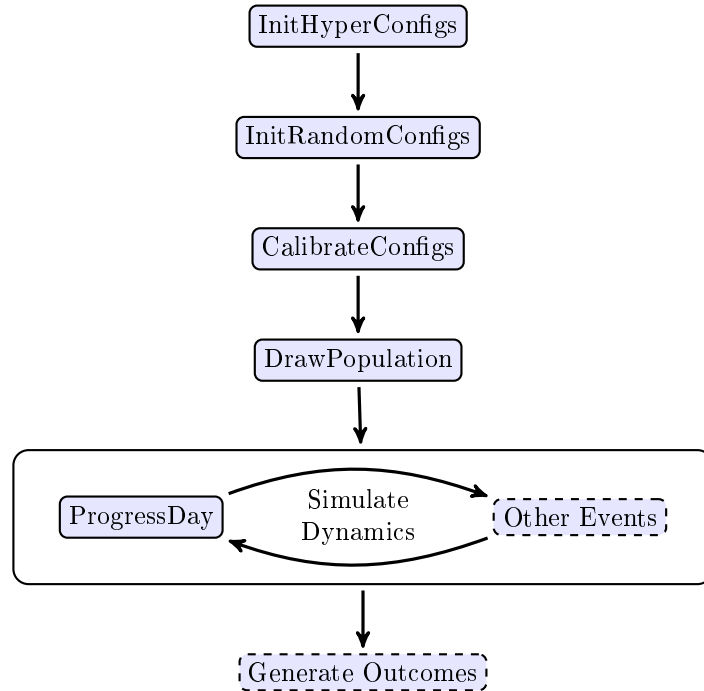# Scheme of Simulation Functions

This document contains a brief introduction into the structure of the main functions necessary to run simulations.

Names in boxes with continuous lines correspond to functions, names in dashed boxes correspond to other conceptual code bits which are not covered by single functions:

- **InitHyperConfigs**: Initializes an object with all parameter ranges.

- **InitRandomConfigs**: Specifies an object of single parameters from the parameter ranges. Implemented options are best guess parameters only or a random set of parameters.

- **CalibrateConfigs**: Generates an object which contains all previous parameters and adds all quantities which are derived from the specified parameters.

- **DrawPopulation**: Generates a population based on the specifications of the previous config object.

- **ProgressDay**: Simulates the default dynamics during a day and progresses to the next day.

- **Other Events**: Non-standard events such as testing and temporary agent leave need to be implemented separately on a given day. See the simulation scripts used for the study analyses for reference.

- **Generate Outcomes**: Save the outcomes of the simulation run. If many simulations are conducted, saving the whole population object will not be feasible. See **SummarizeInfections** and **AnalyzeOutbreak** for functions which condense the important information.