

# Sun Exposure Survey 2016

## Demographic Report

September 2016

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September 2016

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Information on the methodology has partly been supplied by Key Research Ltd.

Data preparation and analysis was conducted by Dr Holly Trowland and Wa Anwar (HPA). This report was contributed to by Dr Holly Trowland, Wa Anwar, Sarah Dallas, Joanna Minster, Dr Karen McBride-Henry and Dr Rebecca Bell.

## REVIEW

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This report has not undergone external peer review.

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## KEY RESULTS

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- Nine in 10 people aged 13 years and over went outside for 15 minutes or more during the previous weekend. This rate was higher for people who lived in rural areas than people in cities.
- Gardening and walking were the most popular outdoor activities among people aged 13+ years. Those who were outside watching sport or boating had the highest rates of sunburn.  
*One in seven people aged 13+ years who were outside on the weekend got sunburnt.*
- One in seven people aged 13+ years (14%) who were outside on the weekend got sunburnt. Youth aged 13 to 17 years were sunburnt at a higher rate (17%) than older adults (11%) aged 55 years and over.
- Half of all people aged 13+ years used sunscreen when outdoors during the weekend. Sunscreen was more likely to be used by females and people with fair skin. Sunscreen was most commonly applied to the face, nose and neck.
- Half of all people aged 13+ years wore a hat when they are outside over the weekend. Hats were most commonly worn by males, older adults and people in rural areas.
- Over half of all people aged 13+ years reported that they wore sunglasses most of the time when they were outside. Sunglasses were more popular among females and adults over 18 years.
- When outdoors, people aged 13+ years were less likely to use either clothing or sunscreen to protect their hands, forearms (arms below the elbows) and shins (legs below the knees) from the sun.
- Hands, forearms and shins were most commonly left exposed to the sun by clothing. Older adults were more likely than youth to cover up almost all body parts with clothing.
- Four in 10 people aged 13+ years made a choice to stay in the shade when they were outside. Females and older adults were more likely to seek shade.
- One in 14 people aged 13+ years used the Sun Protection Alert to prompt them about using sun protection.

# INTRODUCTION

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## BACKGROUND

The Health Promotion Agency undertakes the Sun Exposure Survey (SES) every three years. The purpose of this ongoing research is to collect consistent information on attitudes and behaviours towards sun exposure, to facilitate comparison with historical survey data, and to inform future decision making in the sun safety and skin cancer prevention sector.

The SES was formerly known as the Triennial Sun Protection Survey (TSPS). The TSPS was conducted in 1994, 1997, 2000, 2003 and 2006. The SES was then developed in 2009, following a review of the TSPS. In addition to a number of new questions being included, many of the questions from the TSPS were maintained in the SES, to allow for the continued monitoring of trends over time. The age range of the SES sample was also expanded – previously the TSPS included only adults aged 18 to 54 years and the revised SES included youth aged 13 to 17 years. The first SES was conducted in 2010 and subsequently in 2013. The sample age range was further expanded in 2016 to include older adults (aged 55 years and over).

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*2,272 interviews with 1,270 adults, 486 youth and 516 older adults.*

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## METHODOLOGY

In 2016, the survey sample included everyone aged 13 years and over. Data collection comprised a total of 2,272 interviews with 1,270 adults (aged 18 to 54 years), 486 youth (aged 13 to 17 years) and 516 older adults (aged 55 years and over). The sample frame was based on Random Digit Dialling (RDD) using Exchange Information Numbers (EINs). Each EIN is attached to a specific geographic area in the country. EINs were combined with a string of four randomised numbers to give the number used for RDD. This method avoids selecting respondents from the White Pages Directory, thereby minimising any selection bias due to incomplete, unlisted and disconnected phone numbers. The use of RDD allows accurate representation of the geographic area surveyed since calls are scattered across the entire area and responses, therefore, reflect the underlying population characteristics.

Quota targets were established based on known population distributions from the 2013 census data. Quota targets were established as 'hard' targets that had to be achieved and 'soft' targets that permitted a variation of +/-10%. Hard targets were set for broad geographic region and soft targets were set for regional council boundary, age group and gender.

Refer to the *Sun Exposure Survey 2016 Methodology Report* (Health Promotion Agency, 2016) for a full account of the methodology used for the SES.

## **Data Collection**

The data collection method was over the telephone. Interviewing was undertaken by Digipoll interviewers, who were trained in the questionnaire prior to commencing the work. The interviews were carried out between 11 January and 21 March 2016 on Monday, Tuesday and Wednesday between the hours of 4:00pm and 8:30pm. Sixty four interviews were conducted on a Thursday following a long weekend.

Interviews were only conducted in areas in which at least one day of the weekend met the 'fine weather' criteria. The fine weather criteria is a scoring system based on regional meteorological data for the weekend where the survey fieldwork takes place. The scoring system takes into account the temperature, sky conditions and Ultraviolet Index. Only those regions with scores greater than 10 on at least one weekend day were eligible for interviews. The interviews were then conducted the following week in relation to the eligible day when a respondent reported being outdoors for 15 minutes or more between 10am and 4pm.

## **Weighting**

Data from this survey were weighted so that no specific population was over- or under-represented in the survey sample. This was done by calculating selection weights and by benchmarking using census data.

## **Response Rate**

Of the 29,683 telephone calls made using RDD, a total of 8,556 respondents were identified as being eligible for inclusion in the survey. Of these eligible respondents, 2,272 completed the survey interviews, yielding a total response rate of 27% ( $2,272 \div 8,556$ ).

## **OVERVIEW OF THIS REPORT**

This report provides an overview of key findings from the 2016 SES on all survey respondents aged 13 years and over. This includes the youth (13 to 17 years), adult (18 to 54 years) and older adult (55+ years) samples. This report is intended to provide a technical summary of the survey findings rather than a detailed discussion of the results in the context of existing research and literature.

Results are reported for all people aged 13+ years, and also broken down into subgroups of gender (female and male), age group (13 to 17 years, 18 to 54 years, 55+ years), area where the respondent lives (rural or city/town), and skin type (fair, medium or dark). For some of the subgroups there were missing responses, which means some of the subgroup totals do not add up to the total responses.

The fair skin type includes people who described their skin as "very fair" or "fair", the medium skin type includes people who described their skin as "medium" or "olive", and the dark skin type includes people who described their skin as "dark" or "very dark or black".

Only differences that are statistically significant, for which the p-value is less than 0.05, have been commented on in the text of this report. Statistical significance was measured either by looking at 95% confidence intervals or using t-tests.

Some graphs in this report include error bars that represent the 95% confidence intervals. The caption of the graphs includes a note on the “base” – this relates to the group of respondents for which the responses are being presented (for example, “outside during the previous weekend” or “sunburnt the previous weekend”). The number of respondents in the base is stated in the value of ‘n’ in the caption of each graph and this is an unweighted count.

## OTHER REPORTS ON THE 2016 SUN EXPOSURE SURVEY

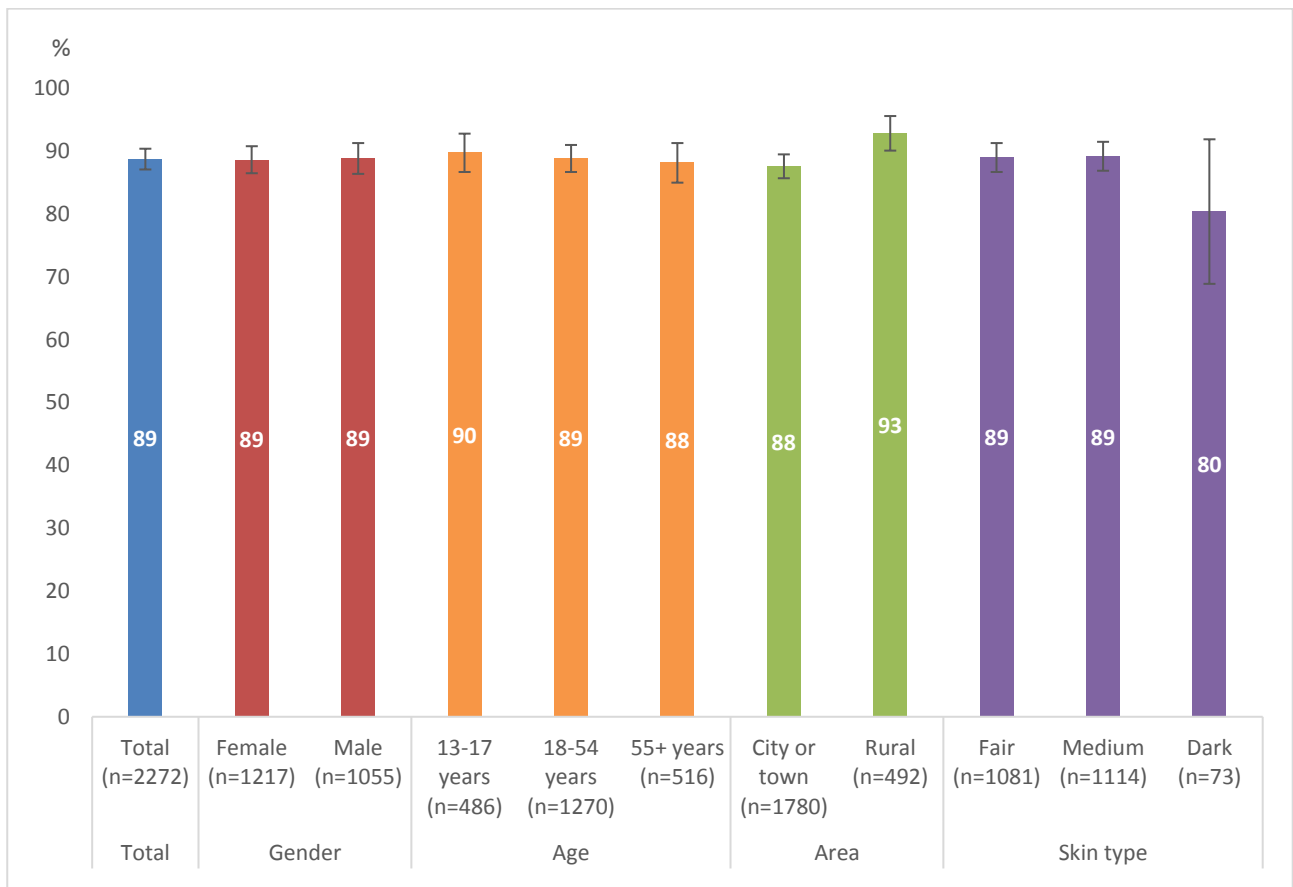
- For a more comprehensive discussion of the results and time trend analysis from the adult sample, see *Sun Exposure Survey 2016: Adult topline time series report* (Trowland et al., 2016).
- For an overview of key findings for the youth sample, see *Sun Exposure Survey 2016: Youth report* (Health Promotion Agency [HPA], 2016a).
- For an overview of key findings for the older adult sample, see *Sun Exposure Survey 2016: Older adult report* (HPA, 2016b).
- For a full account of the methodology used refer to the methodology report: *Sun Exposure Survey Methodology Report*, prepared by Key Research Ltd (HPA, 2016).
- To review the full set of questions included in the 2016 SES refer to: *Health Promotion Agency Sun Exposure Survey 2016 Questionnaire* (HPA, 2016c).



# SUN EXPOSURE

## Nine in 10 people aged 13 years and over go outside on the weekend

Nearly nine out of 10 (89%) people aged 13+ years were outdoors for 15 minutes or more between 10:00am and 4:00pm during the previous weekend. People in rural areas were significantly more likely to have been outdoors on the weekend than people in cities/towns (93% for people in rural areas compared to 88% for people in cities/towns).



### Respondents who spent 15 minutes or more outside during the previous weekend

Base: all respondents, 13+ years

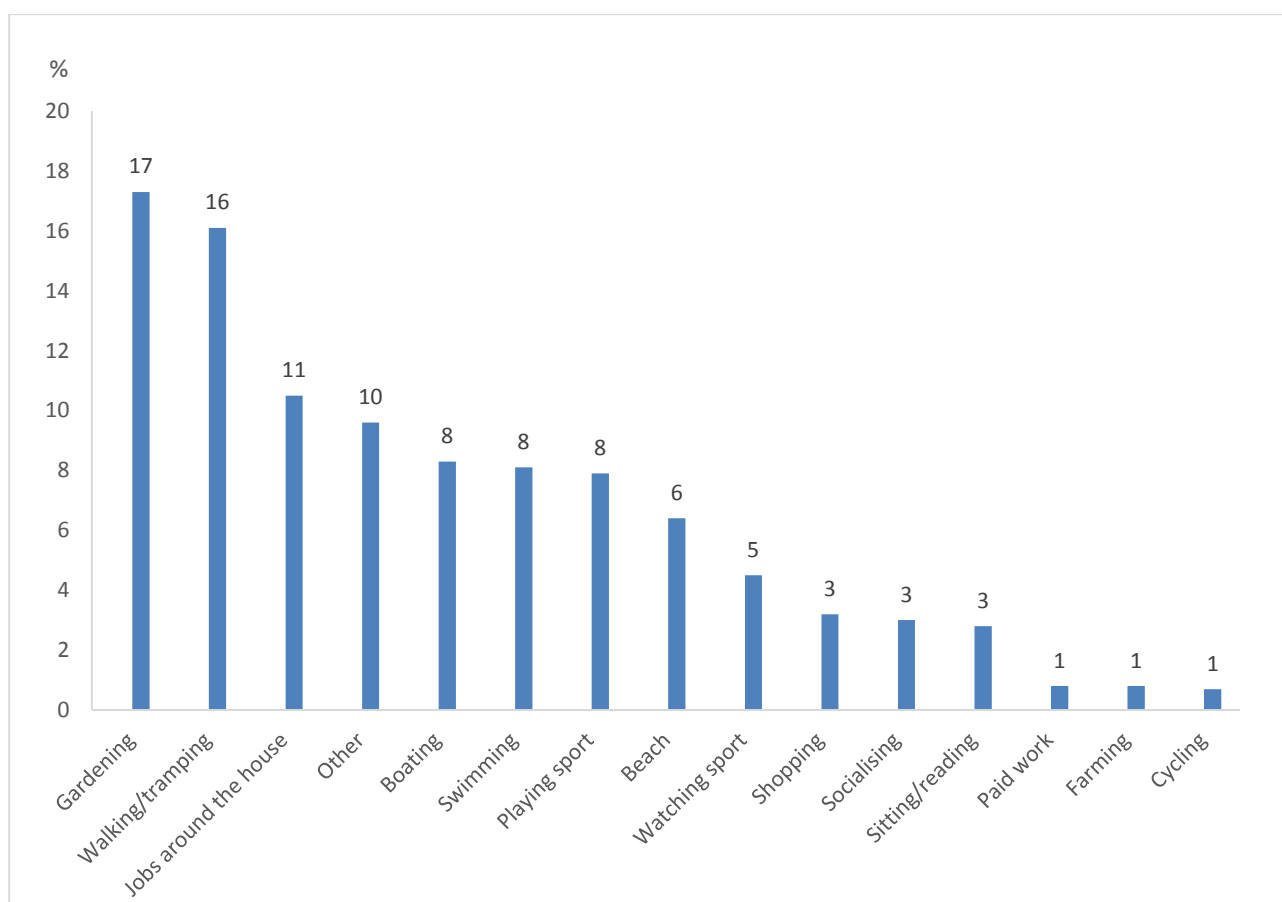
## Gardening and walking are popular outdoor activities

Gardening (17%) and walking/tramping (16%) were the most popular outdoor weekend activities, followed by jobs around the house (11%), 'other' (10%), boating, swimming and playing sport (all 8%).

Women were significantly more likely than men to have been gardening (24% for women and 16% for men), and less likely to have done jobs around the house (6% for women and 13% for men), or participated in boating (3% for women and 5% for men) over the previous weekend.

People in cities and towns were more likely to report that they were walking/tramping on the weekend (22%) than people in rural areas (13%).

Youth were more likely to have been swimming (16%) during the previous weekend than adults (5%) or older adults (3%). Gardening was more popular for adults (14%) and older adults (38%) than youth (2%). Similarly, undertaking jobs around the house was more popular among adults (10%) and older adults (11%) than youth (4%).



### Main outdoor activity participated in during the previous weekend

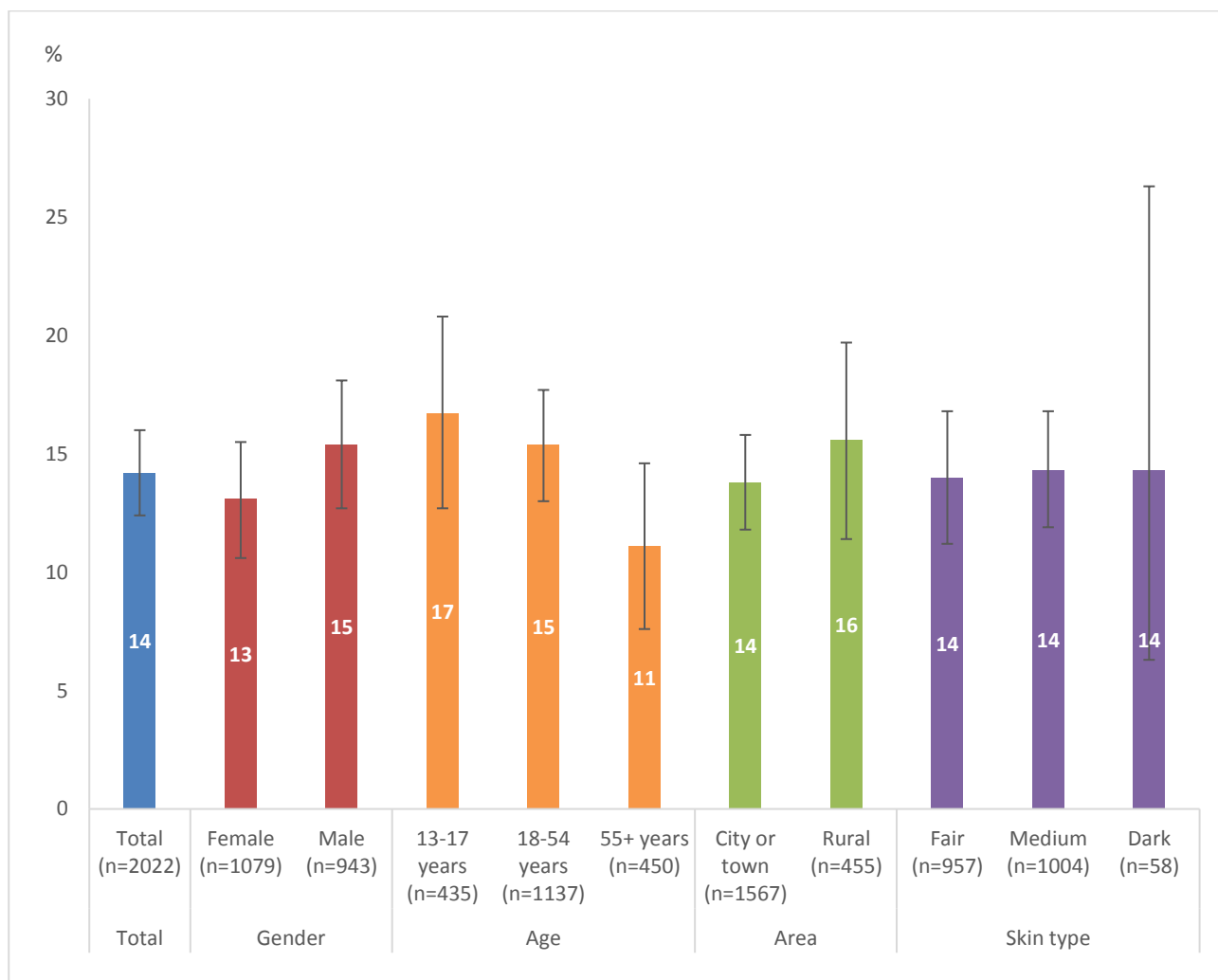
Base: outdoors during the previous weekend, 13+ years (n=1974)

# SUNBURN

## One in seven people who go outside over the weekend get sunburnt

One in seven (14%) people aged 13+ years got sunburnt when they were outside for 15 minutes or more during the previous weekend. Sunburnt was defined as having experienced any amount of reddening of the skin after being in the sun.

Older adults (aged 55+ years, 11%) were significantly less likely to have been sunburnt than youth (aged 13 to 17 years, 17%).

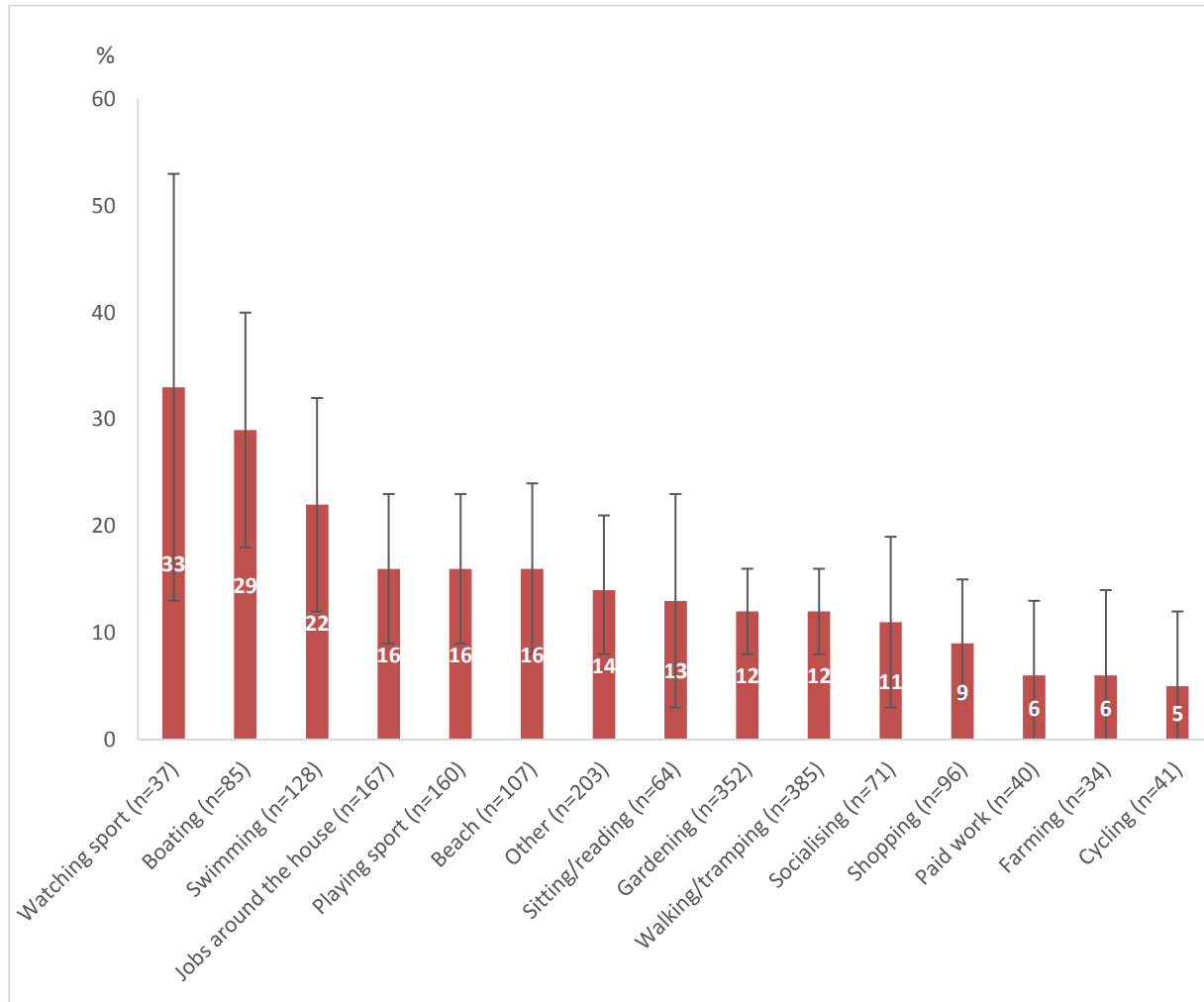


## Respondents who reported getting sunburnt during the previous weekend

Base: outdoors during the previous weekend, 13+ years

## Watching sport and boating are risky activities for sunburn

People who were watching sport outside had the highest rate of sunburn (33%). This was significantly higher than the rate of sunburn for people who were gardening (12%), walking/tramping (12%), socialising (11%), doing paid work (6%), shopping (9%), farming (6%), or cycling (5%). Among those who were outdoors during the previous weekend, the second most risky activities for sunburn were boating (29%) and swimming (22%).



### Main outdoor activity participated in when sunburnt during the previous weekend

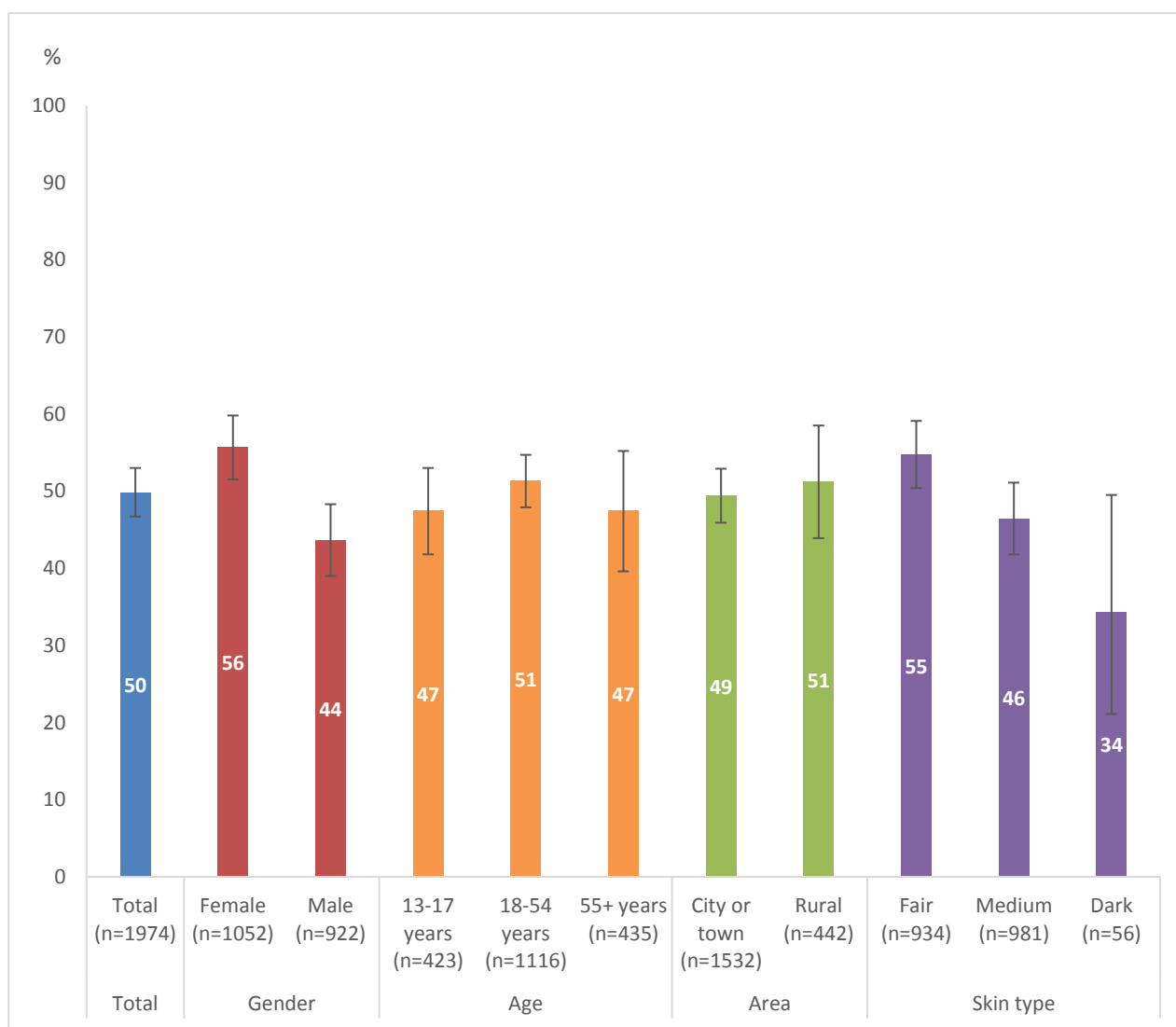
Base: main outdoor activity during the previous weekend, 13+ years

## SUN PROTECTION BEHAVIOUR

### Half of all people aged 13 years and over use sunscreen when outdoors

Half (50%) of all people aged 13+ years had used sunscreen when they were outdoors during the previous weekend.

Females were significantly more likely to have used sunscreen than males (56% of females and 44% of males). Similarly, people with fair skin were more likely to have used sunscreen (55%) than people with medium (46%) or dark skin (34%).



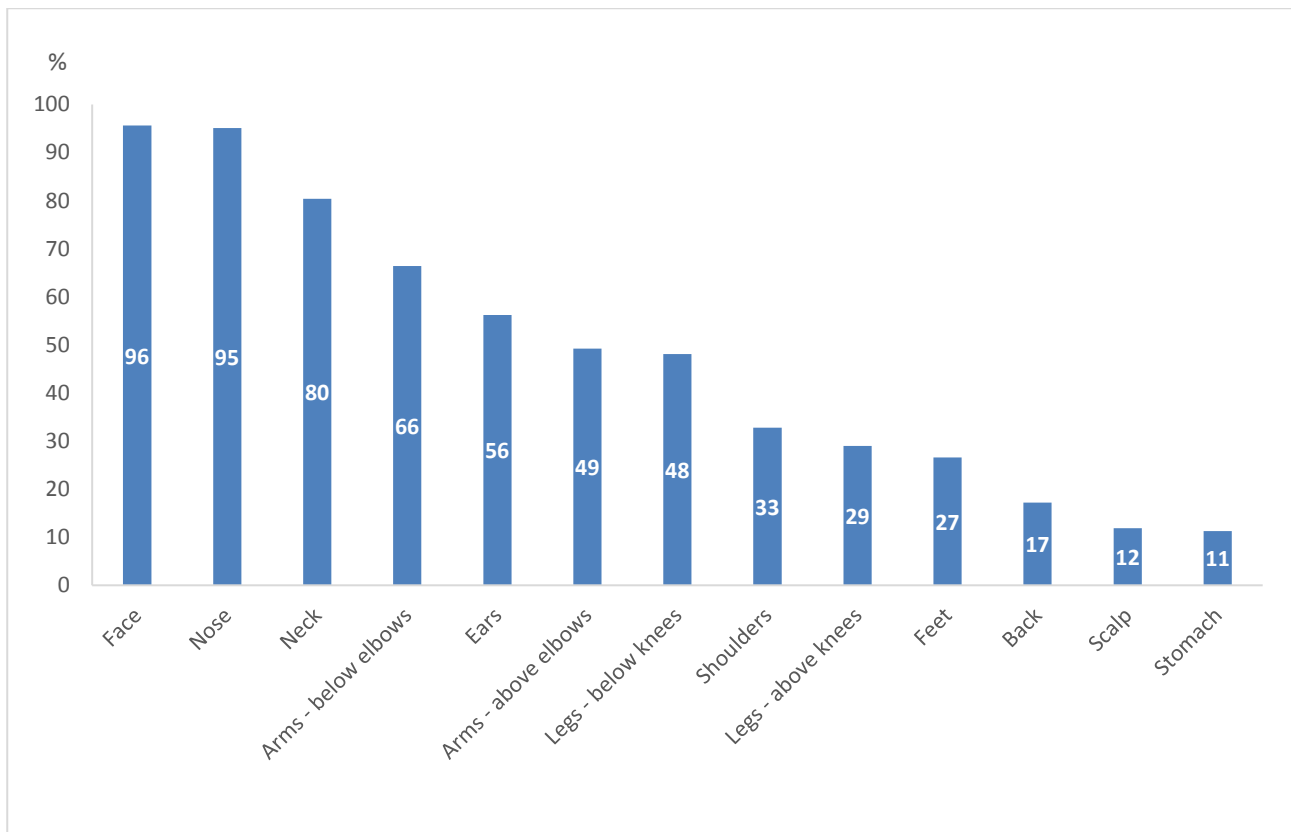
### Use of sunscreen while outdoors during the previous weekend

Base: outdoors during the previous weekend, 13+ years

## Face, nose and neck are common areas for applying sunscreen

Almost all people who used sunscreen applied it to their face and nose (96%). Sunscreen was also commonly applied to the neck (80%), arms below the elbows (66%) and ears (56%). The body areas that sunscreen was least commonly applied to were the stomach (11%), scalp (12%) and back (17%).

Females were significantly less likely to apply sunscreen to ears and scalp than males (44% ears and 7% scalp for females; 73% ears and 18% scalp for males).



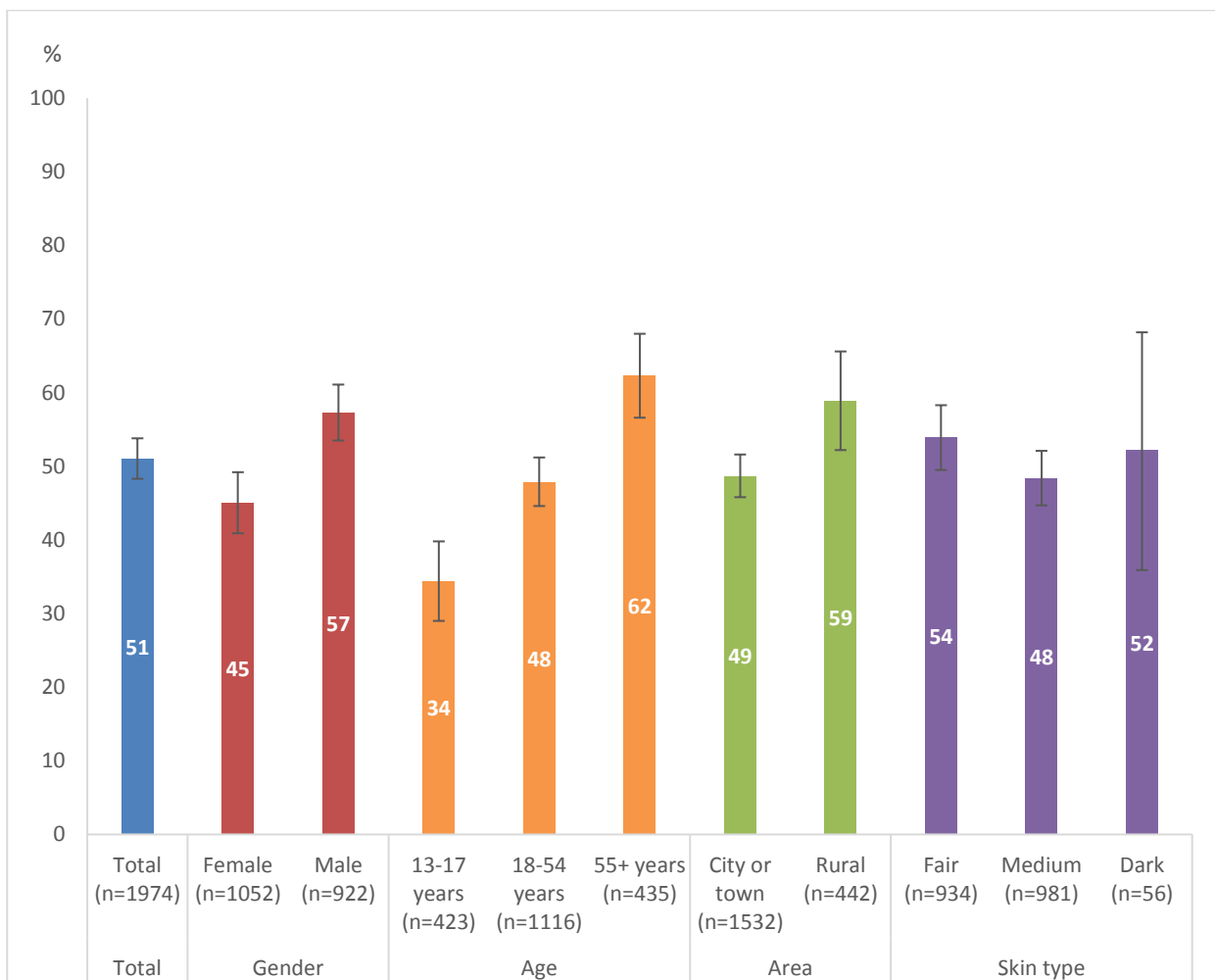
### Body parts covered by sunscreen during the previous weekend

Base: applied sunscreen while outdoors, 13+ years (n=1010)

## Half of all people aged 13 years and over wear a hat when outside

People aged 13+ years who went outdoors during the previous weekend were asked whether they were wearing something on their head most of the time, such as a hat, cap, scarf, visor, or helmet. All those who reported wearing some kind of head covering were combined into a yes/no “wore a hat” response.

Half (51%) of people who were outdoors on the weekend were wearing some kind of hat. Males (57%) were significantly more likely to have worn a hat than females (45%). Older adults (62%) and adults (48%) were more likely than youth (34%) to have worn a hat. People in rural areas (59%) were more likely to have worn a hat than people in cities or towns (49%). There was no significant difference in hat use for people of different skin type.

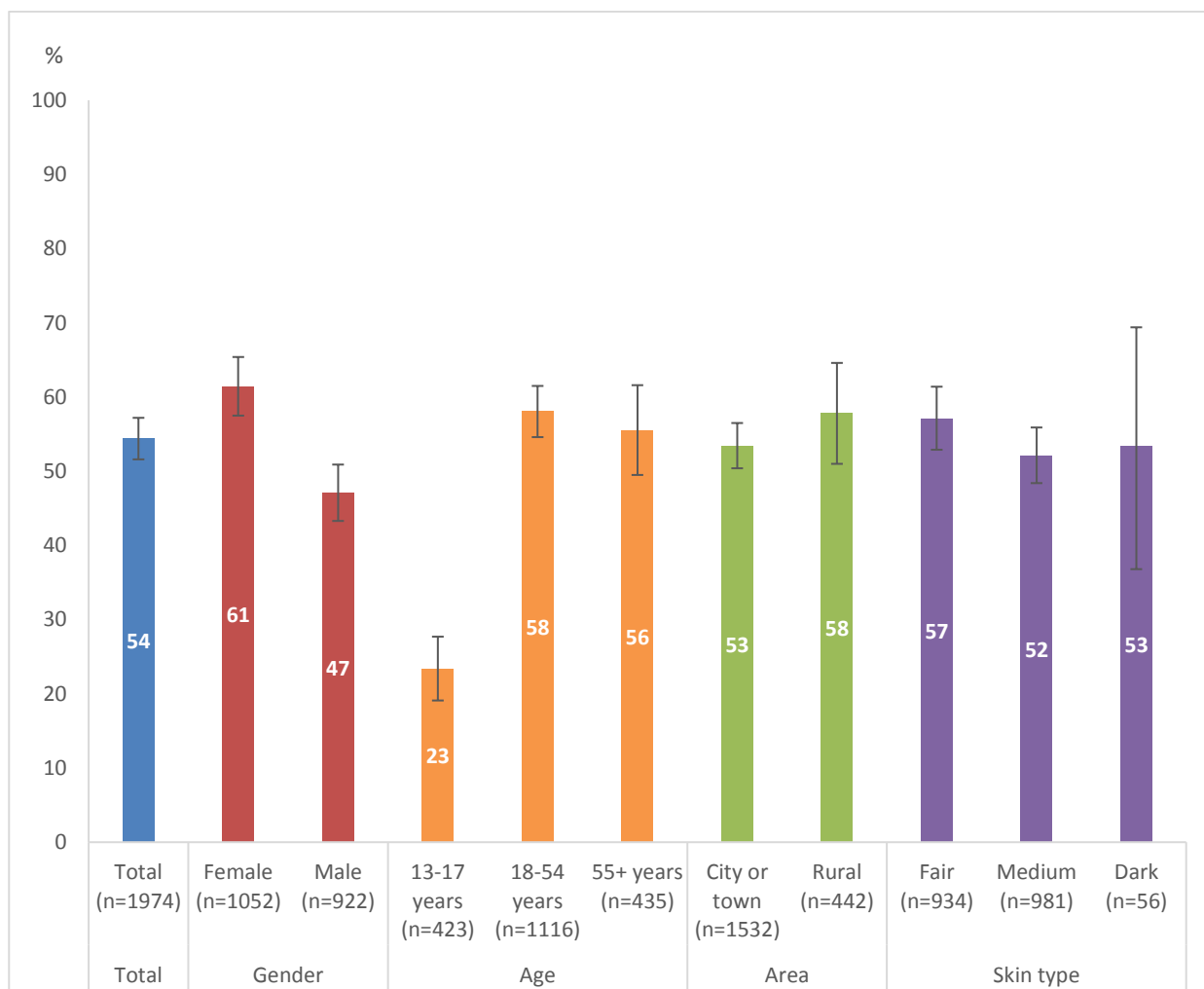


### Hat use while outdoors during the previous weekend

Base: outdoors during the previous weekend, 13+ years

## Sunglasses are popular for adults and women

Over half (54%) of all people aged 13+ years wore sunglasses most of the time when they were outside during the previous weekend. Females (61%) were significantly more likely than males (47%) to wear sunglasses. Adults aged over 18-years-old (58%) were more likely to have worn sunglasses than youth aged 13 to 17-years-old (23%).



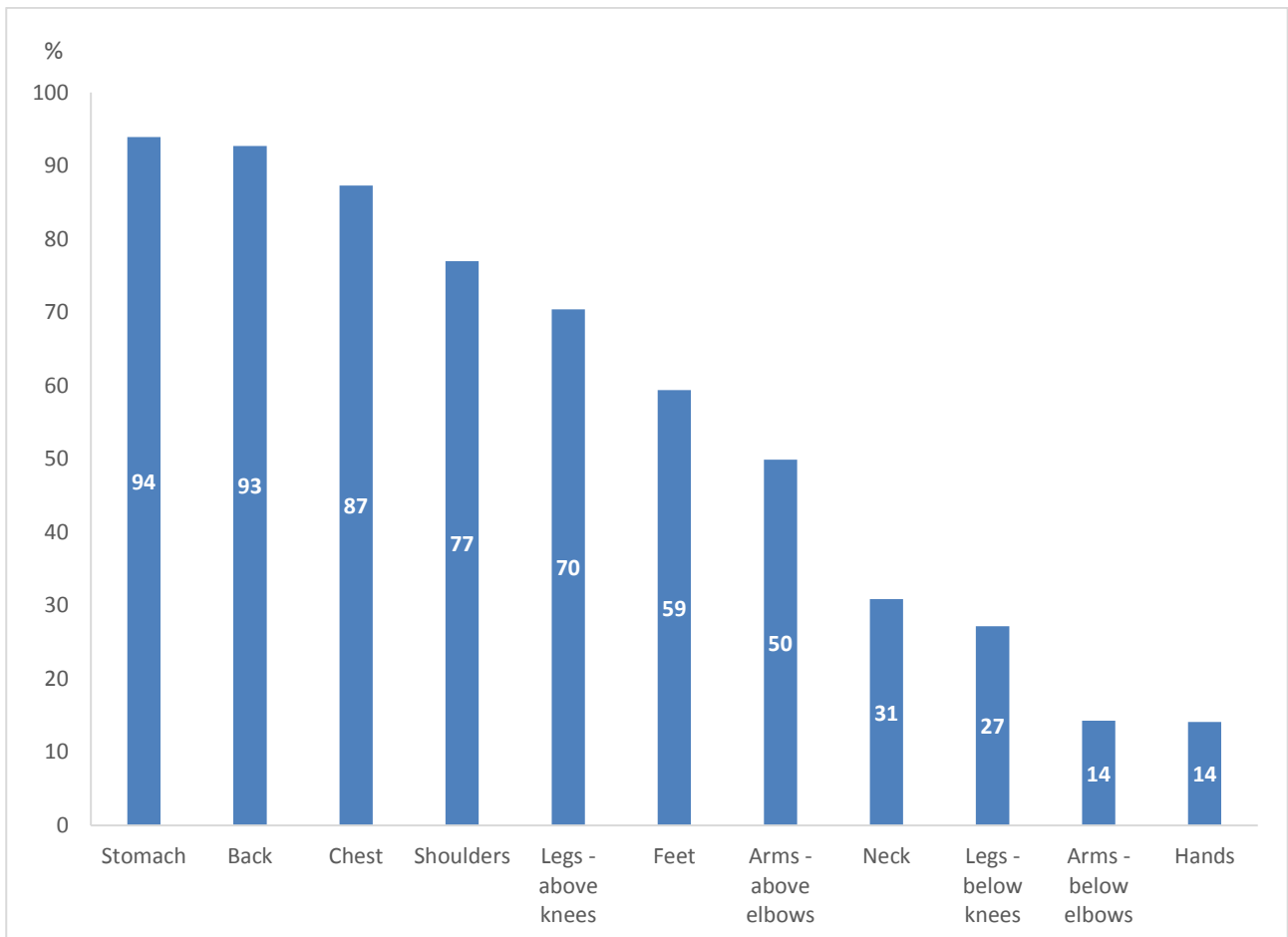
### Wore sunglasses most of the time while outdoors during the previous weekend

Base: outdoors during the previous weekend, 13+ years



## Hands, forearms and shins are less likely to be covered by clothing than other body parts

Nearly all of the people who were outdoors over the weekend were wearing clothing that covered their stomach (94%), back (93%) and chest (87%). Body areas that were most often left uncovered by clothing were the arms below the elbows (14%), hands (14%) and legs below the knees (27%).

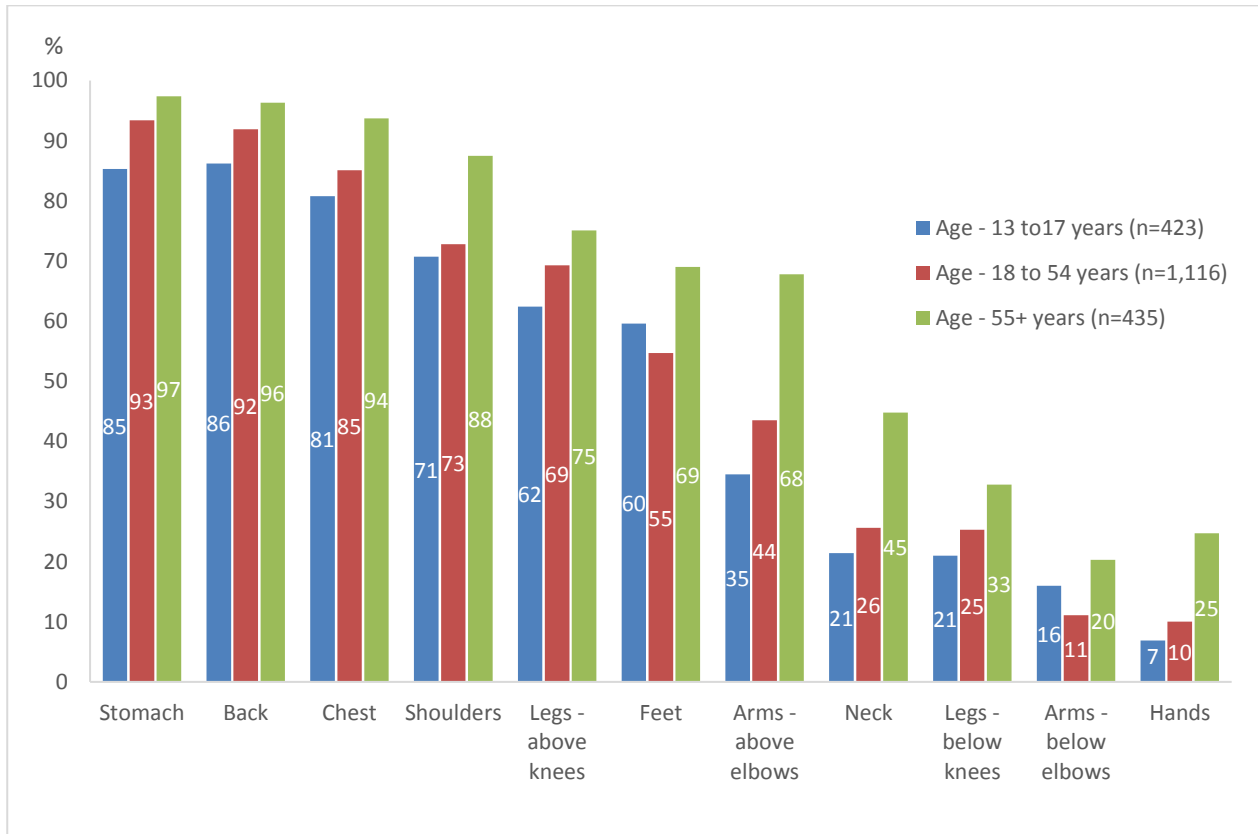


### Body parts covered by clothing while outdoors during the previous weekend

Base: outdoors during the previous weekend, 13+ years (n=1974).

## Older adults cover up more of their body with clothing than youth

Older adults who were outdoors during the previous weekend, were significantly more likely to have worn clothing that covered all body areas compared to youth, except for the arms below the elbows. Adults between 18 and 54 years were significantly more likely than youth to be wearing clothing that covered their legs above the knees, arms above elbows, back and stomach.

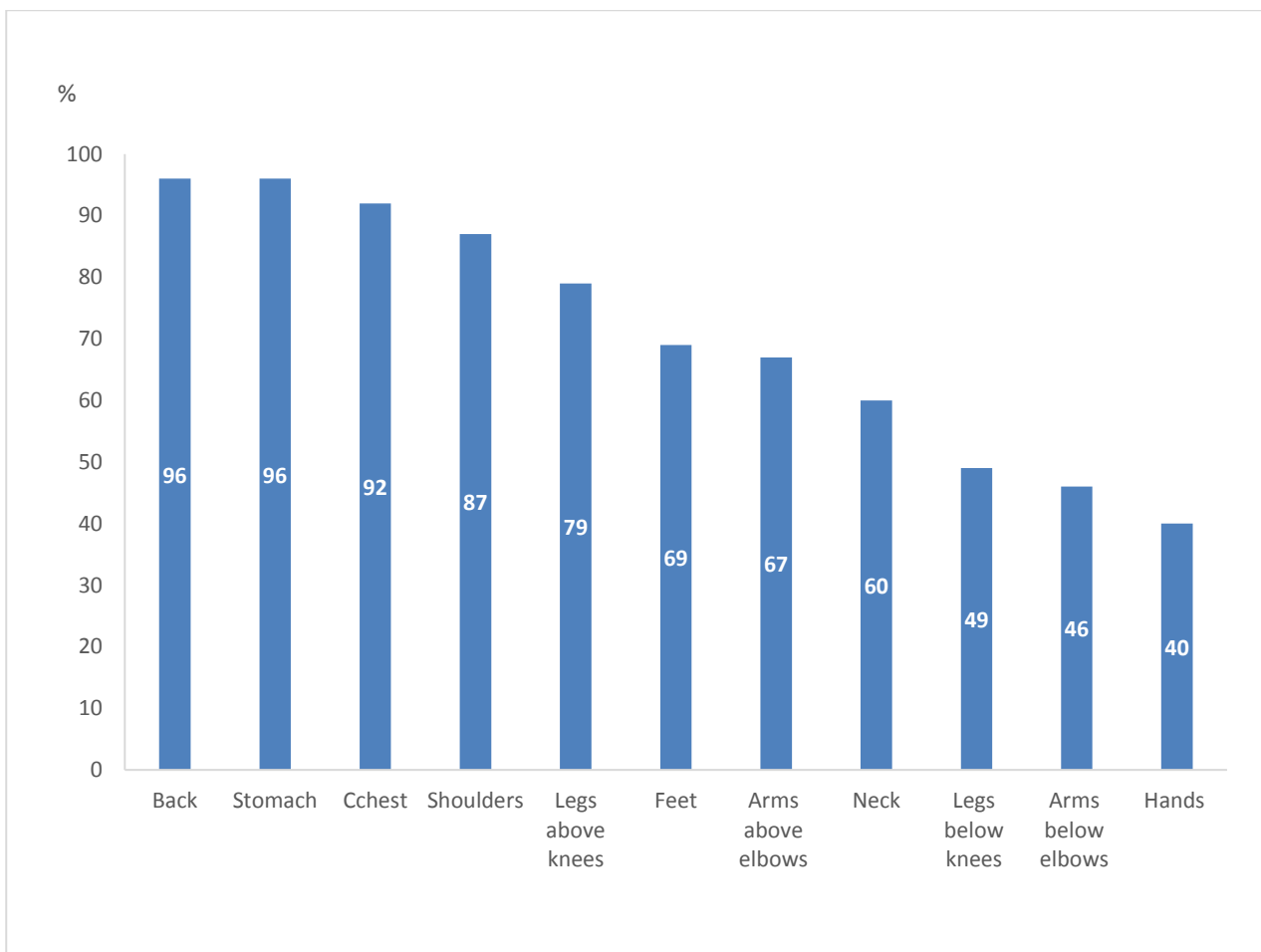


### Body parts covered by clothing while outdoors during the previous weekend, by age group.

Base: outdoors during the previous weekend, 13+ years

## Hands, forearms and shins are less likely to be protected from the sun than other body parts

More than 80% of people aged 13+ years used either clothing or sunscreen to protect their back, stomach, chest and shoulders from the sun when they were outdoors during the previous weekend. People were less likely to protect their hands (40%), arms below the elbows (46%), legs below the knees (49%), and neck (60%) with either sunscreen or clothing.



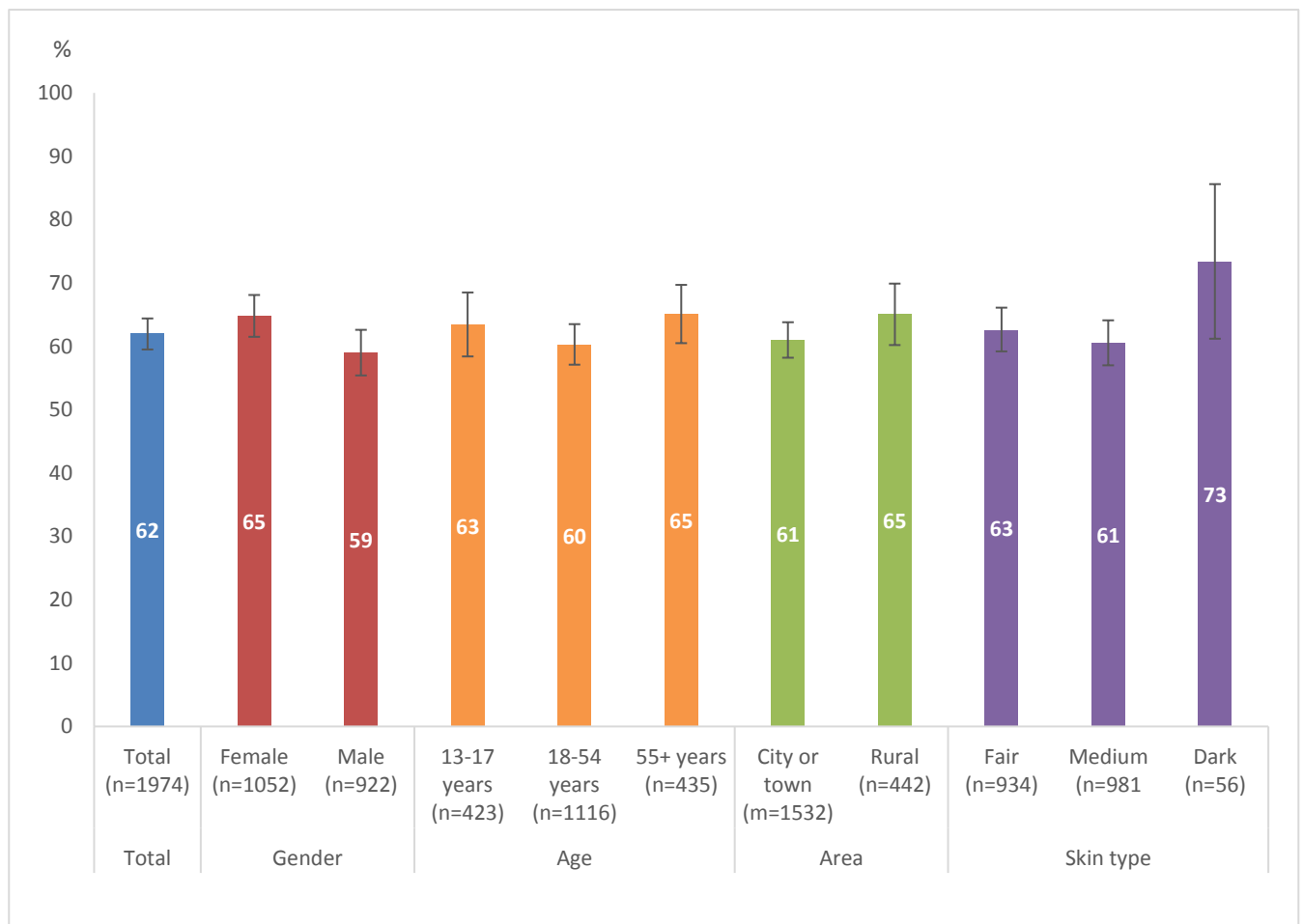
### Body parts protected from the sun by either clothing or sunscreen while outdoors during the previous weekend

Base: outdoors during the previous weekend, 13+ years (n=1974)

## Women are more likely to seek shade than men

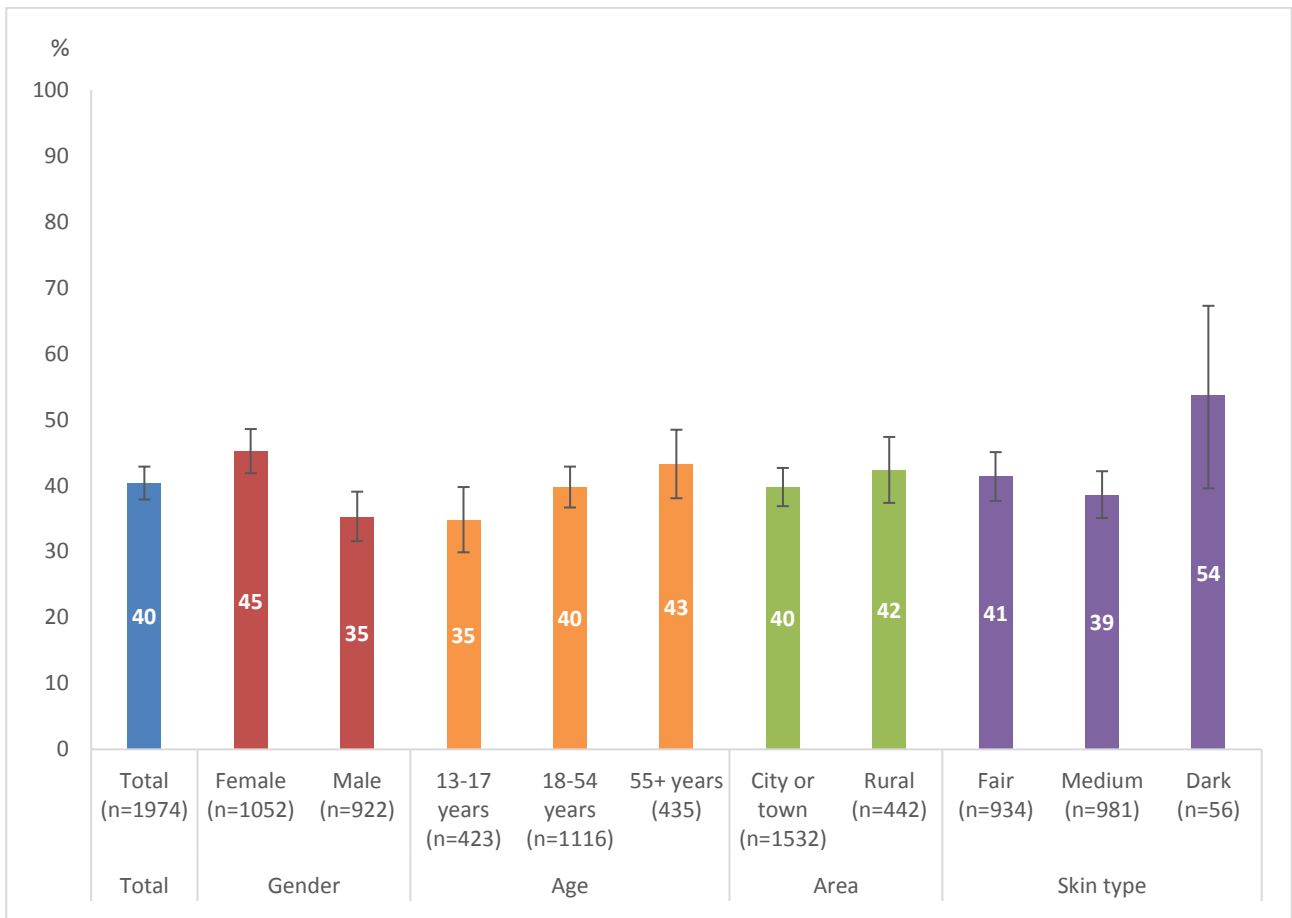
More than six in 10 (62%) people aged 13+ years stayed in the shade at any time when they were outdoors during the previous weekend. Overall, four in 10 people who were outside on the weekend made a deliberate choice to stay in the shade, rather than it just happened.

Females were more likely to have stayed in the shade than males (65% of females stayed in the shade and 59% of males). Females were also more likely to have said that they chose to stay in the shade rather than it just happened. Forty-five percent of females who were outdoors made a choice to stay in the shade compared to 35% of males. Older adults aged 55+ years were also more likely to have reported making a choice to stay in the shade compared to youth aged 13 to 17-years-old – 43% of older adults chose to stay in the shade compared to 35% of youth.



## Use of the shade while outdoors during the previous weekend

Base: outdoors during the previous weekend, 13+ years



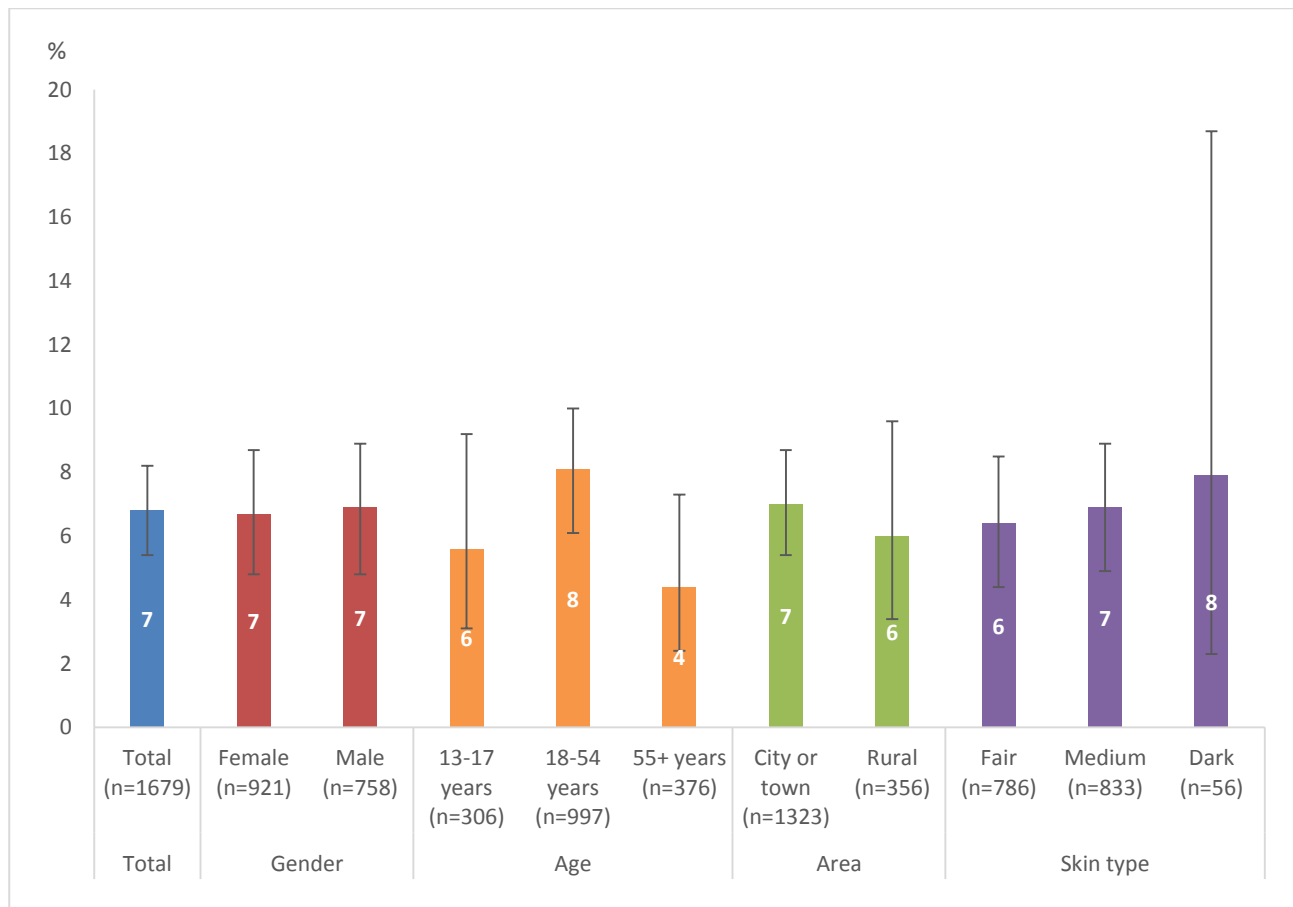
**Respondents who made a choice to stay in the shade while outdoors during the previous weekend**

Base: outside during the previous weekend, 13+ years

## One in 14 people aged 13 years and over use the Sun Protection Alert

Three-quarters of people aged 13+ years (75%, n=1,679) reported that they typically look at the weather forecast ahead of outdoor activities.

Of those people who check the forecast, less than one in 10 (7%) reported they used the Sun Protection Alert to prompt them about using sun protection. There were no significant differences in this behaviour between subgroups. The 95% confidence intervals of this proportion were 5% to 8%.



### Respondents who used the Sun Protection Alert to prompt them about using sun protection

Base: respondents who typically looked at the weather forecast ahead of weekend outdoor activities, 13+ years

## REFERENCES

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- Health Promotion Agency. (2016a). *Sun Exposure Survey 2016: Youth report*. Wellington: Health Promotion Agency.
- Health Promotion Agency. (2016b). *Sun Exposure Survey 2016: Older adult report*. Wellington: Health Promotion Agency.
- Health Promotion Agency. (2016). *Sun Exposure Survey 2016 Methodology Report*. Wellington: Report prepared by Key Research Ltd.
- Health Promotion Agency. (2016c). *Health Promotion Agency Sun Exposure Survey 2016 Questionnaire*. Wellington: Health Promotion Agency.
- Trowland, H., Thimasarn-Anwar, T., Dallas, S., McBride-Henry, K., Minster, J., & Bell, R. (2016). *Sun Exposure Survey 2016: Adult topline series report*. Wellington: Research and Evaluation Unit, Health Promotion Agency.