

RISING DERM STARS®

Impact of Consumer Preferences, Product Characteristics, and Unregulated Marketing Claims on Online Sunscreen Purchases

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Background/Objectives: Sunscreens, unlike prescription medications are purchased by consumers directly from retailers. The proportion of online sunscreen sales is increasing. It is therefore important for dermatologists to know what factors influence online sunscreen purchases to optimize appropriate recommendations.

Methods: This is a cohort study of publicly available data from "Amazon Best Sellers in Sunscreen" list. Variables collected included cost, formulation, product claims, ingredients, consumer ratings, and number of reviews. Ordinal logistic regression was used to analyze the impact of collected variables on position on the best-seller list.

Results: 96 of the 100 search results could be defined as actual sunscreens with a total of 41,788 reviews. The median price per ounce was \$3.02 (range \$0.34-\$309.18). The most popular formulations were lotions (68.8%), continuous sprays (17.7%), sticks (4.2%), and lip balm (4.2%). Sun protection factor (SPF) 50 (36.5%) and SPF 30 (28.1%) were the most purchased levels of sun protection. Inorganic and organic sunscreen agents were present in 41.7% and 75% of the top 100 selling sunscreen products, respectively. The most common claim was "non-greasy" found in 57.3% of sunscreens.

For 26 product non-regulated claims analyzed, the mean number of claims per sunscreen was 5.2. Using an ordinal regression model, the following factors were found to significantly influence sunscreen sales: number of reviews, the claim prevents skin cancer and early aging, and the presence of 6 or more claims.

Conclusion: Multiple sunscreen options exist for consumers with varying price points, active ingredients, and formulations. Consumers who purchase online prefer sunscreens with a higher number of reviews and more marketing claims. FDA regulated claims such as "prevents skin cancer and early aging," do not appear as important in this purchasing cohort. To facilitate usage, dermatologists should be cognizant of factors that influence sunscreen selection among this group.