**Compartments in district i:**

Population in district i at time t

currently susceptible in district i at time t

currently infected in district i at time t

currently recovered in district i at time t

**Movement between districts:**

Districts:

Paths between districts:

Number Travelers between districts:

Probability of person in to travel to :

Numbers of persons travelling   
 from to at timestep t

**Infection dynamics:**

Infection rate

Recovery transition rate

Fraction of day spent in district

Number of susceptible people

Number of infected people

Number of recovered people

**Infection statistics:**

number of susceptible people at time t

number of infected people at time t

number of recovered people at time t

number of at time t new infected people in district i

number of at time t new recovered people in district i