ENHANCING THE EARLY DETECTION OF MELANOMA IN QUEENSLAND

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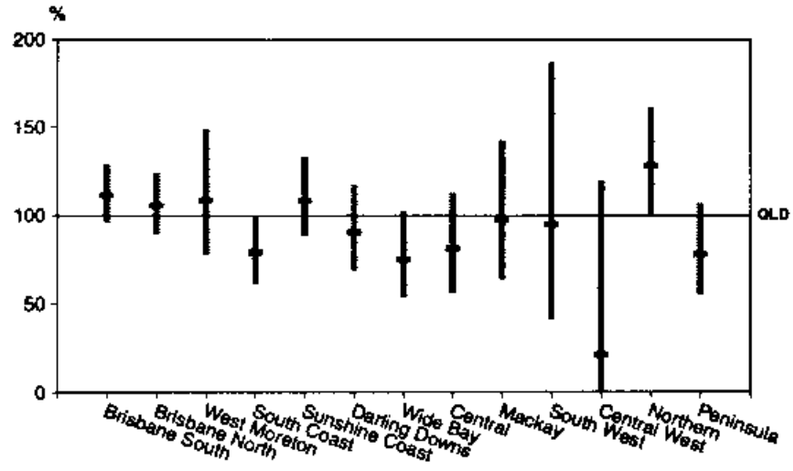
QUEENSLAND HEALTH

EPIDEMIOLOGY AND HEALTH INFORMATION BRANCH

MALIGNANT MELANOMA IN QUEENSLAND

Queensland has the highest incidence of malignant melanoma in the world[1,2]. The incidence rates have increased four fold during the last two decades. Malignant melanoma is now the most common cancer in Queensland and it is increasing at a faster rate than other cancers. The incidence rates are highest amongst males and older people, and are increasing, particularly amongst older males[1]. Between 1982 and 1990 the incidence rate per 100,000 population has risen from 400 to 761 for males and from 372 to 628 for females.

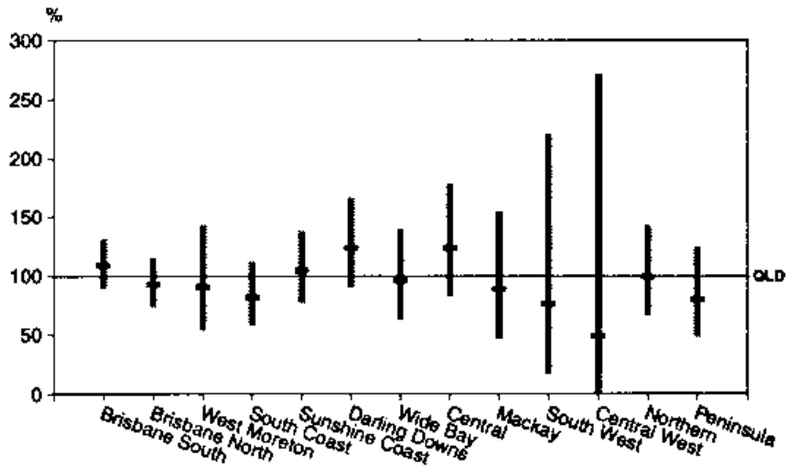
Figure 1: Indirect standardised mortality ratios (males) for malignant melanoma : 1982-91*



* Standard population: Queensland 1986
95% confidence intervals

Source: Epidemiology and Health Information Branch

Figure 2: Indirect standardised mortality ratios (females) for malignant melanoma : 1982-91*



* Standard population: Queensland 1986
95% confidence intervals

Source: Epidemiology and Health Information Branch

Indirectly standardised mortality rates for melanoma are shown above (Figure 1, Figure 2). Confidence intervals are quite wide due to the small populations and small numbers of deaths in some regions. There was little significant variation in mortality for males and females across health regions.

There is increasing concern about the health-related effects of the depletion of the ozone layer. From 1980-1988 the loss of total ozone has averaged about 2% for mainland Australia. It has been estimated that this was associated with a 4.5% increase in effective UV-B in Brisbane[3].

EARLY DETECTION

While long term attention must remain on primary prevention through the promotion of sun-protective behaviours and the development of a sun-safe environment, early detection offers the possibility of reducing the burden from these cancers in the short term.

The best indicator of prognosis after diagnosis of invasive malignant melanoma is tumour thickness[4].

GOAL AND TARGETS

The "Goals and Targets for Australia's Health in the Year 2000 and Beyond" included as a proposed target "to increase the early diagnosis of melanoma (the proportion of invasive malignant melanomas less than 0.76 cm at diagnosis)"[5]. More specifically, the Australian Cancer Society (ACS) proposed that by the year 2000 at least 60% of treated melanomas in Australia should be at thickness less than 0.76 cm. In Queensland the percentage of malignant melanomas detected when they were thin was already 56% in 1989[1]. To achieve a substantial reduction in deaths in Queensland, it would be necessary to increase this percentage to 80%, which would reduce melanoma deaths to 65 per annum[6].

POSSIBLE STRATEGIES FOR EARLY DETECTION

The ACS's National Cancer Prevention Policy classified strategies for early detection into public education, professional education and research[8].

The policy stated that "public education should focus on the nature of abnormalities which require medical attention" and "the need to seek medical attention if an abnormality is detected". It supported the promotion of deliberate regular self-examination only when research data have demonstrated its acceptability and efficacy.

The policy called for "increased surveillance - both self-examination and professional surveillance where appropriate" amongst people considered a high risk; including those with dysplastic naevi and solar keratosis. While the policy did not advocate that medical practitioners conduct regular skin examinations on all patients, the ACS has, on other occasions, encouraged medical practitioners to "take the opportunity to look at the skin of their patients when they are examining them for something else"[7]. It is unclear whether or not full body checks were envisaged. The ACS's position is not universally accepted with some organisations recommending regular skin self-examination or skin screening by health professionals or both[8,9].

"SPOT THE DIFFERENCE" CAMPAIGNS

In recent years the ACS and state cancer councils have encouraged Australians, during "Spot the Difference" campaigns, to check their skin and see their doctor if something worries them. There is some evidence that these campaigns do indeed encourage people to undertake such behaviour. During the 1991 campaign the average number of GP consultations involving a skin examination rose by 56% in three regional Queensland cities (Bundaberg, Cairns and Mt Isa) during the campaign before falling to prior levels[10].

More recent debate has concentrated on the structure of more organised early detection activities. Options include various combinations of skin self-examination and medical practitioner examination, sometimes involving only those considered to be at high risk of developing malignant melanoma[11].

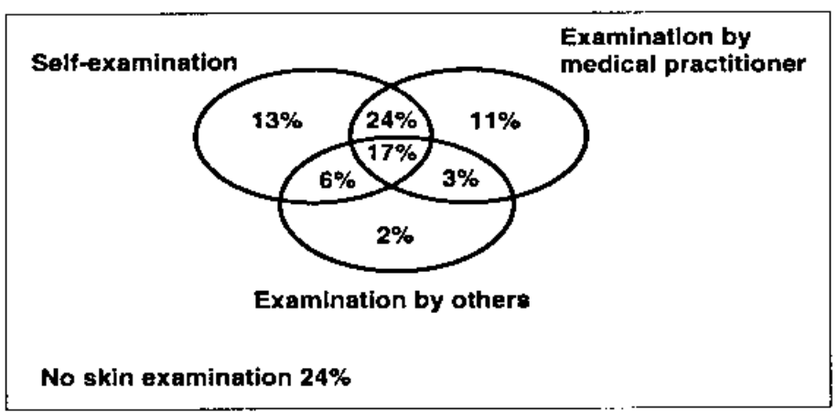
RECENT BEHAVIOURAL RESEARCH

Recently, the Cancer Prevention Research Centre (University of Queensland) conducted a number of studies of behavioural aspects of early detection. These have included personal interviews of 995 randomly selected Gold Coast adult residents[12], a GP-based study involving 46 general practitioners in three regional Queensland cities[10], and a survey of medical superintendents and other staff members in 112 Queensland public hospitals[13].

A strong feature of the Gold Coast survey was the very high level of activity apparently being undertaken. Three quarters (76%) of adult Gold Coast residents reported that they currently engaged in some form of skin examination behaviour by either currently examining their own skin for early signs of skin cancer, having another person check their skin for changes, or going to their GP or skin specialist to have their skin checked (Figure 3). Similar results have been observed in Queensland components of national surveys[14].

It is clear from Figure 3 that only a relatively small proportion (about a quarter) of respondents relied on a single method. Most utilised at least two types of skin examination. For example, 41% of all respondents checked their own skin and went to a medical practitioner for skin examinations.

Figure 3: Percentage of Gold Coast adult residents who engage in skin examination behaviours (n=993)



Source: Cancer Prevention Research Centre, 1993

Skin self-examination

Overall, 60% of Gold Coast residents reported that they currently checked their skin for early signs of skin cancer. Closer questioning, however, revealed that many of these examinations may be inadequate (Table 1).

Table 1: Characteristics of skin examinations of Gold Coast residents who reported skin examination behaviours

A. Coverage of skin checks reported by those who checked their own skin (n = 601)	
Face and neck	89%
Arms and hands	84%
Legs	65%
Shoulders and back	61%
Chest and abdomen	54%
Feet	23%
B. Coverage of skin checks reported by those who were examined by someone other than a medical person (n = 271)	
Specific moles, freckles or spots only	57%
General look	52%
C. Coverage of skin checks reported by those who were examined by a G.P. or skin specialist (n = 547)	
Specific moles, freckles or spots only	37%
Whole body only	5%
Specific moles, freckles or spots; and whole body	14%

Large numbers of respondents did not check body areas where large percentages of melanoma arise such as the shoulders and the back (41% of melanomas in males and 23% in females), and legs (16% of melanomas in males and 32% in females)[1]. Nearly one half (45%) of those who reported that they currently checked their skin checked no more than three of the six broad body areas specified. Moreover, over three quarters (77%) reported that they checked their skin six or more times in the last year. These data suggest that many who reported that they currently checked their skin do not deliberately check their whole body on a regular basis but were simply describing the viewing of body areas seen commonly during daily life. In fact, only 13% of all residents reported that they had checked their skin at least once a month in the last year and, when doing so, viewed at least one body area not usually seen during daily life.

Recent face-to-face interviews with 590 Victorian residents aged 14 years and over revealed that many had misconceptions about the early signs of melanomas. The authors were particularly concerned about the popular belief that early melanomas were raised[15].

A community study of delay in presenting to GPs with signs of melanoma recently conducted in the Hunter region of New South Wales found that only 32% of those who reported potential signs of early melanoma in the last five years sought medical advice within the recommended period[18].

Examination by others

Twenty eight percent of Gold Coast residents reported that another non-medical person checked their skin for changes; although this was rarely done without self-examination (Figure 1).

In only about half (52%) of such cases did the check involve a general look over the whole body (Table 1).

Skin examinations in general practice

While 55% of all Gold Coast residents reported that they go to their GP or skin specialist to have their skin checked, most of these examinations did not cover the whole body and may be considered inadequate (Table 1). Nearly all (91%) respondents who reported undergoing such examinations had only specific moles, freckles or spots checked. Only one quarter (26%) of those who had specific moles, freckles or spots checked also had their whole body checked.

Few respondents (15%) had actually been taught how to check their skin. Amongst the 29% of respondents who had ever been advised to check their skin, only 33% reported that they had been instructed how to do so.

In the study of GPs in three Queensland regional cities, the examination in many (40%) of the consultations involving a skin examination was described by the GP as the secondary reason for the visit. In the remaining 60% of consultations where the skin examination was described as the "primary reason" for the visit, other services not related to skin cancer may have been provided[10].

Moreover, 89% of skin examinations that were undertaken in GP consultations were initiated by the patient. During the 1991 "Spot the Difference" campaign it was the number of patient-initiated skin examinations that increased significantly and not the number of such examinations initiated by general practitioners.

Skin examinations by other primary care providers

As might be expected, a recent survey of Queensland public hospitals revealed that only about 13% of all hospitals, as a matter of routine, conducted skin examinations on all patients, irrespective of their condition. A further 60%, however, did so only if it was part of usual patient management. Nearly one quarter (23%) reported that they routinely encouraged all patients to check their skin regularly[13].

Nevertheless; there was some support for these activities: 49% of medical superintendents and 79% of other nominated staff thought it was appropriate to undertake skin examinations on all patients. Eighteen percent of medical superintendents and half (52%) of other nominated staff thought it appropriate to run skin examination clinics for members of the general public to screen for early signs of skin cancer[13].

ENHANCING EARLY DETECTION ACTIVITIES

Public education programs should emphasise the need to inspect the whole body when conducting skin self-examination. Given the difficulty of examining areas such as the scalp, shoulder and backs, and backs of legs, one strategy might be to encourage people to have another non-medical person, such as a spouse, other family member or friend, check such body areas. In particular, the use of partners to either undertake supplementary skin checks or fully body checks is an approach that might be particularly acceptable to older males amongst whom incidence in Queensland is increasing particularly quickly[1] and who are a target group of the 1993 "Spot the Difference" campaign .

Community awareness programs should encourage people who go to their GP for clarification of a suspicious mole, freckle or other spot, to extend the examination to their whole body. Similarly, GPs should be encouraged to undertake skin examinations of the whole body when a patient presents with a suspicious mole, freckle or spot.

On advising a patient to check their own skin, GPs could be encouraged to teach their patient how to do so. Such occasions also represent an opportunity for GPs to give their patients educational messages regarding primary prevention through sensible sun-protective behaviours.

Other health care providers could be encouraged, where appropriate, to become involved in the early detection of malignant melanoma. While public hospitals could become more involved in specific education programs such as the "Spot the Difference" campaigns, there is some support amongst staff for a more systematic and formal approach. The feasibility of having nurses in remote areas, for example, checking their patient's skin while bathing them, and then referring them for clarification if necessary, could be explored.

There is clearly a continuing need to improve community knowledge about the characteristics of early melanoma and the necessity to seek medical attention when an abnormality is found.

While professional education should continue to focus on the actual skills required to improve diagnostic ability, they could also address the behavioural issues associated with conducting skin checks during a consultation.

Finally, early detection activities should not be increased without ensuring first that high quality diagnostic and treatment services are available to all population subgroups.

Given the importance of melanoma and skin cancer in Queensland, work on the development of a state skin cancer policy is underway.

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