

Description of output abundLog:

After a simulation one of results will be a table (*abundLog*) with the number of agents in each state at each time point of modeling with following columns.

Ticks - the simulation time.

HealthyPersonsInTown - states of Healthy person. A person located in the town without pathogen infection.

InfectedPersonsInTown - sum of number of all infected agent in town.

IncPeriodPersonsInTown - states of Person in incubation period. An agent who was infected by a pathogen and with infection in the incubation period.

IncPeriodPersonsInTown2 - states of Person in incubation period 2. Person gets to this state after the incorrect treatment, and the pathogen is assumed to be resistant.

AntibioticTreatedPersonsInTown - states of Person in antibiotic treatment period at home.

AntibioticTreatedPersonsInTown2 - states of Person in antibiotic incorrect treatment period at home. In this state, the agents' pathogen can become resistant.

InfectedPersonsInHospital - states of Infected person in hospital. Agents receive treatment in the hospital.

HealthyPersonsInHospital - states of Non Infected person in hospital. People admitted to the hospital, not because of infection with a target pathogen.

pGetInfectedTown - probability to be infected, it is determined at each simulation moment.

AvMicResistance - the average level of microbiota resistance.

AvPathResistance - the average level of pathogen resistance.

Description of output transLog:

After a simulation one of results will be a table (*transLog*) with transitions between model states of each agent at each time point of modeling with following columns.

Ticks - the simulation time.

PersonId - each agent will have an individual number at initial moment.

TransFromClass - name of states which current agent went out from.

TransToClass - name of states which current agent went in.