

Questionnaire applied in Norwegian, Translated to English.
A list of variables is presented at the bottom of the document.

Questionnaire on sun behaviour

This survey was developed into an electronic questionnaire by the market research company Norstat. The respondents received questions about participation by mail, and could click on the attached link to proceed to the questionnaire. The survey was set up in a well-organized web design where all questions had to be answered before one could move on to the next.

Information to the respondents on the first page of the questionnaire:

This study focuses on intentional tanning, which means when you seek out the sun with the intention to sunbathe and to achieve a tan. For example, in sunbeds, on the beach and going on vacation to sunny areas.

Background

1. Gender

- Female
- Male

2. Birth year (Example 1980)

3. In which county do you live in?

_____ (drop-down menu with choices)

4. What is your highest terminated education?

- No education or less than 9 years primary school
- Primary education
- High school
- College degree or Vocational college?
- Higher education (up to 2 years)
- Higher education (4 years + Masters degree or equivalent)
- Higher education (6 years + PhD or equivalent)
- Other

5. What is your current work situation? (check several if applicable)

- Student
- At home
- Jobseeker / laid off
- Vocational rehabilitation/disabled
- Retired
- Employed in the public sector
- Employed in a private business
- Self-employed
- Family member without fixed salary within a family business (example: farm)
- Other

6. What was your annual income (before tax) over the past year?
(including. child support, unemployment insurance, cash support, etc.)

- Under 200.000 NOK
- 200 000 – 299 999 NOK
- 300 000 – 399 999 NOK
- 400 000 – 499 999 NOK
- 500 000 – 749 999 NOK
- 750 000 – 999 999 NOK
- 1 000 000 NOK and above

7. What was your natural hair colour when you were 18 years old?

- Black
- Dark brown
- Light brown
- Blond
- Red

8. Look at your right arm, from the shoulder and down to the wrist, approximately how many moles do you have that is 2 mm in diameter or more?

- None
- 1-5
- 6-10
- 11-15

- 16-20
- 21-25
- More than 25

9. Have you or any of your biological family ever been diagnosed with skin cancer/melanoma?

- No, none in my family
- Yes, a family member
- Yes, several family members
- I do not know / uncertain

10. Has anyone in your circle of acquaintances been diagnosed with melanoma? (example: friends, co-workers)

- No, none in my circle of acquaintances
- Yes, one
- Yes, several
- I do not know / uncertain

11. If you sunbathe in the beginning of the summer without using sun protection, how does your skin react?

- Brown/tanned without first getting red
- Red
- Red with a burning sensation
- Red with sunburn and blistering

12. How is your skin after repeated sunbathing over a long time?

- I get a deep tan
- I get a tan
- I get slightly tanned
- I never get a tan

Sun behaviour

13. Do you seek the sun to sunbathe/get a tan when you are home in Norway and/or on vacation?

- No, I do not seek the sun
- Yes, I seek the sun

NOTE! Respondents who answer "No, I do not seek sun" on question 13 will not receive question: 14, 15, 26, 27, 28, 30, 31, 32

14. If you answered yes, how much do you protect yourself from the sun in the following ways when you sunbathe?

	Never (0% of the time)	Seldom (10-20% of the time)	Sometimes (30-50% of the time)	Often (60-70% of the time)	Always (90-100% of the time)
Sunscreen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clothing (covering parts of your body)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Take breaks in the shadow or indoors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

15. Recall a week this summer when it was nice weather in Norway. How many days did you sunbathe for 30 minutes or more?

(We want to know approximately how frequent you sunbathed, also without clear sun the whole week)

- None
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days
- 6 days
- 7 days, everyday

25. I think it is easy to treat melanoma

Strongly disagree

Neutral

Strongly agree

0	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Reasons for using sun protection

Below are some statements of different types of sun protection. Please mark to which degree you disagree or agree with them:

26. When I am going to sunbathe, using sun screen is...

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Uncomfortable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inconvenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Too expensive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Too time consuming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
To put on sunscreen is not something I like to do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Something I often forget	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Something that prevents me from achieving the tan I want	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

27. When I am going to sunbathe, using clothes to protect me from the sun is...

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Uncomfortable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inconvenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Embarrassing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Something I do not like	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Something that prevents me from achieving the tan I want	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28. When I am going to sunbathe, taking breaks in the shadows or indoors is...

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Inconvenient	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Something that prevents me from achieving the tan I want	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Statements in relation to sun protection

29. Below are some statements of sun protection. Please mark to which degree you disagree or agree with the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
By using sunscreen with a sun protection factor (SPF) of 15 or more, one can avoid being sunburned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By staying in the shade, the chance of getting a sunburn is reduced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By avoiding the sun between 12-15 pm, one can avoid being sunburned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By using sunscreen with SPF 15 or more while in the sun, the chances of getting melanoma is reduced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
By staying in the shade, the chance of getting melanoma is reduced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

By using clothes when in the sun, the chance of getting melanoma is reduced

Opinions about sunbathing

For those who answered "No, I do not seek the sun" on question 13:

Please mark to which degree do you disagree or agree on the following statements:

30. I avoid sunbathing because...

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I'm afraid of getting skin cancer/ melanoma	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not want to get wrinkles or pigment changes/spots on my skin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't have time or don't want to spend time sunbathing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's boring, uncomfortable, too hot/ sweaty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None of my friends/family sunbathe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not want to get a tan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not want to get sunburned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

For those who answered "Yes, I seek the sun" on question 13:

Below are some reasons why people want to tan/sunbathe. Please mark to which degree do you disagree or agree on the following statements:

31. I sunbathe because...

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I find it comfortable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I feel better with a tanned skin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I look better when I am tanned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is social to sunbathe with friends / family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My friends sunbathe and have a tanned skin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I want supply of vitamin D	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I need a tan for my job, sport activity or hobby	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

32. It is worth getting slightly sunburned to get a tan

Strongly disagree				Neutral			Strongly agree			
0	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Below are some reasons for why people limit their sunbathing/sun exposure. Please mark to which degree you agree or disagree with the following statements:

33. I limit my sunbathing because...

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I'm afraid of getting skin cancer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not want to get wrinkles or pigmentations in the skin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't have time or don't want to spend time sunbathing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It's boring, uncomfortable, too hot/ sweaty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None of my friends or family sunbathe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not want to get sunburned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

44. I am a person who takes responsibility/action of a problem when it occurs

Strongly disagree

Strongly agree

0	1	2	3	4	5	6	7	8	9	10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you very much for your participation!

If you want to learn about sun protection and melanoma, you can visit the Norwegian Cancer Society's and Helsenorge's websites.

The Norwegian Cancer Society:

<https://kreftforeningen.no/forebygging/sol-solarium-og-kreft>

Helsenorge:

<https://helsenorge.no/sykdom/kreft/hudkreft>

<https://helsenorge.no/sykdom/hud-og-har/soling-solkrem-og-uv-straler>

List of variables used in “Beliefs, attitudes and perceptions to sun-tanning behaviour in the Norwegian population. A cross-sectional study using the Health Belief Model”

Outcome variable	
Sun-tanning behaviour	Question <ul style="list-style-type: none"> - 14 (3 items, all of them with reversed direction, i.e., “Always” assigned to “low score” and “Never” assigned to “high score”) - 15 - 16 - 17 - 32
Predictor variables	
Susceptibility	Question <ul style="list-style-type: none"> - 18 - 19 - 20
Severity	Question <ul style="list-style-type: none"> - 21 - 22 - 23 - 24 - 25 (with reversed direction from “Strongly agree” assigned to “low score” and “Strongly disagree” assigned to “high score”)
Benefits (of using sun protection)	Question <ul style="list-style-type: none"> - 29 (6 items)
Barriers (of using sun protection)	Question <ul style="list-style-type: none"> - 26 (7 items) - 27 (5 items) - 28 (2 items)
Self-efficacy	Question <ul style="list-style-type: none"> - 34 - 35 - 36 - 37 - 38 - 39

Empowerment	Question - 40 - 41 - 42 - 43 (with reversed direction from “Strongly agree” assigned to “low score” and “Strongly disagree” assigned to “high score”) - 44
Benefits of tanning	Question - 31 (7 items)