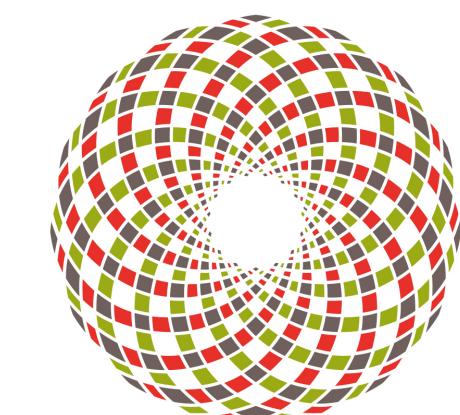
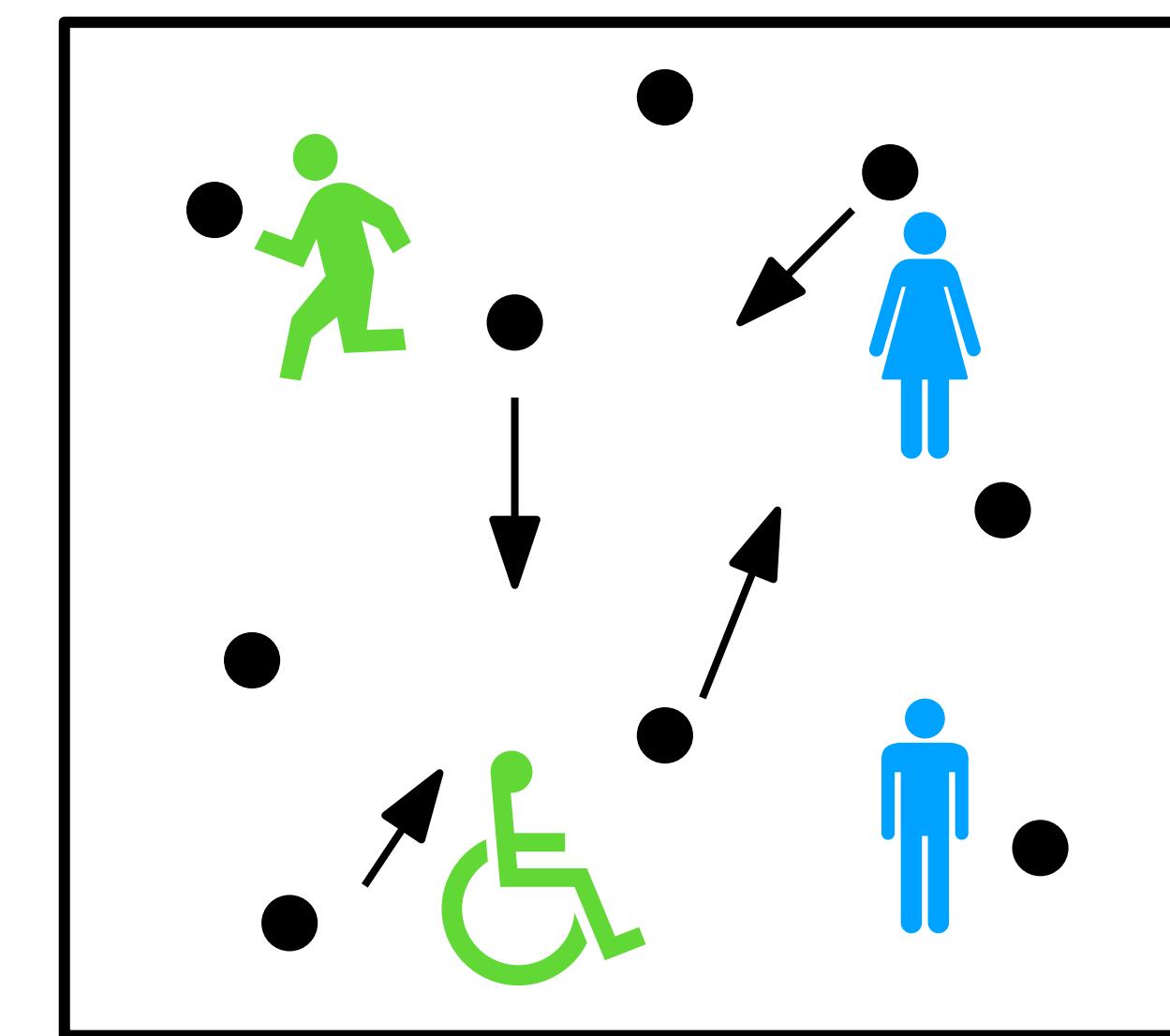
Compartment Models



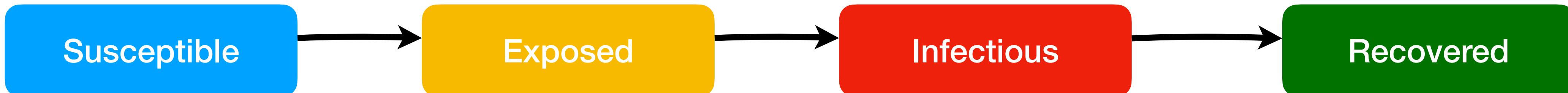
- Assumes a well-mixed, homogeneous, population



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Interaction Network Models



- Explicitly represent each individual **along with individual level attributes**
- Heterogeneous interaction structure where **contagion spreads on a contact network**

