

# Sun-Safety Interventions for Elementary Schools

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## Keywords

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The elementary school years mark a critical period in the formation of personal sun-safety habits.<sup>1</sup> If positive sun-safe behavior is instilled during this period, it is thought that children could maintain these habits over their lifetime.<sup>1</sup> There are various proposed school-based sun-safety strategies that effectively reduce daily ultraviolet (UV) exposure and lowers the risk of skin cancer.<sup>2</sup>

The implementation of strategies in schools has not yet yielded widespread positive sun-safety habits. Jha et al conducted an Edmonton school survey in 2017 that showed 69% of schoolchildren were taught sun-safety behaviors and that 46% apply sunscreen on a regular basis.<sup>3</sup> This suggested a potential policy and practice gap in Edmonton schools that targeted quality improvement interventions could address. We designed a survey to further understand sun-safety perspectives from a class of Grade 6 students in Edmonton. By investigating the educational and practice barriers that prevent sun safety adherence, we identified potential solutions to address these barriers.

Twenty-four students were surveyed on their sun-safety knowledge and behaviors prior to and 2 weeks after a 30-minute educational presentation on sun safety. The survey included a number of multiple-choice questions and 1 open-ended question. This inquiry allowed us to investigate existing practices to support student, teacher, and parental knowledge and behavior regarding sun safety.

Students showed an 18.5% improvement in sun-safety knowledge following administration of the presentation. All students surveyed indicated they had access to sunscreen and other sun protection items at home, and almost all self-report understanding the importance of sunscreen use. Despite proclaimed knowledge and resources, 42% of students indicated rare use of sunscreen, and even fewer (29%) brought sun-safety items to school. This is consistent with other studies, which found students underutilize sun-safety items.<sup>3</sup> From the 16 comments received, 4 key barriers resulted: (1) sun-safety items are not available at school (6 responses); (2) there is a lack of concern over sun-safety (5 responses); (3) sun-safety

items are bothersome (4 responses); and (4) use of sun-safety items depends on the weather (1 response).

Four recommended interventions for implementation were developed and include: (1) adding sun-safety items (sunscreen, hats, and sunglasses) to the school supply list; (2) developing age-specific curriculum for students and supporting its standardized delivery to all Edmonton schools; (3) encouraging parents to coach their children to wear sun-safety items; and (4) developing weather-specific sun-safety guidelines aligned to high UV index. Prior school-based sun-safety interventions focused on in-classroom education, we believe the identified interventions synergistically support in-class education to achieve both a social and behavioral change. We propose to implement these recommendations with the Edmonton Public School Board and encourage schools to be proactive in implementing interventions that develop life-long sun safety habits.

From this preliminary study, it is clear that sun safety is a complex multipronged issue. Individual students may have different motivations and challenges when approaching sun safety. As such, interventions addressing this issue in the future should not be singular but rather multipronged to affect a sustained behavioral change.

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