Using mathematical and statistical modeling to understand behavior change in problem drinkers

by Rebecca Everett
Haverford College

**Abstract.** Psychologists are interested in developing new and accessible techniques to treat problem drinkers, individuals with mild to moderate severity of alcohol use disorder. Understanding the mechanisms of behavior change for drinking reduction can help healthcare providers implement more effective interventions. Thus it is important to understand the crucial factors that initiate and maintain this change process. We use mathematical and statistical modeling with clinical data to investigate factors that can influence a patient's success in reducing their alcohol consumption and to identify cohorts of patients with similar underlying mechanisms of behavior change.