NSW SKIN CANCER PREVENTION STRATEGY 2012–15
Lessening the impact of cancer in NSW
Acknowledgements

The NSW Government would like to acknowledge and thank the consumers, consumer groups and organisations, health care professionals, specialist care services, cancer charities, research institutions, professional associations, local governments, government agencies and non-government organisations for the time and expertise they contributed to the development of the NSW Skin Cancer Prevention Strategy 2012–15, particularly:

Aboriginal Health & Medical Research Council NSW
Australian College of Rural and Remote Medicine
Cancer Council Australia, National Skin Cancer Committee
Cancer Council NSW
Cancer Council Victoria
Carroll Communications
Destination NSW
The Federation of Parents and Citizens' Associations of NSW
General Practice NSW
Health Promotion Agency – New Zealand
Local Government and Shires Associations of NSW
Melanoma Institute Australia
Melanoma Patients Australia

NSW Department of Education and Communities
NSW Department of Planning and Infrastructure
NSW Department of Premier and Cabinet, Office of Environment and Heritage and Division of Local Government
NSW Environmental Protection Agency
NSW Health, Local Health Districts
NSW Ministry of Health
NSW Primary Principals' Association Inc.
NSW Secondary Principals' Council
Surf Life Saving NSW
University of Sydney, Sydney School of Public Health
University of NSW, Healthy Built Environment Program
WorkCover NSW
Association of Independent Schools of NSW
Catholic Education Commission of NSW

National Library of Australia Cataloguing-in-Publication data:
NSW Skin Cancer Prevention Strategy 2012–15
ISBN: 978-1-74187-772-4

Key words: Skin cancer, prevention, New South Wales, Australia.
Suggested citation: NSW Skin Cancer Prevention Strategy 2012–15 Cancer Institute NSW, Sydney, August 2012

Published by the Cancer Institute NSW, 2012.
Further copies of this publication can be downloaded from: www.cancerinstitute.org.au/publications

Cancer Institute NSW,
Australian Technology Park
Level 9, 8 Central Avenue,
Eveleigh NSW 2015
PO Box 41
Alexandria NSW 1435

Telephone: (02) 8374 5600
Facsimile: (02) 8374 5700
Homepage: www.cancerinstitute.org.au Email: information@cancerinstitute.org.au

Copyright © Cancer Institute NSW 2012. This work is copyright. It may be reproduced in whole or part for study or training purposes subject to the inclusion of acknowledgement of the source. It may not be reproduced for commercial usage or sale. Reproduction for purposes other than those indicated above requires written permission from the Cancer Institute NSW.
## Contents

1 Background and context 4
   1.1 NSW 2021 and NSW Cancer Plan 2011–15 4
   1.2 Guiding principles 4
   1.3 Development of the Strategy 5
   1.4 The NSW Skin Cancer Prevention Strategy 2012–15 5
   Priority population groups 6
   Priority settings 7

2 Strategic framework for the NSW Skin Cancer Prevention Strategy 2012–15 8

3 NSW Skin Cancer Prevention Strategy 2012–15 priority areas 9
   Priority area 1: Ultraviolet radiation (UVR) protection policy 9
   Priority area 2: Shade provision 12
   Priority area 3: UVR protection behaviours 15
   Priority area 4: Strategic research 19

4 Implementing the Strategy 20
   4.1 Strategic partnerships 20
   4.2 NSW Skin Cancer Prevention Advisory Committee 21
   4.3 Evaluating and monitoring the Strategy 21
   4.4 Communicating about the Strategy 22

5 Appendix 1 – Priority population groups 23

6 Appendix 2 – Priority settings 24

7 Appendix 3 – Strategic partnerships 25

8 Appendix 4 – Other considerations 26
   8.1 Vitamin D 26
   8.2 Early diagnosis 26

9 Glossary 27

10 References 28
However this lifestyle can also pose a risk, as overexposure to the sun can create significant health problems across the population, most noticeably a heavy burden of skin cancer.

The good news is that many skin cancers are preventable and by taking a few simple steps and precautions we can all help to minimise the impact of the disease on ourselves and our families.

The NSW Government is committed to leading strategic, integrated and coordinated approaches to lessening the burden of disease in NSW and keeping people out of hospital. However we cannot do this alone. It requires a partnership across Government, non-government organisations, industry, community groups and individuals.

Together over the next four years, we will work to implement the NSW Skin Cancer Prevention Strategy 2012–15 to improve our quality of life and ensure that our future generations live healthier, happier and more fulfilling lives.

Foreword from Minister for Health, Minister for Medical Research

The wonderful climate in NSW means we can enjoy an active outdoor lifestyle. Whether working on the land, playing cricket at a local oval or surfing along the coast, this can have many benefits for all of us.
Skin cancer is Australia’s national cancer. Currently we have the highest rate of melanoma in the world in men and the second highest rate in women. What is even more devastating is the disease is the most common cancer in young people aged between 15 and 39 years in NSW.

The impact of skin cancer, both in the number of people affected and in the costs to our health system, is significant. The cost of the diagnosis and treatment of skin cancer (non-melanoma and melanoma) in NSW is estimated to be $215 million a year.

Substantial achievements in skin cancer prevention in recent years include:

- The Cancer Institute NSW has invested nearly $10 million in public education through the development and implementation of the Dark Side of Tanning and Wes Bonny Testimonial campaigns during 2007–11.
- Eighty per cent of registered childcare centres participate in the Cancer Council NSW’s SunSmart Program, where children receive optimal sun protection practices.
- NSW Department of Education and Communities schools developed and implemented a range of sun protection strategies between 2007 and 2011 including: personal sun protection implemented locally with ‘no hat, play in the shade’ in primary schools; rescheduling outdoor activities to minimise exposure to peak ultraviolet radiation (UVR); incorporating sun protection messages into curricula; and delivering hundreds of covered outdoor learning areas and other shade protected areas for students.
- The NSW Government has strengthened the regulation of commercial solaria, announcing a ban to come into effect in 2014.

While these achievements are substantial, there is still much more to be done. Thus, skin cancer is a key priority area in the NSW Cancer Plan 2011–15. The NSW Skin Cancer Prevention Strategy 2012–15 (the Strategy) sets out a comprehensive approach to reducing overexposure to UVR and ultimately the incidence of skin cancer.

The comprehensive approach outlined in the Strategy includes developing comprehensive policies to improve protection from UVR, providing shade and increasing UVR protection behaviours in a range of settings.

We also need to evaluate our activities to ensure we are investing our resources efficiently. In addition, we need to be investing in research to gain further insights into opportunities to strengthen efforts in skin cancer prevention.

Delivering this in a coordinated, efficient and equitable manner requires a strategic approach. We look forward to working with you to reduce the burden of this disease on the community.
Background and context

The NSW Government is committed to reducing the burden of chronic disease, including cancer, on the health system and to keeping the community active and healthy. NSW 2021 defines the Government’s goals to further this commitment and of particular relevance in this context is Goal 11, to ‘keep people healthy and out of hospital’.

1.1 NSW 2021 and NSW Cancer Plan 2011–15

The NSW Cancer Plan 2011–15 (the Cancer Plan) sets the cancer control agenda for NSW and focuses the commitment of all cancer control stakeholders in NSW to lessen the impact of cancer. It also provides a platform for partnerships between government, non-government organisations and the community.

Skin cancer, including melanoma and non-melanoma skin cancers, is the most common cancer in Australia and the most costly cancer to the Australian health system. Australia has the highest skin cancer rates in the world. All people in NSW, regardless of culture and heritage, are at risk of developing skin cancer due to geography, climate and lifestyles in NSW. It is estimated that nearly 95 per cent of skin cancers can be prevented through reduced exposure to ultraviolet radiation (UVR). Thus, reducing overexposure to UVR is a key objective in the Cancer Plan.

1.2 Guiding principles

The development of the NSW Skin Cancer Prevention Strategy 2012–15 (the Strategy) has been guided by the following principles:

1. Effective partnerships between the public sector (national, state and local), the private sector and the general community.
2. Maximising the benefit of resources available for cancer control.
3. Provision and use of expert, evidence-based and up to date information about cancer control.
4. Ensuring fair and just access for everyone to opportunities for health.
5. Respecting diversity.
6. Involving individuals and communities.
7. Valuing people, learning and innovation through capacity building.

Figure 1: The policy context for skin cancer prevention in NSW

- Goal 11: Keep people healthy and out of hospital
- Goal 1: To reduce the incidence of cancer (through improving modifiable risk factors)
- Objective: To reduce overexposure to ultraviolet radiation
- Strategies: Behaviour modification, protective environments, UV protection policy
- Purpose: reduce overexposure to ultraviolet radiation
- Priority Areas: UVR protection policy, shade provision, UVR protection behaviours, strategic research
1.3 Development of the Strategy
The Cancer Institute NSW has led the development of the Strategy through the following consultation processes:

1. The Melanoma Awareness and Skin Cancer Prevention Forum and a Cancer Prevention Strategic Research, Monitoring and Evaluation Forum were hosted by the Cancer Institute NSW in May 2010 to support the development of the skin cancer and cancer prevention content of the Cancer Plan. The purpose of the forums was to engage key stakeholders to review the latest evidence and to canvass expert opinion regarding skin cancer prevention activities and future program monitoring and research priorities.

2. A key informant interview program with stakeholders in NSW, Australia and New Zealand was undertaken during May–July 2011. These interviews investigated current and future contextual issues for skin cancer prevention in NSW and experiences of past and current skin cancer prevention activities. In addition, they explored future agency plans, issues and approaches for engagement. More details about the findings of the key informant interview program are available in the NSW Skin Cancer Prevention Strategy 2012–15 Supplement (Available at http://www.cancerinstitute.org.au/skin-cancer-prevention-strategy).

3. We provided the draft Strategy and Supplement to key stakeholders for feedback prior to public release of these documents. This round of consultation was done to allow key stakeholders to comment on the overall level and structure of the Strategy and to confirm that the contexts for the Strategy were accurate and appropriate.

4. A public consultation process was conducted in October–November 2011 to gather feedback from a broader range of stakeholders and the general public in response to the Strategy. Submissions were received from a range of organisations and individuals. The NSW Skin Cancer Prevention Advisory Committee provided advice to the Cancer Institute NSW on finalisation of the Strategy.

1.4 The NSW Skin Cancer Prevention Strategy 2012–15
There is a long history of dedicated efforts to prevent skin cancer in NSW and Australia. This history provides useful insights and some valuable lessons for the development of effective strategies for future efforts. A sustained, well-resourced and comprehensive program that includes strategies targeting where people live, learn, work and play can prevent skin cancers. Accordingly, the purpose of the Strategy is to implement the skin cancer prevention component of the Cancer Plan, and to provide a framework for a coordinated comprehensive, community-wide approach to reducing over-exposure to UVR for the next four years in NSW.
To implement the Strategy, the following priority areas and goals have been identified with the overall purpose of reducing over-exposure to UVR in NSW, see Figure 2:

Acknowledging the finite resources available in NSW for skin cancer prevention, the Strategy focuses on areas that will achieve the greatest population impact. These will include: priority population groups (including high-risk individuals) and priority settings (including high-risk geographical locations). Collaborations and program integration will be pivotal to achieving outcomes.

**Priority population groups**

A comprehensive approach to skin cancer prevention includes the implementation of universal population-level prevention strategies, as well as specific targeted strategies to reach priority groups and individuals at higher risk of developing skin cancer. The best method of reaching priority population groups and/or high-risk individuals will vary for each targeted strategy.

**Figure 2: Priority areas for skin cancer prevention in NSW**

- **UVR protection behaviours**
  - Increase the adoption of UVR protection behaviour across all life stages and settings.

- **UVR protection policy**
  - Improve policies to increase protection from UVR in a range of settings.

- **Shade provision**
  - Increase the availability of shade in a range of settings.

- **Strategic research**
  - Increase and utilise evidence to inform future planning and development of skin cancer prevention strategies.
The Strategy identifies the following priority populations:

- **Children (under 12 years of age):** Sun exposure during the first 10–15 years of life makes a disproportionately large contribution to lifetime risk of skin cancer. Those responsible for the care of children, particularly parents and care providers, have a direct role to play in achieving adequate sun protection for children.

- **Adolescents and young adults (13–24 years of age):** Adolescents and young adults spend more time in the sun than any other group and generally adopt less frequent UVR protection behaviours than adults, increasing their risk of overexposure to UVR.

- **Adult males (40 years of age and older):** There is growing evidence that sun exposure later in life continues to add to the risk of developing melanoma. The incidence of melanoma increases with age much more in men after 40–50 years of age and it is more than double in men than in women after 70 years of age.

Within these priority groups, individuals may be at even greater risk if they:

- are light-skinned, always or usually burn in the sun and rarely or never tan or are classified as Skin Type I or II
- have more than a few moles
- have lived in Australia from childhood
- have a personal history or family history of skin cancer, especially melanoma
- use solaria or other artificial tanning devices that emit UVR
- work outdoors.

See Appendix 1 for more information about priority population groups.

**Priority settings**

Alongside health settings, where and how people live, learn, work and play influences their knowledge, attitudes, beliefs and behaviours toward exposure to and protection from UVR. These settings play a key role in promoting health and provide the opportunity for skin cancer prevention initiatives:

- Community – built environments, social structures, advocacy.
- Education – schools, early childhood centres, TAFEs, colleges, universities.
- Workplaces – industries, outdoor workplaces.
- Recreation – parks, sporting grounds, beaches, public swimming pools, tourism destinations.
- Healthcare services – general practice, pharmacies, allied health service providers, community health, health promotion service providers.

See Appendix 2 for more information about priority settings.
## 2 Strategic framework for the NSW Skin Cancer Prevention Strategy 2012–15

<table>
<thead>
<tr>
<th>PRIORITY AREAS</th>
<th>UVR PROTECTION POLICY</th>
<th>SHADE PROVISION</th>
<th>UVR PROTECTION BEHAVIOURS</th>
<th>STRATEGIC RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals</td>
<td>Improve policies to increase protection from UVR in a range of settings.</td>
<td>Increase the availability of shade in a range of settings.</td>
<td>Increase the adoption of UVR protection behaviours across all life stages and settings.</td>
<td>Increase and utilise evidence to inform future planning and development of skin cancer prevention strategies.</td>
</tr>
<tr>
<td>Priority populations</td>
<td>Children, adolescents and young adults, adult males, high-risk individuals.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Priority settings</td>
<td>Community, education, workplaces, recreation, healthcare services, high-risk geographical locations.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Objectives | • Increase capacity to develop and implement evidence-based comprehensive sun protection policies, which address:  
  • scheduling of outdoor activities  
  • provision of shade  
  • use of clothing, hats, sunglasses, sunscreen;  
  • role modeling  
  • education and communication.  
  • Increase priority of shade as a factor to be considered in the design of our built environment.  
  • Improve regulation of solaria to reduce exposure to artificial UVR.  
  • Increase the capacity of the health workforce and other stakeholders to develop and implement comprehensive sun protection policies.  
  • Improve measurement of development and implementation of sun protection policies. | • Increase capacity of key stakeholders to conduct shade audits.  
• Improve knowledge about how to develop adequate shade.  
• Increase the allocation of resources to develop shade in priority settings.  
• Increase the capacity of the health workforce and other stakeholders to contribute to the provision of shade.  
• Improve measures of availability and adequacy of shade in priority settings. | • Improve knowledge, beliefs and attitudes about risks associated with UVR exposure and toward prudent sun protection behaviours.  
• Improve the consistency of skin cancer prevention messages.  
• Improve the capacity of role models to promote and reinforce prudent sun protection behaviours.  
• Increase capacity of the health workforce to promote skin cancer prevention.  
• Increase evidence of the impact of skin cancer prevention strategies on the adoption of UVR protection behaviours. | • Increase understanding of the individual and environmental factors influencing skin cancer prevention.  
• Increase evidence to inform the prioritisation and resource allocations to skin cancer prevention.  
• Increase evidence for the use of innovative strategies in skin cancer prevention. |
| Outcomes | Improved UVR protection policies in practice in a range of settings. | Increased availability of shade in the built environment in a range of settings. | Increased adoption of UVR protection behaviours across all life stages and settings. | Increased availability of evidence generated to support future planning and program and policy development to improve skin cancer prevention outcomes. |
## NSW Skin Cancer Prevention Strategy 2012–15 priority areas

### Priority Area 1: UVR Protection Policy

**Goal 1:** Improve policies to increase protection from UVR in a range of settings.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1) Increase capacity to develop and implement evidence-based comprehensive sun protection policies which address:  • scheduling of outdoor activities  • provision of shade  • use of clothing, hats, sunglasses, sunscreen  • role modeling  • education and communication.</td>
<td>1.1.1) Provide information to stakeholders about the components of effective comprehensive sun protection policies and practice for priority settings.</td>
<td>Cancer Council NSW  Cancer Institute NSW  Local Government and Shires Associations of NSW  Destination NSW</td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
<tr>
<td>1.1.2) Continue to promote evidence-based models for developing comprehensive sun protection policies in early childhood services.</td>
<td></td>
<td>Department of Education and Communities  Cancer Council NSW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.3) Develop guidelines for developing and implementing comprehensive sun protection policies and practice in priority settings.</td>
<td></td>
<td>Cancer Council NSW  Cancer Institute NSW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.4) Develop and promote evidence-based models for developing and implementing comprehensive sun protection practices in primary and secondary schools and tertiary settings.</td>
<td></td>
<td>Department of Education and Communities  Cancer Council NSW  Cancer Institute NSW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.5) Develop an evidence-based model for developing and implementing comprehensive sun protection policies for workplaces in line with work health safety legislation.</td>
<td></td>
<td>WorkCover NSW  Cancer Council NSW</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1.6) Continue to provide advice, support and resources to enable workplaces to instigate best practice UVR protection policies for the outdoor workforce.</td>
<td></td>
<td>WorkCover NSW  Cancer Council NSW  Destination NSW</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### NSW Skin Cancer Prevention Strategy 2012–15 priority areas (cont)

**Goal 1: Improve policies to increase protection from UVR in a range of settings.**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
</table>
| 1.1.7) Encourage the development and implementation of evidence-based comprehensive sun protection policies in sporting clubs through state grants processes. | • Department of Education and Communities (Sport and Recreation Cluster)  
• Cancer Council NSW  
• Shade industry |  | Year 1 | Year 2 | Year 3 | Year 4 | Activities to encourage the development and implementation of sun protection policies in sporting clubs through state grants processes have been undertaken. |
| 1.1.8) Encourage the development and implementation of evidence-based comprehensive sun protection policies at arts and cultural events. | • Cancer Council NSW  
• Shade industry  
• Destination NSW |  | Year 1 | Year 2 | Year 3 | Year 4 | Activities to encourage arts and cultural events to develop and implement sun protection policies have been undertaken. |
| 1.2) Increase priority of shade as a factor to be considered in the design of our built environment. | • Department of Planning and Infrastructure  
• Cancer Council NSW  
• Shade industry  
• Local Government and Shires Associations of NSW |  | Year 1 | Year 2 | Year 3 | Year 4 | Inclusion of shade in relevant local-level policies and processes. |
| 1.3) Improve regulation of solaria to reduce exposure to artificial UVR. | • Office of Environment and Heritage/Environmental Protection Agency  
• Cancer Institute NSW  
• NSW Ministry of Health  
• Cancer Council NSW  
• Skin cancer advocates |  | Year 1 | Year 2 | Year 3 | Year 4 | Information about solaria regulations has been disseminated to the public. |
| 1.3.2) Collaborate with relevant stakeholders and experts to provide advice on amending relevant regulation to implement a ban on commercial solaria by 31 December 2014. | • Cancer Council NSW  
• Cancer Institute NSW  
• NSW Ministry of Health  
• Skin cancer advocates  
• Office of Environment and Heritage/Environmental Protection Agency |  | Year 1 | Year 2 | Year 3 | Year 4 | Advice provided on solaria regulations by a range of stakeholders. |
### Prioritity Area 1: UVR Protection Policy

**Goal 1:** Improve policies to increase protection from UVR in a range of settings.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
</table>
| 1.3.3) Develop and disseminate information and resources to support the roll out of the national training program for solaria industry operators and workers in NSW. | • WorkCover NSW  
• Office of Environment and Heritage/Environmental Protection Agency  
• Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)  
• NSW Ministry of Health  
• Solaria operators  
• Cancer Council NSW |  | Year 1 | Resources to support the national training program for solaria industry operators and workers have been developed and disseminated. |
| 1.4.1) Build capacity of public health professionals and other stakeholders to facilitate developing and implementing comprehensive skin cancer prevention policies. | • NSW Ministry of Health  
• Cancer Institute NSW  
• Local Health Districts  
• Local Government and Shires Associations of NSW |  | Year 4 | Capacity building needs have been identified and undertaken. |
| 1.5.1) Undertake a review of the extent and nature of implementation of sun protection practices in schools and tertiary education settings. | • Department of Education and Communities  
• Cancer Council NSW  
• Shade industry |  | Year 3 | Sun protection practices have been reviewed in school and tertiary education settings. |
| 1.5.2) Review indicators and establish benchmarks for sun protection policies in priority settings. | • Cancer Council NSW |  |  | Indicators reviewed and benchmarks agreed. |
| 1.5.3) Monitor, review and update sun protection policies in priority settings as required. | • Cancer Council NSW  
• Destination NSW |  |  | Sun protection policies have been monitored, reviewed and updated. |

**Outcome: Improved UVR Protection Policies in Practice in a Range of Settings.**
### PRIORITY AREA 2: SHADE PROVISION

**Goal 2: Increase the availability of shade in a range of settings.**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
</table>
| 2.1) Increase capacity of key stakeholders to conduct shade audits. | 2.1.1) Identify and document evidence-based or best practice components of what constitutes a shade audit. | Cancer Institute NSW  
Cancer Council NSW  
Academic institutions  
Shade industry | Year 1 | x |
| | 2.2) Promote shade audits to key stakeholders as preferred method for assessing the availability, adequacy and utility of shade in priority settings. | Cancer Council NSW  
Skin cancer advocates  
Shade industry  
Cancer Institute NSW  
Department of Planning and Infrastructure  
Local Government and Shires Associations of NSW | Year 2 | x  
Year 3 | x |
| | 2.3) Collaborate with key stakeholders to use findings from a shade audit to develop and implement strategies that address shade availability and adequacy issues for education settings. | Cancer Council NSW  
Shade industry  
Department of Education and Communities  
Cancer Institute NSW | Year 1  
Year 2  
Year 3 | x  
x |
| | 2.4) Collaborate with key stakeholders to use findings from a shade audit to develop and implement strategies that address shade availability and adequacy issues for workplace settings. | WorkCover NSW  
Cancer Institute NSW | Year 1  
Year 2  
Year 3 | x  
x |
| | 2.5) Collaborate with key stakeholders to use findings from a shade audit to develop and implement strategies that address shade availability and adequacy issues for recreation settings. | Office of Environment and Heritage  
Cancer Institute NSW  
Local Government and Shires Associations of NSW | Year 1 | x |

- Evidence based or best practice components of a shade audit have been identified and documented.
- Shade audits have been promoted to key stakeholders.
- Shade audits used to develop and implement strategies that address shade availability in education settings.
- Shade audits used to develop and implement strategies that address shade availability in workplace settings.
- Shade audits used to develop and implement strategies that address shade availability in recreation settings.
## PRIORITY AREA 2: SHADE PROVISION

**Goal 2:** Increase the availability of shade in a range of settings.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1.6) Collaborate with key stakeholders to use findings from a shade audit to develop and implement strategies that address shade availability and adequacy issues for other community settings.</td>
<td>• Cancer Council NSW • Department of Education and Communities • Cancer Institute NSW • Local Government and Shires Associations of NSW</td>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
<tr>
<td>2.2) Improve knowledge about how to develop adequate shade.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.2.1) Promote evidence-based resources to facilitate the development and implementation of adequate shade structures in priority settings.</td>
<td>• Cancer Council NSW • Local Government and Shires Associations of NSW • Skin cancer advocates • Department of Planning and Infrastructure • Cancer Institute NSW</td>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
<tr>
<td>2.2.2) Identify and promote examples of good practice for designing and implementing innovative and affordable shade options in priority settings.</td>
<td>• Cancer Council NSW • Shade Industry • Cancer Institute NSW</td>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
<tr>
<td>2.2.3) Review, develop and implement shade assessments and materials for early childhood education settings to support National Quality Standards.</td>
<td>• Cancer Council NSW • Shade industry</td>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
<tr>
<td>2.2.4) Review, develop and implement shade assessments and materials for education settings.</td>
<td>• Cancer Council NSW • Department of Education and Communities</td>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
<tr>
<td>2.2.5) Review, develop and implement shade assessments and materials for workplaces to support work health safety legislations.</td>
<td>• WorkCover NSW</td>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
<tr>
<td>2.2.6) Review, develop and implement shade assessments and materials for recreation and community settings.</td>
<td>• Department of Education and Communities (Sport and Recreation Cluster) • Local Government and Shires Associations of NSW</td>
<td></td>
<td>Year 1</td>
<td>Year 2</td>
</tr>
</tbody>
</table>
# NSW Skin Cancer Prevention Strategy 2012–15 Priority Areas (cont)

## Priority Area 2: Shade Provision

**Goal 2:** Increase the availability of shade in a range of settings.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
</table>
| 2.3) Increase the allocation of resources to develop shade in priority settings. | 2.3.1) Implement a grants program within available infrastructure to support community-based projects in areas of need to develop innovative shade structures (natural and built) in priority settings. | • Cancer Institute NSW  
• Local Government and Shires Associations of NSW | Year 1 Year 2 Year 3 Year 4 | Grants program has been implemented. |
| | 2.3.2) Continue to support the development of covered outdoor learning areas in education settings. | • Department of Education and Communities | Year 1 Year 2 Year 3 Year 4 | Covered outdoor learning areas developed. |
| | 2.3.3) Encourage sport clubs to include the development of shade as a component in grant applications for state sporting organisations. | • Department of Education and Communities (Sport and Recreation Cluster) | Year 1 Year 2 Year 3 Year 4 | Activities to encourage sport clubs to identify shade needs in grants program for state sporting organisations have been undertaken. |
| | 2.4) Increase the capacity of the health workforce and other stakeholders to contribute to the provision of shade. | • NSW Ministry of Health  
• Local Health Districts  
• Destination NSW  
• Cancer Institute NSW | Year 1 Year 2 Year 3 Year 4 | Capacity building needs have been identified and undertaken. |
| | 2.5) Improve measures of availability and adequacy of shade in priority settings. | • Cancer Council NSW | Year 1 Year 2 Year 3 Year 4 | Indicators reviewed and data collected on availability of shade. |
| | 2.5.1) Review indicators and collect population-level data on the perceived availability of shade in priority settings. | • Shade industry  
• Academic institutions | Year 1 Year 2 Year 3 Year 4 | Shade audits have been undertaken in priority settings. |
| | 2.5.3) Review indicators for monitoring the availability and adequacy of shade and establish benchmarks in priority settings. | • Cancer Council NSW | Year 1 Year 2 Year 3 Year 4 | Shade availability and adequacy indicators have been reviewed and benchmarks agreed for priority settings. |

**Outcome:** Increased availability of shade in the built environment in a range of settings.
### PRIORITY AREA 3: UVR PROTECTION BEHAVIOURS

Goal 3: Increase the adoption of UVR protection behaviours across all life stages and settings.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1) Improve knowledge, beliefs and attitudes about the risks associated with UVR exposure and toward prudent sun protection.</td>
<td>3.1.1) Develop and implement skin cancer prevention public education mass media campaigns and complementary activities to extend reach and engage with all community members.</td>
<td>Cancer Institute NSW, Cancer Council NSW, Aboriginal Health &amp; Medical Research Council NSW, Multicultural health sector, Local Health Districts, Local Government and Shires Associations of NSW, Melanoma Institute Australia, Skin cancer advocates, Media.</td>
<td>Year 1: X, Year 2: X, Year 3: X, Year 4: X</td>
<td>Public education mass media campaigns and complementary activities implemented.</td>
</tr>
<tr>
<td></td>
<td>3.1.2) Investigate opportunities to further integrate skin cancer prevention messages in primary and secondary school teaching and learning programs.</td>
<td>Cancer Council NSW, Department of Education and Communities, Cancer Institute NSW.</td>
<td>Year 1: X, Year 2: X</td>
<td>Options to integrate skin cancer prevention messages in school teaching and learning programs are identified.</td>
</tr>
<tr>
<td></td>
<td>3.1.3) Develop a strategy to work with industry that supports prudent sun protection.</td>
<td>Cancer Institute NSW, Cancer Council NSW, Sunscreen manufacturers, Fashion industry, Shade industry, Sportswear industry.</td>
<td>Year 1: X, Year 2: X, Year 3: X</td>
<td>Strategy to work with industry has been developed.</td>
</tr>
<tr>
<td></td>
<td>3.1.4) Inform solaria users and the public about the risks associated with solaria use.</td>
<td>Office of Environment and Heritage/Environmental Protection Agency, Cancer Institute NSW, NSW Ministry of Health, Cancer Council NSW, Melanoma Institute Australia, Skin cancer advocates, Academic researchers.</td>
<td>Year 1: X, Year 2: X, Year 3: X, Year 4: X</td>
<td>Information disseminated to the public about the risks associated with solaria use.</td>
</tr>
</tbody>
</table>
# NSW Skin Cancer Prevention Strategy 2012–15 priority areas (cont)

## PRIORITY AREA 3: UVR PROTECTION BEHAVIOURS

**Goal 3:** Increase the adoption of UVR protection behaviours across all life stages and settings.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
</table>
| 3.2) Improve the consistency of skin cancer prevention messages. | 3.2.1) Identify and act on opportunities to further ensure that skin cancer prevention messages from various sources complement evidence-based position statements and guidelines. | • Cancer Institute NSW  
• Cancer Council NSW  
• General Practice NSW  
• NSW Ministry of Health  
• Local Governments Association and Shires Association of NSW  
• Melanoma Institute Australia  
• Media  
• Department of Education and Communities  
• WorkCover NSW | Year 1 | Year 2 | Year 3 | Year 4 |
| | | | × | × | × | × | Opportunities have been identified and acted upon. |
| | 3.2.2) Develop and disseminate skin cancer prevention resources for workplace settings that deliver complementary skin cancer prevention messages and are in line with work health and safety legislation. | • WorkCover NSW  
• Cancer Council NSW  
• Cancer Institute NSW  
• Unions  
• Industry associations | | | | |
| | | | | | | Resources with complementary skin cancer prevention messages have been developed and disseminated in workplace settings. |
| 3.3) Increase the capacity of role models to promote and reinforce prudent sun protection behaviours. | 3.3.1) Work with peak sports organisations to engage officials, coaches and key sportspersons to model sun protection behaviours and encourage prudent sun protection amongst participants in recreation and community settings. | • Department of Education and Communities (Sport and Recreation Cluster)  
• Cancer Council NSW  
• Skin cancer advocates  
• Surf Life Saving NSW | | | | |
| | | | | | | Officials, coaches and key sportspersons in sport clubs have been engaged to role model sun protection behaviours in recreational settings. |
| | 3.3.2) Work with key industries to engage supervisors and managers to model sun protection behaviours and encourage prudent sun protection amongst workers in workplace settings. | • WorkCover NSW  
• Destination NSW  
• Local Government and Shires Associations of NSW  
• Skin cancer advocates | | | | |
| | | | | | | Supervisors and managers in key industries have been engaged to role model sun protection behaviours in workplace settings. |
### PRIORITY AREA 3: UVR PROTECTION BEHAVIOURS

Goal 3: Increase the adoption of UVR protection behaviours across all life stages and settings.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
</table>
| 3.3.3) Work with the whole school community to model sun protection behaviours and encourage prudent sun protection in education settings. | • Department of Education and Communities  
• Cancer Council NSW  
• Cancer Institute NSW  
• Skin cancer advocates | | Year 1: ✗  Year 2: ✗  Year 3: ✗  Year 4: ✗ | Whole school community have been engaged to role model sun protection behaviours in education settings. |
| 3.3.4) Work with peak arts and cultural organisations to engage officials, event organisers and performers to model sun protection behaviours and encourage prudent sun protection amongst participants in recreation and community settings. | • Department of Education and Communities (Sport and Recreation Cluster)  
• Skin cancer advocates  
• Destination NSW | | Year 1: ✗  Year 2: ✗  Year 3: ✗ | Officials, event organisers and performers in arts and cultural organisations have been engaged to role model sun protection behaviours in recreational settings. |
| 3.4) Increase capacity of the health workforce to promote skin cancer prevention. | 3.4.1) Build capacity of primary, community and allied health care workers to deliver (opportunistically and routinely) complementary evidence-based skin cancer prevention messages to individuals at high risk of developing skin cancer. | • NSW Ministry of Health  
• Cancer Council NSW  
• Cancer Institute NSW  
• General Practice NSW  
• Local Health Districts  
• Medicare Locals | Year 1: ✗  Year 2: ✗  Year 3: ✗  Year 4: ✗ | Capacity building needs have been identified and undertaken. |
| | 3.4.2) Build capacity of primary, community and allied health care workers to deliver (opportunistically and routinely) complementary evidence-based skin cancer prevention messages to individuals at high risk of developing skin cancer. | • NSW Ministry of Health  
• Cancer Council NSW  
• Cancer Institute NSW  
• General Practice NSW  
• Local Health Districts  
• Royal Australian College of General Practice  
• Medicare Locals | Year 1: ✗  Year 2: ✗  Year 3: ✗  Year 4: ✗ | Capacity building needs have been identified and undertaken. |
| | 3.4.3) Build capacity of local public health professionals and other stakeholders to incorporate complementary skin cancer prevention messages in local health promotion programs and activities, based on identified needs. | • Cancer Council NSW  
• Cancer Institute NSW  
• NSW Ministry of Health  
• Local Health Districts | Year 1: ✗  Year 2: ✗  Year 3: ✗  Year 4: ✗ | Capacity building needs have been identified and undertaken. |
### Priority Area 3: UVR Protection Behaviours

**Goal 3:** Increase the adoption of UVR protection behaviours across all life stages and settings.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
</table>
| 3.5) Increase the evidence of the impact of skin cancer prevention strategies on the adoption of UVR protection behaviours. | 3.5.1) Undertake monitoring and evaluation to assess the impact of public education campaigns. | • Cancer Institute NSW  
• Cancer Council NSW  
• Cancer Council Australia | Year 1: X  
Year 2: X  
Year 3: X  
Year 4: X | Monitoring and evaluation to assess the impact of public education campaigns has been undertaken. |
|            | 3.5.2) Review indicators for skin cancer prevention activities and establish benchmarks. | • Cancer Institute NSW  
• Cancer Council NSW  
• Cancer Council Australia  
• NSW Ministry of Health  
• Academic institutions | Year 1: X  
Year 2: X  
Year 3: X  
Year 4: X | Indicators for skin cancer prevention activities reviewed and benchmarks agreed. |
|            | 3.5.3) Continue the collection of data on UVR exposure and protection knowledge, beliefs, attitudes and behaviours of adolescents and teenagers in NSW. | • NSW Ministry of Health  
• Cancer Institute NSW  
• Cancer Council NSW  
• Cancer Council Australia | Year 1: X  
Year 2: X  
Year 3: X  
Year 4: X | Data collected on UVR exposure and protection for adolescents and teenagers. |
|            | 3.5.4) Review indicators and collect data on population-level UVR exposure and protection knowledge, beliefs, attitudes and behaviours in the NSW adult population. | • NSW Ministry of Health  
• Cancer Institute NSW  
• Cancer Council NSW  
• Cancer Council Australia  
• Academic institutions | Year 1: X  
Year 2: X  
Year 3: X  
Year 4: X | Data collected on UVR exposure and protection for adolescents and teenagers. |

**Outcome:** Increased adoption of UVR protection behaviours across all life stages and settings.
## Goal 4: Increase and utilise evidence to inform future planning and development of skin cancer prevention efforts.

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Strategies</th>
<th>Stakeholders</th>
<th>Timeframe</th>
<th>Process indicators</th>
</tr>
</thead>
</table>
| 4.1) Increase understanding of the individual and environmental factors influencing skin cancer prevention. | 4.1.1) Examine knowledge, attitudes and behaviours regarding skin cancer prevention amongst older adults, including the priority population group of men aged 40 years and older. | • Cancer Institute NSW  
• Cancer Council NSW  
• Melanoma Institute Australia  
• Academic institutions | x  
x  
X | Research has been identified and undertaken as needed. |
|  | 4.1.2) Investigate social, cultural and physical environmental enablers and barriers to improved sun protection behaviours. | • Cancer Institute NSW  
• Cancer Council NSW  
• Academic institutions  
• Skin cancer advocates | x  
X | Research has been identified and undertaken as needed. |
| 4.2) Increase evidence to inform the prioritisation of and resource allocation to skin cancer prevention. | 4.2.1) Undertake a health economic assessment of the direct and indirect costs of skin cancers to the NSW health system and economy. | • Cancer Institute NSW  
• Cancer Council NSW  
• Academic institutions | x  
X | A health economic assessment has been undertaken. |
|  | 4.2.2) Undertake research into the cost effectiveness of skin cancer prevention activities in NSW. | • Cancer Institute NSW  
• Cancer Council NSW  
• Academic institutions | x  
X  
X | A cost effectiveness analysis of skin cancer prevention activities has been undertaken. |
| 4.3) Increase evidence for the use of innovative strategies in skin cancer prevention. | 4.3.1) Undertake research and investigate options into the use of digital media, including websites and social media, for skin cancer prevention. | • Cancer Institute NSW  
• Cancer Council NSW  
• Academic institutions | x  
X | Research has been undertaken |

**Outcome:** Increased availability of evidence generated to support future planning and program and policy development to improve skin cancer prevention outcomes.
4 Implementing the Strategy

The Cancer Institute NSW is committed to coordinating the implementation and evaluation of the Strategy. However, the successful implementation and evaluation of the Strategy is dependent on a collaborative approach of all stakeholders involved in skin cancer prevention. This will be facilitated through strategic partnerships, coordinated leadership, a defined evaluation plan and effective communication.

4.1 Strategic partnerships

Improving health across and within priority population groups and priority settings is not the sole responsibility of any one single agency, industry or organisation. The integration of skin cancer prevention actions into existing and planned health promotion programs and community initiatives is an opportunity for which strategic partnerships are critical. It is also acknowledged that there are finite resources available in NSW for skin cancer prevention.

Thus, strategic partnerships that include partners across all levels of government, non-government organisations, private industries and communities working at local, state and national levels will play an important role in influencing these population groups and settings. Figure 3 presents the conceptual framework for an integrated approach to skin cancer prevention activities in NSW for the next four years. Strategic partnerships will be formed for the implementation of each strategy.

Figure 3: An integrated approach to skin cancer prevention activities in NSW
**Strategic partnerships**

The Healthy Built Environments Program and the Premier’s Council for Active Living include current and future initiatives that support improvements in physical activity and the community’s engagement in outdoor recreation and leisure activities. These programs are examples of strategic partnerships to influence health across and within a range of population groups and settings in NSW. They can act as models, as well as key partners, in improving skin cancer prevention across and within the priority population groups and priority settings identified above.

Work plans for the Strategy will outline actions for achieving Strategy objectives and identifying stakeholders that could form effective partnerships for the implementation of the Strategy over the next four years.

See Appendix 3 for more information about strategic partnerships.

---

**4.2 NSW Skin Cancer Prevention Advisory Committee**

The NSW Skin Cancer Prevention Advisory Committee (the Committee) was established to coordinate the implementation of skin cancer prevention activities across NSW, particularly those identified in the Strategy and to plan future skin cancer prevention efforts in NSW. The inaugural meeting of the Committee took place in December 2011 and will occur quarterly. The Committee:

- facilitates leadership in skin cancer prevention across a range of sectors, settings and populations within NSW
- contributes to the implementation of the Strategy, including provision of advice on the prioritisation of activities in the Strategy and assessing the impact of the Strategy
- helps to build sustainable partnerships across the public, private and non-government sectors for policies, programs and products that facilitate and encourage skin cancer prevention
- identifies resources for skin cancer prevention and provides advice on allocating and applying resources to priority activities to maximise benefit to the greatest number of people.

The Committee comprises consumer representatives and senior delegates of the agencies identified as key stakeholders in skin cancer prevention activities across a broad range of areas including: public education; policy; advocacy; research and academia; health promotion; schools; workplaces; and community settings. The Committee will be supported by the establishment of short or long term, but generally time-limited and task-defined, working groups responsible for planning and developing specific skin cancer prevention activities and/or technical areas.

---

**4.3 Evaluating and monitoring the Strategy**

The Cancer Institute NSW, with advice from the Committee, will coordinate the:

- development of an evaluation plan for the Strategy
- reporting of progress against the Strategy.

The reports will be used for the regular monitoring and evaluation of the Strategy. They will include:

- six-monthly progress reports on skin cancer prevention activities
- a mid-term report (2013) on impacts of the Strategy
- a final evaluation (2015) on achievements against the stated outcomes of the Strategy. The final evaluation will be based on program monitoring tools as well as from strategic research activities designed to supplement knowledge about skin cancer prevention issues.

This monitoring and evaluation will be important for:

- assessing progress
- identifying areas where adjustments are needed in response to new knowledge and emerging issues
- maintaining stakeholder engagement and buy-in
- supporting the planning and development of future skin cancer prevention strategies for NSW
- developing a repository of data and information relevant to skin cancer prevention in NSW.

The Committee will consider progress reports and provide advice contingent on these findings.
4 Implementing the Strategy (cont)

4.4 Communicating about the Strategy

Communication about the Strategy and progress towards its objectives is critical to successful implementation. All stakeholders in skin cancer prevention across NSW have a role in communication, both in reporting progress against activities and in communicating progress through their networks, relevant partner agencies, and internal policy makers and program planners. The Committee members will play an important role in enabling communication through advice on the dissemination of information about the Strategy.

There is also a range of program leaders (such as public health practitioners, planners and policy makers) for whom skin cancer prevention is not a primary focus, but whose programs or settings have significant potential to influence UVR exposure – positively or negatively. Engaging with these program leaders will be an important early stage element of the implementation of the Strategy. Harnessing their support and identifying suitable communication tools and other opportunities with and within these programs for promoting and disseminating information about the Strategy will be undertaken to reach a broad range of personnel around NSW. This will assist to enable public health practitioners and other stakeholder personnel to routinely promote consistent UVR protection messages to community members through their local programs and to incorporate UVR protection policies in relevant local community initiatives.
5 Appendix 1 – Priority population groups

All people in NSW are at risk of overexposure to UVR, thus the Strategy focuses on a universal, population level approach. However, to address specific risk factors some strategies may require a more targeted approach. The comprehensive approach outlined in the Strategy includes a combination of both population-level strategies and complementary strategies targeted to priority population groups and to individuals at higher risk of developing skin cancer.

The major causative factor in the development of melanoma and non-melanoma skin cancer (NMSC) is UVR exposure and for most individuals, the main source of exposure to UVR is the sun. An individual’s risk of skin cancer from UVR exposure is determined by:

• personal behaviours (i.e. attitudes toward tanning, intentional tanning including the use of solaria, adoption of sun protection behaviours, social and group norms, participation in outdoor activities and/or work)
• personal characteristics (i.e. skin type, hair and eye colour, number of freckles or moles, personal and family history of skin cancer, and genetic constitution).8, 9

Both childhood and adult exposures contribute to the risk of developing skin cancer and it is likely that both cumulative and episodic exposures are important.5, 6, 10 Regular and frequent exposure (commonly occupational) increases the risk of squamous cell carcinoma (SCC), while more ‘intermittent’ exposure to UVR (commonly recreational and to parts of the skin usually covered on most days) increases the risk of basal cell carcinoma (BCC) and melanoma.7 There is growing evidence that relative risk of melanoma increases with cumulative UVR exposure and thus that overexposure later in life continues to add to the risk of developing melanoma.5, 6 Solaria use, particularly before the age of 35 years and more frequent use, increases a person’s risk of developing melanoma.11

Priority population groups

Children (under 12 years of age)
Children are a key priority group for sun protection since the risk of developing melanoma and other skin cancers are strongly related to spending childhood in a high UVR environment, such as in NSW. Childhood is also associated with the development of melanocytic nevi (moles) which are a risk factor for melanoma. Those responsible for the care of children, particularly parents and care providers, have a direct role to play in achieving adequate sun protection for children. This highlights the need for targeted interventions to model appropriate sun protection behaviours and create protective environments.

Adolescents and young adults (13–24 years of age)
In adolescent years parental influence tends to diminish while peer influence and broader social norms play an increasingly important role in shaping attitudes and behaviours. Adolescents and young people generally adopt UVR protection behaviours less frequently than adults and it is more challenging to achieve attitude and behaviour changes among teenagers.12 Adolescents spend more time in the sun than any other age group. While they have been shown to have a high level of knowledge of the dangers of sun exposure, they engage in relatively fewer UVR protection behaviours. Particular interventions are required to address young people’s perception of sun tanning as desirable.

Adult males (40 years of age and older)
There is growing evidence that relative risk of melanoma increases with UVR exposure in later life.5, 6 The incidence of melanoma increases dramatically for males from around 45 years of age and of further concern is the statistically significant 11 per cent increase in male mortality rates from melanoma reported for the period 1999–2008.13 This increasing evidence suggests older adults, particularly males, should be targeted with specific UVR protection strategies, in addition to workplace strategies, from the age of 40 years, if not earlier.

High-risk individuals
People at higher risk of melanoma include individuals who:

• are light-skinned, always or usually burn in the sun and rarely or never tan or are classified as Skin Type I and II under the Fitzpatrick Skin Photo Type Classification system*
• have more than a few moles
• have lived in Australia from childhood
• have a personal history or family history of skin cancer, especially melanoma
• use solaria or other artificial tanning devices that emit UV radiation
• have high levels of recreational sun exposure (particularly for melanomas on body sites that are mainly exposed recreationally)
• work outdoors (specifically for melanomas on body sites usually exposed to the sun when working outdoors).

Of these, all are also factors that predict a higher risk of other skin cancers except having more than a few moles and a personal or family history of melanoma. In addition, squamous cell carcinomas of the skin are more associated with occupational exposure and basal cell carcinomas appear more strongly associated with recreational exposure.

*Fitzpatrick Skin Photo Type classification system means a system for the classification of skin photo types, as referred to in Australian and New Zealand Standard entitled AS/NZS 2635:2008, Solaria for cosmetic purposes.
Appendix 2 – Priority settings

The incidence of skin cancer in populations increases with increasing proximity to the equator. Australia’s proximity to the equator means that solar UVR levels in NSW are very high. Within NSW there are physical and social environments that influence exposure to UVR and UVR protection behaviours.

It is important to acknowledge these environments not only influence the structural elements of UVR exposure and protection, such as the provision of shade, but also the social elements such as norms about sun exposure and supports for sun protection behaviours. These environments are categorised into five priority settings:

**Community settings**: the built environment has a significant role in community settings as it includes the design of the buildings and streets in which people live.

**Education settings**: education settings include but are not limited to the institutions in which people study. Education institutions, including early childhood centres, primary schools, secondary schools and TAFEs and universities, have great potential for influencing UVR exposure and protection behaviours, particularly early in life.

**Workplace settings**: different industries influence sun exposure and protection behaviours with workers in the construction and farming industries spending significant times outdoors, particularly during peak UVR hours. Other industries in which workers spend significant times indoors may influence sun exposure behaviours in non-working times.

**Recreational settings**: there are a broad range of recreational settings in which there is potential to influence UVR exposure and protection behaviours. Parks, sporting grounds, beaches, public swimming pools and tourism destinations are just a few of these settings where UVR protection action should be considered.

**Healthcare settings**: there are a range of health services including but not limited to general practice, pharmacies, allied health services (e.g. physiotherapy and massage therapy), and community and health promotion services which provide opportunities to identify individuals at high risk of developing skin cancer and for educating people about the risk of UVR exposure and ways to minimise that risk through UVR protection behaviours.

**High-risk geographical settings**

Within NSW there is considerable regional variation in melanoma rates. For both sexes, higher incidence rates occur along the coast and these rates are generally higher in the north of the State. In 2008, melanoma incidence was significantly higher amongst residents of Northern Sydney, Central Coast, Hunter and New England, Mid North Coast and Northern Local Health Districts.
Forming strategic alliances with a range of relevant sectors: There are many individuals and agencies whose work directly or indirectly influences skin cancer prevention. This includes work at the local community level and in state and national programs, and those working in research. For example, many stakeholder agencies in NSW are developing initiatives designed to influence healthy built environments, promote sport and other outdoor recreation activities and to encourage the community to engage with their natural environment. Harnessing their support and engagement through collaborative partnership opportunities will add value to these current efforts, create opportunities for the integration of skin cancer prevention within other population health strategies, manage the system changes required to deliver policy and enable efficiencies in terms of achieving improved health outcomes (including for skin cancer) for people in NSW.

Engaging industry for sun protection behaviours: The media, fashion and skin care industries are key influencers in setting social norms around UVR protection behaviours for skin cancer prevention. Mutually beneficial opportunities will be sought with government, non-government organisations and industry partners to achieve positive change in these norms. Working in partnership with other jurisdictions to encourage national skin cancer prevention collaborations with relevant industries will enable efficiencies in relation to effort and resources invested in this area.

Engaging individuals, families and communities in skin cancer prevention actions: There have been favourable changes over time in the community’s beliefs and attitudes to UVR protection and in some UVR protection practices. It is important that there is sustained effort to deliver consistent public health messages that improve understanding of the risk of overexposure to UVR and its possible effects. These messages must reach high risk individuals and families as well as mobilise all communities across NSW to take local action. This may be done through community champions and key influencers and access to information and measures to support the adoption and normalisation of UVR protection practices.

Implementing UVR protection policies and practices for priority settings in the NSW community: A range of UVR protection policies and guidelines have been developed to support the provision of shade and to reinforce UVR protection practices in priority settings across NSW. Future policy action requires top-down and bottom-up approaches to improve implementation of policy in practice.

Forming strategic alliances across all layers of government: local, state and federal to enable program collaborations and efficiencies in program investments: Key stakeholders in skin cancer prevention include a range of government agencies at the local, state and national level. Actions that raise the profile of skin cancer prevention and the co-benefits of integrating UVR protection messages and programs into the core business of these government sectors are important for a comprehensive approach to skin cancer prevention for NSW.

Five key domains for strategic partnerships have been identified for an integrated approach to skin cancer prevention activities in NSW.
8 Appendix 4 – Other considerations

The primary purpose of the Strategy is to address the skin cancer risks for individuals in NSW due to overexposure to UVR through primary prevention measures. To this end the Strategy does not include activities for addressing issues associated with the community’s requirements for vitamin D synthesis for good health, or the early diagnosis of skin cancers for reduced mortality.

8.1 Vitamin D
Solar UVR is both the major cause of skin cancer and the best source of vitamin D. There is no single universal recommendation around adequate levels of sun exposure for meeting vitamin D₃ requirements. Appropriate UVR protection does not put people at risk of vitamin D deficiency. Balancing messages about the risk of skin cancer from too much sun exposure with maintaining adequate vitamin D levels has been and remains a challenge for skin cancer prevention programs in NSW, Australia and in other countries. This issue may be explored further in conjunction with activities in the Strategy, such as the consistency of skin cancer prevention messages.

8.2 Early diagnosis
Melanomas that are less than 1 mm thick rarely threaten life. Survival after a diagnosis of melanoma decreases, however, with increasing melanoma thickness. To reduce mortality, knowledge about skin changes that may indicate development of melanoma and characteristics associated with melanoma depth is needed. In 2008 the Australian Cancer Network Melanoma Guidelines Revision Working Party released the report, Clinical Practice Guidelines for the Management of Melanoma in Australia and New Zealand. These Guidelines report that early diagnosis of melanoma is essential and that skin screening, defined as a visual inspection of the whole body, may be one method of achieving it. There is, however, very limited evidence to support the value of skin screening. As more evidence is required to assess the optimal approach to guidelines for skin cancer screening, the identification of specific activities for early diagnosis of skin cancer has not been included in this Strategy. Enhancing the role of the primary care sector in cancer control is a goal of the Cancer Plan and a range of activities have been outlined by the Cancer Plan for achieving this.
**Glossary**

**Consumer:** Any actual or potential recipient of health care, such as a patient in a hospital, a person receiving an outpatient service, care by a general practitioner or other medical specialist, a community health centre client, or community-based health program.

**General practice:** The provision of primary continuing comprehensive whole-patient medical care to individuals, families and their communities.

**General practitioner:** A medical practitioner who is qualified and competent to work in general practice.

**Health promotion:** The process of enabling people to increase control over and improve their health. It involves the population as a whole in the context of their everyday lives and is directed toward action on the determinants or cause of health.

**Local Health Districts:** In 2011, Local Health Districts (LHDs) came into effect across New South Wales (NSW) as part of state and federal health reforms. The LHDs replace Area Health Services. The NSW Government has established 15 LHDs, including seven geographically based LHDs covering rural and regional NSW, and three specialty networks.

**Melanoma:** The most serious and life-threatening type of skin cancer which originates in the melanocytes – the pigment producing cells of the skin.

**Non-melanoma skin cancer(s):** A term generally used to describe basal cell carcinoma and squamous cell carcinoma.

**Basal Cell Carcinoma (BCC):** The most common and least dangerous type of skin cancer which originates in the skin’s basal cells. Basal cells line the deepest layer of the epidermis (the outermost layer of the skin).

**Squamous Cell Carcinoma (SCC):** The second most common and second most dangerous type of skin cancer which originates in the squamous cells. Squamous cells compose most of the skin’s upper layers (the epidermis).

**Primary Care:** A term used to describe a range of clinical services (predominantly general practitioners but also practice nurses, community health care nurses and community pharmacists) that are normally the first point of contact for patients.

**Public health professionals:** public health professionals in the context of the Strategy are defined as members of the NSW Health workforce and other health and community health professionals. This includes: members of the primary care sector as well as other health and community personnel working to improve the health of people in NSW.

**Skin cancer(s):** The term skin cancer is used throughout the Strategy to refer to a range of cancers of the skin including non-melanoma skin cancers (principally basal and squamous cell carcinomas) and melanoma.

**Stakeholder:** In the context of the Strategy, a stakeholder is an individual or an organisation that is or potentially can be involved in or concerned with skin cancer prevention activities.

**Stakeholder personnel:** A term used in the context of the Strategy to inclusively define a variety of managers, planners and policy makers for whom skin cancer prevention is not a primary focus but their programs and/or settings have significant potential to influence UVR exposure. This includes but is not limited to: local council staff, urban planners, state and national park staff, fitness industry staff and members of the Premier’s Council for Active Living.

**Social Costs:** The value of the net resources which in a given year are unavailable to the community for consumption or investment purposes as a result of the effects of past and present behaviours, plus the intangible costs.

**Ultraviolet radiation (UVR):** UVR is a form of radiation emitted by the sun, solaria and by other artificial sources. UVR cannot be seen or felt, unlike other forms of solar radiation such as light and heat. UVR is classified into three types according to wavelength:

- **a. UVA (longer wavelength),** which causes premature ageing and wrinkling of the skin and is a cause of skin cancer.
- **b. UVB (medium wavelength),** which is more dangerous than UVA and the most powerful cause of skin cancers, sunburning and cataracts.
- **c. UVC (shorter wavelength),** which is extremely dangerous however does not reach the earth’s surface due to absorption in the atmosphere.

When sunlight passes through the earth’s atmosphere, all the UVC and 90 per cent of the UVB is absorbed by ozone. Thus, most UVR that reaches the ground is UVA, with some being UVB.


4. NSW Department of Health, Healthy people NSW: Improving the health of the population. 2007.


