

were contacted and 58% of them agreed to keep a log diary recording their activities every half hour for one week. Five definitions were created in order to classify the data and these are important as they predetermine how the activity data were analysed and presented: (A) GMS duties and not on call, for example running a clinic while a partner handles emergency calls; (B) GMS duties while on call, for example attending NHS patients in the surgery while on call; (C) non-GMS duties and not on call, for example attending a course while a deputy is on call; (D) non-GMS duties and on call, for example dealing with a private patient while on call for NHS patients; (E) other and not on call, for example being on holiday during the survey week; (F) other and on call, for example, that restless activity we call sleep while on call.

It is clear that general practitioners are not all alike in the way they spend their time. So the frequency with which each activity was recorded varied over a wide range and to summarize the data the average hours for each category were calculated. How much time was spent on activities A and B, which were defined as GMS duties? Thirty-eight hours. When time spent on call (category F) was added, the average total was 68.7 hours per week. If non-GMS duties, defined as, for example, teaching students, learning, committees and insurance work, were included the average general practitioner reported that he was working or on call for 73 hours per week. Which figure best represents the work that we do?

The DHSS were in no doubt. Consider how the findings of the survey were interpreted for the white paper: 'The survey showed that on average a family doctor spent 38 hours per week on general medical services.'² This is a selective summary, which excludes time spent on call. But, surprisingly, on-call duties reappear three paragraphs later: 'Family doctors will continue to be responsible for the care of their patients for 24 hours a day'. Is it reasonable to exclude on-call hours from the results? It may be that lack of free time and being at the beck and call of needy people contributes over time to the lower psychological well being of some doctors, including alcohol problems and suicide, and to the considerably shorter life expectancy that doctors have compared with a class matched peer group like university teachers. So perhaps on-call hours are important and should be counted in calculations of workload.

Like any good employers the Secretaries of State expressed support for in-service training. 'We recommend that all general practitioners should be actively encouraged to undertake further education.' However, the DHSS Enquiry Unit decided that in-service training was not a GMS duty. They decided instead to combine time spent on courses (category C) with time spent seeing private patients (category D). Although as independent contractors we cannot necessarily expect to get paid to keep up to date, keeping up to date is quite different from seeing private patients. The first may be regarded as a professional duty, which

may entail expense on the part of the doctor, the second is optional and attracts remuneration. Time spent on committees and in meetings was also excluded from working hours. One wonders if civil servants would exclude this time from a report of their own workload.

This question of how much time general practitioners spend keeping up to date was posed in another DHSS sponsored survey.³ The investigators found that general practitioners reportedly spent an average of 2.9 hours per week on reading, research and training courses. Is this number of hours sufficient to keep up with developments in a continuously changing field? Probably not, but before coming to a view we need more detailed information about the way in which the time is spent and the value of different levels of educational activity.

What then is the average number of hours that general practitioners work each week — 38 or 73? It depends on the definition used. Words act like carrier bags; the investigator decides what to put in each bag and in doing this pre-determines to a large extent the content and the size of each package. Once the packs are full of data, they may be used in many ways.

Assessment of workload is clearly a complex affair. Investigators in this field need first to consider what questions will be asked of the data and what definitions are therefore appropriate. In future work, investigators should also consider new approaches. Large scale surveys have in the past relied on doctors completing questionnaires and estimating their own use of time. This is a relatively inexpensive way of obtaining data from many respondents. Buchan and Richardson used direct observational methods to assess the workload of 22 doctors.⁴ Detailed quantitative and qualitative information was collected, classified and reported. This method is time-consuming and would be expensive to apply to a larger and more representative sample of general practitioners. But if investigators combine depth with breadth, this will be money well spent. We need to search for meaning, as well as cause, in building a picture of general practice which we can recognize and understand.

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References

1. Department of Health and Social Security. *General medical practitioners' workload. A report prepared for the doctors' and dentists' review body 1985/86*. London: DHSS, 1987.
2. Secretaries of State for Social Services, Wales, Northern Ireland and Scotland. *Promoting better health (Cm 249)*. London: HMSO, 1987.
3. Butler JR, Calnan MW. List sizes and use of time in general practice. *Br Med J* 1987; **295**: 1383-1386.
4. Buchan IC, Richardson IM. *Time study of consultations in general practice. Scottish health service studies, no 27*. Edinburgh: Scottish Home and Health Department, 1973.

Coronary heart disease prevention: a general practice challenge

APPARENTLY rare at the beginning of the century, coronary heart disease is now the commonest cause of death in developed countries. In the UK coronary heart disease mortality rates are among the highest in the world with more than 150 000 deaths a year (30 000 before the age of 65 years), accounting for about one third of all deaths in men (and half of those in

middle aged men) and a quarter of deaths in women.

A causal role for three key factors — elevated blood lipid levels, raised blood pressure and cigarette smoking — is now proven beyond reasonable doubt, as is the effectiveness of lowering them in reducing the risk. Other risk factors for heart disease include physical inactivity, excessive alcohol consumption, diabetes, a

family history of coronary heart disease (especially at an early age) and low socioeconomic status; only part of the increase associated with low social class is attributable to the presence of other risk factors.

There is now widespread consensus¹ that the risk of coronary heart disease can be reduced and recommendations for achieving this have come from many quarters, including recently from British cardiologists.² It is now also clear that two complementary strategies are required for effective prevention: education of the population as a whole and identification of and advice for individuals at particularly high risk.

The need for a 'population' strategy arises from the knowledge that risk factor levels in the UK are generally high compared with countries where coronary heart disease incidence is low. About two thirds of British adults have a serum cholesterol above the desirable level, about one third smoke and about one in five has a blood pressure which is regarded as elevated. In addition, because the number of people at moderate risk is much larger than the number at high risk, health education directed only at those at highest risk will have a limited effect on mortality rates.

The essential targets of this population strategy are a reduction in body weight and serum lipid levels by dietary changes in line with the Committee on Medical Aspects of Food Policy (COMA) report,³ avoidance of cigarette smoking and of excess alcohol consumption, and a general increase in physical activity.

Successful implementation of the strategy requires the collaboration of many agencies. Government should encourage and facilitate the adoption of a healthy lifestyle using educational, economic and other measures. A sensible policy should include controls on the promotion of tobacco and alcohol, and the stimulus for changes in the food and agricultural industries. The media, schools and other educational bodies, and employers in industry and elsewhere have an important part to play in collaboration with the health services. The national 'Look after your heart' campaign and community programmes such as 'Heartbeat Wales' illustrate this approach.

An essential supplement to the community approach is screening to identify and provide individual help for those who are at particularly high risk. With almost three quarters of the population making contact at least once a year, general practice is uniquely placed to implement a prevention strategy for those at high risk.⁴ This can include enquiry and advice about lifestyle (encouraged by the evidence that, increasingly, patients expect such advice) as well as opportunistic, systematic case-finding to screen for and manage individuals with especially high risk factor levels.

The target age group for such screening depends on the limitations of time and resources. A reasonable target group is the 30 to 60 year olds who form about a third of the population and are an age group which may be most motivated to change behaviour.

The basic features of this risk factor assessment include: eliciting any personal or family history of cardiovascular disease or diabetes, especially as a cause of premature death in a first degree relative; enquiring about smoking and alcohol consumption; measurement and recording of blood pressure; and measurement and recording of weight and height (at least in those who look overweight). At least one blood pressure measurement every five years should be the aim, with repeated measurements and careful assessment in those with high blood pressure.

Measurement of serum cholesterol as a screening procedure remains contentious.⁵ The risk of coronary heart disease increases steeply above a total serum cholesterol level of 5.2 mM,

being about doubled at a level of 6.5 mM and quadrupled at 7.8 mM. About two thirds of the middle-aged population in the UK have a level above 5.2 mM, about a quarter above 6.5 mM and almost 5% above 7.8 mM.⁶

As with hypertension, selective screening for high cholesterol misses many people; for example screening only those with a family history of coronary heart disease identified less than half of those with cholesterol levels over 6.5 mM.⁶ But if measurement of total serum cholesterol in all adults is not practical, a reasonable priority is selective screening of those with a personal or family history of coronary heart disease, of those with xanthomata, xanthlasma or premature cornea arcus, of those who are grossly obese, and of diabetics.

One of the virtues of screening in the general practice context is the opportunity provided for effective follow-up management and supervision after the initial screening. Smokers, those with high alcohol consumption and those who are overweight need advice and encouragement to change their lifestyle. High blood pressure needs careful assessment and if sustained above a level of about 180/100 mmHg warrants active management and possible drug treatment at least to reduce the risk of stroke. Those found to have cholesterol levels about 6.5 mM will need intensive dietary advice and follow-up and those with levels persistently above 7.8 mM warrant referral for specialist advice and possible drug treatment.

The work involved in all this is substantial and few general practitioners will manage it unaided. For most a team approach⁷ is essential with practice nurses carrying out most of the screening and advising and receptionists recruiting patients to see the nurse. This activity, supported in a number of practices by a 'nurse facilitator', has been shown to greatly enhance the screening process.⁸ But doctors have an important part to play too, in endorsing the nurses' activities and in the management of the relatively small number of patients needing drug treatment for high blood pressure or hyperlipidaemia. Specialist back-up is also required and cardiologists, lipidologists and others must play a supportive role. But the major challenge lies with general practice.

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References

1. Rose G, Ball K, Catford J, *et al.* *Coronary heart disease prevention: plans for action.* (Canterbury report). London: Pitman, 1984.
2. British Cardiac Society. *Coronary disease prevention.* London: British Cardiac Society, 1987.
3. Department of Health and Social Security. *Report of Committee on Medical Aspects of Food Policy. Diet and cardiovascular disease.* London: HMSO, 1984.
4. Royal College of General Practitioners. *Prevention of arterial disease in general practice. Report from general practice 19.* London: RCGP, 1981.
5. Hart JT. Reduction of blood cholesterol levels in the population: can it be done? *J R Coll Gen Pract* 1986; **36**: 538-539.
6. Mann JI, Lewis B, Shepherd J, *et al.* Blood lipid concentrations and other cardiovascular risk factors: distribution, prevalence, and detection in Britain. *Br Med J* 1988; **296**: 1702-1706.
7. Royal College of General Practitioners. *Prevention and the primary care team.* London: RCGP, 1986.
8. Fullard E, Fowler G, Gray M. Promoting prevention in primary care: controlled trial of low technology, low cost approach. *Br Med J* 1987; **294**: 1080-1082.