

Health promotion in general practice

Refine the approach—don't abandon the principle

EDITOR,—The problem with interpreting both the Family Heart Study Group's report of its one year trial¹ and the result of the less interventionist OXCHECK study² is that both studies tripped at the second hurdle for any clinical trial: after randomisation they failed to "screen" their controls in exactly the same way as they screened the intervention group. The Family Heart Study Group devotes much discussion to the ifs and buts of what the control results might have been and halve the observed reduction in coronary risk score to compensate. In the OXCHECK study, the figure seems to indicate, half the intervention group was compared with itself (previously measured at baseline) and half with people who were screened for the first time in year 3—not the tidiest design and confounded by remeasurement bias. These labour saving designs were no doubt adopted because of restricted funds. The other problem with design was that these subjects were all at generally lower risk of coronary events than the nation as a whole. Over a quarter of the people in the OXCHECK study were in social classes I and II, and, though socioeconomic class was not reported in the family heart study, the towns included in that study were not big urban centres; in both studies initial smoking rates (20–29%) were much lower than those nationally.

The subtitle to Nigel Stott's editorial summarises these results as "blanket health promotion a waste of resources."³ We should, however, go back to the scientific questions asked by each trial. The first question was, is reversal of risk factors (as a surrogate for primary prevention of coronary and stroke events) possible in primary care settings as a population and high risk approach? Only second came the question, are the methods used feasible and cost effective? From both studies the answer to the first question is a qualified yes; the challenge is to refine methods to improve the second answer. For those of us working with people at higher risk and from mixed ethnic groups a fall in coronary risk of 12–16%, particularly the blood pressure benefit, would be welcome. Pilot work for preventive trials in such settings are in progress.⁴ The editorial also minimises both trials' positive results. A reduction in smoking is better achieved in other ways, not least by a national ban on tobacco advertising. The probable 3 mm Hg fall in systolic blood pressure would be a major achievement in slowing the rise in blood pressure with age and hence in primary prevention of hypertension and is a vital part of the population prevention strategy.

All these methods in primary care need improved precision, to which the trials contribute. Government initiatives are at least trying to produce a change in medical attitudes towards prevention, which then reach out into the population through the people who are opportunistically screened and their families. Time is required. To recommend a return to just a high risk approach is premature and not justified by the published results.

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- 1 Family Heart Study Group. Randomised controlled trial evaluating cardiovascular screening and intervention in general practice: principal results of British family heart study. *BMJ* 1994;308:313–20. (29 January.)
- 2 Imperial Cancer Research Fund OXCHECK Study Group. Effectiveness of health checks conducted by nurses in primary care: results of the OXCHECK study after one year. *BMJ* 1994;308:308–12. (29 January.)
- 3 Stott N. Screening for cardiovascular risk in general practice. *BMJ* 1994;308:285–6. (29 January.)
- 4 Sharma S, Cade JE, Cruickshank JK. An initial assessment of food and nutrient intake for the development of a food frequency for use in an AfroCaribbean population sample. *Proc Nutr Soc* 1993;52:328A.

Doctors have a duty to the whole community

EDITOR,—The OXCHECK researchers and the Family Heart Study Group doubt whether multifactorial risk ascertainment and counselling of whole populations are worth the effort.^{1,2} What, however, did they expect from a population approach? Optimistically these studies might lead to a reduction in mortality from ischaemic heart disease of 4–8%. This compares with an annual fall in mortality from this cause currently around 7%. Sustaining change with margins of 1–2% is made easier by realistic expectations. The lower than average risk in the study populations makes the additional changes (when not due to the study design) even more impressive.

Wald *et al* also doubt the value of multifactorial risk assessment for whole populations.³ Devoting more effort to those at higher risk has been shown to yield greater individual returns (though with limited community gain). To identify those at higher risk, the risk for the whole population needs to be ascertained. For each person known by his or her general practitioner to have established cardiovascular disease there are an additional two people in the top fifth of risk on the basis of multiple risk factors.⁴ A graded response to graded risks is a prudent use of resources, can be quantified by simple risk scores, and has worked well for the administrative management of hypertension based on a three category system—at risk, at higher risk, at highest risk—corresponding to the relative risks 1, 2, and ≥ 3 .

The primary team sees 90% of the population, each person having an average of 15 consultations over five years. Intervention on the basis of graded multiple risks, with opportunistic contact backed up by systematic recall of non-respondents, is a feasible goal in the (albeit grossly underfunded) context of British primary care. Packing it into a year plus the time taken for data collection was a substantially more ambitious task.

While the commercial exploitation of screening may favour an approach in which a person either passes or fails, in reality all adults in Britain are at high risk and some are at higher risk than others. Creating a context for discriminating risk is a key task for medical staff, and informing and advising whole communities are essential parts of the political fabric for change.

The main responsibility for change lies with the government. But a medical profession that fails to advise the whole population for which it is responsible of their multiple, simply quantifiable risks is no less culpable. We need to inform and advise all people (and their families) of their risk—more often and more intensely for those with most to gain.

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- 1 Imperial Cancer Research Fund OXCHECK Study Group. Effectiveness of health checks conducted by nurses in primary care: results of the OXCHECK study after one year. *BMJ* 1994;308:308–12. (29 January.)
- 2 Family Heart Study Group. Randomised controlled trial evaluating cardiovascular screening and intervention in general practice: principal results of British family heart study. *BMJ* 1994;308:313–20. (29 January.)
- 3 Wald NJ, Law M, Watt HC, Wu T, Bailey A, Johnson AM, *et al*. Apolipoproteins and ischaemic heart disease: implications for screening. *Lancet* 1994;343:75–9.
- 4 Taylor V, Robson J, Evans S. Risk factors for coronary heart disease in inner London. *Br J Gen Pract* 1992;42:377–82.

Health promotion contributes to the battle against heart disease

EDITOR,—The two recent papers on the effectiveness of health checks in primary care report modest reductions in cardiovascular risk factors.^{1,2} If the results are applied to the whole population a sustained 1 mm Hg reduction in mean diastolic blood pressure would reduce deaths due to coronary heart disease by 4%,³ and a 2% reduction in mean cholesterol concentration would reduce such deaths by 4%.⁴ An 8% reduction in deaths due to coronary heart disease seems a considerable achievement for a single intervention at the population level, and there would be additional benefits from a reduction in mortality from other causes (for example, stroke) and reductions in morbidity. Whether health promotion in general practice is a cost effective means of achieving these benefits needs to be addressed separately. In Cambridge Health Authority around 650 people die of coronary heart disease annually. The annual cost of the health promotion programme if all practices were in band 3 would be £300 000, which would result in 52 lives saved, or 343 quality adjusted life years⁵ at £875 per quality adjusted life year. This compares favourably with other interventions.

Achieving larger reductions in mortality will require action on a broad front. Different approaches to health promotion, including public policy and legislation promoting health, individual and collective health education, and health promotion in general practice, are complementary. The effects of these different interventions may be additive or even synergistic, and health promotion in general practice should be seen in this context as a small but important part of an overall strategy.

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- 1 Family Heart Study Group. Randomised controlled trial evaluating cardiovascular screening and intervention in general practice: principal results of British family heart study. *BMJ* 1994;308:313–20. (29 January.)
- 2 Imperial Cancer Research Fund OXCHECK Study Group.