

Ultraviolet Radiation Exposure in Halton

Climate change & health

Climate change

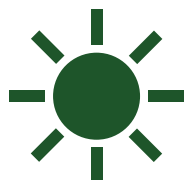
including through variations in ozone and cloud cover, is expected to impact ultraviolet radiation (UVR) levels at the Earth's surface.

Overexposure to UVR is associated with health effects, the most severe of which are skin cancers, such as malignant melanoma.

Future of UVR

Climate change could potentially increase human exposure to UVR as a result of behavioral changes due to a warmer climate in which individuals spend more time outdoors.

Sun Exposure



In Halton, the trend in melanoma incidence has fluctuated from 2012 to 2018. Melanoma rates increased in 2018 with 33.6 cases per 100,000 people. Rates remain higher among males compared to females in Halton. The development of melanoma is also more common as people grow older.



Studies have found an increased risk for melanoma among people of higher socioeconomic status. However, there is an increased risk for advanced stages of melanoma among people of lower socioeconomic status. This may represent inequities in access to dermatology consultations.¹

Racialized groups tend to be at lower risk for skin damage as a result of exposure to solar UVR due to their skin tone, but unfortunately when skin cancer does develop, it is often in a later stage and worse prognoses when diagnosed.²

Table 1: Rate of Melanoma per 100,000, for all ages, by sex, Halton Region, 2012-2018, Ontario Cancer Profiles

Year	All Sexes	Males	Females
2012	31.7	39.0	25.3
2013	27.3	31.5	24.6
2014	32.1	38.1	27.3
2015	33.3	40.4	28.1
2016	29.8	39.0	22.4
2017	27.6	30.7	25.0
2018	33.6	38.8	29.1



Outdoor workers can have greater exposure to UVR than individuals who work indoors.³ Over 1.5 million Canadian workers are exposed to solar UVR at work, and almost 60% of these workers spend 75% or more of their workday outdoors (“high exposed”).⁴ The largest occupational groups in this high exposed category include farmers, construction labourers, and landscapers.⁵



Did you know?

Younger children have more skin relative to body mass than adults, so their sunburns can be very serious.⁶ Children also rely on their caregivers to protect them from exposure to solar UVR, including applying sunscreen, wearing protective clothing, and utilizing shade.⁶ Burns can lead to skin cancer when children get older.⁷

Action

Individual actions to reduce exposure to UVR include the following SunSense behaviours:

- Check the UV Index everyday and take extra precautions to protect skin on days when the UV Index reaches 3 or more, including reducing time in the sun between 11 a.m. and 3 p.m. (when the sun’s rays are at their strongest), or any other time of the day when the UV Index is 3 or more.
- **Slip** on clothing made from tightly woven fabric or look for clothing that is labelled with UV protection factor to cover up as much skin as possible.
- **Slop** on a broad-spectrum sunscreen with an SPF of 30 or higher.
- **Slap** on a wide-brimmed hat that covers the head, face, ears and neck.
- **Seek** shade. If your shadow is shorter than you, find some shade, because this means the sun’s rays are at their strongest.
- **Slide** on sunglasses with UVA and UVB protection in a wraparound style.

References

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This highlight report provides a high-level overview of this impact category. The full Climate Change and Health in Halton Region report is available upon request by contacting 311 or 905-825-6000 or by emailing accesshalton@halton.ca.

For more information on Halton Region’s climate change initiatives visit halton.ca.

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