and disease and improving the quality of life, and that the early detection of disease is only a means to this end.

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Editor

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Screening for malignant melanoma

Marked increases in the incidence of and mortality from malignant melanoma have occurred in white populations throughout the world during the past few decades. For example, in England and Wales the age standardised mortality from malignant melanoma has increased by over 80% in men and 50% in women in the 15 years from 1975 to 1990 (fig 1). In 1987 over 3000 new cases of malignant melanoma were registered in England and Wales. It ranked as the 17th commonest cancer in women and the 18th in men, with an overall incidence of 46 new cases per million per year in men and 78 new cases per million per year in women.

Malignant melanoma is a suitable candidate for screening evaluation because survival is much greater if the disease is detected at an early stage of its development, before it has metastasised (table). There is an important relation between survival and the depth of the tumour when first diagnosed: survival is 81% at four years for tumours over 3 mm thick and 100% for those less than 0·75 mm thick.[2]

Over 30% of deaths in adults aged 15–75 in England and Wales occur in those under 50 years of age (fig 2). The potential years of life saved by screening might thus be considerable. Figure 2 also gives an indication of suggested lower age limits for screening programmes. Screening people above age 40 allows the possibility of detecting most cases.

Early detection and potential benefits are, however, not enough. There is no evidence that screening for malignant melanoma saves lives; improved survival may be due to detecting tumours at an early stage in their natural history

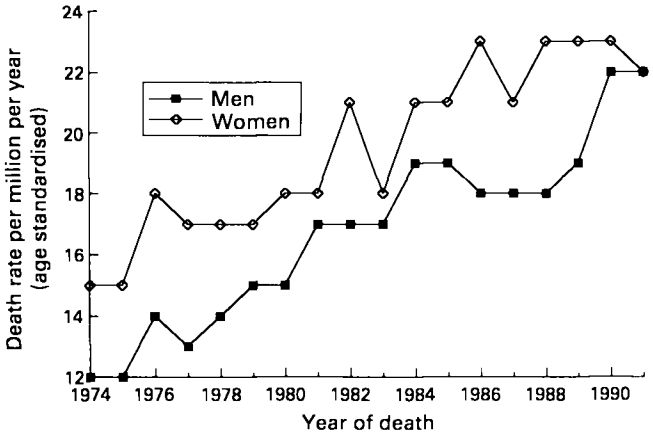

Figure 1 Age standardised death rates due to malignant melanoma in England and Wales 1974–91. Source: Office of Population Censuses and Surveys mortality statistics.

Five year survival by sex and stage at diagnosis[1]

Stage	*Five year survival rate (%)*	
	Men	*Women*
Localised	62	80
Regional	29	32
Distant	10	28

Figure 2 Number of deaths due to malignant melanoma in England and Wales (1991). Source: Office of Population Censuses and Surveys mortality statistics.

and potentially identifying those with a less malignant course without having an effect on death rates from this disease.

There is a major problem of skin cancer screening; screening for malignant melanoma leads to the detection of other skin conditions, many of which have a benign outcome, such as squamous cell carcinoma, basal cell carcinoma, dysplastic naevus, congenital naevus, actinic keratoses. The potential benefits of earlier detection are small and the cost in terms of extra procedures and anxiety might be great; in one study over 30% of subjects screened were referred for follow up, with only 3% being referred for suspected melanoma.[3]

Professor Elwood, in his paper "Screening for melanoma and options for its evaluation" on page 22, details the potential benefits and hazards of screening for melanoma. This paper establishes that there are insufficient data on whether screening for malignant melanoma is worthwhile and that ideally a large scale randomised trial is needed before screening for melanoma is introduced. This is an important conclusion which should open a discussion on the design of such a trial, including the specification of a target group, the method of examination, and the interval between examinations. It represents a major research challenge.

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