How common is coronary heart disease?
At the beginning of the study (in 1978-1980), evidence of coronary heart disease (CHD) was present in an unexpectedly high proportion of middle aged men in the BRHS (about a quarter), most of whom had not been diagnosed. However, although risk rises with age, the condition is becoming less common overall – death rates from coronary heart disease in the UK have fallen by about a half since the study began.

Is blood cholesterol level important in coronary heart disease?
There is a strong relationship between blood cholesterol level and coronary heart disease. Having a high blood cholesterol level increases risk by three or four times. The BRHS showed that average blood cholesterol levels were very high in middle-aged men, so that even these average levels were associated with high risk. During the course of the study (between 1978 and 2000), cholesterol levels did fall, probably because participants in the study reduced the overall amount of saturated fat in their diets.

What part does cigarette smoking play in coronary heart disease?
Cigarette smoking is an important risk factor for coronary heart disease. Being a heavy cigarette smoker increases heart disease risk by a factor of at least three. After giving up cigarette smoking, heart disease risk is considerably reduced over the following 5-10 years.

Reports from the BRHS suggest that the effects of passive smoking (inhaling smoke from other people’s cigarettes) on heart disease are greater than originally thought. Heavy passive smoking exposure increases the risk of heart disease by as much as a half. At the start of the study, heavy passive smoking exposure was very common, but (with a fall in cigarette smoking as a whole) it is now much less so.
Overweight – how important for coronary heart disease and diabetes?
Being overweight is a risk factor for heart disease, but it is much more strongly related to risk of diabetes – the heaviest men in the BRHS have had a risk of diabetes about ten times higher than the lightest. It is likely that being overweight over a longer period has a particularly strong effect on diabetes risk.

Is exercise beneficial in coronary heart disease?
In the BRHS, regular physical activity appears to protect against heart disease, and even light and moderate forms of activity are beneficial. Taking up physical activity in later life appears to be good for health, even among people who were not previously active.

Is infection an important cause of coronary heart disease?
Although some people have suggested that chronic infections can be a cause of coronary heart disease, evidence from the BRHS does not support this possibility. Although some experts think that inflammation is a risk factor for heart disease risk, it is not clear that the link is causal, or that it helps to predict heart disease.

What is happening to heart disease and diabetes over time and why?
Coronary heart disease is becoming less common in the UK, partly because cigarette smoking is less common than it used to be, partly because of changes in diet and partly because of improved treatment (perhaps especially the widening use of cholesterol lowering drugs). In contrast, diabetes is becoming more common, probably because more people are overweight and less active than they used to be.

How to stay healthy?
Not smoking, keeping physically active, and avoiding gaining weight are powerful ways of remaining healthy in the longer term. The risks of developing coronary heart disease, diabetes and disability are much lower in men who have been able to do this.

Thank you to all the men who have taken part in the British Regional Heart Study - your contributions to the study have helped to make all this possible!