

# **SUN PROTECTIVE BEHAVIOUR AND KNOWLEDGE OF SCHOOLCHILDREN IN WESTERN SWITZERLAND**

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## **Background:**

Switzerland has the highest incidence of cutaneous malignant melanoma in Europe and rates are still increasing. Sunburns during childhood and adolescence are critical as they increase the risk of developing melanoma in adulthood. Yet, little is known about sun protection behaviour and knowledge of Swiss children.

## **Objectives:**

The aim of this study is to investigate sun protective behaviour and knowledge of schoolchildren of various ages in Switzerland.

## **Methods:**

All pupils from 5th, 8th and 11th grades in the 18 public schools of La Chaux-de-Fonds (canton of Neuchâtel, western Switzerland) were surveyed during regular school lessons under supervision of the class teacher (n=1268). Two versions of a printed multiple-choice questionnaire were used, one for primary schools (5th grade, n=431), the other for secondary schools (8th and 11th grades, n=837). Questions assessed pupils' knowledge about the adverse health effects of ultraviolet radiation (UVR) and means of protection, attitude towards a suntan, self-reported sunburn, current sun protective behaviour, and the role of parents in their sun protection. Response rate was high (1155/1268, 91%).

## **Outcomes:**

Knowledge about adverse effects of UVR was high overall, and increases strongly with age. Girls had a slightly higher knowledge score than boys (p smaller than 0.05). However, less than half the pupils knew that sunburn could occur with clouds and that sun exposure causes premature skin aging.

Prevalence of multiple sunburns over the last 12 months was comparatively high. It decreased with age in boys whereas the reverse was observed for girls.

Results from multivariate analysis of determinants of (i) attitudes towards sun protection, (ii) use of sun protection measures, and (iii) sunburn occurrences are presented and discussed, accounting for sociodemographic and socioeconomic factors, skin type, and the influence of parental education.

## **Significance:**

This study has significantly improved the knowledge about use and means of sun protection, attitudes and behaviour towards the sun of children in Switzerland. Areas where sun-related education can be improved have been identified for targeted sun prevention messages and interventions.