A comparison between a SAS® macro application and an existing software tool (Joinpoint software) was conducted to identify the most efficient software application to do a segmented regression for doing an interrupted time series (ITS) analysis for asthma trends over time. The SAS macro developed using the SAS 9.3 procedures NLIN and REG, when compared with the Joinpoint software for an interrupted time series (ITS) analysis has given an output similar to the latter and showed better running time, efficiency as well as the time required to prepare the data sets, and total analysis time.