Ischemic heart disease is the leading cause of death in both developed and developing countries worldwide. There is marked regional variation across Europe in mortality rates for CHD with higher rates in the north-east and lower rates in the south-west. Greece seems to go against this gradient. Some developed countries have had a steady decrease in the age standardized mortality rate for CHD over the last 25–30 years. In Canada and the United States as an example, CHD mortality has fallen about 25% but remains the most common cause of death. However, for many developing countries with low to middle incomes there has been a steady rise in CHD incidence. This rise has been attributed to a variety of factors such as urbanization, socioeconomic and lifestyle changes.

Common risk factors for coronary heart disease (CHD) were identified many years ago and have been studied in many countries throughout the world as contributors to the development of cardiovascular disease. There are four conventional factors: tobacco smoking, hypertension, hypercholesterolemia and diabetes and at least one of these risk factors may be found in over 80% of people with CHD. However, other important risk factors such as Apo B/Apo A1 ratio, abdominal obesity (waist to hip ratio), and psychosocial stress have been identified. As well protective factors have also been recognized. The InterHeart study (2004) identified that diet high in vegetables and fruits, exercise and moderate alcohol intake were found to decrease risk.

In some countries there has been some headway in reducing the prevalence of risk factors. One of the strongest risk factors for myocardial infarction (MI) is cigarette smoking that increases risk by 1.5–9 times depending on amount smoked. In North America and much of northern and western Europe smoking rates are in decline. Smoking rates have decreased by about 50% in US adults since 1965. In Canada which is a leader in tobacco control, the rate has fallen to about 17% of the adult population. Hypertension control has also been improving in Canada and elsewhere but is not the case for developing countries.

Cholesterol levels in the US have decreased over the last decade. The mean total cholesterol in adults in 2005–06 was 199 mg/dl compared with 204 mg/dl in 1999. This has been even more dramatic in men and women over 60 years of age.

There are clouds in the distance, however, because of an increasing prevalence of Type II diabetes and obesity in many developed countries, which may reverse the trend to lower CHD rates. The paper by Aristofanis Gikas and colleagues has some familiar findings, which remind us again that CHD is a major health problem for all countries and that risk factor control still has a long way to go. The authors compared responses on identical questionnaires about CHD and risk factors given to a sample of adults leaving the polling booth on Election Day in an urban suburb of Athens in 2002 and again in 2006. Despite the inherent difficulties with self-reported health data, the authors found a trend to a higher prevalence of MI and increases in the prevalence of diabetes, hypertension, hypercholesterolemia and smoking over the 4-year period. The findings were consistent with those of other studies of the Greek population although we know little about the socioeconomic circumstances in
the Greek population recently published, which finds similar trends in the importance of risk factors such as smoking, hypercholesterolemia, diabetes and hypertension in the development of CHD and other cardiovascular diseases. They also found the importance of waist to hip ratio as a harbinger for CHD and that people with lower educational attainment were at higher risk for CHD. In addition, people had a lower risk if they followed a more traditional Mediterranean diet.11

These studies clearly indicate that those health professionals in Greece, who have an interest in disease prevention, have their work cut out for them. The global impact of chronic cardiovascular disease is upon all of us and represents one of the biggest public health challenges of this century. The time is now to use information such as the study by Gikas et al. to change attitudes in the population and in government about the need for action. However, governments have many other challenges that affect their citizens from the environment to economic development and only persistent lobbying and the demonstration that there are effective things that can be done to positively influence people’s health and reduce the risk of chronic disease will get attention.

Other than tobacco smoking, which should be a government public health priority, we may have to accept that these global trends are unstoppable as people live longer, become more urbanized, adopt less healthy diets with increased fat and salt and become less physically active. The challenge then is secondary prevention. How can the health care system adapt to provide effective care for those with multiple chronic diseases and minimize risk factor effects? This is a challenge not only for public health but also for primary care where most of the medical management of people with chronic disease takes place. Like most health care systems, I suspect Greece is geared to providing acute urgent care and not particularly well organized for dealing with people with complex chronic disease. The chronic care model has been shown to improve care of these patients as well as improve outcomes.12,13 The model involves a shift in thinking about chronic disease care and includes six interrelated activities: self management support, clinical information systems, deliver system redesign, decision support, healthcare organization and community resources.

While all these changes may not be instituted at once, there is an urgent need for us to adapt and respond to the new reality with some innovative solutions.

References