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Biostatistics News

Georgia Southern University

Estimation of Odds Ratio

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Collaborative work including Dr. Hani Samawi at Georgia Southern University Jiann-Ping Hsu College of Public Health provides estimation of the odds ratio between two independent groups using two types of Moving Extreme Ranked Set Sampling (MERSS). Theoretical properties of the suggested estimator are derived and compared with its counterpart estimator using simple random sampling (SRS). It is found that the estimator based on MERSS is always valid and has some advantages over that based on SRS. Real data from a level I Trauma center are used to illustrate the procedures developed in this paper.

The odds ratio is widely used in medical, social, behavioral and public health sciences. In fact the odds ratio is equally valid for retrospective, prospective and cross-sectional sampling designs. The odds ratio is the ratio of the odds of an event occurring in one group to the odds occurring in another group.

To read the full story, click here.

Dr. Samawi's other recent publications:

Hani M. Samawi, Martin Dunbar & Ding-Geng (Din) Chen (2012): Steady-state ranked Gibbs sampler, Journal of Statistical Computation and Simulation, 82:8, 1223-1238

Hani M. Samawi & Robert Vogel (2013): More Efficient Approximation of Multiple Integrals using Steady State Ranked Simulated Sampling, Communications in Statistics – Simulation and Computation, 42:2, 370-381

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