

UV rays and scars: A paradox of protection and behavior

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RATIONAL

Subjecting scars to UV rays without sufficient protection can substantially elevate the likelihood of scarring, rendering them more conspicuous and diminishing their prospects for healing in an aesthetically pleasing manner.

Furthermore, scars that are exposed to UV radiation are at heightened risk of experiencing hyperpigmentation or an extended inflammatory reaction.

OBJECTIVES

To describe the sun protection habits of individuals with skin scars and assess compliance with sun prevention messages.

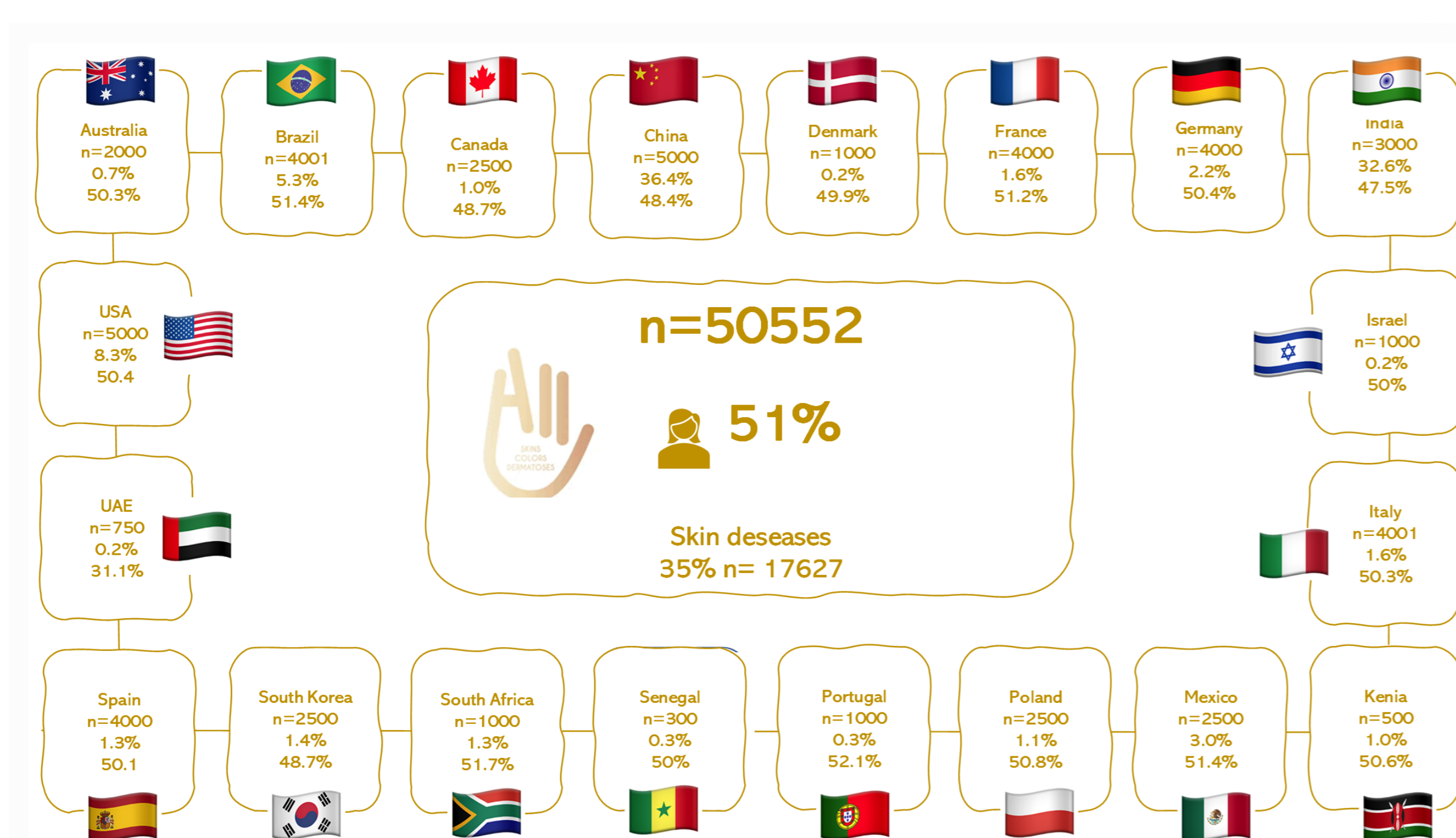
METHODOLOGY

The ALL PROJECT is a large-scale study of individuals representative of the adult population in 20 countries on five continents: Europe [France, Italy, Germany, Poland, Portugal, Spain, Denmark; n=17500], Latin America[LA] [Brazil, Mexico; n=6501], Asia [China, India, South Korea; n=10500], North America [NA] [Canada, USA; n= 7500]; Middle East [ME] [Israel, United Arab Emirates; n=2750], Australia [Australia; n=2000] and Africa [Kenya, South Africa, Senegal; n=1800].

In each of the 20 countries surveyed, representative and extrapolable samples of the general population aged 16 and over were interviewed.

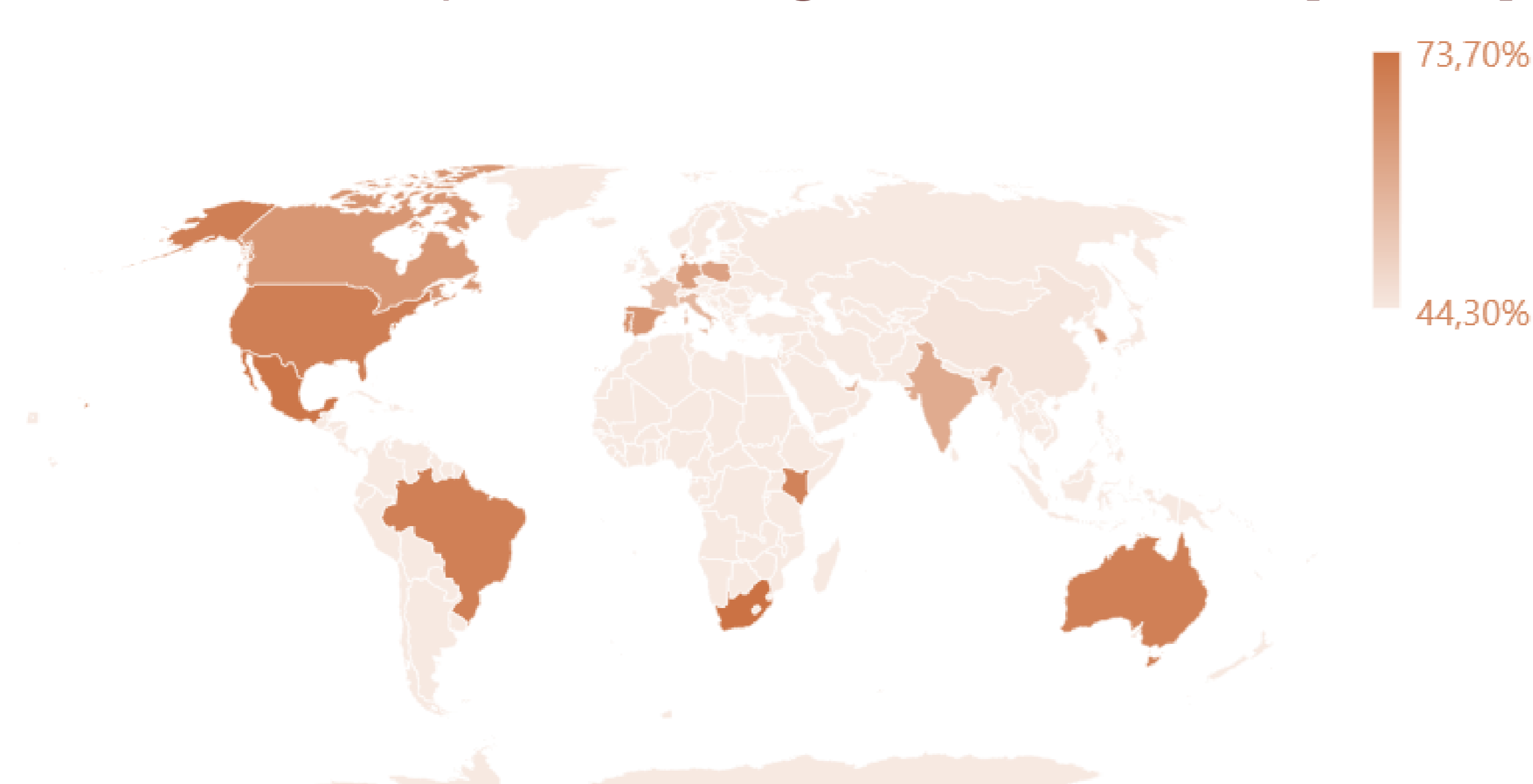
This methodology ensures that the results of the study can be generalized to the entire population of each country included in the project, thus providing a global and diversified perspective of the subjects studied.

Patients reporting one or more scars were identified.

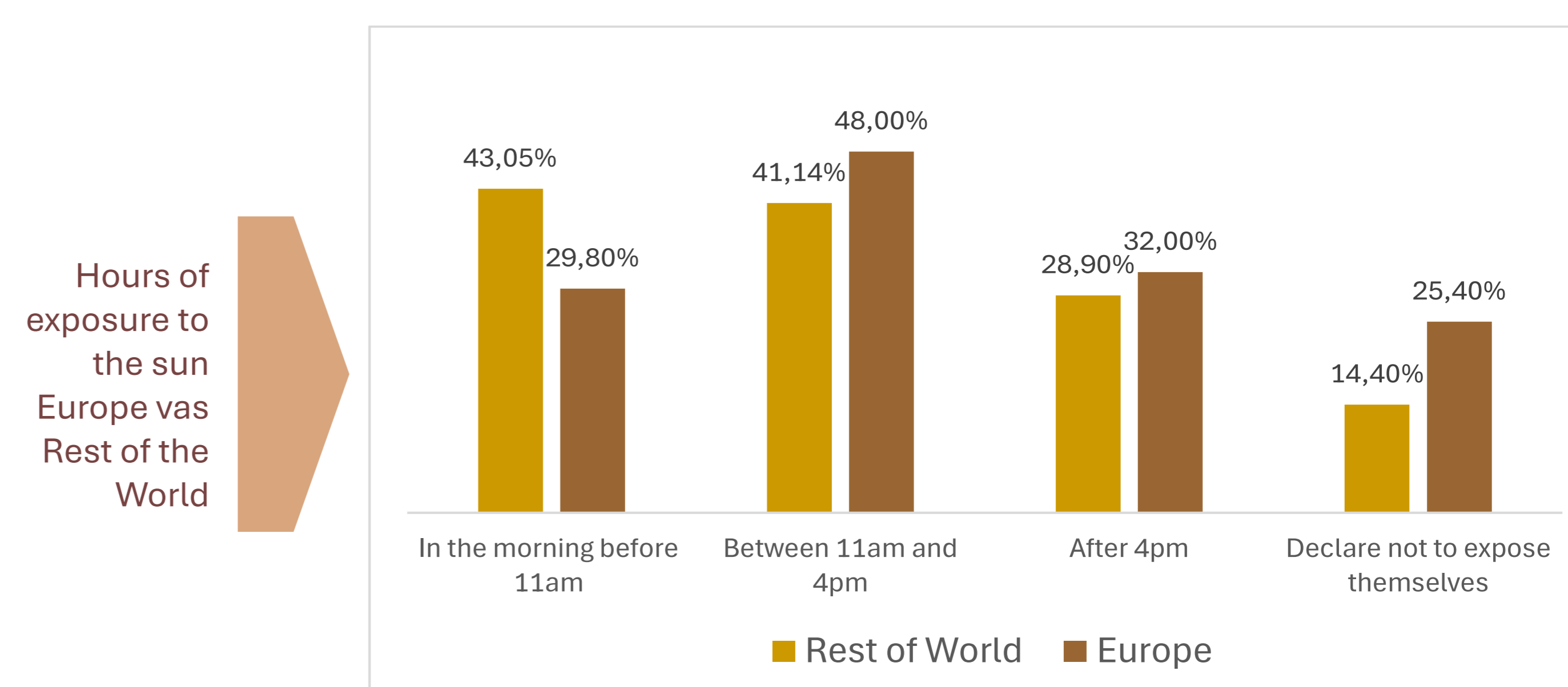


RESULTS

31409 (61%) individuals reported the presence of one or more scars (including 3598 on the face). In Europe, 12,352 of the 205,01 individuals reported having at least one scar [60.3%].



52.3% (n=16431) admitted to exposing themselves during the hottest hours of the day, despite prevention messages. They were significantly more likely to expose themselves than those who did not report having scars (43.6%, n=8355, p<0.0001).



33.7% said they did so because it was the most convenient time and 29% said it was the time when they were most available. The figures for those without scars were 27.7% and 28.9% respectively. While 74% admitted to using a sunscreen, only 28.7% (n=7364) said they applied it every 2 hours. While 71.4% of those without scars admitted to using sunscreen, only 26.1% (n=3707) reported using it every 2 hours.

Among those with scars, a sensitivity analysis was performed by isolating those with facial scars. Of these, 49.8% (n=1791) reported exposure between 11am and 4pm. 81% reported using sunscreen, while 36.9% (n=1035) reported using it every 2 hours.

Looking at the European population, 48% of those with scars admitted to exposing themselves at noon (41% of those without scars and 43.9% of those with facial scars).

32.8% of those with a scar used sunscreen every 2 hours (compared with 30.8% of those without a scar and 41.1% of those with a facial scar).

Description of sun exposition habits : population with scars

N= 31409	In the morning before 11am		Between 11am and 4pm		After 4pm		Declare not to expose themselves	
	N with scars	%	N with scars	%	N with scars	%	N with scars	%
North America	1771	34.4%	3063	59.6%	1561	30.4%	1049	20.4%
Asia	2190	38.9%	3078	54.6%	1397	24.8%	611	10.8%
Latin America	2151	46.4%	2215	47.8%	1150	24.8%	491	10.6%
Europe	3676	29.8%	5933	48.0%	3957	32.0%	3133	25.4%
Australie	634	45.0%	793	56.3%	460	32.7%	231	16.4%
Africa	513	42.1%	787	64.6%	311	25.5%	102	8.4%
Middle East	506	49.7%	562	55.2%	334	32.8%	113	11.1%

Description of sun exposition habits : population with facial scars

N= 31409	In the morning before 11am		Between 11am and 4pm		After 4pm		Declare not to expose themselves	
	N with face scars	%	N with face scars	%	N with face scars	%	N with face scars	%
North America	219	30.3%	398	55.0%	220	30.4%	198	27.4%
Asia	205	46.4%	262	59.3%	105	23.8%	29	6.6%
Latin America	228	46.2%	236	47.9%	111	22.5%	59	12.0%
Europe	462	30.0%	676	43.9%	512	33.2%	458	29.7%
Australie	78	47.9%	81	49.7%	49	30.1%	31	19.0%
Africa	51	41.8%	80	65.6%	27	22.1%	12	9.8%
Middle East	72	63.2%	58	50.9%	39	34.2%	8	7.0%

Description of photoprotection habits

N= 31409	Use of photoprotection		Report application every 2 hours		Report application when they consider it necessary		Report not using photoprotection	
	N	%	N	%	N	%	N	%
North America	2545	62.2%	882	21.5%	1663	40.6%	1548	37.8%
Asia	3933	78.3%	1327	26.4%	2606	51.9%	1089	21.7%
Latin America	3275	79.0%	1380	33.3%	1895	45.7%	871	21.0%
Europe	7219	78.3%	3025	32.8%	4194	45.5%	2000	21.7%
Australie	820	69.7%	320	27.2%	500	42.5%	357	30.3%
Africa	579	51.9%	164	14.7%	415	37.2%	537	48.1%
Middle East	679	74.9%	266	29.4%	413	45.6%	227	25.1%

DISCUSSION

The phenomenon wherein individuals with scars tend to expose themselves more to sunlight while also practicing better photoprotection measures presents an intriguing paradox, underscoring a nuanced complexity in health behaviors.

This dual behavior underscores the distinction between awareness of risks and the actual implementation of recommended preventive measures.

We know that hyperpigmentation can affect scars, especially if they are exposed to the sun without protection.

This can make scars more visible, harder to treat and more likely to cause psychological distress.

In fact, protecting scars from the sun can prevent hyperpigmentation and other complications that can affect appearance and self-esteem.