

## **Effectiveness of Skin Cancer Prevention Program in Washtenaw County**

### **Adolescents**

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2018

UMMS Capstone for Impact

Branch: Diagnostics and Therapeutics

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### **Project Summary**

Our goal was to assess the effectiveness of a skin cancer prevention community outreach program targeting adolescents, a high-risk behavior population, as part of an IMPACT project in the branch curriculum at the University of Michigan Medical School.

Skin cancer is the most common type of malignancy with an increasing prevalence, and the CDC has noted a discrepancy in sun protection between adolescents and adults, with adolescents using sun lotion less frequently when exposed to the sun and additionally engaging in indoor tanning more frequently. Additionally, while effective interventions exist targeting grade school children, no effective methods have been described in the literature targeting adolescents.

Our program entailed a 30-minute in person presentation at middle schools and high schools in Washtenaw County in the fall of 2017. The presentation provided students with knowledge regarding risk factors for skin cancer development and effective ways of reducing risk. Additionally, the presentation included a “teach-forward” component, where students were empowered to share their knowledge with friends and family. Pre-presentation surveys were distributed to students to assess baseline knowledge and attitudes regarding prevention and this data was compared to similar post-presentation and 2 month follow-up surveys. P

From a sustainability standpoint, future Michigan Medical School students can continue the outreach program and local area high schools and middle schools, and the presentation materials will be published on Online MedEd so that other health educators can access this content if they wish to present it to their students.

### **Action Items/Outcome**

The primary objective of our study was assessing changes in knowledge and attitudes regarding prevention. Data was collected in the form of an in-person survey using a 4

point Likert Scale. A total of 11 classrooms with 219 students were included in final analyses. Mean age of students was 15.57 +/- 1.48 (Range 11-18).

There was a statistically significant improvement ( $p < 0.001$ ) between pre and post-presentation knowledge regarding causes of skin cancer, preventative measures, and likelihood of teaching others regarding risk factors and prevention. The mean perceived usefulness of the presentation on a 4 point scale (not at all (0) to very (4)) was 3.68 +/- 0.57.

Additional sub-group analyses and follow-up data on retention of information and the "teach-forward" component at a 2 month time point is still pending.

### **Conclusion/Reflection**

Data regarding effective measures of raising awareness with regards to skin cancer risk factors and preventative measures in adolescents is currently lacking in the literature. Our preliminary data suggests that our evidence-based 30 minute in-person presentation is an effective method of addressing this gap.