

Bayesian study of small area racial disparities in heart disease mortality in Ghazvin province (Iran)

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Abstract

In a Bayesian approach we study geographical level disparities in heart disease mortality between urban and rural area in Ghazvin province during (1996-2004), for men and women separately. A model involving random effects and auto-correlated errors is proposed for small area estimation, using both time series and cross sectional data. Parameter estimation is performed using Markov chain Monte Carlo methods (MCMC).

Keywords: Bayesian, Auto-regressive, Gibbs sampler, random effect, cross sectional.