

Rising Interest in Sunscreen for Skin of Color: An Analysis of Google Trends

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INTRODUCTION

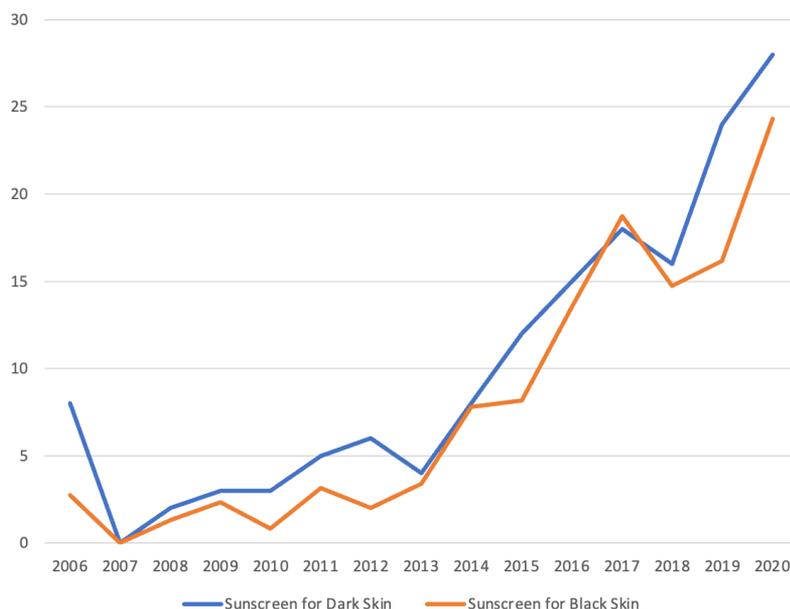
Individuals with skin of color (SOC) are less likely to use sunscreen and other sun-protective measures due to misinformation and common misconceptions regarding the benefits of sunscreen.¹ In addition to skin cancer prevention, many SOC individuals are unaware that sunscreen can also be used to slow down signs of extrinsic aging and prevent worsening of dyspigmentation.^{2,3,4} We hypothesized that new formulations of chemical and mineral sunscreens for darker skin colors in recent years, along with increased education about the benefits of sunscreen, have helped create a shift in interest regarding sunscreen use in darker skin. This study sought to formally and objectively analyze these trends online.

Google Trends, an engine used to analyze search trends temporally and geographically, was used to analyze the trends in searches of the phrases “sunscreen for dark skin” and “sunscreen for black skin” since 2004. Search trends are analyzed based on relative search volume (RSV); a value that quantifies the absolute number of searches compared to the total number of searches over a given time period on a scale of 0-100. Monthly RSVs were then averaged to determine the mean

RSV for each year. A value of 100 represents the highest RSV within a set period, while 0 indicates few searches. Additional phrases such as “Sunscreen for ethnic skin” and “Sunscreen for brown skin” were also searched but did not produce data significant enough to establish a trend.

The estimated annual RSV for the phrase “sunscreen for dark skin” ranged from 0 to 28, with the peak being reached in 2020. Since 2006, the annual RSV has nearly quadrupled reflecting an almost 400% increase in Google searches on the topic of sunscreen for dark skin. Of note, the yearly times of peak interest were primarily seen in the months leading up to the summer and the summer months themselves. A sharp increase can be seen between the months of March and August/September of each year. In 2006, there was a sharp peak in interest to 50 RSV in January, after which RSV remained between 0 and 30 each month for many years. It was not until the summer of 2016 that there was a rise in searches on the topic of sunscreen for dark skin. The trend continued to rise each year following this resurgence. Geographically, the states of MD, GA, NJ, NY, and CA held the positions for the highest associated RSVs for the phrase “sunscreen for dark skin,” with MD at an RSV of 100

FIGURE 1. Estimated annual RSV for “Sunscreen for Dark Skin” and “Sunscreen for Black Skin” from 2006-2020 depicting an overall upward trend in searches.



and CA at 58. Related queries associated with “sunscreen for dark skin” included “best sunscreen for dark skin”, “mineral sunscreen for dark skin”, and “best mineral sunscreen for dark skin” all 3 of which received the designation of “breakout” search terms signifying >5,000% increase in searches.

Annual RSV for “sunscreen for black skin” ranged from 0.83 to 24.33 with the peak also being reached in 2020. Since 2008, the first year with available trends, the annual RSV has increased 18-fold. The peak interest times can be seen from around May each year to roughly October. Annual RSV steadily began to rise in 2013, with the most significant jump being seen between the years 2019 and 2020 when estimated annual RSV jumped from 16.16 to 24.33. Geographically, the states with the highest associated RSVs were MD, GA, NC, NY, and NJ with Maryland at an RSV of 100 and NJ at 34. Top related queries included “best sunscreen for black skin”, “sunscreen for Black people”, and “black girl sunscreen” all of which also received the designation of “breakout” signifying >5,000% increase in searches.

The sharp increase in Google searches for sunscreen for darker skin reflects an important shift in sunscreen interest in communities of color. Continued formulations that are cosmetically appealing to darker skin and education on the benefits of sunscreen may help lead to a continued increase in sunscreen usage by people of color. Dermatologists, primary care physicians, and other health care providers can help in providing this important public health education to their patients of color which can hopefully help sustain continued increase in sunscreen usage in this population.

DISCLOSURES

Dr. Elbuluk is the director of the skin of color and pigmentary program at USC. She has served as a paid consultant, advisory board member, and/or speaker for Allergan, La Roche Posay, Scientis, Galderma Laboratories LP, Estee Lauder, Beiersdorf, and Unilever. Nicole Syder has no conflicts of interest.

REFERENCES

1. Al-Qarqaz F, Marji M, Bodoor K, et al. Awareness about proper use of sunscreen in people of color: A Jordanian-based survey. *J Cosmet Dermatol.* 2020;19(5):1131-1136. doi:10.1111/jocd.13120
2. Battie C, Gohara M, Verschoore M, et al. Skin cancer in skin of color: an update on current facts, trends, and misconceptions. *J Drugs Dermatol.* 2013;12(2):194-198.
3. Fatima S, Braunberger T, Mohammad TF, et al. The Role of Sunscreen in Melasma and Postinflammatory Hyperpigmentation. *Indian J Dermatol.* 2020;65(1):5-10. doi:10.4103/jjd.IJD_295_18
4. Wheat CM, Wesley NO, Jackson BA. Recognition of skin cancer and sun protective behaviors in skin of color. *J Drugs Dermatol.* 2013;12(9):1029-1032.

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