



# Assessing Melanoma Awareness and Public Knowledge of Sun Protection in Local Communities

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## Introduction

Malignant melanoma ranks as the sixth most prevalent cancer in the United States, and it contributes significantly to skin-related mortality. When not identified in its early stages, melanoma can progress to metastasis, where the five-year survival rates can plummet to as low as 10%.[1] This information underscores the critical importance of early detection as it significantly impacts the prognosis of this disease. Public awareness and regular skin self-examinations are pivotal in identifying melanoma at its most treatable stage. Educating on the ABCDE signs (Asymmetry, Border irregularity, Color variation, Diameter, and Evolving features) of melanoma through both information-based interventions and practical skills training can improve health outcomes and early detection of melanoma.[2] Moreover, Melanoma awareness extends beyond recognizing signs and symptoms; it also encompasses promoting sun-safe practices and nurturing a culture of proactive healthcare. DermEd (Dermatology Education and Outreach), a recently established student organization, has taken up the mission of educating local communities on the significance of skincare, sun protection, and dermatology visits. As part of our commitment, DermEd participated in a Community Health Fair in Dearborn, Michigan, on August 19, 2023.

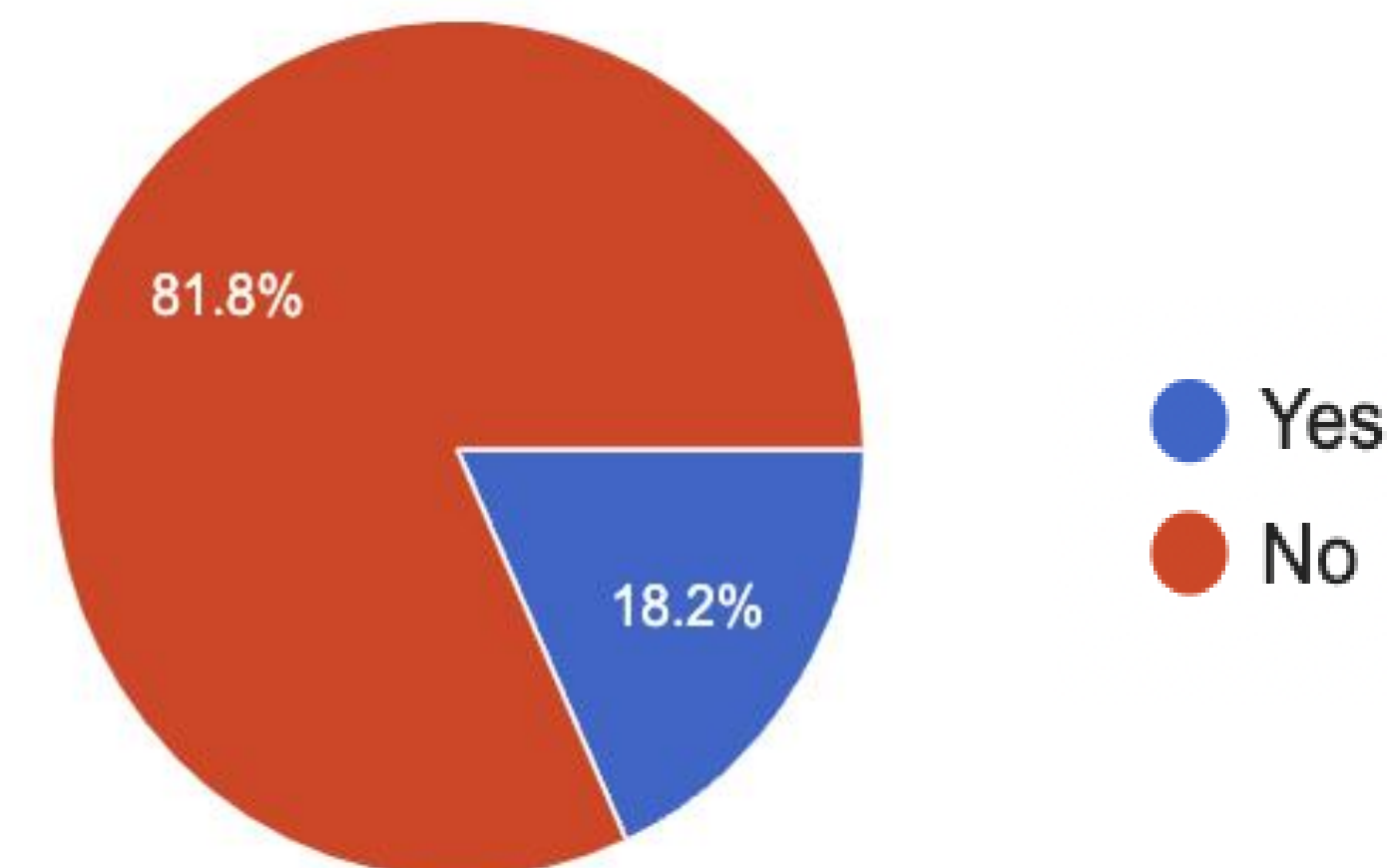
## Methods

DermEd's role in the health fair event aimed to not only raise awareness but also gather data on public knowledge of melanoma and sun protection. To achieve this, we employed a survey-based approach to data collection. A 14-question survey through Google Forms was offered at the event, reaching a total of 66 individuals. This survey comprehensively probed participants' perspectives on dermatology, including their knowledge of the ABCDEs of melanoma and their daily sun protective habits. Our primary goal was to gauge the overall awareness of melanoma and to ascertain the frequency of sunscreen usage among the surveyed participants. We sought to obtain valuable insights into the public's understanding of dermatological health and its relevance in promoting skin cancer prevention.

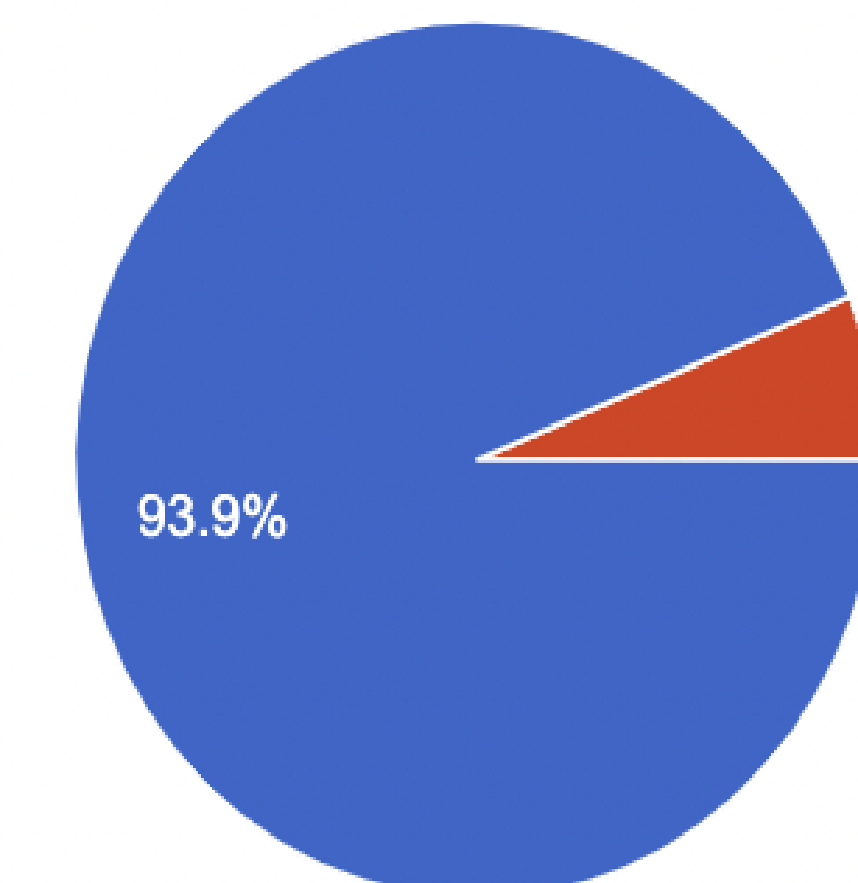
## Results

The results of our survey indicate a lack of general melanoma awareness among the participants. 81.8% of survey participants did not know the ABCDEs of melanoma before speaking to us. 74.2% of respondents stated they've never conducted any skin check on themselves. Additionally, 39.1% of individuals reported that they rarely apply sunscreen daily. After speaking with us, 78.8% of respondents indicated they were more likely to visit the dermatologist. Additionally, 93.9% of respondents have a better understanding of the ABCDEs of melanoma and are more aware of what to look for in themselves and others after talking with us at the Health Fair.

### Public Knowledge of the ABCDEs of Melanoma Pre & Post conversation with DermEd

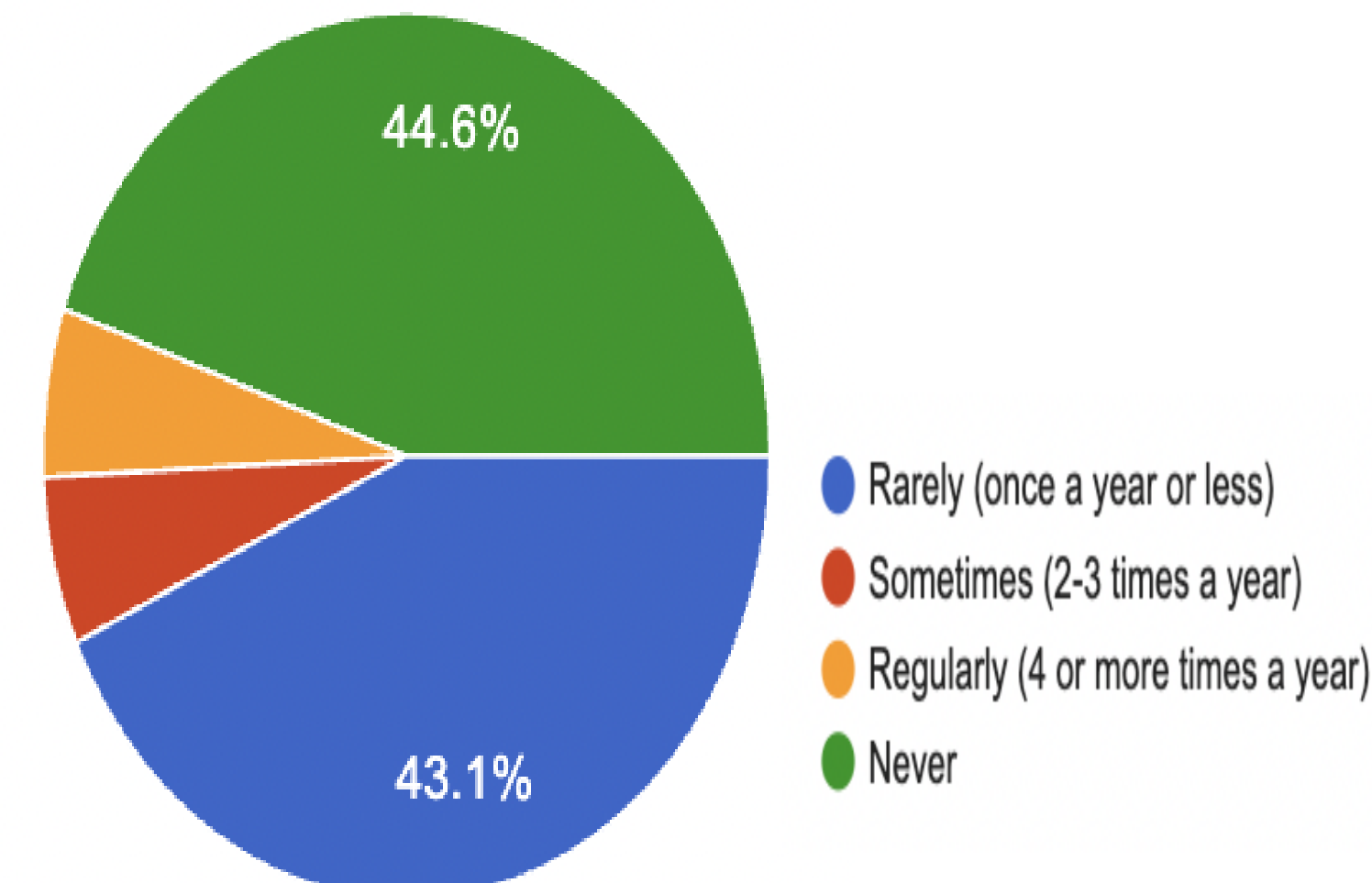


**FIGURE 1.** Survey respondents' answers to whether they were aware of the ABCDE's of Melanoma at the beginning of the conversation with us.

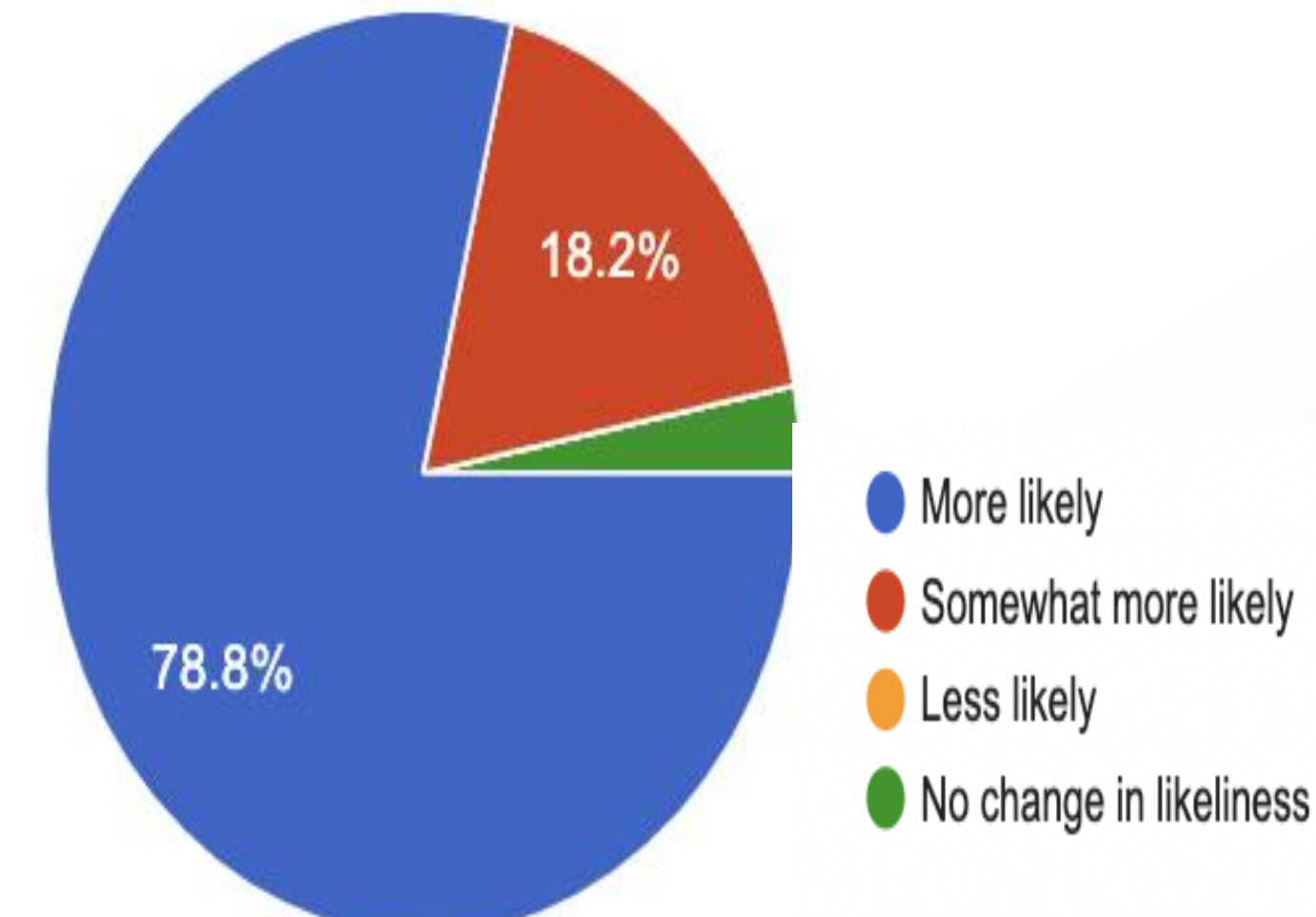


**FIGURE 2.** Survey respondents' answer to the question of whether they have a better understanding of the ABCDE's of melanoma after talking to us.

### Highlighting the Importance of Dermatology Visits



**FIGURE 3.** Survey results to the question of "How often do you see a Dermatologist?"



**Figure 4.** Respondents' answer when asked if they are more likely to visit a Dermatologist, after speaking with us.

## Discussion

The findings of our survey emphasize a significant knowledge deficit in the local community regarding melanoma detection and sun protection. The results highlight the need for increased education and awareness in the local community regarding the indicators of melanoma and the importance of sun protection. A study by Rehyaneh et al. showed that skin self-examination (SSE) can lead to the efficacious detection of melanoma and pre-cancerous lesions.[1] Furthermore, the accuracy of a thorough SSE can be improved if the patient has an awareness of the ABCDE criteria of melanoma.[1][2] Our survey showed that most people are unaware of what to look for when examining their skin. Considering that 93.9% of surveyed respondents indicated they had a better understanding of the ABCDEs of melanoma after speaking to us, educating the public on melanoma prevention and detection at local events may prove to be an efficient method of improving health outcomes.

## Conclusion

In conclusion, the outcomes of our research identify a deficit in knowledge within the local community concerning melanoma detection and sun protection. Our results exhibit the need for more community outreach and education. In addition, our findings underscore the effectiveness of public education efforts. Understanding the knowledge gap concerning skin health in our communities will allow outreach groups, such as DermEd, to play a more crucial role in promoting overall health within our communities. Through community outreach, DermEd will empower individuals to take charge of their skin health, be more aware of UV radiation, and understand when to seek prompt medical attention.

## References

1. Hamidi R, Peng D, Cockburn M. Efficacy of skin self-examination for the early detection of melanoma. *Int J Dermatol*. 2010 Feb;49(2):126-34. doi: 10.1111/j.1365-4632.2009.04268.x. PMID: 20465635.
2. Robinson JK, Turrisi R. Skills training to learn discrimination of ABCDE criteria by those at risk of developing melanoma. *Arch Dermatol* 2006; 142: 447-452.