

OBSERVATIONS

GOING PUBLIC

Finding the smoking gun: a speech by Richard Peto

The expert on tobacco and health describes ways to cut premature mortality

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The best thing about the epidemiologist Richard Peto's Harveian oration last week, apart from its brilliance, wit, and perspicacity, was his definition of "middle age." Whereas a lesser man might have made it end at 60, or 65, Peto stretched it to 69, thus brightening the day for many members of the audience. He claimed the fact that he was 69 years old had nothing to do with it.

The subject of the talk at the Royal College of Physicians was "Halving premature death," or, as he subtitled it, "Halving death in middle age," so it mattered how this stage of life was defined. He said that he wanted to make its upper end stretch high enough to include deaths from many chronic diseases but not so old that people would claim that you were better off dead at that age anyway.

He prefaced his remarks by saying that death in old age is inevitable but that death in middle age is not. Some of his best tips for halving the death rate in middle age were straightforward: avoid wars, famine, and epidemics. Some were more complicated but could be summarised as, "Take serious causes seriously." And by this he meant tackle the main causes of such conditions as cancer and coronary heart disease rather than the more obscure causes of lesser killers.

Before starting, he confessed to breaking two rules of the Harveian oration, an annual lecture named after William Harvey, who was the first to describe the circulation of the blood and who gave his estate to the college in 1656 with the stipulation that every year there should be a feast and an oration.

The rules, or at least the traditions, of the lecture are that the speaker has to provide a written copy of his or her speech and to say a few words about Harvey. Peto did neither but instead provided a small booklet of graphs to back up his talk, and he dedicated the oration to Richard Doll, with whom he collaborated for several decades on investigating the links between tobacco and ill health, and to Charles Fletcher, who drafted the first and second college reports on smoking and health in 1962 and 1971 and who set up the pressure group Action on Smoking and Health.

Although Peto's speech concentrated mainly on tackling the causes of death, he did not dismiss treatment by physicians and surgeons. And he admitted that if he ever developed cancer he would prefer to see a doctor rather than an epidemiologist. But as you would expect from someone who has spent the past 40

years mapping the effects of smoking, he did produce numerous graphs to demonstrate how, as he put it, "Smoking kills—stopping works."

First he gave us the good news. The United Kingdom has gone from having the world's worst death rate from smoking in 1970, when tobacco accounted for half of all premature deaths, to having the world's biggest decrease in mortality from smoking. By 2010 tobacco accounted for about 20% of deaths in middle aged men, less than half the 47% in the same group 40 years earlier. He said that the Royal College of Physicians could take some credit for this because of its reports on smoking.

Then he gave us the bad news. He showed us some graphs relating to China, where smoking will have devastating consequences over the coming decades. In 1990 smoking in China was responsible for only 12% of deaths in middle age; by 2030 tobacco will be causing a third of such deaths.

He asked how we could know that smoking was such an important cause of death. One of the most interesting pieces of evidence he produced was a graph relating to smoking patterns in France. There people started giving up smoking much later than in the UK, and so death rates continued to rise in the 1970s, 1980s, and 1990s. But then, between 1990 and 2010, the French government tripled the price of tobacco, and lo and behold death rates from tobacco began to fall.

Although he concentrated much of his speech on the UK and China, he did not ignore other areas, such as Africa. He made two particular points. He disagreed with people who extrapolated from the fact that because infant mortality in the UK had fallen dramatically in the first half of the 20th century without much help from modern medicine (but because of clean water, better nutrition, and so on) that modern medicine was not useful to countries in Africa. He said that drugs in the first half of the 20th century had not been effective, so it was not surprising that they had not helped the fall. But now that highly effective treatments were available, these would help reduce death rates in some of the poorer countries in Africa.

He also had a sideswipe at people who thought that the health of people in poorer African countries would improve only when governments adopted ideal health systems. He said that we could not afford to wait that long and that effective treatments should be promoted there now.

Finally, he pointed out that Richard Doll gave up smoking at the age of 37 and lived to the age of 92, proving (in an n=1 study) that giving up works.

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