



GLOBAL SKIN HEALTH

PREVALENCE AND DETERMINANTS OF SUNBED USE IN THIRTY EUROPEAN COUNTRIES: DATA FROM THE EUROMELANOMA SKIN CANCER PREVENTION CAMPAIGN

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Introduction: Although considered as a first-group carcinogen, indoor tanning is a common practice in Europe. Euromelanoma is a pan-European skin cancer prevention campaign.

Objective: To compare several European countries in terms of prevalence and determinants of sunbed use.

Materials and Methods: Participants in the Euromelanoma campaigns filled in questionnaires containing demographics and risk factors, including type/duration of sunbed use. Multivariate analyses adjusted for age, gender, education, skin type, and year of survey were employed to assess factors independently associated with sunbed use in each country.

Results: In total, 227,888 individuals (67.4% females, median age 44, 63.4% highly educated, 71.9% skin types III-VI) from 30 countries participated. Overall prevalence of sunbed ever-use was 10.6% (≤19-year-olds: 5.9%; 20 to 35-year-olds: 17.0%; >35-year-





olds: 8.3%). Females displayed higher prevalence than males in all countries. Balkan countries displayed the highest female/male ratios (≥ 4). Sunbed use was significantly more prevalent among skin type III-VI (14/30 countries) and highly educated participants (11/30 countries). Significant correlations were found between sunbed use prevalence and countries' latitude ($p < 0.001$) and sunshine ($p = 0.002$); Italy and Spain represented exceptions towards excessive exposure. Very different prevalence rates were found for Spain (19.3%) and Portugal (2.0%). Scandinavian countries ranked highest in sunbed use among ≤ 19 -year-olds, Baltic countries among 20 to 35-year-olds.

Conclusions: Sunbed use prevalence was higher in northern, sun-deprived countries, with the exception of Italy and Spain. The main determinants of sunbed use were age (young adults) and gender (females), whereas education and skin type had a less relevant effect. Geographic particularities were found in four regions: Iberian (prevalence ten times higher in Spain than Portugal), Balkan (prevalence disproportionately higher among women), Baltic (highest prevalence among young adults), and Scandinavian (highest prevalence among adolescents). These data have public health relevance for future interventions aimed at reducing sunbed use in Europe.

