Although sunbed use has been established as a strong risk factor for skin cancer, indoor tanning is still common in Europe. A North-South gradient for sunbed use in Europe has been reported, with greater use in Northern than Southern Europe. Euromelanoma is a pan-European skin cancer prevention campaign, which started in Belgium in 1999 and has subsequently spread to more than 30 European Countries. In this campaign primary and secondary prevention are provided to participants.

Data on participants to the Euromelanoma campaign were collected from 2009 to 2013 via a questionnaire enquiring on skin cancer risk factors, including sunbed use. Data on skin lesions suspicious for melanoma were also collected by the participating dermatologists.

Overall, 186,347 subjected fulfilled the questionnaire, 179,184 of which answered the question investigating sunbed use. Of those, 16,238 (9.1%) reported ever use of sunbed.

The typical sunbed users within the Euromelanoma campaign were young-adult women, with intermediate skin type, and typically displaying sun-seeking behaviours. The analysis of prevalence of sunbed use by country confirmed the existence of a North-South gradient, although some Southern countries displayed a surprisingly high prevalence of use, such as Italy and Spain. Cultural reasons and lack/delay of specific legislative actions might account for such findings. Our multivariate analysis showed an independent association of sunbed use with the risk of suspected melanoma within the Euromelanoma participants across Europe. This risk was higher for long-term (>10 years), high (>20 sessions/year) users. These data are in line with the current body of evidence indicating that indoor tanning is a significant risk factor for melanoma and should be therefore avoided.

Background:
Ultraviolet radiation, either from a natural or artificial source, is categorized as a carcinogen to humans. Nevertheless, the use of sunbeds has been increasing in recent years, mainly among adolescents and young adults. As restrictions to sunbed use, especially the access to minors, vary widely among countries, we sought to analyze the current legislation regarding sunbed use in Europe.

Materials and Methods:
The Euromelanoma network developed a 30-item questionnaire that covered the most relevant aspects of sunbed use legislation. It was sent to all participating representatives of the Euromelanoma network.
Results:
We received data from 64% of invited participants. More than 20% of the countries did not report any specific legislation. In roughly 40% of the countries there was no restriction to use for those under 18 years old. Lack of required training for staff was found in more than 50% of the countries, and in 42% staff supervision of use was not required. The availability of self-tanning devices was reported in half of the countries. The majority of users (85%) did not need to sign an informed consent and a record of exposure, and specific recommendations was found in only 42%. Advertisement was not specifically regulated in 65% of the countries.

Conclusions:
Current sunbed use legislation among European countries does not comply with the necessary measures to prevent hazardous ultraviolet exposure, especially for the youth. More strict regulations and their enforcement are required to avoid or minimize the exposure of the most susceptible population which comprises adolescents and young adults, who are at greater risk of developing skin cancer.