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FOR IMMEDIATE RELEASE

New Canadian Study Reveals Widening Gaps in Sun Protection and Rising UV Exposure Rates Across Demographics

Led by Dr. Ivan Litvinov, this McGill study signals the urgent need for action on skin cancer prevention.

Evaluating UV exposure and skin cancer prevention behaviours in Canada: a national population-based cross-sectional study | BMJ Public Health

[Montreal, QC – May 2025] Skin cancer remains the most common form of cancer in Canada, accounting for nearly one-third of all new cancer diagnoses—a number that continues to climb each year. According to Melanoma Canada, an estimated 11,300 Canadians will be diagnosed with melanoma, one of the deadliest forms of skin cancer, in 2024. This is an increase of 17% from 2023. For decades, the link between UV radiation exposure and the risk of developing a skin cancer has been well established, with over 90% of skin cancers related directly to sun exposure. Despite extensive knowledge on UV radiation's detrimental impact, many Canadians still fail to implement sun protection/sun avoidance, likely due to misperceptions around sun exposure.

In the newly published peer-reviewed paper by McGill researchers in *BMJ Public Health*, scientists used data from the Canadian Community Health Survey (CCHS) to examine sun-protective behaviors and UV exposure in over 77,000 individuals aged 18 during 2011–2018. The weighted sample represents >21 million Canadians. The published study described alarming trends in UV exposure and sun-protective behaviors across major demographic and socioeconomic divisions in Canadian society. The analysis found that one-third of Canadians reported a sunburn in the past year, and nearly two-thirds of Canadians reported irregular use of sunscreen on their body and face. Importantly, temporal trends showed an increasing prevalence of spending 2 hours or more in the sun and a decreasing trend in using sunscreen on the body and face for both men and women.

"Episodic sunburns, particularly in childhood or adolescence, significantly increase the risk of developing melanoma later in life. Even one blistering sunburn in childhood or adolescence more than doubles your chances of developing melanoma later in life," says the study's senior Investigator, Dr. Ivan V. Litvinov (Associate Professor and Dermatologist at St. Mary's Hospital Centre and a Scientist at St. Mary's Research Centre). "Hence, our data showing that people are exposing themselves more to the sun while using less sun protection over the years is very concerning. Furthermore, our data show that this trend is, unfortunately, exacerbated in Canadian youth."

This study finds that age is a key predictor of UV exposure after controlling for the effects of race and sex. In fact, when compared with the oldest age group of 70+ years, the youngest age group of 18-29 years has 54% higher likelihood of spending more time in the sun, are 90% more likely to get sunburned, and are 104% more likely to use tanning beds/booths. The literature overwhelmingly revealed that

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younger adults were less likely to protect themselves from the sun, not because of a lack of knowledge, but rather due to a perceived sense of invulnerability to the risks of UV exposure.

"We also theorize that cost and lack of accessibility to sun protection products may also drive lower sun protection habits in these individuals. Future studies should aim to understand young adults' attitudes towards sun exposure risks and the need for sun protection. In clinics I often stress that it's the blistering sunburns during adolescence and early 20s that result in melanoma in the 60s," highlighted Dr. Litvinov.

The study also found socioeconomic disparities in UV exposure and sun-protective practices, after controlling for the effects of sex and race. Higher incomes typically correlated with more time spent in the sun, as well as higher odds of sunburn and tanning bed/booth use, yet data also revealed that the highest income quintile was 78% more likely to use sunscreen on the body and 145% more likely to use sunscreen on the face when compared with the lowest income earners. These results point to financial barriers in purchasing sunscreen, especially considering that sunscreen products are not tax-exempt in Canada. It is interesting to note that immigrants, Indigenous individuals, and visible minorities reported lower rates of sunscreen use, but were more likely to wear sun-protective clothing like long skirts or pants.

These findings are important given evidence suggesting that higher socioeconomic status (SES) is related to increased incidence of melanoma, but populations of lower SES have an increased risk of advanced melanoma diagnosis. Increasing accessibility and education around sun protection may thus potentially avoid some of the most serious cases of melanoma.

This detailed analysis of the CCHS highlights significant demographic and socio-economic disparities in sun protection behaviors and UV exposure across Canada. Despite increased awareness of melanoma risks, trends indicate a troubling rise in sun exposure over the years, coupled with inconsistent sunscreen use. These findings underscore the urgent need for targeted public health interventions and policies to promote effective sun safety behaviors, particularly among high-risk populations.

Melanoma is preventable and treatable if caught early, yet rising sun exposure among Canadian youth is alarming. It's one of the most common cancers in adolescents and young adults, with an average loss of 20.4 years of potential life per death. The financial toll is also growing, with skin cancer costing the Canadian healthcare system $532 million in 2004—85% linked to melanoma—and projections reaching $1 billion annually by the 2030s.

"This study is also consistent with our detailed regional analyses of sun exposure practices in Atlantic Canada and in Manitoba that, unfortunately, similarly highlight concerning sun exposure trends and lack of skin cancer awareness in Canada," shared Dr. Litvinov. "So, the human and financial cost of unprotected sun exposure is very real. We want to encourage people to enjoy outdoor activities, but without getting a sunburn or even a tan—celebrating natural skin colour. This is increasingly becoming the norm in Australia and New Zealand, but unfortunately not yet in Canada. With our work here at St. Mary's Research Centre we are trying to change that."

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Read the study:

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About St. Mary's Research Centre:

St. Mary's Research Centre is embedded within St. Mary's Hospital Centre, an installation of the Montréal West Island Integrated University Health and Social Services Centre. We are committed to advancing healthcare through pioneering research and patient-centered practices. Our work is driven by a dedication to innovation, inclusivity, and care accessibility. We focus on shaping a healthier future that serves the diverse needs of our community, with a particular emphasis on improving patient outcomes and embracing the values of equity and inclusion. Through our research, we strive to make meaningful contributions that extend beyond the walls of our hospital, benefiting both our immediate community and the broader population.

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