The statistical meta-analysis is to analyze the data quantitatively from diverse sources to draw a more effective statistical inference. This talk will start with an overview to meta-analysis on both fixed-effects and random-effects models to incorporate within/between-study variations. Meta-regression will be introduced to quantify heterogeneity and test the significance of heterogeneity among studies in a meta-analysis. We will illustrate these models using real data from studies on efficacy of Bacillus Calmette-Guerin (BCG) vaccine along with the implementations in commonly used R packages. Further research on meta-analysis will be discussed.