

System Dynamics Modeling of Infant Mortality in Ohio State

SEMINAR SESSION INFORMATION

DATE: Wednesday, Sep. 7th

TIME: 12:15pm

LOCATION: Whittemore 542

PROVIDED: Pizza and Soda

SPEAKER INFORMATION

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MEMBERSHIP INFORMATION

Fees are as follows and include all weekly seminars (22+) & workshops.

FIRST MEETING: FREE

MEETING: \$5

SEMESTER: \$25

YEAR: \$40

Ohio State has one of the highest infant mortality rate in the US (ranked 45th). Despite numerous policy interventions, the decline in infant mortality rate has not kept pace with the reduction in other States and the rate has even increased among African American from 2013 to 2014. Infant mortality is a complex and interconnected problem, involving individual factors (mother and child) as well as other factors including education, environment, employment, housing, medical system, and health policies.

This study investigates the complex causal feedback mechanisms that underlie infant mortality through “group model building” with subject matter experts and policy makers. The system dynamics model will be formulated and calibrated with empirical data provided by the Ohio State Department of Health. Then the model will be simulated to test diverse interventions and to answer “what-if” questions in a systematic way. In the presentation, I will discuss the output of the group model building and will present the preliminary system dynamics model.