

# Sun Protection Behaviours in NSW, 2024

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Analysis of the 2024 NSW Population Health  
Survey

December 2025

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## Acknowledgement of Country

Cancer Institute NSW acknowledges the Traditional Custodians of the lands where we work and live. We celebrate the diversity of Aboriginal peoples and their ongoing cultures and connections to the lands and waters of NSW.

### **Sun Protection Behaviours in NSW, 2024**

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# Introduction

The New South Wales Population Health Survey (PHS) is an annual survey of the health of people in NSW, conducted since 2002. The main aims of the PHS are to provide detailed information on the health status of adults and children in NSW and to support the planning, implementation and evaluation of statewide health services and programs in NSW.

Biennially (in even years), the Cancer Institute NSW (the Institute) has funded the *Sun Module* which asks questions on sun exposure, sun burn, and sun protection behaviours. This short report includes analysis of the NSW PHS 2024 data and follows the *Sun protection behaviours in NSW report, 2022* (published online [Sun Protection Behaviours in NSW, 2022 report | Cancer Institute NSW](#)).

The purpose of this report is to provide an overview of sun protection behaviours in the NSW adult population and additional sub-group analyses by demographic factors such as age, gender, geography, and skin type.

The NSW Skin Cancer Prevention Strategy (the Strategy) 2023-2030 identifies five key priority populations that would benefit from tailored skin cancer prevention interventions due to their increased risk of developing skin cancer. These populations include:

- Children 12 years of age or under
- Adolescents 13-17 years of age
- Young adults 18-24 years of age
- Men 40 years of age and older
- Outdoor workers

The PHS 2024 report, which presents survey data for individuals aged 18 and older only, focuses on two of these priority populations: young adults 18-24 years of age and men 40 years of age and older. The other priority populations have not been included in this report due to small sample sizes.

This report is structured as follows:

1. Changes in sun protection behaviours between 2016-2024.
2. Sun exposure, sunburn, and sun protection behaviours by demographic factors.
3. Priority populations (young adults and men 40 years old and over).

## Methods

### Data Sampling

In 2024, the PHS used a mixture of computer assisted telephone interview (CATI) and, for the first time, a trial of a Push-to-Web (PtW) postal survey in the final quarter of the calendar year. The trial of the PtW methodology was initiated due to declining response rate of the CATI methodology. However, no sun module questions were included for PtW participants and so the survey methodology in this report is consistent with previous years' CATI approach.

The target population for the survey is all NSW residents living in private households. During the survey sampling process, the population of usual residents of NSW in private households is stratified into 15 strata corresponding to the 15 local health districts. For more information, please visit the NSW PHS methodology page<sup>1</sup>.

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<sup>1</sup> <https://www.health.nsw.gov.au/surveys/methods-results/Pages/methods-2024.aspx>

## Statistical Significance Testing

We used a two-proportion Z-test to evaluate the significance of differences in proportions between the two years. The p-value was calculated to determine whether the observed differences were statistically significant, with a threshold of 0.05 used to indicate significance. This method was consistently applied across all subgroup analyses.

## NSW Population Health Survey Sun Module

The NSW PHS questionnaires are publicly accessible from:

<https://www.health.nsw.gov.au/surveys/methods-results/Pages/default.aspx>

In 2024 the NSW PHS asked the following questions:

**Table 1: Questions and answers for sun module in NSW PHS 2024**

Measure	Questions	Answer Options
Sun exposure	In the last four weeks, how often did you go out in the sun for more than 15 minutes between 11am and 3pm?	1. Always 2. Often 3. Sometimes 4. Rarely 5. Never in the sun for more than 15 minutes X. Don't know R. Refused
Shade use	In the last four weeks, when you were out in the sun for more than 15 minutes, how often did you seek shade?	
Sun-safe hat use	In the last four weeks, when you were out in the sun for more than 15 minutes, how often did you wear a broad brimmed hat or cap with a back flap?	1. Always 2. Often 3. Sometimes 4. Rarely/Never X. Don't know R. Refused
Sunscreen use	Still thinking about the last four weeks, how often did you apply a broad-spectrum sunscreen with an SPF of 30 or more to your exposed skin?	
Protective clothing use	Still thinking about the last four weeks, how often were you deliberately dressed in clothing to protect you from the sun?	
Sunglasses use	In the last four weeks, when you were out in the sun for more than 15 minutes, how often did you wear sunglasses?	
Sunburn episodes	Still thinking about the last four weeks, how often did you get sunburnt, so your skin was still sore or tender the next day?	1. Not at all 2. Once 3. Twice 4. 3 or 4 times 5. 5 or more times

		X. Don't know R. Refused
Skin colour	How would you describe your skin colour when you don't have any tan?	1. Very fair 2. Fair 3. Medium 4. Olive 5. Dark 6. Very dark 7. Black X. Don't know R. Refused
Shade a public park	In your local area, when you are outside do you find it easy to find shade at the public park, including children's playgrounds?	1. Yes 2. No 3. Not applicable X. Don't know R. Refused

This report presents survey results for individuals aged 18 and older only. Consistent with previous reports, results referring to “men” and “women” refer to participants’ self-reported sex at birth.

Local health districts (LHDs) were classified into coastal, regional/rural, and metropolitan areas. Coastal LHDs include Mid North Coast, Northern NSW, Hunter New England, Illawarra Shoalhaven, Central Coast, and Southern NSW. Regional/rural LHDs include Nepean Blue Mountains, Far West, Murrumbidgee, Western NSW, and Albury Wodonga Health Victoria. Metropolitan LHDs include Sydney, South Eastern Sydney, Western Sydney, South Western Sydney, and Northern Sydney.

This *Sun Protection Behaviours in NSW, 2024* report follows the *Sun Protection Behaviours in NSW, 2022* report (published in 2025). The 2022 report described the NSW population’s engagement in sun protection behaviours and any improvements between 2016 and 2022 in the general population and amongst priority groups. This current report includes results from the PHS conducted in 2016, 2018, 2022, and 2024.

## Limitations

In 2020, the PHS did not ask survey participants the Sun Module questions from June 2020 to September 2020 due to the impacts of COVID-19. This resulted in a reduction in the overall sample that completed the survey and a change in the fieldwork period that may have impacted representativeness of the sample, reliability of the results, and the comparability to other survey years. Therefore, results from 2020 have not been included in this report.

In this 2024 report, there has been a change in how skin type is classified. In previous years, skin type classification was derived from the Fitzpatrick Scale which determines skin type by skin colour and the effect of exposure to ultraviolet radiation or the skin’s tendency to sunburn or tan. The 2018 PHS and earlier years used both skin colour and skin sensitivity to determine skin type. However, in 2022, the skin sensitivity question was only asked for three quarters of the fieldwork period before being removed from the survey. As a result, skin sensitivity information was not available for 22.6% of the sample and skin type for that portion of the sample has been derived using only skin colour. In 2024, the skin sensitivity question was not included in the questionnaire and so skin type was derived using only skin colour (see Table 2).

**Table 2: Derivation of skin type classification from skin colour only**

<b>Skin colour</b>	<b>Skin Type Classification</b>
Very fair	1
Fair	2
Medium or Olive	3
Dark, Very Dark or Black	$\geq 4$

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# Summary profile for NSW PHS 2024

Table 3: Summary profile NSW PHS 2024

	N (unweighted)	N (weighted)	% (weighted)
Overall (18+)	10,627	5,908,811	100%
Young adults (18-24)	429	636,668	10.8%
Men, 40+	3,744	1,767,013	29.9%
<b>Gender</b>			
Men	5522	3,021,080	51.1%
Women	4358	2,894,310	48.9%
<b>Age group</b>			
18-24	429	636,668	10.8%
25-34	1167	1,090,904	18.4%
35-44	1562	1,033,239	17.5%
45-54	1870	928,433	15.7%
55-64	1905	845,927	14.3%
65-74	1885	751,229	12.7%
75-84	961	543,884	9.2%
85+	101	85,105	1.4%
<b>Socioeconomic status</b>			
1st Quintile least disadvantaged	1930	1,668,050	28.2%
2nd Quintile	1386	960,275	16.3%
3rd Quintile	2855	1,436,271	24.3%
4th Quintile	1914	864,822	14.6%
5th Quintile most disadvantaged	1790	979,393	16.6%
<b>Region</b>			
Coastal	4050	1,773,305	30.0%
Regional/rural	2403	697,720	11.8%
Sydney Metro	3427	3,444,364	58.2%
<b>Skin type</b>			
1 & 2	4970	2,900,718	49.3%
3	4524	2,700,977	45.9%
4 & above	339	280,780	4.8%

# 1 Changes in sun protection behaviours between 2022-2024

Table 4 shows results for sun exposure, sunburn and engagement with key sun protection behaviours (i.e. use of protective clothing, sun-safe hats, sunglasses, sunscreen and seeking shade) between the period from 2016 to 2024. In addition, self-reported shade availability at the public parks between 2016 and 2024 is included. Comparisons have been made between 2022 and 2024 and significant changes during that period are noted below (including significant differences in demographic subgroups).





## Key findings

- From 2022 to 2024, there was a significant decrease in the proportion of people reporting being sunburnt one or more times in the previous four weeks from 14.9% (95% CI: 13.9%-15.8%) in 2022 to 10.6% (95% CI: 9.6%-11.7%) in 2024.
- Compared to 2022, in 2024 there was an increase in people that reported using sunscreen (36.2%, 95% CI: 34.6%-37.8%), protective clothing (44.5%, 95% CI: 42.9%-46.2%), and sunglasses (58.3%, 95% CI: 56.7%-60.0%). There was no change to using a sun-safe hat or seeking shade.

Table 4: Sun protection behaviours from the NSW PHS from 2016 to 2024

Measure	2016	2018	2022	2024	significant change* (Between 2022 and 2024)
Always/Often had at least 15 minutes of <b>sun exposure</b> between 11am and 3pm	47.4% 95%CI: 46.0% - 48.8%	46.2% 95%CI: 44.8% - 47.6%	41.4% 95%CI: 40.1% - 42.8%	42.4% 95% CI: 40.9%-44.0%	-
Got <b>sunburnt</b> in last 4 weeks: > = 1 time	10.2% 95% CI: 9.3% - 11.2%	12.1% 95% CI: 11.1% - 13.0%	14.9% 95% CI: 13.9% - 15.8%	10.6% 95% CI: 9.6%-11.7%	↓
<i>Women reporting sunburn:</i>	9.7% 95% CI: 8.4%-11.1%	11.0% 95% CI: 9.7%-12.3%	14.2% 95% CI: 12.9%-15.5%	8.7% 95% CI: 7.3%-10.0%	↓
<i>Coastal residents reporting sunburn:</i>	11.3% 95% CI: 9.4%-13.2%	13.4% 95% CI: 11.6%-15.3%	15.1% 95% CI: 13.4%-16.7%	10.9% 95% CI: 9.1%-12.7%	↓
<i>Metro residents reporting sunburn:</i>	10.2% 95% CI: 9.0%-11.4%	11.7% 95% CI: 10.4%-13.0%	14.9% 95% CI: 13.5%-16.2%	10.3% 95% CI: 8.9%-11.7%	↓
Always/Often sought <b>shade</b>	40.3% 95%CI: 38.8% - 41.8%	40.8% 95%CI: 39.3% - 42.3%	35.8% 95%CI: 34.4% - 37.2%	36.5% 95% CI: 34.9%-38.1%	-
Always/Often applied SPF 30+ <b>sunscreen</b>	35.5% 95%CI: 34.0% - 36.9%	33.9% 95%CI: 32.4% - 35.3%	32.3% 95%CI: 31.0% - 33.6%	36.2% 95% CI: 34.6%-37.8%	↑
<i>Young adults aged 18-24 Always/Often applied sunscreen</i>	28.4% 95% CI: 24.0%-32.9%	29.0% 95% CI: 24.4%-33.6%	33.3% 95% CI: 28.8%-37.8%	43.9% 95% CI: 37.8%-49.9%	↑

<i>Coastal residents</i> <i>Always/Often applied</i> <b>sunscreen</b>	33.4% 95% CI: 30.8%- 36.0%	34.1% 95% CI: 31.6%- 36.6%	28.5% 95% CI: 26.4%- 30.6%	33.3% 95% CI: 30.6%- 36.0%	↑
<b>Always/Often wore protective clothing</b>	39.5% 95%CI: 38.0% - 40.9%	42.2% 95%CI: 40.7% - 43.7%	41.0% 95%CI: 39.6% - 42.3%	44.5% 95% CI: 42.9%- 46.2%	↑
<i>Women</i> <b>Always/Often wore protective clothing</b>	37.8% 95% CI: 35.9%- 39.8%	39.2% 95% CI: 37.2%- 41.3%	40.3% 95% CI: 38.3%- 42.2%	44.8% 95% CI: 42.5%- 47.1%	↑
<i>Coastal residents</i> <i>Always/Often wore</i> <b>protective clothing</b>	42.4% 95% CI: 39.7%- 45.0%	45.4% 95% CI: 42.8%- 48.0%	41.2% 95% CI: 38.9%- 43.5%	49.1% 95% CI: 46.3%- 51.9%	↑
<b>Always/Often wore sunglasses</b>	63.6% 95%CI: 62.2% - 65.0%	60.8% 95%CI: 59.3% - 62.3%	55.2% 95%CI: 53.7% - 56.6%	58.3% 95% CI: 56.7%- 60.0%	↑
<b>Always/Often wore a sun-safe hat</b> (broad brimmed hat or cap with a back flap)	33.8% 95%CI: 32.4% - 35.2%	34.8% 95%CI: 33.4% - 36.2%	33.8% 95%CI: 32.5% - 35.1%	35.1% 95% CI: 33.6%- 36.7%	-
<b>Found it easy to find shade at:</b> Public parks	82.8% 95%CI: 81.7% - 83.9%	80.3% 95%CI: 79.1% - 81.5%	77.4% 95%CI: 76.2% - 78.6%	75.4% 95% CI: 73.9%- 76.8%	-

\* Statistically significant changes: Behaviour improved   Behaviour worsened  

N: Total number of respondents. “Refused”, “Not applicable” and “Do Not Know” are not counted. Small variation exists in number of respondents across each measure.

## 2 Sun protection behaviours in 2024

### Sun exposure in NSW

These subgroups were more likely to always or often be exposed to the sun:

- Men aged 40+ compared to overall population
- Men compared to women
- Coastal and regional residents compared to metropolitan

In 2024, 42.4% (95% CI: 40.9%-44.0%) of the NSW population aged 18 years and over were Always or Often exposed to the sun between 11am and 3pm. This does not significantly differ from the 2022 PHS results that showed 41.4% (95% CI: 40.1%-42.8%) were exposed to the sun during the same period (11am-3pm).

### Sunburn in NSW<sup>2</sup>

According to the NSW PHS 2024, 10.6% (95% CI: 9.6%-11.7%) of the NSW population aged 18 years and over were sunburnt at least once in the previous four weeks, a significant decrease compared to 2022 (14.9%; 95% CI: 13.9%-15.8%).

**709,500\***

The number of people aged 18 years and over who were sunburnt at least once in the preceding four-week period in 2024.

Data from the NSW PHS 2024 show that younger people are more likely to report being sunburnt than older age groups, with around one in five (18.5%, 95% CI: 14.0%-22.9%) people aged 18–24 reporting a sunburn episode in the four weeks prior to the survey. This does not significantly differ from the 2022 PHS results that showed 25.8% (95% CI: 21.7%-29.8%) of 18–24-year-olds reporting a recent sunburn episode.

### Sun protection behaviour in NSW<sup>3</sup>

**5,757,000†**

The number of people aged 18 years and over who engaged in a least one sun protection behaviour in 2024.

The NSW PHS asks questions on engagement with the five sun protection behaviours: slipping on sun protective clothing, slapping on SPF 30 sunscreen or higher, slapping on a broad-brimmed hat, seeking shade and sliding on sunglasses.

The most commonly reported sun protection behaviour amongst the total population was the use of sunglasses (58.3%, 95% CI: 56.7%-60.0%), followed by protective clothing (44.5%, 95% CI: 42.9%-46.2%), shade (36.5%, 95% CI: 34.9%-38.1%), sunscreen (36.2%, 95% CI: 34.6%-37.8%), and a sun-safe hat (35.1%, 95% CI: 33.6%-36.7%). In 2024, there were significant increases in the proportion that reported using sunscreen, wearing protective clothing and using sunglasses when outside compared to 2022.

Overall, 86.0% (95% CI: 84.8%-87.2%) of the NSW population reported engaging with at least one or more sun protection behaviours in previous four-week period, an increase from 2022 (83.6%, 95% CI: 82.5%-84.7%). However, only 38.9% (95% CI: 37.3%-40.5%) engaged in at least three of the sun protection behaviours, although this has increased from 2022 (34.6%, 95% CI: 33.3%-35.9%). In line with previous years, only 4.8% (95% CI: 4.2%-5.4%) engaged in all five behaviours.

\* The estimated NSW population aged 18 years and over in 2024 is based on the Australian Bureau of Statistics Estimated Resident Population (ERP). The sunburn results from the NSW PHS 2024 were applied to the estimated resident population to derive the total number of people (709,500) who were sunburnt at least once in the preceding four-week period.

† The estimated NSW population aged 18 years and over in 2024 is based on the Australian Bureau of Statistics Estimated Resident Population (ERP). The engagement with sun protection behaviours results from the NSW PHS 2024 were applied to the estimated resident population to derive the total number of people (5,757,000) who engaged in at least one sun protection behaviour.

There were differences in engagement with each sun protection behaviour by demographic factors.

## Age

Exposure to the sun between 11am and 3pm was consistent across all ages until 75 years, after which individuals reported spending less time in the sun during these peak hours compared to younger groups. However, while overall sun exposure remained steady across all ages, younger adults were significantly more likely to report experiencing at least one sunburn in the past four weeks. Specifically, 18.5% (95% CI: 14.0%-22.9%) of 18–24-year-olds, 14.4% (95% CI: 11.5%-17.2%) of 25–34-year-olds, and 14.6% (95% CI: 12.0%-17.2%) of 35–44-year-olds reported being sunburnt. The likelihood of reporting a recent sunburn decreased steadily among people aged 45 years and over, falling to 3.6% (95% CI: 1.3%-5.9%) in those aged 75-84 and 0.0% (95% CI: 0.0%-0.1%) among those aged 85 years and over.

Sunscreen use declined steadily with age, dropping from a peak of 43.9% (95% CI: 37.8%–49.9%) among 18–24-year-olds to 15.7% (95% CI: 5.8%–25.7%) in those aged 85+. In contrast, other sun protection behaviours were generally consistent across age groups or increased gradually until about age 75, after which they declined – likely reflecting reduced sun exposure among older adults.

The proportion of people engaging in at least one protective behaviour was similar across all age groups from 82.0% (95% CI: 77.5%-86.4%) in 18–24-year-olds to a comparable peak of 88.5% (95% CI: 85.2%-91.8%) in 65–74-year-olds. However, engaging in three or more behaviours increased steadily across age groups from 26.7% (95% CI: 21.2%-32.2%) among 18–24-year-olds to a significantly higher peak of 47.2% (95% CI: 42.9%-51.4%) in those aged 65–74. Engagement with all five protection behaviours was less common overall but also steadily increased with age, rising from 1.4% (95% CI: 0.3%-2.4%) in the youngest group (18–24) to a significantly higher peak of 6.8% (95% CI: 4.8%-8.9%) in the 65–74 age group.

## Gender

Men were significantly more likely than women to report sun exposure between 11 am and 3 pm (50.4%, 95% CI: 48.1%-52.6% versus 34.8%, 95% CI: 32.7%-36.9%) and to have reported a sunburn episode at least once in the past four weeks (12.7%, 95% CI: 11.1%-14.2% versus 8.7%, 95% CI: 7.3%-10.0%).

With the exception of wearing protective clothing and sun-safe hats, where there were no differences, women were more likely than men to engage in sun protection behaviours. In particular, women were more likely to report using at least one (89.3%, 95% CI: 87.7%-90.8% versus 82.8%, 95% CI: 81.0%-84.6%), at least three (43.4%, 95% CI: 41.1%-45.7% versus 34.4%, 95% CI: 32.2%-36.6%), and all five (6.5%, 95% CI: 5.5%-7.5% versus 3.1%, 95% CI: 2.4%-3.9%) recommended sun protection behaviours.

## Skin type

People with skin types 1 and 2 (fairer skin) were less likely to report sun exposure between 11 am and 3 pm (38.5%, 95% CI: 36.3%–40.7%) compared to those with skin type 3 (medium or olive) (46.1%, 95% CI: 43.8%–48.4%). However, they were more likely to report at least one episode of sunburn in the previous four weeks (12.3%, 95% CI: 10.8%–13.9%) than those with skin type 3 (9.1%, 95% CI: 7.7%–10.5%).

Overall, individuals with skin types 1 and 2 reported greater engagement in sun protection behaviours compared to those with darker skin types. Specifically, 88.6% (95% CI: 87.0%–90.2%) of people with skin types 1 and 2 reported using at least one protective behaviour, compared to a significantly lower 84.1% (95% CI: 82.3%–86.0%) for people with skin type 3 and 79.2% (95% CI: 72.9%–85.5%) for people with skin types 4 and above.

Engagement in three or more behaviours was also higher among those with skin types 1 and 2 (44.1%, 95% CI: 41.7%–46.4%) than those with skin type 3 (34.8%, 95% CI: 32.5%–37.1%), which in

turn was higher than people with skin types 4 and above (24.8%, 95% CI: 17.8%–31.9%). Similarly, engagement in all five recommended behaviours was greatest among people with skin types 1 and 2 (5.5%, 95% CI: 4.6%–6.3%) and those with skin type 3 (4.5%, 95% CI: 3.6%–5.5%), compared to people with skin types 4 and above (1.5%, 95% CI: –0.3%–3.2%)

## Region

Individuals living in coastal areas (48.7%, 95% CI: 46.0%–51.3%) and regional/rural areas (48.1%, 95% CI: 44.5%–51.8%) were more likely to report sun exposure between 11 am and 3 pm compared to those in metropolitan areas (38.1%, 95% CI: 35.9%–40.2%). However, there were no geographical differences in reports of sunburn within the past four weeks.

With the exception of sunscreen use, which was higher in metropolitan areas, and shade use, where no differences were observed, engagement in other sun protection behaviours was generally greater among coastal and regional/rural residents. Coastal residents reported the highest engagement, followed closely by regional/rural residents. Specifically, 90.1% (95% CI: 88.6%–91.7%) of coastal residents reported using at least one protective behaviour compared to 83.5% (95% CI: 81.7%–85.3%) of metropolitan residents. Both coastal (44.0%, 95% CI: 41.2%–46.8%) and regional/rural residents (44.0%, 95% CI: 40.2%–47.9%) were more likely to engage in three or more behaviours than metropolitan residents (35.2%, 95% CI: 33.0%–37.4%). Coastal residents also reported the highest engagement in all five behaviours (6.2%, 95% CI: 5.0%–7.5%) compared to metropolitan residents (4.1%, 95% CI: 3.3%–4.9%)

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## 3 Priority populations

The NSW Skin Cancer Prevention Strategy (the Strategy) 2023-2030 identifies five priority populations that require tailored and targeted interventions due to their particular risk. These populations include children (12 years and under), adolescents (13-17 years old), young adults (18-24 years old), men over 40 and outdoor workers. Two priority populations in the Strategy can be identified in the 2024 PHS, young adults 18-24 years and men 40 years and over.

The summaries below describe any significant differences in sun exposure, sunburn episodes and engagement in sun protection behaviours of the two priority populations compared to the overall population.

*Summary of significant differences in sun exposure, sunburn, sun protection behaviour and skin types in young adults 18-24 years*

### Young Adults (18-24 years)

- More likely to report at least one sunburn episode in the previous four weeks (18.5%, 95% CI: 14.0%-22.9%) than the overall population (10.6%, 95% CI: 9.6%-11.7%).
- Higher use of sunscreen (43.9%, 95% CI: 37.8%-49.9%) than the overall population (36.2%, 95% CI: 34.6%-37.8%).
- Lower engagement in use of protective clothing (35.4%, 95% CI: 29.7%-41.2%), sun-safe hat (17.3%, 95% CI: 13.0%-21.7%) and sunglasses (36.6%, 95% CI: 30.8%-42.4%) compared to the overall population.
- Compared to the overall population, young adults were as likely to engage with at least one protective behaviour (82.0%, 95% CI: 77.5%-86.4%) but were less likely to report engaging with at least three protective behaviours (26.7%, 95% CI: 21.2%-32.2%) or all five recommended behaviours (1.4%, 95% CI: 0.3%-2.4%).

## Men 40+ years

- Higher levels of sun exposure (49.6%, 95% CI: 46.9%-52.2%) than the overall population (42.4%, 95% CI: 40.9%-44.0%).
- Lower use of sunscreen (21.1%, 95% CI: 18.8%-23.4%) than the overall population (36.2%, 95% CI: 34.6%-37.8%).
- More likely to report using a sun-safe hat (45.3%, 95% CI: 42.5%-48.0%) compared to the overall population (35.1%, 95% CI: 33.6%-36.7%).

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## Conclusion

The 2024 NSW PHS highlights encouraging progress in sun safety behaviours across the state. Fewer people reported experiencing sunburn compared to previous years, and there has been an increase in the use of sun protection measures such as sunscreen, protective clothing, and sunglasses. Despite these improvements, engagement with multiple sun protection behaviours remains limited, and very few individuals consistently use all recommended strategies. Research indicates that sun protection behaviours are most effective when used in combination<sup>4</sup>. Increasing the proportion of people who adopt multiple sun protection behaviours presents an important opportunity to further reduce the risk of skin cancer.

Younger adults continue to be a high-risk group, with a greater likelihood of sunburn and lower engagement in sun protection behaviours such as wearing protective clothing, hats and sunglasses. Communications aimed at increasing engagement with the other sun protection behaviours are required for this age group to reduce their likelihood of sunburn and skin cancer.

Gender differences also persist, with men more likely to have higher sun exposure and lower engagement in sun protection behaviours compared to women. Given men over 40 years of age and outdoor workers are priority populations of the Strategy, continued targeted activities are required to improve engagement with sun protection behaviours and to reduce sun exposure.

People with fairer skin (types 1 and 2) are less likely to spend time in the sun but report greater likelihood of sunburn. While they generally report higher engagement in sun protection behaviours than those with darker skin types, their increased risk highlights the need for continued efforts to promote consistent and combined sun protection messages for this group.

Individuals living in regional, rural, and coastal areas are more likely to spend time outdoors during peak UV hours compared to those in metropolitan areas, increasing their potential risk of sun damage. While these groups generally report higher engagement in most sun protection behaviours, sunscreen use remains lower outside metropolitan areas, and shade use shows no improvement across all regions. Quality shade can reduce exposure to UV radiation by up to 75%, making it the most effective means of protecting against the harms of sun exposure. Therefore, continued efforts to promote consistent and combined sun protection behaviours, particularly shade and sunscreen use, are essential to reduce risk among these higher-exposure populations.

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<sup>4</sup> Heckman CJ, Liang K, Riley M. Awareness, understanding, use, and impact of the UV index: a systematic review of over two decades of international research. *Prev Med (Baltim)*. 2019;123:71–83.

Overall, while progress has been made, increasing the proportion of people who adopt multiple sun protection behaviours remains a critical opportunity to reduce the burden of skin cancer in NSW. Continued public health initiatives such as skin cancer prevention social marketing campaigns, tailored messaging, and targeted programs in collaboration with partners and stakeholders will be key to sustaining and accelerating these improvements.

## Cancer Institute NSW

Level 4, 1 Reserve Road,  
St Leonards NSW 2065

Locked Bag 2030,  
St Leonards NSW 1590

Office hours:  
Monday to Friday  
9am–5pm

T: 02 8374 5600

E: [information@cancer.nsw.gov.au](mailto:information@cancer.nsw.gov.au)

W: [cancer.nsw.gov.au](http://cancer.nsw.gov.au)

