

Sun Protection Initiatives: What is Happening in Cornwall?

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Abstract

Recent evidence indicates that there are significant numbers of cases of malignant melanoma in the UK, most of which are due to excessive exposure to the sun. In order to assess the current position with regard to sun awareness in Cornwall, a questionnaire survey of all state primary school heads (n = 123) and a survey of a random sample of GP practices (n = 9) was carried out. The data obtained was supported by visits to libraries and Tourist Information Centres at urban and rural centres – this enabled the identification of sun awareness literature. Key health professionals who worked within the field of health promotion were also contacted.

The findings showed that in Cornwall public campaigns organised around the issue of sun protection took place only sporadically, although GP surgeries usually organise a display at the appropriate time of the year. None of the public places (e.g. Tourist Information Centres, libraries) surveyed had sun protection messages on display.

It is concluded that insufficient sun awareness initiatives were being undertaken in Cornwall. Although most primary schools included sun awareness education in their curriculum in a form based on the Sun Awareness Guidelines produced by the Department of Health in 1995, few schools considered further measures to protect pupils on hot and sunny days. In particular the provision of shade, the scheduling of outdoor activities and the use of sunscreen and protective clothing were not standard.

Introduction

The statistics collated on the incidence and death from skin cancers present a picture that is hard to ignore. In the United Kingdom in 1997 there were 4,690 new cases of and 1,378 deaths from malignant melanoma in England and Wales; in Cornwall and the Isles of Scilly there were 170 new cases of and 33 deaths from malignant melanoma (Cornwall Dermatology Research Unit 2002, personal communication). Whilst these figures may not appear alarming in the context of the incidence of and mortality from other cancers, it has to be remembered that, as with so many cancers, much can be done to avoid development of skin cancer; and that the costs of treating skin cancers could be spent on other health priorities (Hill & Dixon, 1999). The accepted epidemiological position is that excessive, intermittent exposure to the sun resulting in severe sunburn early in life, predisposes individuals to develop malignant melanoma in later years (e.g. Cooke & McNoe, 1991). Non melanoma skin cancer is linked to protracted and persistent sun exposure over many years, rather than acute episodes of sunburn (Gould, personal communication, 2002). As a consequence, many health education initiatives and intervention studies have had at their focus programmes designed to encourage individuals to prevent damage to the skin from over exposure to the sun. Programmes include community programmes such as those implemented in Australia. For instance, the SunSmart programme in Victoria (e.g. Anti-Cancer Council of Victoria, 1997) has been reported to produce an improvement in sun protective behaviours (Dixon & Borland, 1997). There has also been an associated decrease in the incidence of some skin cancers in those aged under 50 years with the introduction of primary prevention campaigns in Australia (Staples et al. 1998).

Other work supports the success of effective implementation of sun awareness programmes. A randomised controlled trial undertaken in 10 communities on the east coast of the United States of America indicated the importance of a multifactorial approach to sun protection programmes. This trial targeted primary schools, day centres, beach areas and general practitioner centres (Grant-Peterson et al. 1999). This study is notable not only because of the multifaceted intervention design, but also the rigorous nature of the research in utilising the randomised controlled trial.

The focus of the programmes referred to above has been interventions designed to bring about behaviour change in relation to sun protection behaviours; typically endpoints have been observed or self-reported behaviour and knowledge levels have been recorded.

Other studies have designed interventions aimed at improving knowledge about the risks of over exposure to the sun and have had as endpoints changes in knowledge levels without accompanying behaviour change (Vitols & Oates, 1997; Thornton & Piacquadio, 1996). The limitations of such research designs are clear when examining models of health behaviour which aim to predict the factors most likely to influence behaviour; cognitive factors such as knowledge and attitudes are only two of the many factors that influence motivation to behave in a particular way (Sarafino, 2002). A review of studies that have implemented school-based interventions illustrated that the majority of programmes that directly instructed children improved knowledge; and that multiunit presentation programmes also consistently improved sun protection behaviours (Buller & Borland, 1999).

Most of the above studies have been undertaken overseas; in the United Kingdom, however, it is evident that as a health issue the prevention of skin cancer and malignant melanoma is not high on the list of priorities in terms of health education initiatives. This is despite a national government target to make available resources to target those at risk of skin cancer in order to help prevent this disease (Secretary of State for Health, 1998). A questionnaire survey of primary and secondary schoolteachers in Glasgow, for example, revealed that sun awareness was least frequently discussed in a list of six topics (e.g. drug use, healthy eating, sexual health) and that sun awareness as an issue was considered least important by 33% of respondents. However, almost all the sample indicated that they had no classroom resources for teaching children about sun awareness (Fleming et al. 1998). Such findings are confirmed in a more recent survey of schoolteachers in England where it was reported that only 39% of the sample of 971 had seen the nationally produced Sun Awareness guidelines, and that more than one-third of respondents did not include aspects of sun awareness in their curriculum (Horsley et al. 2000).

Research has indicated that primary school children are well aware of the dangers of over exposure to the sun (e.g. Newton Bishop et al. 1997; Morris et al. 1998). Hill & Dixon (1999) have argued that basic learning principles complement the epidemiological arguments for promoting sun protection behaviours in childhood. They cited research that has shown a U-shaped curve of sun protection behaviours with age with positive attitudes to tanning etc. increasing between those aged 8 and 15 years. It is clear, therefore, that primary schools are an opportune place to try and develop awareness in young children about the dangers of over

exposure to the sun that interventions at this stage will result in enduring behaviour change (Horsley et al. 2000). The aim of this survey is to explore the nature of sun awareness health education initiatives that have been used in Cornwall with a view to developing a strategy on how best to use health education resources in order to reduce over exposure to the sun.

Methods

Design

- (i) A cross-sectional survey of primary head teachers in Cornwall (n=227) was identified via the Cornwall County Council Education Department. The questionnaire designed by Horsley et al was used as the basis of the study (Horsley et al. 2000).
Questionnaires were mailed by the County Council Education Department in June 2001 with a follow up mailing in July 2001. To encourage a good response, teachers were advised that completed questionnaires would be entered into a draw for £100.

- (ii) Informal interviews were held with key staff who worked in health promotion, the public health department of the Cornwall & Isles of Scilly Health Authority, the Dermatology Research Unit at RCHT at Treliske, and with practice managers of a random sample of nine GP practices in Cornwall. (Ten practices were selected – two from each Primary Care Trust – but one failed to respond). A representative of the Department of Health with responsibility for school resources was also contacted by e-mail.

- (iii) Libraries and tourist information centres were visited in several towns (Truro, Falmouth, Newquay, Penzance, St Ives and Helston) to examine the extent to which documentation relevant to sun protection behaviours was displayed. These towns reflected a mixture of key tourist centres and non-tourist centres. These visits were undertaken during July and August 2001.

Results

(i) Response data and characteristics of respondents' schools

Completed questionnaires were received from 123 out of 227 mailed which represents a 54.2% response rate. Non-respondents were contacted twice after the initial mailing to encourage a representative response. The reasons for non-completion of questionnaires are unknown, but based on anecdotal evidence may have been due to excessive paperwork experienced by senior school staff. It is of course possible that schools that give sun protection issues a low priority would be less inclined to put aside time to complete the questionnaire, either because of other perceived priorities or potential embarrassment in revealing the lack of school activity in this area.

Respondents from senior staff levels (n = 98) included headteachers, acting headteachers, assistant headteachers and deputy headteachers.

Health education specialist respondents (n = 9) included science coordinators and PSHE coordinators.

Respondents who were neither senior staff nor health education specialists included school secretaries and administrators, class teachers and classroom assistants (n = 14). A further two respondents did not provide a job title.

The survey was headed 'Headteachers' questionnaire' so it is to be expected that senior staff would for the most part complete the survey. Respondents from 75 schools stated that an individual member of staff held overall responsibility for the coordination of health education. Thirty-one (41%) of these 75 questionnaires were completed by the most appropriate member of staff, but with teachers frequently fulfilling a number of different roles the figure may be higher. Because of the nature of rural communities in Cornwall, there are many primary schools with only a handful of teaching staff. The headteacher in such cases will be expected to take on a number of co-ordinating roles, including health. It was concluded that because so many of the schools that completed the survey had small numbers of pupils, the person completing the questionnaire (usually the head) would be sufficiently aware of the sun protection policy in the school to give accurate information.

Table 1: Characteristics of Respondents' Schools (n = 123)
(Numbers do not always sum to 123 due to missing data)

| Area | Proportion of Pupils | | | | | | | |
|---|---------------------------------------|----------|--------------------------------------|----------|---------------------------------------|----------|-------------|----------|
| | <25% of the school's pupils | | 25-75% of the school's pupils | | >75% of the school's pupils | | None | |
| | n | % | n | % | n | % | n | % |
| Coastal | 26 | (21.1) | 11 | (8.9) | 29 | (23.6) | 14 | (11.4) |
| Rural | 18 | (14.6) | 23 | (18.7) | 61 | (49.6) | 1 | (1.0) |
| Suburban | 15 | (12.2) | 7 | (5.5) | 7 | (5.7) | 23 | (18.7) |
| Urban | 19 | (15.4) | 8 | (6.5) | 10 | (8.1) | 21 | (17.1) |
| Inner city | 10 | (8.1) | 0 | (0.0) | 0 | (0.0) | 33 | (26.8) |
| An 'Area of family stress' | 20 | (16.3) | 9 | (7.3) | 2 | (1.6) | 22 | (17.9) |
| Socioeconomic status of pupils' families | | | | | | | | |
| Non-manual | 39 | (31.7) | 62 | (50.4) | 6 | (4.9) | 0 | (0.0) |
| Manual | 13 | (10.6) | 91 | (74.0) | 4 | (3.3) | 0 | (0.0) |
| Unemployed | 70 | (56.9) | 32 | (26.0) | 1 | (0.8) | 0 | (0.0) |
| Ethnic group of pupils | | | | | | | | |
| White | 0 | (0.0) | 1 | (0.8) | 121 | (98.4) | 0 | (0.0) |
| Black Caribbean | 13 | (10.6) | 0 | (0.0) | 0 | (0.0) | 23 | (18.7) |
| Black African | 12 | (9.8) | 0 | (0.0) | 0 | (0.0) | 25 | (20.3) |
| Black (other) | 20 | (16.3) | 0 | (0.0) | 0 | (0.0) | 20 | (16.3) |
| Chinese | 15 | (12.2) | 0 | (0.0) | 0 | (0.0) | 23 | (18.7) |
| Indian | 12 | (9.8) | 0 | (0.0) | 0 | (0.0) | 25 | (20.3) |
| Bangladeshi | 5 | (4.1) | 0 | (0.0) | 0 | (0.0) | 26 | (21.1) |
| Pakistani | 7 | (5.7) | 0 | (0.0) | 0 | (0.0) | 26 | (21.1) |

The profile of a typical respondent school contained a high percentage of pupils from coastal and rural areas, with the majority from families with parents employed in manual labour, although significant numbers were from families experiencing unemployment. The ethnic groups mirrored the demographic picture for Cornwall, with a very large majority of white pupils, although all of the main ethnic groups were represented.

(ii) Current Implementation of the DoH Sun Awareness Guidelines in Cornish schools

Impact of the Sun Awareness Guidelines

The Sun Awareness Guidelines were introduced by the Department of Health in 1995 and were circulated nationally. Seven guidelines were issued as a pointer to each school formulating a policy on sun awareness:

Education:

to include sun awareness and sun safety issues in appropriate curriculum areas, particularly health and physical fitness projects

Uniform:

to address the issues of using clothing as protection in the design of school uniform and PE kit, including long sleeved, collared T-shirts and wide brimmed or legionnaire style hats

Shade:

to provide shaded areas during lunch and break periods using trees and buildings. To consider such issues in the development of school grounds

Outdoor activities:

to take appropriate precautions on days when sunburn may be an issue for fairer skinned children. To extend policy considerations to special activities such as sports days and school trips taking into account the intensity of the midday sun

Sunscreens:

use of sunscreens should be permitted in schools. Teachers and other carers should ensure they are used correctly

Staff:

make provision for teachers and carers to understand sun awareness policies and be updated on such issues. To encourage staff to follow protection procedures and act as role models

Alliances:

to collaborate with parents, governors and other agencies to raise awareness amongst children and develop a healthy school policy (Health Education Authority, 1995)

Approximately 50% of respondents (61) said they had seen the Sun Awareness Guidelines. Of the respondents who had seen the Guidelines, 49.2% (30) said they had found them useful.

Implementation of the Sun Awareness Guidelines

Table 2: Guidelines Implemented by the Schools (n=123)

| Guideline | School | |
|---------------------------------|---------------|----------|
| | n | % |
| Teaching | 93 | (75.6) |
| Uniform | 68 | (55.3) |
| Shade | 90 | (73.2) |
| Outdoor activities | 88 | (71.5) |
| Sunscreen | 103 | (83.7) |
| Staff awareness | 85 | (69.1) |
| Parent and Governor Involvement | 70 | (56.9) |

Table 2 shows a wide variety in the take-up of the various initiatives, with only that relating to sunscreen being implemented in more than 80% of schools. The guideline implemented the least was uniform, possibly because not all schools dictate what pupils should be wearing in the summer months. The overall results, however, were higher than those reported by Horsley et al., (2000) where the most implemented guideline in primary schools was shade (53.4%, n=1295) and the least implemented was parent and governor involvement (32.8%).

Schools were asked to indicate the number of years that each of the guidelines had been implemented in their school, ranging from less than one year to five years or more. Replies indicated that the median length of time was four years for six of the seven guidelines; and three years in respect of shade (possibly due to the time required to construct suitable facilities).

As the survey was undertaken in 2001, these results revealed that a typical school had been implementing the guidelines since 1997, hence some schools were somewhat slow in reacting to these initiatives, first issued in 1995. Additionally, it should be noted that the question

relating to Table 2 was answered only by respondents who indicated that sun awareness was included in their curriculum (104/123, 85%).

Nearly all the schools (110/113) included sun awareness within pastoral care, and 84% (87/104) within the curriculum.

Table 3: Aspects of Sun Awareness taught in the Curriculum and Included in Pastoral Care (n = 121)

| Aspect | Curriculum | | | Pastoral Care | | |
|---------------------------|------------|----|--------|---------------|-----|--------|
| | Rank | n | % | Rank | n | % |
| Beach safety | 1 | 76 | (62.8) | 7 | 71 | (58.7) |
| Drinking plenty of fluids | 2 | 68 | (56.2) | 2 | 92 | (76.1) |
| Protective clothing | 3= | 66 | (54.5) | 5 | 78 | (63.4) |
| Using sunscreen | 3= | 66 | (54.5) | 3 | 90 | (74.3) |
| Wearing hats in the sun | 5 | 57 | (47.1) | 1 | 102 | (84.3) |
| Playing safely in the sun | 6 | 53 | (43.8) | 6 | 74 | (60.2) |
| Seeking shade | 7 | 46 | (38.0) | 4 | 89 | (73.6) |
| High risk groups | 8 | 28 | (23.1) | 8 | 48 | (39.6) |

Differences in the ranking of various aspects may be attributed to the nature of the activity being described. For example, issues such as wearing hats in the sun and drinking plenty of fluids are likely to arise in practical situations on a day-to-day basis, whereas taking pupils to the beach may occur less frequently. The results were broadly comparable with the national survey, with the exception of beach safety, which naturally attracts a higher profile in Cornwall than elsewhere. It is interesting to note how highly the use of sunscreen is ranked, despite this potentially posing greater practical difficulties than the wearing of hats or protective clothing. When assessing these results it should be noted that there is a large element of crossover in many aspects of sun awareness – beach safety, for example, will incorporate the wearing of hats, protective clothing etc.

Respondents were asked to indicate the subject areas in which sun awareness is taught. The responses suggested that as well as being taught explicitly within the curriculum, sun awareness was also taught ‘as the need arises’ (80%) and during assembly (86%). Also, as might be expected, over three-quarters delivered sun awareness education in the summer term for all six years of primary school. A question was asked regarding the main approaches for teaching the subject. As well as providing information to the schoolchildren about skin

cancer risk and prevention, it is interesting to note that 37% of respondents taught about the importance of a positive self image, 20% about resisting peer pressure, and 17% about resisting social pressure.

Only a minority (22%) of respondents felt that there were useful sun awareness teaching methods in their school and yet only 6 out of 17 indicated ‘no suitable materials’ as a reason why sun awareness was not taught within the curriculum. Of the 17, 10 cited pressure of time as a reason for not including sun awareness within the curriculum and a further 10 indicated that it was not taught in the curriculum and because the issues were addressed in assembly.

PE kit was compulsory in 89% of schools, but summer uniform in only 49%. Schools without compulsory uniform may find it more difficult to manage the wearing of appropriate protective clothing on hot and sunny days.

Table 4: Items of Clothing Worn by Pupils as Summer School Wear (n=122)

| Items of clothing | Proportion of Pupils | | | | | |
|----------------------|----------------------|--------|--------|--------|----------|--------|
| | Under 25% | | 25-75% | | Over 75% | |
| | n | % | n | % | n | % |
| Baseball caps | 42 | (34.4) | 70 | (57.4) | 10 | (8.2) |
| Brimmed hats | 110 | (90.2) | 12 | (9.8) | 0 | (0.0) |
| Legionnaire hats | 112 | (91.8) | 10 | (8.2) | 0 | (0.0) |
| Open necked shirts | 86 | (70.5) | 26 | (21.3) | 10 | (8.2) |
| Collared/polo shirts | 18 | (14.8) | 43 | (35.2) | 61 | (50.0) |
| Short sleeves | 9 | (7.4) | 44 | (36.1) | 69 | (56.6) |
| Long sleeves | 103 | (84.4) | 14 | (11.5) | 5 | (4.1) |
| Skirts | 35 | (28.7) | 74 | (60.7) | 13 | (10.7) |
| Shorts | 20 | (16.4) | 89 | (73.0) | 13 | (10.7) |
| Long trousers | 71 | (58.2) | 89 | (73.0) | 9 | (7.4) |

Table 4 indicates the most frequently used forms of summer clothing used in primary schools. Baseball caps were the most frequent type of headwear, although for a significant proportion headwear was not part of day-to-day school clothing. As 95% of schools reported that they recommended the wearing of hats, it appears that in many cases the recommendations were not being followed, although advice to pupils may be reinforced on sunny days. Although shirts offering a greater element of sun protection around the neck were favoured, the vast majority of school pupils prefer short sleeves to long. There was a fairly even spread between

skirts, long trousers and short trousers. Here the results may need to be read with a degree of caution. For example, in a mixed school it would not be expected that over 75% of pupils would wear skirts, as was reported by 13 respondents. It is suspected that many schools calculated their answer based only on female pupils, and if this is repeated for other items the overall figures become difficult to interpret.

Teachers were asked to indicate the make-up of summer PE kit. It was apparent that items of PE kit that do not afford substantial protection from the sun (shorts, t-shirts) are more prevalent than those that do (hats, polo shirts etc.). As a result many schools need to consider sun protection measures over and above the standard PE kit design for hot and sunny days.

Schools were asked to indicate the percentage of shade for their outdoor break area during the summer. The response was intended to be a rough estimate expressed as a percentage of the whole area. Results showed that a large majority of respondents believed that less than 25% of the break area was under shade at the various break times. Whilst only estimated, it would appear that the provision of shade at the majority of the schools was inadequate. For example, almost 83% of the respondents estimated that there was less than 25% of available shade in the play areas at lunchtime, which is frequently the hottest time of the day. The equivalent figures were 72% for morning break and 82% for afternoon break.

This lack of shade was recognised and 56 respondents indicated action that was being taken; the most common steps were the creation of artificial shade (31 schools) and the planting of trees (23).

The issue of shade provision is important especially when the results revealed that in 87% of the respondents' schools it was compulsory for pupils to go outdoors. However, 'on exceptionally sunny days', 20% indicated that children are kept indoors at breaks.

Scheduling of outdoor activities

Teachers were asked whether it was compulsory for pupils to go outdoors at the various break times. Ninety-two per cent (113/123) stated that this was compulsory at morning break, and 91% (81/89) at afternoon break (a number of schools have no break at this time). Eighty-eight per cent (107/122) stated that it was compulsory to go outdoors at lunch break,

potentially the hottest time of the day, although, as was mentioned previously, 20% did state that children were kept indoors at break time on exceptionally sunny days.

The most frequent reasons offered for permission to stay indoors at break times were weather (31%), medical (21%) and clubs and school routine (19%).

Table 5: Times Scheduled for Outdoor Activities

| Activity | Morning | | Lunchtime | | Afternoon | | After School | | n |
|---------------|---------|--------|-----------|--------|-----------|--------|--------------|--------|-----|
| | n | % | n | % | n | % | n | % | |
| PE | 74 | (60.2) | 12 | (9.8) | 115 | (93.5) | 46 | (37.4) | 123 |
| Sports day | 21 | (17.1) | 5 | (4.1) | 113 | (91.9) | 10 | (8.1) | 123 |
| Team practice | 17 | (13.8) | 18 | (14.6) | 36 | (29.3) | 76 | (61.8) | 123 |
| Team fixtures | 3 | (2.4) | 1 | (0.8) | 34 | (27.6) | 85 | (69.1) | 123 |
| Fieldwork | 69 | (56.6) | 26 | (21.3) | 96 | (78.7) | 15 | (12.3) | 122 |
| Excursions | 109 | (89.3) | 88 | (72.1) | 112 | (91.8) | 35 | (28.7) | 122 |

With regard to the scheduling of outdoor activities, it is interesting to note from Table 5 that in 10% of schools, PE was scheduled at lunchtime, potentially the hottest time of the day; team practice by 15% at lunchtime and 21% scheduled fieldwork at lunchtime.

**Table 6: Use of Sunscreen in Schools
(n = 123)**

| Use of sunscreen: | n | % |
|---|-----|--------|
| Children are allowed to use sunscreen at school | 117 | (95.1) |
| The school recommends that children wear at school sunscreen when appropriate | 107 | (87.0) |
| Parents provide sunscreen for children | 93 | (75.6) |
| It is up to the individual teacher to make recommendations that children wear sunscreen | 10 | (8.1) |
| School provides sunscreen for children | 21 | (17.1) |
| School discourages children from bringing sunscreen to school | 3 | (2.4) |
| Staff issues: | | |
| Headteachers would support sun awareness INSET in future | 86 | (69.9) |
| Some staff use sunscreen in summer when outside | 94 | (76.4) |
| In summer, some teachers sit in the sun during lunch breaks | 75 | (61.0) |
| Staff manual contains sun awareness issues | 19 | (15.4) |
| Staff have attended sun awareness INSET courses | 7 | (5.7) |
| School has preference regarding 'PE teachers' clothing | 5 | (4.6) |
| School provides sunscreen for PE teachers | 5 | (4.4) |

In 95% of the schools, children were allowed to use sunscreen at school but only in 17% of cases did the schools provide sunscreen for the children. In only 4% of schools was sunscreen provided for PE teachers.

Alliances to promote sun awareness in school

Sixty-one per cent (75) of schools had a designated member of staff who was responsible for co-ordinating Health Education. Forty-five (58%) of the co-ordinators were health education specialists; 29 (37%) a senior staff member and four (5%) a non-specialist-staff member. (In three schools the co-ordinator was both a health education specialist and a senior staff member).

The main teachers of health education were the class teacher (n = 117), school nurse (n = 61), outside specialist (n = 35); health education co-ordinator (n = 12); science teacher (n = 12) and a pastoral care teacher (n = 4).

The teachers indicated that they received support for the teaching of health education in the form of the school nurse (n = 89), resource packages (n = 65), outside agencies (n = 52), colleagues (n = 45), LEA INSET courses (n = 45) and in-house staff training days (n = 27). Six schools indicated that they felt there was no support for teachers of health education.

(iii) Survey of location of sun awareness information in public places

In order to assess to what extent information about sun awareness was placed in the public domain, visits were made to libraries and tourist information centres in a number of key Cornish towns and holiday destinations, namely Truro, Falmouth, Newquay, Penzance, St Ives and Helston. Despite the obvious relevance of these information points both to local residents and visitors to the area, there were no examples whatsoever of sun awareness information being available to the public by way of leaflets, posters, or other forms of promotion. The web site <http://www.destination-cornwall.co.uk/> is aimed at visitors to Cornwall and gives information regarding UV levels and incorporates a sun safety code. However, there was no obvious reference to this or other relevant web sites at the information points visited.

(iv) Survey of sun awareness initiatives in GP practices

Practice managers at nine GP surgeries in Cornwall were contacted by telephone using a structured interview in the period August to October 2001 to establish how sun awareness initiatives were treated by way of literature and/or public displays. All five Primary Care Trusts in Cornwall (reducing to three in April 2002) were covered by the telephone survey. The answers to the key questions were as follows:

Do you offer a mole check clinic, and if so when is this available?

None of the practices contacted ran a mole check clinic at the time of the survey, although one stated that it formed part of plans for the future. Two practice managers mentioned that they had publicised the annual skin cancer awareness day run by the Dermatology Unit at the RCHT, Treiske as part of the European skin cancer awareness week. The managers reported that attendance at this day had resulted in positive feedback from patients.

Do you have sun protection resources available? (leaflets, posters etc.) If yes, from what source do you obtain these resources?

Literature was received from a variety of sources usually in the form of leaflets. Supplies were deemed to be sufficient in every case, and one practice manager felt that he had more supplies than was necessary. Most surgeries identified Cornwall Health Promotion as the principal supplier of literature, but the Department of Health, drug companies and sunscreen companies were also mentioned. In some cases health visitors were responsible for displays and supplies of literature were obtained from their own sources.

Are these on display or available by request?

The general pattern was for a display at the appropriate time of the year, warning of the dangers of excessive sun exposure. The timing of the display was between June and August, and in most cases covered the period of school summer holidays. Typically this public display area is changed throughout the year according to priorities, e.g. flu vaccinations in winter. Displays appertaining to sun protection would remain in place for a period from two weeks to about two months. Responsibility for the display generally fell either on health visitors or practice nurses. Some practices keep sun protection leaflets permanently on display, whatever the particular promotion being run at any given time. In one case the provision of a display would depend whether or not sufficient and appropriate material was

sent. Another practice manager commented that the content of the regular display was dictated by the local Primary Care Trust.

Is there anything else that you offer in the area of sun protection?

The main factors mentioned here were that practice nurses were trained in the treatment of sunburn and that the annual skin cancer awareness day had been advertised to patients. The importance of health visitors in the education of sun awareness issues was also emphasised.

(v) Interviews with health promotion/education professionals

Key staff from Cornwall Health Promotion and the local Department of Public Health were contacted to obtain details of recent initiatives. In each case it was mentioned that because of restraints of time and/or money it had not been possible to run a major sun awareness initiative in Cornwall since 1993. However, acting as representatives of the Royal Cornwall Hospitals Trust, the Cornwall Dermatology Research Project set up a stand at a science exhibition organised for the benefit of local schoolchildren of secondary age. The exhibition took place in January 2001 and over two days some 500 pupils visited the stand. A similar exhibition was arranged for lower sixth formers in September 2001.

A representative of the Department of Health reported that the Government was funding the development of a software package on sun awareness for school children, which at the time of contact (April 2001) had been piloted in a number of schools. The emphasis was on evaluation of the effectiveness of the material, rather than any specific health promotion initiatives.

Conclusions

This report has attempted to provide a cross-sectional perspective of sun awareness initiatives within the public domain in Cornwall in 2001.

The Department of Health takes overall responsibility for sun protection initiatives within the UK, specifically via Health Promotion England and the Health Development Agency.

However, the information collected in this report suggests that there is scope for particular initiatives within local Health Promotion offices and Public Health Departments. This is particularly pertinent because it is apparent that nothing significant in terms of a major promotion has occurred in Cornwall within the last 8-10 years. Bearing in mind the obvious attractions of beach and other outdoor activities in the summer months, and the consequent exposure to the sun by visitors and local residents, it is clear that more of a lead needs to be taken in the management of initiatives to the public. For example, it was remarkable that at the height of the holiday season no leaflets, posters or other information were to be seen at libraries or Tourist Information Centres in the key holiday resorts. It would be helpful if the resources made available to GP surgeries in terms of sun protection advice could be extended to these public information points to make these important messages available to a wider audience.

Much of this report concentrates on how the key messages are being implemented in primary schools. Because the questionnaire utilised in our survey was identical to that used by Horsley et al. (2000) it is possible to make some direct comparisons with the picture nationally (no Cornish schools were included in the national survey). In general, the awareness within Cornish primary schools was at least as good as was the case nationally, and in many cases considerably better. This is not to say that there is not room for improvement in key areas. In particular the timing of outdoor activities and the provision of shade are issues that need careful consideration, as well as contingency measures for break times on particularly hot and sunny days.

The teaching of sun awareness is generally well covered and is based on the 1995 guidelines. However many schools may wish to consider formalising a sun protection policy into their staff manuals. Most schools were satisfied with the availability of teaching materials. For those that were not, it should be pointed out that the Health Development Agency web site

www.wiredforhealth.gov.uk/teaching/sun/intro.html contains resources and teaching material on the subject of sun protection, so appropriate educational aids should be available to all. Further teaching packages are being developed by the Department of Health and others.

As outlined earlier, the level of skin cancers related to sun exposure in Cornwall is increasing. The intention of this report is to highlight the position in Cornwall as regards the key sun awareness issues and to encourage those in authority to consider action to improve the current situation.

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APPENDIX I

CORNWALL HEALTH RESEARCH UNIT

**SUN AWARENESS QUESTIONNAIRE FOR PRIMARY SCHOOLS IN
CORNWALL**

WIN £100 FOR YOUR SCHOOL!!

A recent report from the local Public Health Department highlighted the high number of cases of skin cancer within Cornwall when compared to other areas of the U.K. Most of these can be attributed to sun exposure where inappropriate precautions have been taken to provide proper protection. The Cornwall Dermatology Unit has asked us to look at a number of providers of health education to establish the level of awareness of sun protection issues. We hope to use the results of the survey to pioneer an educational pack for use in schools.

The questionnaire consists almost entirely of tick-boxes and should only take a few minutes to complete. Please return either to Michael Rutter at Schools Section, County Hall, or to Dr Jenny Morris, Cornwall Health Research Unit, Penhaligon Building, Trevenson Lane, Pool, Redruth, TR15 3RG. If you would like to speak to anyone about the study, please contact Dr Jenny Morris at the address shown or telephone 01209 616918. All completed questionnaires will be entered into a draw, the winning school receiving £100.

This questionnaire is adapted from a national study conducted by Lisa Horsley at the University of Manchester whose assistance is acknowledged.

1. Is sun awareness included in any lessons within:

a) your school's curriculum?

*(Please tick
one box)*

b) your pastoral care?

*(Please tick
one box)*

| YES | NO | DON'T KNOW |
|--------------------------|--------------------------|--------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

If you answered 'YES' to either of these questions please go to question 2.

If you answered 'NO' to both of these questions please go to question 8.

2. What facets of sun awareness are included in your school's curriculum (C) and/or pastoral care (P)?
*(Please tick **all that apply**)*

| | C | P |
|--|---|---|
| High risk groups e.g. red hair, freckles etc | | |
| Beach safety | | |
| Protective clothing | | |
| Using sunscreen | | |
| Playing safely in the sun | | |
| Seeking shade | | |
| Wearing hats in the sun | | |
| Drinking plenty of fluids | | |
| Other (please write below) | | |

.....

If you don't teach sun awareness in your school's CURRICULUM please go to question 8.

3. In which subject areas is sun awareness taught?
*(Please tick **all that apply**)*

| | |
|-------------------------------------|--|
| Science | |
| Physical education | |
| History | |
| Geography | |
| Art | |
| English | |
| Mathematics | |
| Cross curricular themes | |
| Personal and social education (PSE) | |
| Health education | |
| During assembly | |
| As the need arises | |
| Other (please write below) | |

.....

4. When are children taught about sun awareness as part of the CURRICULUM in your school?
*(Please tick **all that apply**)*

| | YEAR | | | | | |
|--------|------|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 |
| Autumn | | | | | | |
| Spring | | | | | | |
| Summer | | | | | | |

5. For approximately how long have you been covering the following sun awareness issues?
*(Please tick **one time period** for each)*

| | NUMBER OF YEARS | | | | | |
|---------------------------------|-----------------|-----|---|---|---|-----|
| | None | ≤ 1 | 2 | 3 | 4 | ≥ 5 |
| Teaching | | | | | | |
| Uniform | | | | | | |
| Shade | | | | | | |
| Outdoor activities | | | | | | |
| Sunscreen | | | | | | |
| Staff awareness | | | | | | |
| Parent and Governor involvement | | | | | | |

6. Which is/are the **main** approach(es) used when teaching about sun awareness in your school?
*(Please tick **as appropriate**)*

| | |
|--|--|
| Information about skin cancer risk and prevention | |
| Skills in making informed decisions | |
| Awareness of social pressure e.g. fashion, advertising | |
| Resisting peer pressure i.e. refusal skills | |
| Building a positive self image | |

7. a) Do you find any specific teaching materials useful in teaching about sun awareness?
*(Please tick **one box**)*

| YES | NO |
|-----|----|
| | |

- b) If you answered 'YES', please tell us what they are.

.....

Please go to question 9.

8. If you do not include sun awareness in your school's curriculum, what would you say were the main reasons for this?
*(Please tick **all that apply**)*

| | |
|--|--|
| No suitable teaching materials | |
| Lack of funding | |
| Pressure of time does not permit it | |
| No health education specialist staff members | |
| Teacher training is not available | |
| Covered in assemblies | |
| Other <i>(please write below)</i> | |

.....

9. a) Does any member of staff take overall responsibility for coordinating health education in your school?
*(Please tick **one** box)*

| | | |
|-----|----|------------|
| YES | NO | DON'T KNOW |
| | | |

b) If you answered 'YES', what is their job title?

.....

10. Who usually teaches health education in your school?
*(Please tick **all that apply**)*

| | |
|-------------------------------------|--|
| Outside health education specialist | |
| Health education coordinator | |
| Class teacher | |
| Science teacher | |
| Pastoral care teacher | |
| School nurse | |
| Other <i>(please write below)</i> | |

.....

11. What support is available for teachers of health education in your school?

*(Please tick **all that apply**)*

| | |
|-----------------------------------|--|
| Health education resource package | |
| LEA INSET courses | |
| In-house staff training days | |
| Colleagues | |
| School nurse | |
| Outside agencies | |
| None | |
| Other <i>(please write below)</i> | |

.....

12. Which of the following statements apply to your school uniform?

*(Please tick **all that apply**)*

| | |
|---|--|
| Winter school uniform is compulsory | |
| Summer school uniform is compulsory | |
| Uniform is not compulsory, but we give guidelines on preferred clothing | |
| Uniform is not compulsory, we do not issue guidelines on clothing | |
| Other <i>(please write below)</i> | |

.....

13. Approximately what percentage of your pupils wear these in summer? (Not including PE kit)

*(Please tick **one box for each item of clothing**)*

| CLOTHES | PERCENTAGE | | |
|-----------------------------------|------------|----------|----------|
| | Under 25% | 25 - 75% | Over 75% |
| Baseball caps | | | |
| Hats with a brim all round | | | |
| Legionnaire hats | | | |
| Open necked shirts | | | |
| Collared polo shirts | | | |
| Short sleeves | | | |
| Long sleeves | | | |
| Skirts | | | |
| Shorts | | | |
| Long trousers | | | |
| Other <i>(Please write below)</i> | | | |

.....

14. Does your school have a required PE kit?

| | |
|-----|----|
| YES | NO |
| | |

*(Please tick **one** box)*

15. Which of the following would your pupils wear for PE during summer?
*(Please tick **all that apply**)*

| | |
|-----------------------------------|--|
| Hats | |
| Sleeveless tops | |
| T-shirts | |
| Collared polo shirts | |
| Open necked shirts | |
| Sweatshirts | |
| Short skirts | |
| Shorts | |
| Tracksuit | |
| Other <i>(please write below)</i> | |

.....

16. a) Would you say your school currently has adequate shade provision?

| | |
|-----|----|
| YES | NO |
| | |

*(Please tick **one** box)*

b) Approximately what percentage of your school's outdoor break area is in shade during summer?
*(Please tick **one box for each time**)*

| TIME | Under 25% | 25 – 75% | Over 75% |
|---------------|-----------|----------|----------|
| Mid morning | | | |
| Lunch time | | | |
| Mid afternoon | | | |

17. a) Has your school taken action in recent years to provide more shade in the outdoor break areas during summer?

| | |
|-----|----|
| YES | NO |
| | |

*(Please tick **one** box)*

b) If you answered 'YES', please tell us what those actions were.

.....

18. Is it compulsory for children to be outside during the breaks listed below?
 (Please tick **one** box for each break time or N/A if you do not have a break)

| | YES | NO | N/A |
|-----------------|-----|----|-----|
| Morning break | | | |
| Lunch break | | | |
| Afternoon break | | | |

If there are any exceptions, please tell us what they are.

.....

19. Approximately how long is your pupils' lunch break?
 (Please tick **one** box)

| | |
|---------------|--|
| Under 30 mins | |
| 30 – 45 mins | |
| Over 45 mins | |

20. When are outdoor events scheduled in summer?
 (Please tick **as many boxes as appropriate**)

| ACTIVITY | Morning | Lunch time | Afternoon | After school |
|---------------|---------|------------|-----------|--------------|
| PE | | | | |
| Sports day | | | | |
| Team practice | | | | |
| Team fixtures | | | | |
| Fieldwork | | | | |
| Excursions | | | | |

21. Which of these statements apply to your school?
 (Please tick **all that apply**)

| | |
|---|--|
| In summer, at least some teachers sit in the sunshine during break(s) | |
| At least some staff use sunscreen in summer when outside | |
| Children are allowed to use sunscreen at school | |
| Parents are expected to provide sunscreen for children to use at school | |
| The school provides sunscreen for children to use at school | |
| We recommend that children wear sunscreen at school when appropriate | |
| We discourage children from bringing sunscreen to school | |
| It is up to the individual teacher to make recommendations that children wear sunscreen at school | |
| On an exceptionally sunny day, children are kept indoors at break(s) | |
| We recommend that children wear hats when outside in summer | |
| We discourage children from bringing hats to school in summer | |

22. Has a member of staff ever attended an INSET day on the subject of sun awareness?
*(Please tick **one** box)*

| | | |
|--------------------------|--------------------------|--------------------------|
| YES | NO | DON'T KNOW |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

23. Would you support a member of staff's application to attend an INSET day on the subject of sun awareness?
*(Please tick **one** box)*

| | | |
|--------------------------|--------------------------|--------------------------|
| YES | NO | DON'T KNOW |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

24. a) Does your staff manual contain any statements about sun awareness?
*(Please tick **one** box)*

| | | |
|--------------------------|--------------------------|--------------------------|
| YES | NO | DON'T KNOW |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

b) If you answered 'YES', which of the following does it mention?
(Please tick one box for each statement)

| | |
|--|--------------------------|
| Protective clothing | <input type="checkbox"/> |
| Using sunscreen | <input type="checkbox"/> |
| Playing safely in the sun | <input type="checkbox"/> |
| Seeking shade | <input type="checkbox"/> |
| Types of hat to wear | <input type="checkbox"/> |
| Example set by teachers in practising sun awareness themselves | <input type="checkbox"/> |
| Other (please write below) | <input type="checkbox"/> |

.....

25. Does the school provide sunscreen for PE teachers' personal use?
*(Please tick **one** box)*

| | | |
|--------------------------|--------------------------|--------------------------|
| YES | NO | N/A |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

26. a) Does your school have preferences as to what PE teachers wear in summer?
*(Please tick **one** box)*

| | | |
|--------------------------|--------------------------|--------------------------|
| YES | NO | N/A |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

b) If you answered 'YES', what is the preferred clothing?
(Please write below)

.....

For the purpose of this study, it would help us to know a little about the background of your pupils.

27. Please estimate the percentages of children who come from each of the following geographical areas.

- Please tick **one** box for each description.
- If there are **none** please tick in the **N/A** column.

| GEOGRAPHICAL AREA | Under 25% | 25 – 75% | Over 75% | N/A |
|----------------------------|-----------|----------|----------|-----|
| Coastal | | | | |
| Rural | | | | |
| Suburban | | | | |
| Urban | | | | |
| Inner city | | | | |
| An 'area of family stress' | | | | |

Please ring the district council area of your school – Penwith/Kerrier/Carrick/Restormel/North Cornwall/Caradon

28. Please estimate the percentages of children who come from each of the following family backgrounds.

- Please tick **one** box for each description.
- If there are **none** please tick in the **N/A** column.

| PARENTS' JOBS | Under 25% | 25 – 75% | Over 75% | N/A |
|---------------|-----------|----------|----------|-----|
| Non-manual | | | | |
| Manual | | | | |
| Unemployed | | | | |

| ETHNIC BACKGROUNDS | Under 25% | 25 – 75% | Over 75% | N/A |
|--|-----------|----------|----------|-----|
| White | | | | |
| Black Caribbean | | | | |
| Black African | | | | |
| Black other | | | | |
| Chinese | | | | |
| Indian | | | | |
| Bangladeshi | | | | |
| Pakistani | | | | |
| Any other ethnic group (Please write below) | | | | |

.....

29. a) Which years are present at your school?
(Please tick all years present)

| | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
| | | | | | |

b) Our school is:

| | | |
|-------|------------|-----------|
| Mixed | Girls only | Boys only |
| | | |

(Please tick one box)

30. a) Have you ever seen a copy of the ‘Sun awareness guidelines’ produced by the Health Education Authority and Department of Health?
(Please tick one box)

| | |
|-----|----|
| YES | NO |
| | |

30. b) If you answered ‘YES’, have the guidelines been any help to you in establishing school policy?
(Please tick one box)

| | |
|-----|----|
| YES | NO |
| | |

This questionnaire will be treated in total confidence, but it would help us to know the job title of the person who completed it.

Job title.....

Thank you very much for your help. If you wish to be entered for the draw with an opportunity to win £100, please enter your school name here.

.....

APPENDIX II

CORNWALL HEALTH RESEARCH UNIT

PROFORMA QUESTIONNAIRE TO PRACTICE MANAGERS AT LOCAL GP SURGERIES

(Introduce self – a study requested by Dr David Gould at the Cornwall Dermatology Unit)

Date

Name of Practice

Location

Do you offer a mole check clinic?

If so, when is this available?

Do you have sun protection resources available? (leaflets, posters etc.)

If yes, from what source do you obtain these resources?

Are these on display or available by request?

Is there anything else that you offer in the area of sun protection?