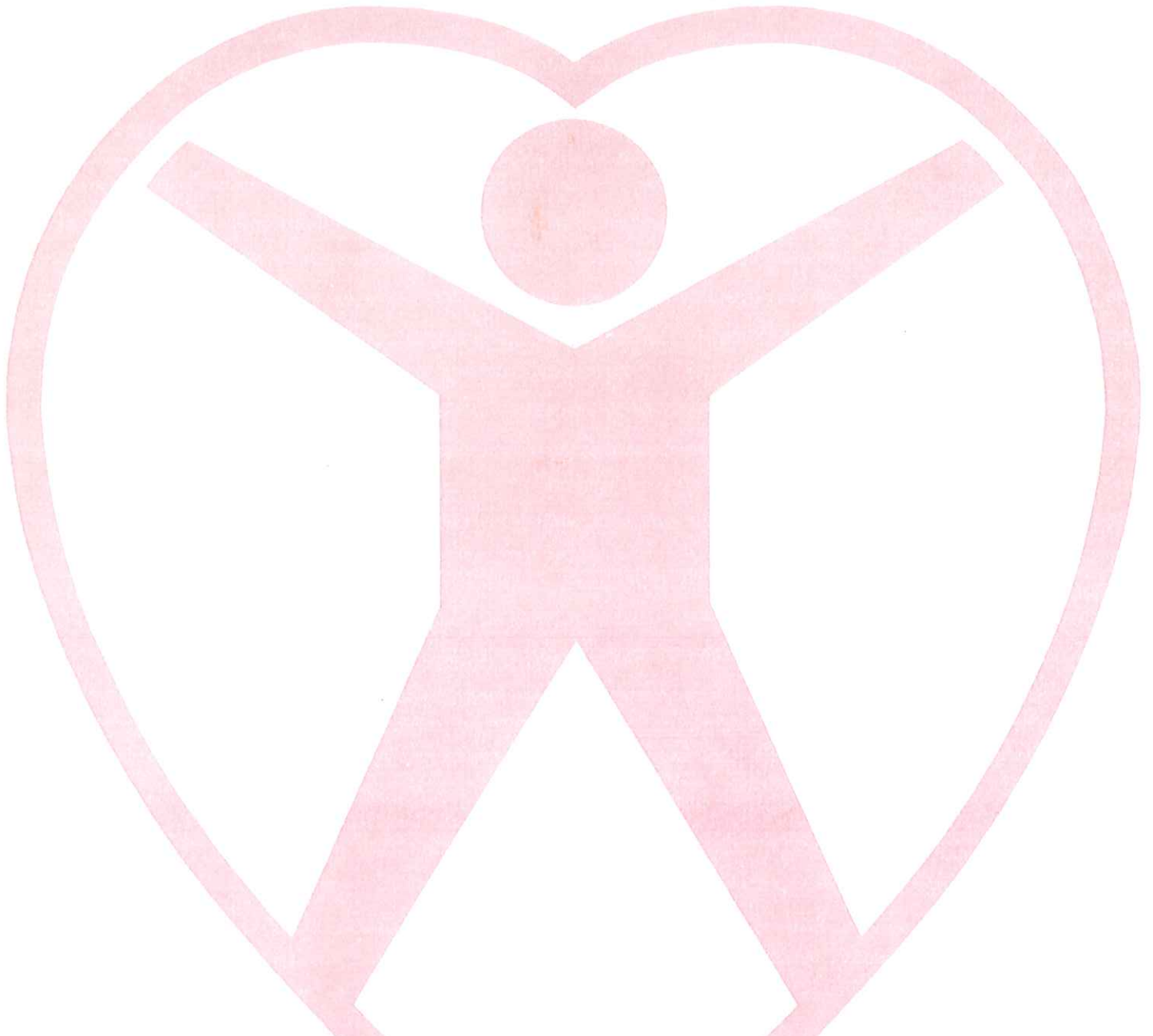


**The relationship
between grade and
health /2**

**The workplace, job
stress and sickness
absence /3**

**Watching your waist –
and looking out for
diabetes /4**

Stress & Health



Coronary heart disease is more common among people in lower status jobs than among executives and administrators. The Stress and Health Study was set up to investigate reasons for this. More than 10,000 men and women working in London-based Civil Service departments are being exam-

ined for early signs of coronary and other disease, while also completing detailed confidential questionnaires about their work, lifestyle, domestic, social and financial circumstances. A team consisting of epidemiologists, psychiatrists, biochemists, social scientists and statisticians, is testing the

hypothesis that psychological and other social conditions at work and in other areas of life act together with important influences such as cigarette smoking, lack of exercise, diet and high blood cholesterol in the causation of heart disease.

The Stress and Health Study aims to improve our understanding of how a wide range of factors contribute to health. Although the main focus is coronary heart disease, we have broadened the Study to include mental health, sickness absence and musculoskeletal disorders.

Please stay in touch

*Dear Mum,
Have left the
Civil Service but
am still in the
Stress & Health
Study*

Participants are now aged 41 to 64. Retirement and organisational changes mean that the proportion who remain working in the Civil Service is shrinking year by year. We are interested in you as an original participant in the Stress and Health Study, and the accuracy of our results depend upon continuing feedback, regardless of whether you are still working in the Civil Service or not. So please stay in contact with us.



Stress at work and sickness absence

There are many unanswered questions about how stress affects health. The Stress and Health Study is particularly interested in examining how *work stress* affects health. A large section of the questionnaire was devoted to asking about different aspects of participants' jobs. The results show that Civil Servants who reported they had jobs that were not very demanding, who had little say in how they did their work, or who had little support from work colleagues were more likely to have higher rates of sickness absence.

Contrary to the popular view that 'stress

at work' only affects those at the top, we have found that men in top Administrative grades who report demanding jobs have lower rates of sickness absence, whereas men who have demanding jobs in the Clerical and Office Support grades have higher rates of sickness absence. A supportive work environment was associated with lower sickness absence in male and female Executive officers and male Clerical and Office Support staff.

Our results suggest that Civil Servants' health and well-being could be improved by changing the work environment. For

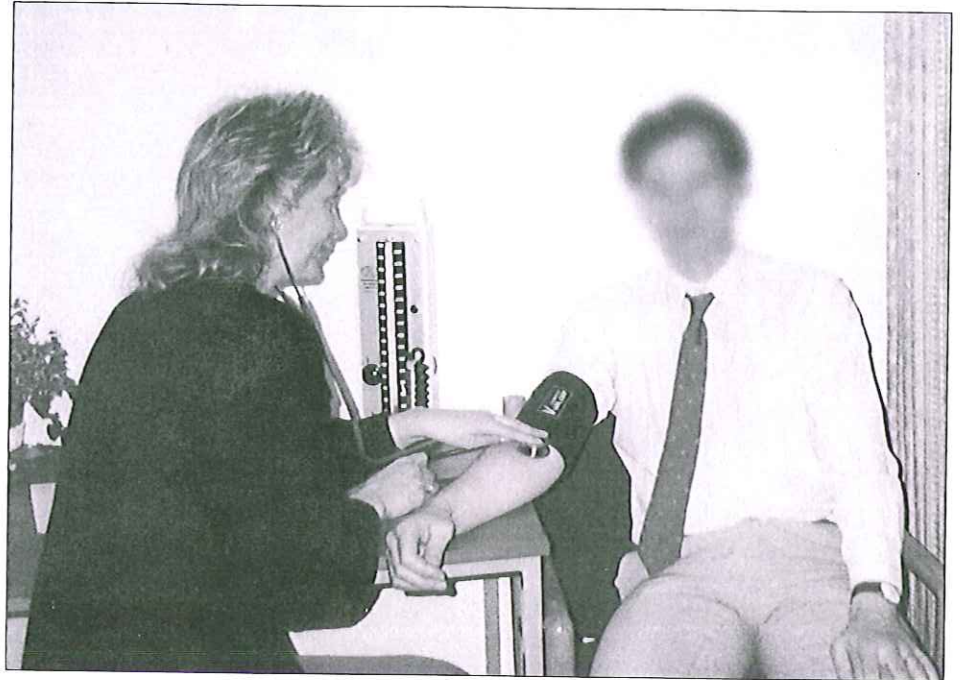
example, increasing the amount of control and support Civil Servants have in their jobs is likely to be more beneficial than just helping people cope with poor working conditions. At the same time this would increase productivity and reduce the costs of sickness absence which in 1993 cost British business an estimated £13 billion. Sickness absence rates in the Civil Service are about average for British Industry.

The importance of the work environment and its effect on health will continue to be a major focus of research in the Stress and Health Study.

The Stress & Health Study

Study now nine years old

High response rate at second medical examination



In 1985, the target population for the Stress and Health Study was all men and women aged 35-55 working in the London offices of twenty Civil Service departments. The response rate was 74% among men and 71% among women. Response rate varied by employment grade, being 81% among top three employment grade categories, and

68% among the lower three categories. The final sample size was 10,308: 6,895 men, 3,413 women.

The second medical screening commenced in September 1991, at Carrara House, opposite Embankment underground station. It involved numerous measurements including an electrocardiogram, waist and hip circumferences and a diabetes test (a memorable experience including three quarters of a pint of Lucozade and two blood tests!). While participants were waiting the two hours for their second blood test they were kept busy with a diet questionnaire and a cognitive test.

In January 1993 the screening team

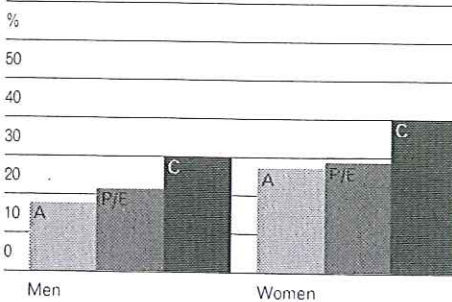
became mobile. Due to the restructuring of the Civil Service, some participants had moved significant distances from London, and so for convenience we travelled to see them. We were based either in Civil Service buildings or in hospitals.

Grade and health

Our major aim is to explain the striking relationship between Civil Service employment grade and health. The lower grades experience worse health (see Figures 1 and 2), even after taking account of a number of factors such as exercise which we know contribute to better health. We are trying to explain this relationship in different ways including stress at work (see page 3). The impact on health of relocations, change in management styles and career uncertainty are all being studied. When the Study was started this extent of stress in the workplace was not foreseen.

Figure 1

Percentage with self-rated health average or worse by employment grade

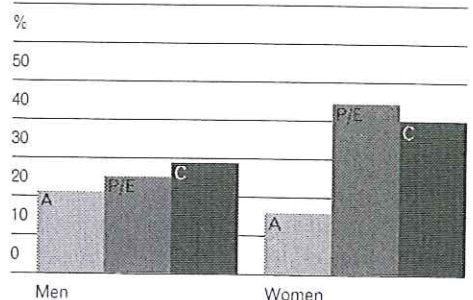


A: Administrative P/E: Professional/executive C: Clerical and other

Data adjusted for age

Figure 2

Percentage with angina by employment grade



International importance

We aim to ensure that the results of the Stress and Health Study have an impact in the workplace and in scientific and policy making arenas. The early results were published in the *Lancet* and the *British Medical Journal* and have been presented and discussed at numerous national and international meetings.

Professor Marmot of the Stress and Health Study is a member of a number of influential policy groups such as the Committee on Medical Aspects of Food Policy, the Chief Medical Officer's working group on Health of the Nation, and the



Professor Marmot of the Stress and Health Study

World Health Organisation's Advisory Committee on Cardiovascular Disease. At a recent British Medical Association conference on social inequalities in health, the Stress and Health Study was acknowledged as a pioneer in this field.

● The Medical Research Council has recently recognised the importance of our work. The Study has been awarded a further five years of funding totalling £1.5 million. The National Institutes of Health in the USA bestowed a rare honour on foreign researchers by awarding a grant to the Study.

Waist watching

What's your waistline? Among the new tests in the second Stress and Health screening examination, waist and hip measurements will most likely be remembered by many of you. It is also probable that you can recall having to drink a large glucose drink on an empty stomach. We then needed you to wait for two hours, before taking a further blood sample. But why did we put you through these tests? The glucose toler-

ance test shows how your body is able to deal with the sugars in your diet. We can then identify diabetes, or a tendency towards it, which might otherwise go unnoticed. This is important because diabetes can be treated very successfully.

The waist and hip measurements are linked to this diabetes test. Recent research shows that those with a large waistline seem to have a greater chance of develop-

ing diabetes and other health problems. It is not understood why this is so. Our Study will help to answer this question. We hope it may then be possible to improve the prevention of diseases such as diabetes.

It could be that psychological factors, including stress levels, govern the pattern of body fat. Literally, the shape you're in.

Thank you!

One of the most important parts of the Study is keeping in contact with all participants. Of the original 10,308 Civil Servants who joined the Study some 3000 have now retired, left the Civil Service or have been involved in the various organisational changes that are currently taking place within the Civil Service. We make every effort to try and keep up to date with the current addresses of all participants.

Since the first round of medical examinations, conducted between 1985-88, we have completed a further two surveys of Stress and Health participants. We are deeply indebted to all participants who have given us information on so many different aspects of their life. Your active support and cooperation has made this Study possible. We hope your enthusiasm will make subsequent phases ever more fruitful. Thank you!

Participating departments: British Library; British Museum; Cabinet Office;



Central Office of Information; Customs and Excise; Department of Employment; Department of Energy; Department of Education and Science; Department of the Environment; Departments of Health and Social Security; Department of Trade and Industry; Department of Transport;

Government Actuary's Department; Home Office; Land Registry; Ministry of Agriculture, Fisheries and Food; Ministry of Defence; National Audit Office; Property Services Agency; Training Agency (formerly the Manpower Services Commission).