Article I

Sequential and average attributable fractions as aids in the selection of preventive strategies

Abstract

Methods for estimating the attributable fraction based on a multivariate model for a dichotomous response have been extensively developed in the last decade. These methods provide the means for calculating the total attributable fraction for a set of exposure variables possibly adjusted for a set of confounding variables. In this paper, a procedure for stepwise calculation of attributable fractions is outlined. The purpose is to study the effect on risk of disease of preventing several exposures, one at a time, in different orderings. This procedure introduces the concepts of sequential and average attributable fractions as aids for attributing the risk of disease to different exposures. The procedure and concepts are illustrated by analyzing data from a cross-sectional study on the prevalence of some frequent symptoms of lung disease.