



Design and Implementation of a High School Curriculum Campaign for the Detection and Prevention of Melanoma



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Introduction

- Early detection of melanoma is associated with **decreased mortality rates and reduced treatment morbidity**
 - Knowledge of and behaviors around sun protection and self skin exams can increase early detection and prevention
 - School based-education programs, including the Environmental Protection Agency's SunWise School Program¹, Australia's Slip! Slop! Slap!², and Washington University in the St. Louis' Sun Protection Outreach Teaching by Students (SPOTS)³, have targeted school-aged children
 - Despite carrying the **seventh highest rate of melanoma in the country**⁴, Oregon currently has no formal statewide, school-based educational curriculum addressing the prevention and early detection of melanoma in high school students
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Aims

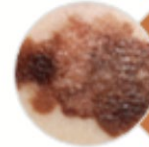
1. Deploy a statewide curriculum in Oregon for the prevention and early detection of melanoma targeted to high school students (grades 9-12)
 1. Measure the results of the curriculum and evaluate changes in knowledge of prevention and early detection; attitudes towards tanning bed and sunscreen use; and confidence in conducting self skin exams, seeking medical attention, and encouraging others to get skin exams
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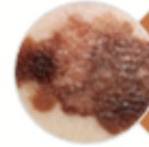
Design

1. A community needs assessment of Oregon educators conducted to inform the curriculum design
1. Active learning lesson plan for high school students in the state of Oregon using the cognitive theory of multimedia learning.
1. Lesson plan follows a 5E instructional model encompassing the phases Engage, Explore, Explain, Elaborate and Evaluate

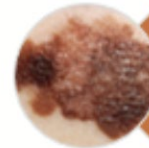
Learning Objectives:



Explain the causes of skin cancer and evaluate the efficacy of various types of skin protection



Evaluate your own risk factors for developing melanoma and explain that melanoma can be deadly if not detected early



Recognize when you should get your mole(s) checked by a medical provider

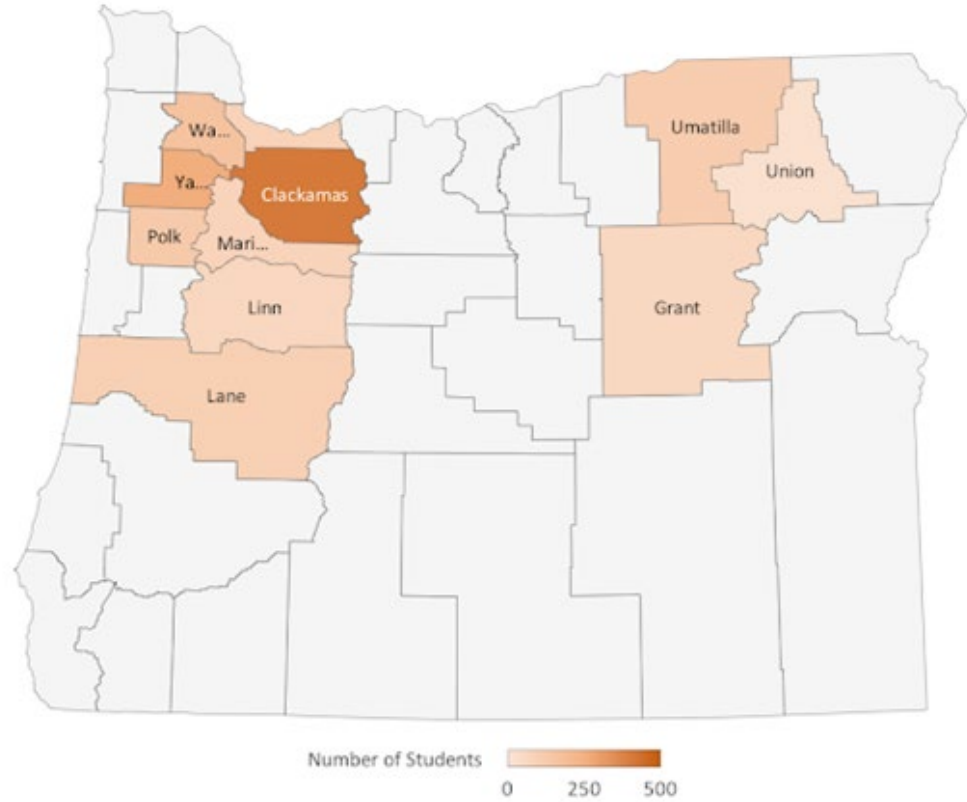


Create an action plan for early melanoma detection and sun safety



Impact

- 14 schools received curricula materials
- Reaching **more than 1,500 students** across Oregon





Measures

- **Pre- and post-intervention surveys**
 - Collect demographic information
 - Assess **student attitudes** on tanning beds and sunscreen use
 - Test **knowledge acquisition** based on the four learning objectives
 - Initial pilot → **interim analysis**
 - Curriculum modified based on survey data and school feedback
 - Effect of classroom lessons on responses to **attitude, knowledge, and confidence** questions evaluated via scoring separate composite scores pre- and post-lesson
 - **Linear mixed effects models** used to examine changes in scores using educators as random effects to account for the intra-class clustering of students in schools
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Conclusion

As part of the **War on Melanoma campaign**, the Department of Dermatology faculty and medical students at Oregon Health and Sciences University created an active learning lesson plan that has been distributed to 14 schools and **more than 1,500 students** across the state of Oregon.

Pre and post lesson survey questions will evaluate **student attitudes** towards tanning beds and sunscreen use and test **knowledge acquisition** based on the four learning objectives addressed by the War on Melanoma curriculum.



Acknowledgements

Emile Latour

Kim Pfunder

Sun Protection Outreach Teaching by Students (SPOTS), St. Louis University

References

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