

CARDIOVASCULAR MORTALITY: AFFLUENT IRELAND FARING BADLY IN COMPARISON TO OTHER EUROPEAN COUNTRIES

More people still die of cardiovascular disease (CVD) – high blood pressure, coronary heart disease, stroke and arterial disease – every year in Ireland than from any other cause. It kills more people than cancer, suicide and road accidents combined. However, the numbers dying from heart disease have been decreasing steadily over the past 20 years. In 2006 there were 3,700 fewer deaths from heart attack than in 1984. I noted some time ago that this gratifying trend in the hard-fought battle against CVD may be at an end, if for no other reason than recent figures from the Central Statistics Office showed an alarming 10% increase in mortality.¹ Now we are faced with disturbing reports from Europe that support the inevitability of an increase in cardiovascular mortality in the near future.

As in Ireland, mortality rates from coronary heart disease in the UK have continued to decline steadily since the late 1960s, which is not to deny the fact that coronary heart disease remains the leading cause of death and exacts a heavy social and economic toll. What is interesting, and worrying, about these UK statistics is that the previous falls in age-specific mortality rates seem to be flattening in men and women aged less than 55 years, whereas mortality rates in older adults continue to decline. It is salutary to consider that this trend is occurring despite the increasing use of evidence-based treatments such as angioplasty, thrombolysis and ACE inhibitors. The explanation is not difficult to find: between 1993 and 2003, some of the largest relative increases in obesity and diabetes have occurred among adults aged 45 years; mean concentrations

of cholesterol have fallen little or even increased among some of the younger age groups; the previous decline in smoking rates may be levelling off among young adults with the smallest reduction seen in men aged 25–34; material deprivation may be an additional risk factor in younger adults, especially among the immigrant population. It is not surprising, therefore, to expect to see adverse trends in CHD mortality rates appearing first among young adults.

Now, to add to this report, we have two further disturbing sets of statistical analyses. The first of these is the 2008 *European cardiovascular disease statistics*, which brings together all the available sources of information about the burden of CVD in Europe. Also included is an analysis of the staggering economic costs of CVD in Europe. CVD costs the European Union (EU) just under €192 billion per annum, some 60% of which is for health care costs and 20% is from lost productivity and the cost of informal care. The direct health care costs alone cost each resident of the EU €223 per annum. The cost of inpatient hospital care for people who have CVD accounted for about 54% of these costs, and that of drugs for about 28%. Almost one-fifth of health care expenditure on CVD in the EU is due to stroke, which is estimated to cost the EU economy over €38 billion a year. Inpatient hospital care for people who have strokes accounted for about 80% of these costs and drugs accounted for about 6%. Of the total cost of stroke in the EU, around 49% is due to direct health care costs, 23% to productivity losses and 29% to the informal care of people with stroke.

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Each year CVD causes over 2 million deaths in the EU, which represents nearly half of all deaths. CVD is the main cause of death in women in all countries of Europe and is the main cause of death in men in all countries except France, the Netherlands and Spain. Over a third of deaths from CVD are from coronary heart disease (741,000 deaths per annum) making it the single most common cause of death in the EU, with one in six men (16%) and one in seven women (15%) dying from the disease. Just over a quarter of deaths from CVD are from stroke, with one in ten men (9%) and one in eight women (12%) dying from the disease, but with increasing longevity and rising blood pressure these figures can only rise.

In another recent European report, Jacqueline Müller-Nordhorn and her colleagues calculated age-standardised mortality rates for coronary heart disease and stroke from data provided by the statistical office of the European Communities (Eurostat) and the national statistics offices of all the countries.⁴ They focused on those aged 45 to 74, as mortality in younger age groups is very low. They divided the rates per 100,000 of the population into quintiles of lowest to highest. It is readily evident that Ireland, with the exception of stroke, ranks with the worst countries in Europe for CVD mortality, coming 18th out of the 30 countries, with countries such as Latvia, Estonia and Slovakia performing the worst. Irish people are three times more likely to die from heart disease than people in France, Portugal and Italy.⁸ Despite being one of the wealthiest countries in Europe, mortality rates from CVD are as bad as those in less well-off eastern European countries such as Poland, Macedonia and Croatia. The study shows that 223 people (aged 45-74) per 100,000 of the Irish population died from coronary heart disease in 2000, compared with just 65 in France (with the lowest death rate in Europe), 87 in Portugal and 91 in Italy.

HOW CAN IRELAND PREVENT THE INEVITABLE?

It is one thing to look at the trends in mortality statistics but this should not blind us to the fact that in Europe nonfatal events, such as stroke and heart failure, far from declining are on the increase, mainly because of increased longevity. Approximately 10,000 acute strokes are admitted to hospital in Ireland each year and for those who survive – some 30,000 people – only half make a complete recovery, leaving the remainder with the problems of coping with serious disability and in need of support to cope with the

activities of daily life. High blood pressure – the major determinant of stroke – affects over a third of the adult population and this figure doubles after the age of 60 years. Globally, 62% of stroke, 49% of coronary heart disease and 14% of other cardiovascular disease has been attributed to inadequate control of blood pressure. One of the most worthwhile initiatives to reverse the growing epidemic of stroke and heart attack in an aging society will be the control of high blood pressure, which has the potential to reduce stroke by over 50%.³

Of all of these risks uncontrolled hypertension is a major causative factor in stroke. The age-adjusted prevalence of hypertension (both diagnosed and undiagnosed) in 1999–2002 was 78% for older women and 64% for older men. Subjects with BP less than 120/80mmHg have approximately half the lifetime risk of stroke of subjects with hypertension.² So what can we, as practising doctors, do to combat what is clearly a rising cardiovascular epidemic of which we are seeing only the tip of the iceberg? We need to alert our patients to the dangers by giving appropriate lifestyle advice in relation to diet, salt and alcohol intake, smoking, exercise, and importantly encouraging our patients to know their numbers – weight, blood pressure, total and LDL cholesterol and blood sugar – and not only their numbers but what levels of normality they should strive to achieve. Finally we need to shake off what has been dubbed *therapeutic inertia* – patients with any evidence of cardiovascular disease need to be treated so as to obtain optimal cardiovascular status. Only by doing so, will we avert the onset of stroke, heart attack and heart failure. There is a limit, however, to what doctors can do – the health care providers must acknowledge the omens and act urgently.