Thesis Title	Agent-Based Modeling for Prediction of HIV Infection Spread: a Case Study of Thai Youth in Chiang Rai
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ABSTRACT

This thesis proposes an agent-based method for modeling and predicting HIV infection spread among Thai youth. The risk factors considered in this thesis are current changes in sexual attitude, current changes in lifestyle of Thai youth and friendship influences among them. A set of agents interact between each other with respect to the observed changes in sexual attitude and life style to simulate the social behaviors of Thai youth in their daily lives. Social Network Analysis (SNA) is used to model friendship influence in this thesis. A case study is conducted with 40 students having the age between 15-24 years old in Chiang Rai province. The simulation results show that the proposed method provides an effective simulation result.

Keywords: HIV infection / Agent-based modeling / Simulation / Social network analysis