

## K1 – Population Health: Halving Premature Death



**Prof Sir Richard PETO**, FRS Hon FRCP  
Unit Co-Director  
Clinical Trial Service Unit and Epidemiological Studies Unit  
University of Oxford, United Kingdom

*Sir Richard Peto is Professor of Medical Statistics and Epidemiology at the University of Oxford. He is best known for his international epidemiological studies of smoking, alcohol, blood pressure, adiposity and other avoidable causes of premature death. He also directs the EBCTCG meta-analyses of all the breast cancer treatment trials in the world.*

Death in old age is inevitable, but death before old age is not. Worldwide, over the past 35 years the probability of death before age 70 has decreased from about one-half at 1980 death rates down to one-third at current death rates. By 2050 the probability of death before age 70 could well have decreased to only about one-sixth, if there is continued attention to the major preventable causes of premature death that now remain. These include communicable diseases (which predominate before middle age), non-communicable diseases (which predominate in middle age), and neonatal, maternal and external causes of death. Since 1990, there have been only 5 major causes of death that have increased substantially in some large populations: tobacco (eg, China), obesity/inactivity (eg, Mexico), alcohol (eg, Russia), HIV (eg, South Africa), and war (eg, Congo). The prospects for effective action will be discussed, with particular emphasis on the UK and China.