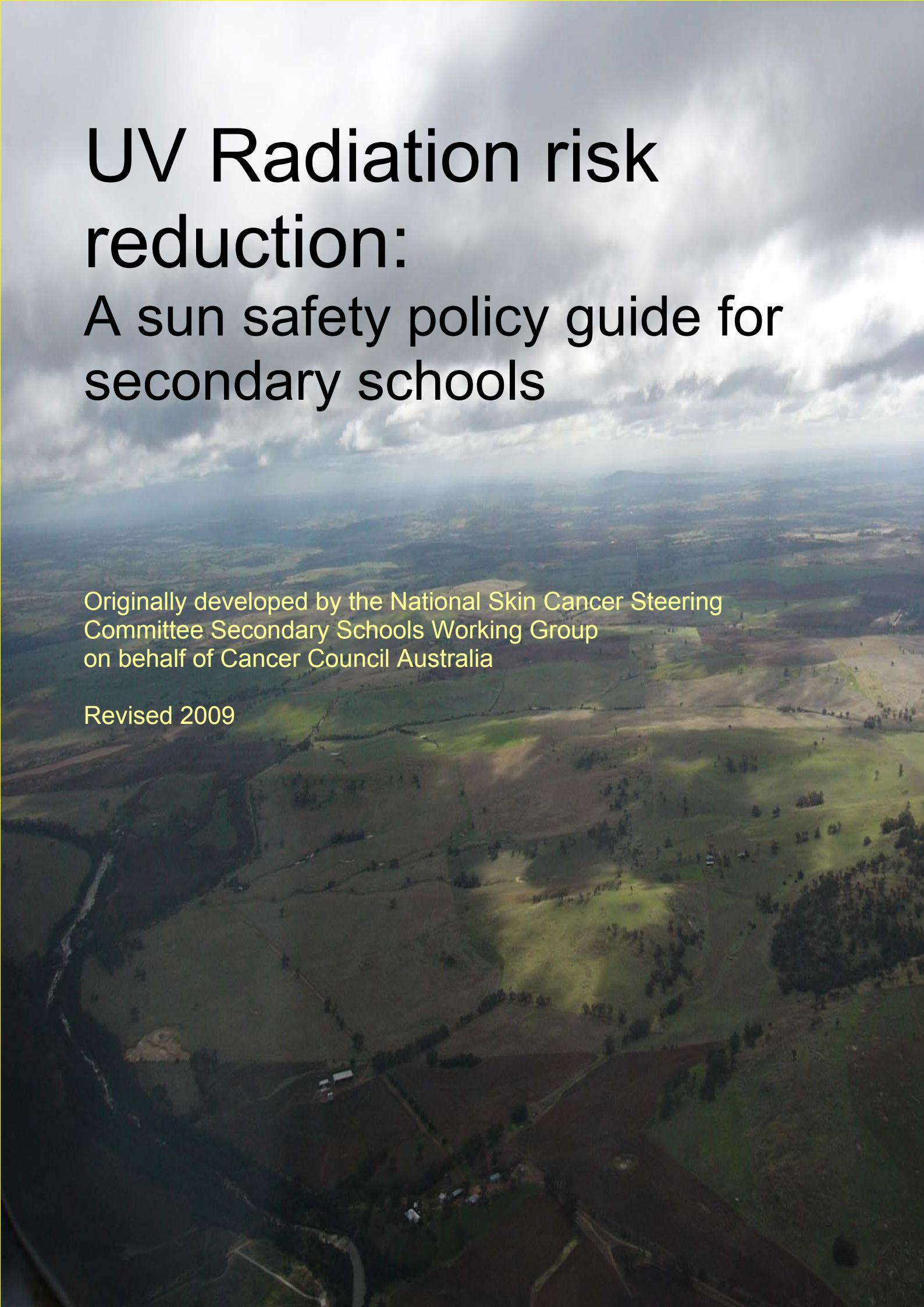

UV Radiation risk reduction:

A sun safety policy guide for secondary schools

Originally developed by the National Skin Cancer Steering Committee Secondary Schools Working Group on behalf of Cancer Council Australia

Revised 2009

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A sun safety policy guide for secondary schools

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Front cover photograph – Avon River near Beverley WA. (Mark Strickland)

Contents

Why schools should be concerned about UV radiation exposure

Australia has the highest incidence of skin cancer in the world. More than 430,000 Australians get skin cancer and over 1,600 Australians die from skin cancer each year.

Over-exposure to ultraviolet radiation from the sun during childhood and adolescence is known to be a major cause of skin cancer. Because of this, sun protection strategies are an essential part of the Australian way of life.

Schools have the potential to reduce students' UV radiation exposure and future risk of developing skin cancer for the following reasons:

- the crucial period for sustaining damaging levels of UV radiation exposure occurs during the school years
- students are at school during peak UV radiation times five days a week
- schools, in partnership with families and their communities, can play a significant role in reducing exposure and changing behaviour through policy, education and role modelling.

School communities have a responsibility to implement skin cancer prevention strategies in the interests of student and staff health and welfare. Strategies must be practical in the context of the school's environment and circumstances. It is best to begin with simple, achievable measures and gradually progress to a comprehensive set of sun protection measures.

Many school systems have guidelines concerning exposure to UV radiation. It is recommended that these be considered in the development of your school community's sun protection plan or policy.

Cancer Council WA recommends that schools implement a comprehensive sun protection policy when the UV radiation levels are 3 and above - which, for most of Western Australia, is all year round. In southern regions of the state, the UV index can fall below 3 in June, July and August. Reference should be made to the daily UV forecast in these areas for guidance on daily sun protection needs.

Ultraviolet radiation

UV radiation from the sun is the main cause of skin cancer. Too much UV radiation exposure from the sun can cause sunburn, skin damage (eg wrinkles, blotches and other signs of ageing), eye damage and skin cancer.

The strength of UV radiation is determined by the angle of the sun to the earth's surface. UV radiation levels peak over the middle of the day when the sun is directly overhead. UV radiation does not carry heat. Vigilance is needed because levels can be extreme on a days of 40˚C or days of 20˚C

UV radiation can cause sunburn very rapidly in some regions of Australia. Ten or twelve minutes can be enough to get burnt. Because UV radiation can be high even on cool and overcast days, clear skies or high temperatures can't be used to determine when sun protection is needed.

UV radiation levels are divided into low (0–2), moderate (3–5), high (6–7), very high (8–10) and extreme (11 and above). The Global Solar UV Index (UVI), is a rating system adopted by the World Health Organization to quantify the level of UV radiation reaching the earth over time.

UV Index levels

The higher the UVI the stronger the UV radiation levels and the shorter time it takes for skin to be damaged.

It divides UV radiation levels into:

- – low (1–2)
- – moderate (3–5)
- – high (6–7)
- – very high (8–10)
- – extreme (11 and above)

A UV radiation level of 3 is high enough to cause skin damage to unprotected skin therefore it is important to protect skin when the UV radiation level is 3 and above. The higher the UV radiation level - the greater the potential for damage to your skin.

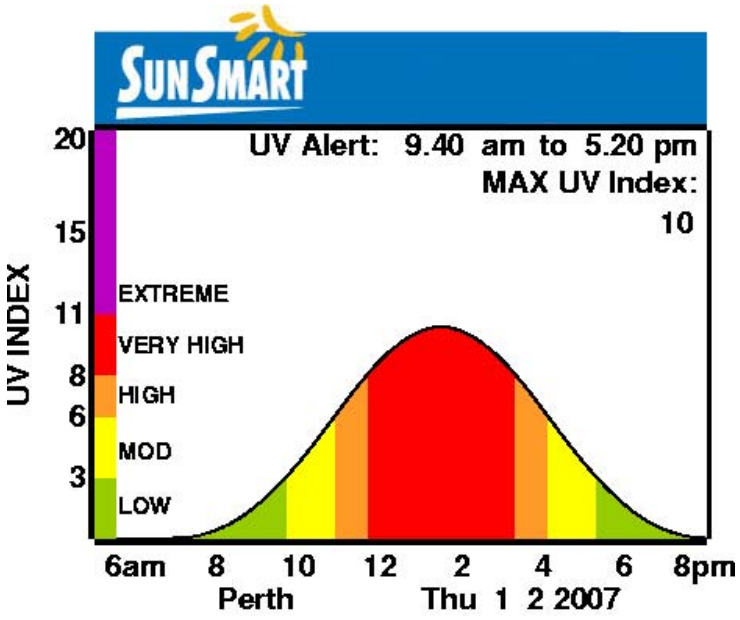
Cancer Council WA recommends that all schools and centres implement a comprehensive sun protection policy when the UV radiation levels are 3 and above—which, for most of Western Australia is all year round. Terms 1 and 4 are particularly critical. In southern regions of the state, the UV index can fall below 3 in June, July and August. In these areas, reference should be made to the daily UV forecast for guidance on daily sun protection requirements.

About the SunSmart UV Alert

The SunSmart UV Alert is a tool that indicates the hours when sun protection is needed on any given day (e.g. 9:40am to 5:20pm).

The SunSmart UV Alert times are issued daily by the Bureau of Meteorology (BOM) - when the UV Index is forecast to reach 3 or above.

When a SunSmart UV Alert is issued - sun protection measures are recommended during the times indicated.



The SunSmart UV Alert is reported in the weather page of all major Australian daily newspapers, on the BOM website www.bom.gov.au/weather/uv for over 200 locations across Australia, via pocket news on your mobile and on some television and radio broadcasts.

Check for the SunSmart UV Alert times when

- planning or participating in outdoor activities or events
- involved in recreational activities such as running, swimming, cycling or team sports
- watching outdoor events, such as tennis or cricket
- working outdoors

Sun exposure and vitamin D

A balance between sun protection to lower the risk of skin cancer, and sun exposure for the production and maintenance of vitamin D is important for good health.

Most people achieve sufficient vitamin D levels from the sun exposure they receive through typical day-to-day outdoor activities, without needing to seek additional sun exposure.

Some people such as naturally dark-skinned people, those who cover their skin for religious or cultural reasons, the elderly, babies of vitamin D deficient mothers and people who are housebound or in institutional care are at increased risk of vitamin D deficiency. Concerns about vitamin D should be discussed with your doctor.

For more information see this Cancer Council document "Risk and Benefits of Sun Exposure"

Legal issues in relation to UV

Duty of care for students

In general, duty of care refers to the need to protect students against foreseeable harm. Sunburn is a foreseeable outcome of over-exposure to the sun, and there is now considerable evidence linking UV radiation exposure, particularly during childhood and adolescence, to the development of skin cancer. It should also be remembered that skin damage may occur without any sign of sunburn.

Teachers have a 'duty of care' towards every student under their supervision, by virtue of the conditions of the teacher's employment, and by virtue of the common law principles of negligence.

Generally speaking a teacher owes a student a duty to take reasonable care to protect him or her from foreseeable risk of injury.

This duty may be manifested in many ways including:

- the duty to supervise the students so that they comply with rules and practices designed for their own safety and that of other students
- the duty to design and implement appropriate programs and procedures to ensure the safety of students
- the duty to ensure that school buildings, equipment and facilities are safe
- the duty to warn students about dangerous situations or practices.

Any activity that involves students being outdoors for any period of time should be seen as potentially placing them at risk of sunburn and other skin damage, and subsequent skin cancer.

Outdoor activities in the peak UV radiation terms 1 and 4 which last longer than 10 – 15 minutes carry very high risk of skin damage if students are unprotected.

Legal action has occurred in some states as a result of students being sunburnt during school organised activities, particularly all-day events such as swimming carnivals and excursions.

More information
Dept Education and Training: Duty of care policy
http://policies.det.wa.edu.au/our_policies/ti_view?uid=01b68179c7ccf5539554511a7572e994&iview=summary_view

Occupational health and safety

Exposure to UV radiation has been recognised as an accepted occupational hazard for people who spend all or part of their working day outside. Occupational health and safety (OHS) legislation varies from state to state. You are advised to contact your OHS authority for further advice.

A useful reference document is *Guidance note for the protection of workers from the Ultraviolet Radiation in sunlight 2008* - from the Australian Safety and Compensation Council *http://www.safeworkaustralia.gov.au/NR/rdonlyres/7D35C520-466D-478E-B639-12DF4E7D7151/0/UVGuidancenote.pdf*

It includes information in relation to outdoor workers about:

- adverse health effects of solar ultraviolet radiation
- employer and employee responsibilities
- developing a UV radiation protection program
    - risk assessment
    - UV radiation control measures
    - education and training programs
    - developing a policy
    - monitor compliance and review the program
- health surveillance.

The guidance note provides detailed information for employers and employees responsibilities as follows:

3.1 Occupational health and safety legislation in Australia requires employers to provide and maintain, as far as is practicable, a working environment that is safe and without risks to health. This is the employer's general duty of care.

3.2 Workers are required to comply with all instructions given by their employer for reasons of health and safety and take reasonable precautions to protect themselves and others at work.

3.3 Workers should report any problems in achieving compliance to their employers.

3.4 Employers should consult with workers and/or worker representatives (such as health and safety representatives) on matters directly affecting their health and safety. In this case it should involve the assessment of exposure to solar UV radiation, the development of safe working procedures and other control measures.

More information

ARPANSA (Australian Radiation Protection and Nuclear Safety Agency) 2006 Radiation protection standard for occupational exposure to ultraviolet radiation www.arpansa.gov.au/pubs/rps/rps12.pdf

Developing a sun safety policy or plan

A policy or plan?

Implementation of an effective sun protection policy or plan enables school communities to minimise the danger of excessive exposure to ultraviolet radiation for students and staff.

If this is your first attempt at tackling a sun protection policy, your school may choose to develop a plan that can be implemented in stages, rather than immediately introducing a comprehensive policy. Schools that already have a range of strategies in place may prefer to proceed to policy development. This may involve documenting existing measures, introducing new measures, or both.

Try to involve representatives from all sectors of the school community, including students; it is important that everyone has the opportunity for input if you are to secure support for your strategies. A key element of the planning process is an education campaign to inform the school community of what you are trying to achieve and why. Cancer Council WA can supply materials such as posters, curriculum resources, fact sheets, newsletter articles and policy templates.

Once your policy or plan is complete, promote it through your school newsletter and publish it where it is readily accessible for everyone. For example, student diaries, handbooks, staff handbooks, school library, staff induction packs etc. Ensure new staff members, students and parents understand what is expected and reinforce the message through regular reminders in newsletters, meetings and assemblies, especially at the beginning of each term.

The framework and tip sheets that follow are intended to assist you in developing a policy or plan to minimise UV radiation exposure for members of your school community. They could be used as an activity for staff or committee meetings or as the basis for a professional development session.

Getting started

This section provides a basic framework to assist you in developing your policy or plan.

The following headings should be included in your policy or plan

- Rationale
- Objectives
- Implementation
- Monitoring/evaluation
- References (eg to other relevant / associated policy, evidence supporting claims
- Responsible Officer

Building your policy

Here are some explanations and examples to help build your policy.

Rationale

The rationale gives meaning and a context for your policy. It provides a general overview of why your school has developed a policy. You may wish to modify this example for your school's policy or plan.

Example

Australia has the highest rate of skin cancer in the world, creating huge social and economic costs. However, it is estimated that most skin cancers could be prevented by protecting skin from the sun during childhood and adolescence.

This sun protection policy or plan has been developed to reduce the risk to students and staff of over-exposure to ultraviolet radiation from the sun. It is to be implemented throughout the year, but with particular emphasis from the beginning of September to the end of May when the average monthly UV levels are above moderate. (UV index is ≥ 3) In northern Western Australia, sun protection is recommended all year round due to consistently high levels of UV radiation.

Objectives

Some examples of possible objectives for your school's sun protection policy or plan are provided. You may wish to modify, delete or add to these examples and/or to distinguish between short and long-term objectives, particularly if this is your first policy or plan.

Examples

- increase student and community awareness of skin cancer and other skin damage caused by exposure to UV radiation
- assist students to develop strategies that protect their skin from the sun such as using shade and choosing appropriate clothing
- work towards a safe school environment that provides shade and other sun protective measures for students and staff
- encourage all members of the school community to protect their skin from UV radiation at all times, but particularly at high-risk times such as lunchtimes, sport, excursions, carnivals and camps
- ensure that parents are informed of the school's sun protection policy

Implementation

There are seven key sun protection areas.

- Shade
- Organisation of outdoor lessons and breaks
- All day events
- Curriculum/school programs
- Clothing, hats and sunglasses
- Sunscreen
- Risk management for staff.

Each sun protection area has a tip sheet (see following pages) which provides relevant background information and a range of possible strategies and examples for your policy.

These strategies and examples are not exhaustive and you may choose to develop alternatives. If you require additional information for any category, contact Cancer Council WA.

Examples

A. Shade (link to Tip Sheet A)

- evaluate use of current shaded areas and areas where students congregate at peak UV radiation periods, particularly at lunchtime
- plan to increase shade in the next 12months
- purchase portable shade for use in school lessons and events
- _____
- _____
- _____

B. Organisation of outdoor lessons and breaks (link to Tip Sheet B)

- require students to use shaded areas while waiting to participate in activities during sports and physical education lessons
- shorten lunchtimes and have a longer morning break
- provide shade (tents/umbrellas) for sports lessons and outdoor events
- _____
- _____
- _____

C. All-day events (see Tip Sheet C)

- ensure that competitors' marshalling areas are shaded throughout sports carnivals
- provide shade options for students, staff and spectators
- _____
- _____
- _____

D. Curriculum/School Programs (see Tip Sheet D)

- incorporate lessons on sun protection wherever possible
- take advantage of curriculum resources provided by the Cancer Council e.g. Generation SunSmart.org.au and other publications
- _____
- _____
- _____

E. Clothing, hats and sunglasses (see Tip Sheet E)

- evaluate design of clothing currently worn at school, including that used for physical education/sports activities and consider making changes to improve protection from UV radiation (for example extending sleeves, requiring collars on shirts, using long shorts/skirts)
- actively encourage wearing of broad-brimmed/bucket hats
- _____
- _____
- _____

F. Sunscreen (see Tip Sheet F)

- educate the school community about the correct use of sunscreen and the level of protection it provides
- provide sunscreen at various points around the school.
- _____
- _____
- _____

G. Risk management for staff (see Tip Sheet G)

- conduct a UV radiation risk assessment for all staff
- _____
- _____
- _____

Monitoring and evaluation

A commitment should be made to review your policy or plan regularly. It is recommended that this occur at intervals of no more than two years. A framework is provided to assist you in this process.

Example

This policy/plan will be monitored by <name of position/committee> who will:

- ensure that the policy is reviewed in <no more than two years after implementation> - contact Cancer Council WA to ensure that up-to-date information is maintained in relation to resources and policy information.
- _____
- _____
- _____

Monitoring and evaluating your policy or plan

Below is a framework that could be used to monitor and evaluate your sun protection policy or plan, including examples of objectives and strategies. We suggest that you regularly assess your objectives and strategies and make changes if necessary.

Objectives

Examples - Existing objectives

OBJECTIVE	FULLY, PARTIALLY OR NOT ACHIEVED	COMMENTS
Work towards a safe school environment that provides shade for students and staff.	Partially achieved	Trees planted on perimeter of school oval to provide shade for spectators. Temporary shade to be hired for events until trees grow. More shade required for canteen area.

New/revised objectives:

- _____
- _____

Implementation

Examples - Existing strategies

STRATEGY	FULLY, PARTIALLY OR NOT IMPLEMENTED	COMMENTS
Evaluate design of clothing currently worn to school and	Partially implemented	Students are now required to wear polo shirts with elbow-

for physical education / sports activities and consider changes.		length sleeves during physical education / sport lessons.

New or revised strategies:

- From term 1 2010, a SunSmart hat will be required for outdoor lessons.
- _____
- _____
- _____

Beverley Airfield WA – Mark Strickland

Tip sheets

A. Shade

Shade is one of the key elements of a school's sun protection strategy. Effective shade can reduce ultraviolet radiation (UV radiation) exposure by approximately 75%. The school development plan should aim to increase the amount of shade available in the school. Consult with the facilities or grounds committee to develop long-term shade strategies for the school grounds. Consider temporary shade structures as a short-term measure.

It is recommended that existing shade is assessed before planning additional shade and that a list of priorities be developed. A shade audit will help determine what shade is currently available, whether it provides effective sun protection and whether better use can be made of existing shade. A shade audit will also indicate if additional shade is required, where it should be located and how it can best be created.

Shade should be established in priority areas (see definition below) first. Shade should also be considered when planning outdoor events, whether held on the school grounds or at external venues.

Shade priority
Shade is required for outdoor areas where members of your school community congregate, but some areas will have a higher priority than others. You should focus on:

- areas where outdoor activities are likely to occur - or that students and staff use during breaks between the peak UV radiation time of 10 am to 3 pm
- areas where outdoor activities occur and/or where people are likely to be watching outdoor activities for more than 10 minutes.

Assessing your shade
Using a site plan, mark where shade is available at peak UV radiation times (10am – 3pm) and mark areas where students congregate. Compare the two – and on the basis of this comparison, develop a list of priorities for change. It is recommended that you undertake this assessment in both winter and summer.

Some strategies for increasing shade at your school could include:

- Maximise existing shade - for example, verandahs, covered walkways and covered canteen areas - by encouraging student use during breaks.
- Allow students to eat lunch indoors if shade in school grounds is inadequate.
- Plant trees, particularly near ovals and other activity areas.
- Plant trees in clusters to increase the shade area.
- Prune low-hanging branches from trees to allow access.
- Relocate garden beds that are in shaded areas.
- Build or move seating and tables around trees and shaded areas.
- Erect portable shelters in exposed areas.
- Hire shade structures for large outdoor events.
- Conduct 'club' activities indoors during lunch and recess breaks.
- Ensure shaded areas are pleasant to sit in (for example, that they are grassed, clean of leaves and sticks or have seating, and that the gardener doesn't water areas just before breaks).

B. Organisation of outdoor lessons and breaks

UV radiation peaks between 10 am and 3 pm when the sun is directly overhead. About sixty per cent of the day's UV radiation is received during this time. To reduce student and staff exposure to UV radiation, schedule events to minimise time spent in direct sun or outdoors during peak UV radiation periods.

Possible strategies include:

- Consider shorter lunchtimes and longer morning breaks.
- Make indoor venues available during lunch and morning break times.
- Timetable outdoor classes early in the morning where possible.
- Schedule physical education/sports activities to maximise use of indoor facilities during high-risk periods.
- Consider scheduling sports so that indoor sports are conducted during peak summer times (for example, badminton in summer and softball/baseball in winter).
- Conduct outdoor assemblies early in the day.
- Timetable lessons so the same class isn't outdoors in peak time on consecutive days.

Clouds over the Pacific. Lord Howe Island - Mark Strickland

C. All-day events

Severe sunburn is likely when students are outside unprotected for long periods of time. The risk of skin damage on sports days and all-day excursions is high. Planning for outdoor events should incorporate a range of sun protection strategies.

- Schedule the event to minimise time outdoors during peak ultraviolet radiation times if possible.
- Consider conducting twilight or indoor events, or early morning events over a couple of days.
- Consider conducting the event during the months when UV radiation is lower (May to August).

You should also consider discussing how inter-school sporting arrangements can be improved with the relevant school sports associations.

Consider the following strategies

Prior to the event

- Visit the venue to work out how much shade will be required.
- Organise portable shade structures—some local councils may hire or lend tents.
- Consider sharing the purchase of portable shade structures with neighbouring schools.
- Work out the best way to structure the day to maximise shade, given that it will move throughout the day.
- Plan to provide plenty of sunscreen.
- Inform students, parents and staff that sun protection will be a priority and outline strategies to be undertaken.
- Encourage spectators to bring umbrellas or tents to supplement existing shade.
- Recommend that broad-brimmed/bucket hats and long-sleeved clothing be worn by all spectators, staff and participants when not competing.
- Promote a hat competition as part of the sports day.
- Promote house points or prizes for students, parents, volunteers and teachers covering up and encouraging others to do so.
- Remind participants to bring clothes so that they can cover up after they finish their events.
- Promote the sun protection message in all printed information about the day.
- Make SunSmart hats and clothing compulsory.

On the day

- Provide enough shade for spectators.
- Ensure shade is available where food and drinks are provided and eaten.
- Provide shade for the competitors at the marshalling areas.
- Provide shade for all officials where possible.
- Ensure students have shade while waiting for transport.
- Plan for the movement of shade during the day.
- Arrange for protective clothing to be taken to participants at the finish of events.
- Consider making hat wearing mandatory on the day for staff and students. (Except when competing)
- Encourage students, staff and parents to wear clothing that covers most of their skin.
- Consider including creative events to reinforce the sun protection message - conduct a mad hatter’s competition or a tug of war between teams wearing different styles of hats.
- Provide sunscreen at various locations.
- Assign students (for example, non-participants or members of the student representative body) to role model SunSmart behavior with correct hats and long sleeved clothing and sunscreen.

- Give regular reminders about sun protection over the public address system. PA announcements are available from the Cancer Council WA website.

D. Curriculum/school programs

It is important that environmental and behavioural elements of a sun protection policy are supported by education through curriculum programs. Students should not only understand how and why they need to protect their skin, but also have the opportunity to explore related issues, such as self image, peer pressure, fashion, culture and the media - all of which influence decision making in relation to ultraviolet radiation exposure.

Activities relating to sun safety can be incorporated into a number of different areas of the curriculum, and may have quite different objectives, depending on the ages and needs of your students - and the stage your school has reached in the development of its policy or plan.

Go to Cancer Council WA's SunSmart School resource page http://www.cancerwa.asn.au/resources/publications/prevention/#schools to view resources that are available to secondary schools.

Also, have a look at the Cancer Council WA resource for students and teachers www.generationsunsmart.org.au . This offers an opportunity to learn about current issues in sun protection and to receive free teaching resources.

E. Clothing, hats and sunglasses

Clothing

One of the most effective barriers between skin and the sun's ultraviolet radiation is clothing. The overall protection provided by clothing will depend on both the material and the design. Clothing should be made from a closely woven fabric - as this kind of material provides the best protection. Clothing should also cover as much skin as possible. Dark colours block more UV radiation and hence give more protection than light colours, however dark colours may be hotter to wear.

Uniforms should include collars, longer sleeves and longer length shorts/skirts. Three quarter length shirts will offer more protection to the arms.

The ultraviolet protection factor (UPF) rating is used to rate the level of protection provided by fabric. A material's UPF is based on how much ultraviolet radiation is transmitted through the material (Table 1). The higher the rating the greater the protection provided. The Cancer Council recommends clothing with a UPF rating of 40 to 50.

Table 1

Ultraviolet protection factor (UPF) rating scheme

PROTECTION CATEGORY	UPF RANGE	% UV BLOCKED

Excellent protection	40 to 50, 50+	97.5
Very good protection	25 to 39	95.9 to 97.4
Good protection	15 to 24	93.3 to 95.8

Note: Fabrics that do not carry a UPF rating do not necessarily offer less protection. It just means they haven't been independently tested for sun protection.

Hats

A broad-brimmed or bucket hat offers the best protection for the head, neck and ears. Cancer Council WA does not endorse baseball caps and visors as they do not offer adequate protection to the back of the neck and ears.

Possible strategies in relation to clothing include:

- Modify the school uniform design or dress code to increase the amount of sun protection it provides.
- Consider allowing the winter uniform (or at least long pants) to be worn during summer.
- Choose school uniform material with the highest possible UPF rating.
- Encourage students attending swimming carnivals/classes to wear T-shirts or lycra protective shirts (rash tops/rashies) over bathers and have a dry shirt to wear when out of the water.
- Require sun protective clothing, including broad brimmed, bucket or legionnaires hats, for all camps and excursions as well as for all physical education and sport
- Involve students in the design of an appropriate school hat and clothing.
- Accept the wearing of 'brand named' (e.g. surf style) broad-brimmed/bucket hats.
- Allow students to wear their own sun protective hats, for example, 'Akubra'.
- Consider offering a choice of hat colours and styles.
- Subsidise the cost of hats or sell them as a fund raising initiative.
- Offer spot prizes for hat wearers.
- Explore ways of giving hat wearing a positive image.
- Recruit influential students to act as role models - offer incentives if necessary.
- Ensure staff act as role models to students and parents by wearing appropriate hats and clothing.

Sunglasses

Like skin, eyes can be damaged by ultraviolet radiation. When worn with a broad-brimmed hat, sunglasses can reduce the amount of UV radiation reaching the eyes by up to 98 per cent (compared with a reduction of about 50 per cent for sunglasses alone).

If students are encouraged to wear sunglasses, please note the following:

- To provide protection from UV radiation, sunglasses should conform with Australian Standard
  AS1067 (1990). The standard relates only to the amount of UV passing through the lens.
- Sunglasses should be a close-fitting, wrap-around style, to reduce the amount of UV radiation reaching the eyes around the edges of the lens.

F. Sunscreen

A sunscreen works by reducing the amount of ultraviolet radiation reaching exposed skin. This means that sunscreen does not totally block UV radiation from reaching the skin. No sunscreen gives complete protection, so it must be used in combination with other sun protection strategies. Sunscreen should never be used to deliberately increase the time spent in the sun.

The sun does not need to feel hot to damage skin and eyes. The damage is caused by UV radiation, which is not seen or felt.

Applying sunscreen correctly

Sunscreen must be applied correctly to be effective.

- Where possible, allow students to apply sunscreen at least 20 minutes before going outside.
- Apply to clean, dry skin. Leave a film of sunscreen on the skin - it should not be rubbed in.
- Apply evenly and generously - about one teaspoonful for each arm and leg and ½ teaspoonful for the face, neck and ears.
- Reapply every two hours - more often if the skin is wiped, washed or sweaty.
- Never use sunscreen to extend time in the sun.
- Don't forget your feet if they are exposed.
- *Always* use sunscreen in combination with other sun protection strategies.

Labelling
Sun protection factor (SPF) is a measure of the level of protection a sunscreen provides against sunburn. The higher the SPF, the more protection a sunscreen provides. The maximum value for sunscreens sold in Australia is SPF 30+. A sunscreen product can only be labelled with an SPF number when it complies with the Australian/New Zealand standard. Cancer Council Australia recommends the use of SPF 30+ broad spectrum, water resistant sunscreen.

Broad spectrum means the sunscreen provides protection against the two types of UV radiation that reach the earth's surface (UVA and UVB).

Strategies to increase sunscreen use

- Provide pump packs at various publicised points around the school with posters outlining correct application and emphasising the need for other sun protection methods.
- Place sunscreen on the booklist.
- Encourage parents to provide each student with their own sunscreen.
- Provide sunscreen for all outdoor lessons.
- Investigate whether parents' groups can fund the provision of sunscreen.
- Recommend that students wear sunscreen to school and remind parents through newsletters.
- Remind students to apply sunscreen before outdoor events / activities
- Investigate selling sunscreen as a school fundraiser.
- Cancer Council WA provides SunSmart schools with sunscreens at discounted prices through the Cancer Council shop.

Note: If you supply sunscreen, it is recommended that you inform parents of the brand and type, so that if it does not suit their child's skin an alternative can be provided by the parents.

G. Risk management for staff

Workplace or occupational UV radiation exposure is a hazard for any school employee required to spend all or part of their day outdoors (see 'Legal issues in relation to UV radiation exposure'). All staff are at risk during yard duty and outdoor events. Physical education, sport and outdoor education teachers and ground staff are at particular risk. Identify duties that involve exposure to UV radiation, for example, outdoor classes, yard duty, sporting carnivals - and the times of day, the duration and frequency of these tasks.

Some possible strategies to reduce staff risk include:

- Regularly inform and remind staff at meetings or professional development sessions about skin cancer and the importance of sun protection. Cancer Council WA can supply a speaker if desired.
- Repeat the education program at appropriate intervals.
- Review the education program at appropriate intervals.
- Ask staff to complete the professional development modules at www.generationsunsmart.org.au
- Ensure that new staff are informed about UV risk reduction strategies.
- Include information in staff handbooks and induction information.
- Strongly encourage staff to keep a broad-brimmed hat, sunglasses and a long-sleeved shirt at school for use during outdoor duties.
- Provide all staff with a broad-brimmed hat.
- Encourage those staff who do not wish to wear a hat to use an umbrella instead.
- Make umbrellas available in the staff room.
- Subsidise the purchase of broad-brimmed hats of their own choice for all staff.
- Encourage staff to wear clothing that protects as much of their bodies as possible, for example, tops/shirts/dresses that cover the shoulders and arms as well as longer skirts/shorts, particularly for outdoor events.
- Emphasise the importance of staff acting as role models for students and parents in reducing sun exposure.
- Educate staff about the correct use of sunscreen, including the meaning of SPF factors, correct application and the need for reapplication, and its use in conjunction with other UV radiation risk reduction strategies.
- Keep OHS&W issues and awareness high on your school's agenda.

Curriculum activity ideas

The activities listed below are ideas that can be developed further and adapted according to objectives, time available, student interests and abilities.

To raise student awareness about sun protection at school and elsewhere:

- Each student records their own activities over a week; assesses when and where they are at risk of sun damage; the kinds of activities they are involved in at the time; current risk reduction strategies (if any); and possible risk-reduction strategies.

- Discuss issues relating to sun protection in different situations. Which factors influence the decisions to protect/not protect themselves from the sun? Do these factors vary according to different circumstances?

- Develop a sun protection plan for an event such as a sporting carnival, fete, excursion or camp. This may include making suggestions about timing of activities, appropriate dress, temporary shade and strategies to encourage spectators to be protected from the sun.

- Develop a quiz for other members of the school community, for example, parents and younger students, to assess their knowledge of sun protection. It should include correct answers and an appropriate scoring system.

To raise the awareness of the wider school community about sun protection

- Develop an education campaign for a particular target group about a sun protection issue. This might be a general SunSmart campaign, or focus on a specific aspect of sun protection, for example:
    - The nature of UV radiation: e.g. peak times, the fact that UV radiation can't be seen or felt and is not related to temperature, effect of UV radiation on the skin and eyes and the implications of this for prevention strategies.
    - Appropriate use of sunscreen: e.g. correct application and reapplication, meaning of terms such as SPF, broad spectrum and water-resistant - and the appropriate role of sunscreen in reducing risk of over-exposure to UV radiation.
    - Skin cancer and other damage resulting from exposure to UV radiation: e.g. why and how UV radiation causes this damage, statistics, types of skin cancer and other damage.
    - For older students and teachers, focus on the importance of early detection: e.g. how to check the skin and what to look for, what to do if concerned about a spot, etc.

To assess and improve the availability of attractive shaded areas within the school grounds

- Conduct observational studies of the areas where students congregate at peak UV radiation periods, particularly lunchtime. Students would need to draw a map of the school grounds, and consider questions such as how many students use shade, which shaded areas are most/least used, what students out in the sun are doing. These studies would need to be repeated at different times during the lunch break and on different days.

- Survey the student population in relation to current shade availability and possible improvements. For example, do they use current shaded areas? Why/not? Where do they believe new shaded areas should be created? What kinds of areas should they be? Develop a proposal for shaded areas according to usage patterns identified by the

study. Students may be also able to design shade appropriate for the area.

To consider how clothing and sunscreen can be used as part of sun protection strategies

- Review the sun protective quality of the current school uniform, considering aspects such as style e.g. length of sleeves, skirts and shorts; presence of collars on T-shirts; colour; fabric weave; and types of hat available or recommended. Recommendations for changes could be developed.

- Develop designs for a range of sun protective or SunSmart clothing for a particular purpose e.g. a school or sports uniform, or a favourite weekend activity.

- Conduct a sunscreen survey to assess:
    - how many students have access to sunscreen
    - whether they are using it
    - whether they know where to find it within the school
    - whether they know how to apply it correctly.

To encourage responsible decision-making by students to reduce their risk of skin damage

- Students role play, in pairs, one of the following roles (then swap and play the other).
  Person A: Invite your friend to the beach, river or pool to see who is there and work on his/her tan. Your friend is new to the area and you try to convince him/her that a tan is essential to be part of the group.
  Person B: You are new to the area and want to meet more people your age. You have skin that burns easily and have doubts about accepting your friend's invitation.

  As a class, discuss how students felt in each of the two roles. Questions for discussion might include:
    - Were you able to resist your friend's invitation, and if so, how did you feel?
    - What tactics did your friend use to attempt to persuade you, and how did those tactics make you feel?
    - What are the reasons for and against accepting the invitation? Which reasons are most important? Why? Would those reasons always be the most important?
    - How did you feel while you were trying to persuade your friend to accept the invitation?
    - What could you do to help your friend meet people without placing them in this position?
    - What strategies could be used by Person B to make friends without compromising his/her health?

  Create and conduct other role plays like the one above, but using different scenarios related to sun protection e.g. hat wearing, sunscreen use, minimising time in the sun during the peak UV periods.

- Ask students to brainstorm as many behaviours as they can that reduce the risk of skin damage due to sun exposure. As a class, discuss these strategies - which are most likely to be effective?

- Develop a series of Dear Doctor (or similar) letters describing scenarios relating to sun protection, and ask students to develop responses.
  Scenarios could include
    - My boyfriend/girlfriend thinks I look better with a tan.
    - I know I should wear a hat but my friends give me a hard time when I do.

- Our tennis matches are always scheduled for the middle of the day and I burn easily.
- Our local swimming pool has no shade.
- I've noticed an unusual spot on my friends back. What should I do?

Alternatively, students can develop their own scenarios and swap them with a partner - then respond to the scenario developed by their partner.

To encourage students to be pro-active in identifying sources of UV radiation exposure and develop strategies to reduce risk.

- Students choose a local facility at which outdoor activities are conducted, and:
  - make an assessment of when and under what circumstances users of that facility are at risk of excessive UV radiation exposure
  - develop some strategies to reduce sun damage for users that could be implemented by the management of the facility
  - develop some recommendations for strategies that could be employed by users of the facility.

  This might involve finding out who uses the facility and when, and visits to the facility at different times to assess shade availability. It could be done in small groups, with different groups allocated to specific tasks.

Useful Websites

Australian Radiation Protection and Nuclear Safety Agency. An excellent website for up to the minute UV radiation readings in Perth.
Go to www.arpansa.gov.au/uvindex/realtime/per_rt.htm

Bureau of Meterology - An great website for local UV radiation forecasts in regional areas
See www.bom.gov.au/products/uvindex_national.shtml

Other resources available from Cancer Council WA

The Shade Handbook – A practical guide for shade development in Western Australia

Tattoo – A multi faceted approach to skin cancer education for secondary students

Real Stories – A skin cancer education program for secondary students

Generation SunSmart – Web based professional development for teachers and lessons plus an educational game for primary students. www.generationsunsmart.org.au

SunSmart Childcare – A guide for service providers