

Introduction

-Skin Cancer is “[out of control growth of abnormal cells in the epidermis, the outermost skin layer, caused by unrepaired DNA damage that triggers mutations](#)” (1).

-Skin Cancer is [the most common cancer in the U.S.](#) with 1 in 5 Americans to develop it in their lifetime (2).

-Three main types (1.): [Basal Cell Carcinoma, Squamous Cell Carcinoma, Melanoma](#) (the most deadly).

-[Ultraviolet rays are the biggest risk factor](#) for the development of skin cancer, from both the sun and artificial sources such as tanning beds (3).

- Using [tanning beds](#) before the [age of 20](#) can increase the chances of [developing melanoma by 47%](#), and the risk of developing melanoma increases with each use of a tanning bed (2).

Purpose of the Project

Accurately gauge the current status of sun safety education in Calloway County Schools

- The [UV Indexes in Calloway County](#) are a [3 and above](#) during the months of [March-November](#), & Calloway County is [91.6%](#) white (4).
- A large amount of [skin damage from ultraviolet rays](#) occurs [before the age of 20](#) (5).
- The [five year survival rate for melanoma](#) when detected [early](#) is over [99%](#), compared to [32%](#) when the disease has [spread to other organs](#) (1).
- There is evidence in the literature that [introducing sun protection to children](#) can play a vital role in the prevention of skin cancer (7).

Methods

-A [12 question survey](#) that received IRB approval was sent to educators via school principals in the Calloway County School District. The grade range for the educators is K-8th and the type of information gathered related to [content being learned in sun safety lessons and accessibility to sunscreen/sun safe materials](#).

Sun Safety Education: A Glance at Calloway County Schools

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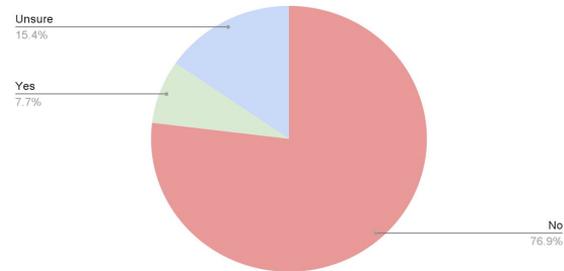
Results

- Around [half](#) of the educators surveyed indicated that students have access to [sunscreen, hats, and sunglasses](#) during outdoor activities.
- When asked if students are instructed on the dangers of exposing themselves to ultraviolet rays in an attempt to develop a tan, [57%](#) of responses indicated [no](#).
- [Videos](#) were the most popular instructional method used for sun safety education, followed by [handouts](#) and [PowerPoint presentations](#).
- [100%](#) of [respondents](#) indicated that they are [not](#) aware of any state or district guidance that encourages education of safety from ultraviolet ray exposure.

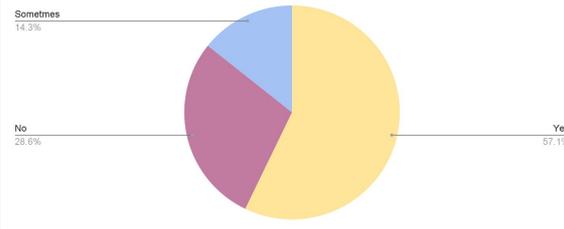
Recommendations & Conclusions

- Educators should be made aware of [KRS 158.301](#) which is the Kentucky Academic Standard related to sun safety education.
- [All students should have access to sunscreen](#) & other sun safety protection clothing on any day where the [UV index is a 3 or higher](#).
- Lessons should include the following key points that include [sun safety techniques](#) & how to [detect the early signs of skin cancer](#) (ABCDE's of Melanoma).
- [Parents should be informed](#) of the sun safety lessons in the classroom and the early signs of skin cancer to watch for.
 - Studies have found that [sun safety behaviors were more common in children with families that actively converse and participate in sun protection methods](#) (7).

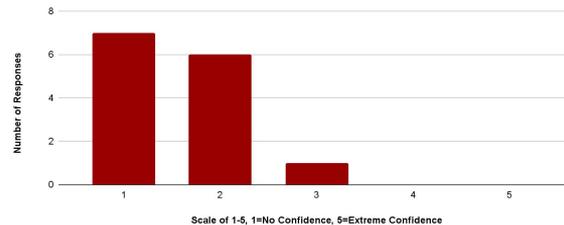
Is there currently any type of communication (flyer sent home, email, etc.) with parents/guardians informing them on the sun safety lessons



Are students currently encouraged to put on sunscreen before participating in any outdoor activities when the UV index is a 3 or higher?



On a scale of 1-5, how confident are you in your students' current ability to be able to identify the two main types of UV rays (UVA/UVB)?



References

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- (3) Reyes-Mandillo, G., Wang, K., Goldstein, S., Humphreys, L., Smith, A. K., Sharma, A. R., St-Laurent, A. G., Eვაჯუარა, R., Dobbinson, S. J., & Cuzt, A. E. (2021). School-based interventions to improve sun-safe knowledge, attitudes and behaviors in childhood and adolescence: A systematic review. *Preventive Medicine*, 146, 106469. <https://doi.org/10.1016/j.ypmed.2021.106469>
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- (5) Glanz, K., Sarmiento, M., & Wechsler, H. (2002). Guidelines for School Programs to Prevent Skin Cancer. *Morbidity and Mortality Weekly Report*. [https://doi.org/10.1093/mmwr/51\(18\)/a000006-004](https://doi.org/10.1093/mmwr/51(18)/a000006-004)
- (6) Binous, Dalphine, et al. "Evaluation of a Sun Safety Education Programme for Primary School Students in Switzerland." *European Journal of Cancer Prevention*, vol. 23, no. 4, 2014, pp. 303-09. JSTOR. <https://www.jstor.org/stable/48504337>. Accessed 24 Feb. 2023.
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