An agent-based model of social influence on children’s BMI change and fruit and vegetable consumption

Model Initialization
The model is initialized by giving attributes to each agent: gender, age, race/ethnicity, BMI and FV consumption, and social network the agent belongs to.

Observation
Agents observe the BMI and fruit and vegetable consumption behavior of other agents in the same social network. Imperfect observation/misperceptions are possible.

Adjustment occurs at each time step

Interaction: agents seek socially acceptable BMI and food consumption behavior

Adaptation
Agents adapt into a network by adjusting their BMI to match the social mean BMI (follow the average rule) in order to maximize their utilities.

Adaptation
Agents adapt into a network by adjusting their fruit and vegetable consumption frequency to match other agents’ fruit and vegetable consumption behavior (following the average rule) in order to maximize their utilities.