

Smoking and Mortality in 130 000 Cubans: A Prospective Study

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Introduction: In Cuba, a quarter of men and a sixth of women die between ages 35 to 69, mainly from vascular, cancer and respiratory causes. Studies of the main causes of these chronic diseases in middle age (obesity, blood pressure, alcohol and, particularly, tobacco) are needed.

Objectives: To assess the association of tobacco smoking with cause-specific mortality, with particular emphasis on the the benefits of quitting and the excess hazards of starting young.

Methods: Baseline data were collected on sex, age, tobacco, alcohol, other lifestyle factors, medical history and physical measurements. Between 1996 and 2002, 140 000 adults aged 30 to 90 years were recruited. Death rate ratios (RR) were obtained from Cox regression models.

Results: Among the 130 000 participants without prior disease (mean age 54 years, 44% male) 46% of men and 27% of women were current smokers. During an average 14 years of follow-up there were 16 000 deaths at ages 30-89: 7000 vascular, 4000 cancer and 1700 respiratory. Compared to never smoking, current smoking was associated with higher risk of death (RR 1.38, 95% CI 1.33-1.43) and was most strongly associated with lung cancer (3.37, 2.92-3.88), upper aero-digestive cancer (2.69, 2.07-3.50) and COPD (2.76, 2.30-3.31). Starting young (<14 years) and smoking more (≥ 20 cigarettes/day) were both associated with considerably higher risk, (1.59, 1.52-1.66 and 1.73, 1.60-1.86 respectively). Ex-smokers who quit before age 45 appeared to avoid most of the excess risk associated with continuing to smoke (1.02, 0.91-1.14 compared with never smokers).

Conclusion: Overall, the relative risks in Cuba are lower than those in UK/US studies, but among those who reported starting young (before 14 years of age) and smoking heavily (more than 15 cigarettes per day) there was an approximate doubling in the age-standardized mortality rate. However quitting works, with the risks diminishing after 5 years of stopping and quitting before age 45 avoids most of the risk.

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