Preventing Melanomas Before They Happen in Oregon Schools

July 11, 2022 By Melanoma Research Alliance

For Carter Haag, it all clicked in medical school. During his third year, he was rotating through different specialty areas when he found dermatology. Almost instantly, he fell in love with the focus area and the people who worked there. Throughout his remaining time in medical school, he kept connected with the dermatology department and their advocacy work to improve melanoma prevention and early detection efforts at a state level.

This type of advocacy is urgently needed because an estimated 1,300 people in Oregon were diagnosed with melanoma each year from 2014 — 2018 (the latest years we have these data). You may even be surprised to learn that Oregon — despite its frequent grey and rainy weather — is among the top ten states with the highest rates of new melanomas. The rates of new melanomas have increased over the last half century.

Today, Dr. Haag is in his 2nd year of his Dermatology Residency at Oregon Health Sciences University, and was awarded a 2020 MRA Dermatology Fellowship Award. As part of his fellowship, he is working to launch an innovative program to increase sun safety knowledge and behaviors among Oregon high school students as part of OHSU's War on Melanoma initiative.

Oregon's War on Melanoma Initiative

The War on Melanoma, launched in May of 2014 by MRA-funded investigator and Medical Advisory Panel member Sancy Leachman, MD, PhD, is an all-fronts effort to eliminate melanoma as a cause of death, primarily focusing on the link between early detection of melanoma and improved survival.

Dr. Haag and his team had an ambitious goal for the program: they wanted the melanoma prevention and early detection curriculum taught in every high school throughout the state. To do so, they knew they needed to strike a balance between being comprehensive while also being concise enough to encourage uptake by schools. Finally, if they wanted it to stick, they knew that it had to be engaging for high school students.

"High school students are at a critical inflection point in their lives where they are starting to

branch out and cement life-long habits," says Dr. Haag. "If we can help high school students understand the dangers and myths about sun exposure now — we can have a real opportunity to make meaningful, life-long change."

In addition to an in-person curriculum taught by medical students, they developed an online platform — as a direct response to the COVID-19 pandemic — that would work in a virtual school environment. The online curriculum also expanded access to the program in more rural areas of the state.

Expanding the Impact of the Program

"We wanted this to be accessible in every corner of the state," says Dr. Haag. "We see some of the highest rates of melanoma from some of these more rural counties. The curriculum had to work there too."

The team is also looking at expanding the pool of available in-person instructors to include students in pre-med and other health-related fields. "Not only does this allow us to extend reach while making the program more sustainable, it also gives us the opportunity to introduce more health professionals to dermatology and melanoma," says Dr. Haag.

The program is built on the Mayer's Cognitive Theory of Multimedia Learning which is based on the idea that we learn better from words, pictures, and activities all together than with any approach on its own. It consists of a 50-minute evidenced-based curriculum that includes video testimonials, interactive games, and activities that teach simple ways to identify melanoma. Students will also complete brief surveys prior to starting and after completing the curriculum to help assess knowledge gained and motivation for behavioral change.

The curriculum has been taught to 10,653 students across 79 high schools throughout Oregon. Initial data from the program show that it's working. Program evaluations show that it increases knowledge by about 10% on average. Also, intent to wear sunscreen daily increased to over 80% following the curriculum. Finally, and perhaps most importantly, confidence in knowing when to have a lesion looked at by a dermatologist increased from 50% not confident to 70% confident.

"Through this program, we are working to prevent melanomas that might not arise for years, if not decades. We know that early detection dramatically reduces mortality — that's why this is so important," says Dr. Haag. "MRA funding has been instrumental in helping us grow the roots of the program so we can reach more students. This is primary prevention at its finest."

This post was originally published June 22, 2022, by the Melanoma Research Alliance. It is republished with permission.

© 2026 Smart + Strong All Rights Reserved.