ALTHOUGH THE NUMBER of heart attacks and deaths as a result of coronary heart disease (CHD) has halved in recent years, and people with heart disease are living for longer, this disease remains the biggest global killer. Most people have been affected by it in some way, be it themselves, work colleagues, friends or family members. In the UK alone, there is an estimated 2.3 million living with CHD every day – and it is responsible for about 73,000 deaths per year. Enormous efforts are being made to prevent, treat and cure this disease, so why is it still present in such large numbers?

DEFINING THE RISK
People are living longer, treatments are more effective, diagnoses are better, health screenings are more common and surgical techniques are being refined and improved all the time. Life is very different in the 21st Century and we have a much better standard of living. However, even with all of these apparent advantages, the risk factors for CHD are more exacerbated, keeping it a constant and abiding problem.

The risk factors are obvious, really. There are families that, unfortunately, are prone to heart disease, while conditions such as hypertension, high cholesterol, type 1 and type 2 diabetes and, of course, ageing, can lead to CHD. All (with the exception of tempus fugit) can be treated by medication, while other risk factors, such as smoking, being overweight, obese or physically inactive and having an unhealthy diet are, to a large extent, within our control.

Across the world, hundreds of millions is spent on cardiovascular disease research. In my time with our charity, research has emulated what is happening in the rest of the world, where the emphasis has moved away from basic science at a cellular level and endothelial studies of blood vessels, to more translational research that benefits patients sooner, such as using new technologies and gene therapy.

RESEARCH THAT MATTERS
Pioneering research is undoubtedly improving the standard of life for those who suffer with heart disease, and could lead to fewer episodes of the disease. One very good example is the use of MRI scanning for rapid prototyping – an advanced engineering technique that can create a unique 3D model from digital images, using a layer-by-layer printing process. The models can then be used to plan surgery and rehearse the best way to carry out a procedure, reducing time in theatre and improving outcomes.

We are now at the stage where we are questioning accepted practice and good practice is being disseminated more quickly. For instance, in 2008 a new NICE guideline was introduced which recommended an end to antibiotic cover during dental treatment for patients at higher risk of infective endocarditis – a serious infection of the inner lining of the heart. A subsequent HRAU-funded study found a significant increase in the numbers of cases of this condition since its introduction, which in turn prompted a review of the guideline. Even though this was a UK study, it has ramifications across the globe.

AN EYE ON OBESITY
It is well documented and accepted that incidence of CHD goes hand-in-hand with the way we live. One risk – obesity
– can be seen all over the world. Being overweight or not is a matter of balance. If you take in more calories than you expend, you gain weight. Therefore, it is not just a question of our food intake – how active we are also plays a part. Among adults, fewer than 34 per cent of men and 46 per cent of women do enough exercise. In children, 79 per cent of boys and 84 per cent of girls (5-15 years old) do not perform the recommended amount of exercise. Taking these two risk factors alone, it is predicted that by 2050, half of all adults will be overweight or obese in the UK, costing the NHS and wider society £50 billion per year.

Look around and the reasons are clear: there is an abundance of unhealthy food options and sophisticated, targeted marketing entices us to eat more fat and sugar; food is fast and easy to prepare (what is bad for us is often cheaper and easier to access); fewer people do calorie-burning manual jobs; work and leisure activities tend to be more sedentary; improved methods of transportation mean less walking; and there are so many more labour-saving devices in the home. We do not even have to push doors anymore; they part, as if by magic, in front of us. Everyday life does not encourage us to eat well or be active.

Undoubtedly, there is an unprecedented level of healthy lifestyle information available to all those who want to listen or seek it out, but this is the key factor – we will only do something about it if we want to know and act.

Making the whole population aware of the risk factors, and ensuring that eating well and exercising becomes a way of life, would be a miracle that requires buy-in from individuals, all levels of government, manufacturers, retailers, suppliers and – dare I say it – society. Our whole culture would have to change and, more importantly, such change would have to be sustainable.

IN THE FIGHT TOGETHER

However, miracles can happen. If responsibility is shared and we make each other accountable, each part will make up the whole. The Government can use fiscal and legislative measures and help with more education and dissemination of information about healthy lifestyles. They made a good start with the Public Health Responsibility Deal. Its aim is to ‘tap into the potential for businesses and other influential organisations to make a significant contribution to improving public health by helping us to create the right environment that can empower and support people to make informed, balanced choices that will help them lead healthier lives’. This partnership-based approach involves those who supply and market our food, and encourages them to find quick, cheap answers by putting healthy people before healthy profits. It does not seek to impose change.

I believe that, at some stage, there will have to be impositions such as tax incentives on low fat, sugar and salt in foods, fruit and vegetables. We need targets for salt reduction and we should make all public institutions – schools, hospitals, prisons, etc. – offer healthy, balanced meals, better nutritional labelling and special offers on healthier foods. Healthy foods should also be positioned more prominently in the eye line, sweets should be removed from the tills and trans fats should be banned. It is also important for children and teenagers to have cookery lessons in schools and for companies to compile health and wellbeing reports in their annual reports. Smoking is a great example; as a result of legislation and pressure, it is now considered socially unacceptable, but it took the Government and others working together to achieve this!

Above all, individuals play the largest part and have to take responsibility for themselves. There are many people living well out there. Just look at how many marathons and 10 km runs are happening across the country. Gyms are packed, walking is a major pastime and the largest growth area in fast food is healthier sandwiches. We do not like to be forced to do something and have an aversion to a so-called ‘nanny state’, so the change to a healthier lifestyle and a longer life, free from heart disease, has to come from us. The first step is to decide to make the right choices and then follow these through by using everything all the other players are offering to help us live healthier, happier, longer and precious lives.