Chapter 2

Aim and Objectives

In the present era, where all health care decisions are based on firm evidence, the policy decisions pertaining to health of the public are not an exception. Moreover, such decisions demand fairly strong evidence to decide on the correct type of policy to be adopted because any wrong decision would lead to huge wastage of funds and put health of large number of people at risk. Systematic reviews and meta-analysis are known to produce highest level of evidence by synthesizing the findings of several independently conducted research works. Several new meta-analytic techniques have been developed in recent years. However, these methods are inadequate for pooling results of interventions conducted at population level which are inherently complex. Application of conventional meta-analysis technique to synthesize the results of studies pertaining to public health interventions provides a pooled estimate which is diluted with the effect of complexity. Under such situations, it is important to have a mechanism to obtain the pooled estimate from meta-analysis which is adjusted for the effect of complexity. Therefore aim of the present work is to identify key methodological issues and challenges related to integrating the research findings of public health interventions and develop a suitable methodology to overcome the same. It involves development of a tool to measure
the complexities of population, intervention, context and outcome in numerical terms and adjusting the measured complexity in meta-analysis by a suitable statistical technique.

Objectives of the study are as follows:

1. To identify the methodological challenges, particularly the complexities in Population, Intervention, Context and Outcome in integrating the findings of studies pertaining to public health interventions.

2. To develop a suitable methodology to integrate the findings from several studies of public health interventions after accounting for the complexities.

3. To assess the scope of application of developed methodology in public health evidence summary.