be HIV positive then surgeons and other health care workers will accept the added inconvenience and possible disadvantages of an impervious gown, double gloving, and eye protection.

This two tier system of precautions becomes controversial when applied to people thought to be in high risk groups. These judgments are not disinterested. Decisions about high risk behaviour and HIV testing will potentially benefit the staff as well as the patient, so they raise difficult ethical issues that require full discussion at an early stage and an appreciation that special counselling skills may be required. Many patients who perceive themselves to be at risk will agree to be tested because of potential benefits to themselves or theoretical protection for staff. It must be made clear to those patients who decide not to be tested, however, that clinical decisions about their management will be unaffected.

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Prospects for preventing heart disease

Population based approaches offer a cost effective way of reducing risk

Coronary heart disease remains the principal cause of death in many economically advanced countries despite a decline in morbidity and mortality in the past two decades of up to a half in the United States, Australia, Canada, and New Zealand.[1,2] The decline has been greatest among the socially advantaged and the young.[3] The fall in morbidity and mortality has paralleled changes in risk factor levels—often poorly documented—and improvements in coronary care,[1,2] and a causal relation seems likely.[4] For almost 40 years markers for risk of coronary heart disease have been known, including personal attributes such as high blood pressure, high total serum cholesterol concentration, and cigarette smoking. What is now also known is that levels of these risk factors and the prevalence of coronary heart disease vary within a given population on the basis of socioeconomic status[5] and that these variations exist even in prepubescent children.[6]

Risk factors for coronary heart disease measured and applied to groups have a limited predictive power for future coronary events in those groups. About half of the variance in most population risk equations remains unexplained.[1,2] The predictive value of risk factors is even lower in individuals,[7] yet measurement of risk factors is commonly a part of medical treatment aimed at reducing individual risk. The results from several randomised multiple risk factor intervention trials have altered perceptions of the value of intervention. Population based interventions aimed at dietary or smoking habits, or both, may lower levels of risk factors and the incidence of coronary heart disease,[8] although such studies have their critics.[9]

The medical profession's response to preventing coronary heart disease is based on several factors. Firstly, identifying people at high risk is attractive when, as with hypertension, effective and increasingly acceptable (but expensive) medical treatment is available. Secondly, difficulty in helping people to change their lifestyles, especially diet and smoking, when society actively promotes the consumption of cigarettes and convenience foods has been (and continues to be) a source of dejection among doctors. Thirdly, forces that affect the community's health, such as societal attitudes, institutionalised promotion of unhealthy lifestyles and products, and social disadvantage, have often been judged as being beyond the professional concern of doctors. As a result medical effort has been concentrated on those at high risk. If applied to the management of cholesterol concentration this approach will lead to an expensive phase of medical care as so many people in technologically advanced societies have cholesterol concentrations that place them at increased risk of coronary heart disease. Furthermore, such an approach is less likely to reach those in most need—the socially disadvantaged.[10]

An alternative approach, which is not incompatible with clinical intervention for people at high risk, seeks to reduce risk factors in a society as a whole. Small changes made by the entire community may shift the mean values of risk factor prevalence and lead to a greater reduction in the incidence of coronary heart disease, at less cost per life saved than the "high risk" approach alone.[7,11] But even with this approach extra effort may be needed among those groups in the population at added risk—that is, the socially disadvantaged. Because unhealthy lifestyles may be less entrenched in the young, children should be included in preventive programmes.[8]

The difficulties of a population preventive approach have been well described by Rose and include a lack of clinical satisfaction (for doctors never know whether they really did anything for any particular patient) and the fact that few are enthused by the idea of making changes on behalf of the community in general—a "tax" on behaviour that may or may not yield a personal dividend.[7] Furthermore, the political nature of attempts to redress outcomes of social inequality is unfamiliar or unacceptable territory for some medical practitioners.

None the less, the medical profession ought to weigh carefully the high risk and the population based approaches to prevention [see also p 1031]. If a policy based on concentrating

on those at high risk is adopted to the virtual exclusion of one based on population measures the impact on the community will be limited and bought at a high price. General practitioners and other doctors can contribute to population preventive efforts by helping all their patients to "take one small step to the left" on the distribution curve of risk of coronary heart disease.

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Clinical recognition of early invasive malignant melanoma

Looking for changes in size, shape, and colour is successful

The incidence of melanoma has risen by 80% in Scotland in the past decade (Scottish Melanoma Group registration figures, 1979-89), with similar rates of increase reported in many other countries.[1] The outcome of disseminated melanoma is disappointing, and palliation rather than cure is all that can be achieved. If, however, stage I cutaneous melanoma is identified and excised when it has invaded less than 1 mm into the dermis the five year disease free survival figures are encouraging, at around 90%. For this reason health education campaigns aimed at helping the public to identify possible early invasive malignant melanoma and seeking medical advice have been carried out in Europe and North America over the past five years. In Australia, the country with the highest incidence of melanoma in the world, they have been going on for the past two decades.[2]

Public education campaigns need simple guidelines on what to look for in a pigmented lesion and what action to take if these features are identified. In early melanoma the guidelines need to encourage self referral with melanoma without unduly increasing referrals with the much more common benign pigmented cutaneous lesions such as banal pigmented naevi and seborrhoeic keratoses. Because of the seriousness of melanoma, however, the aim is that no early melanoma should be screened out on the basis of the advice offered. Thus sensitivity is more important than specificity and some element of overreferral is unavoidable. In the British health system guidelines also need to be made available to general practitioners, whereas in some other countries patients refer themselves direct to a specialist.

Our experience with public health campaigns dates from 1985, when we ran an early detection campaign for melanoma in the west of Scotland.[3] Before any public education took place a booklet was circulated to all family doctors in the west of Scotland detailing the reason for the campaign and offering advice on lesions that should be referred.[4] This advice was based on seven features that, taken together, we had observed more commonly in melanoma than in non-melanoma pigmented lesions. The features characterise early invasive melanoma, not melanoma in situ, as the gold standard for accurate diagnosis remains histological examination of the excised specimen and not all pathologists agree on criteria for melanoma in situ or its prognostic importance and biological behaviour. The checklist is therefore based on a study of early but invasive level 2 or deeper lesions which, if not excised, are likely to progress.

For the 1985 campaign the seven points in the checklist were, in order: sensory change, often described as a greater awareness of the lesion but also as a mild itch; diameter of 1 cm or greater; growth of the lesion; an irregular edge; irregular pigment with different shades of brown and black in the lesion; inflammation (a reddish tinge within the lesion); and crusting, oozing, or bleeding. The advice offered to general practitioners was that, though referral of any pigmented lesion that was causing concern was welcome, in practice melanomas were likely to have three or more of these features, and that use of this checklist should help in selecting patients for referral.

Initial assessment of the value of this campaign was based on monitoring the thickness of all melanomas in patients living in Scotland, as this is the most accurate prognostic guide, and final assessment will be based on any observed changes in mortality. In the five years before 1985 melanoma thickness showed no significant change from year to year, but from 1986 onwards we have seen a significant shift in favour of thin lesions with a good prognosis. The numbers of melanomas continue to rise, but the number of thick lesions is unchanged, and the rise is confined to the thin group.[3] In our own clinic for pigmented lesions, to which patients are referred by their family doctors, one melanoma is seen for every 20 non-melanomas, and this ratio has also been reported in other pigmented lesion clinics in Britain. This contrasts with one melanoma for every 250 lesions examined in self referral clinics in the United States and one in 500 for a self referral free examination campaign conducted on Dutch beaches in 1989. Thus British general practitioners are excluding non-melanomas with considerable skill.

More seborrhoeic keratoses are referred in Britain than in Australia, and as these often itch we thought that the position of itch as the first of the seven points—although logical as the only symptom—was perhaps attracting more attention than was warranted. In addition, in 1985-9 we observed a reduction not only in the depth of melanomas excised but also in their surface area and diameter. For these reasons and on the basis of 100 melanomas examined consecutively in this department in 1989 we revised the seven point checklist last year.[5]

The important point of the revision is that there are now