

1106-62-1577 **Netra P Khanal*** (nkhanal@ut.edu), 401 W. Kennedy Blvd, Tampa, FL 33606. *Bayesian
Joinpoint Regression Model for Childhood Brain Cancer Mortality*. Preliminary report.

The Bayesian approach of joinpoint regression is widely used to analyze trends in cancer mortality, incidence and survival data. The Bayesian joinpoint regression model was used to study the childhood brain cancer mortality rate and its average percentage change (APC) per year. Annual observed mortality counts of children ages 0-19 from 1969-2009 obtained from Surveillance Epidemiology and End Results (SEER) database of National Cancer Institute (NCI) were analyzed. It was assumed that death counts are probabilistically characterized by the Poisson distribution and they were modeled using log link function. Results were compared with the mortality trend obtained using joinpoint software of NCI. (Received September 14, 2014)