

Sunscreens save lives, have limited impact on coral reefs

By Kevin Cassel and Karen Glanz
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PIXABAY

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Is it possible to care for the health of our oceans and planet, and to do the best we can to promote human health at the same time? The state Legislature is considering banning the sale of sunscreen products that contain oxybenzone and octinoxate because of a potential link to coral reef damage.

A Star-Advertiser editorial on March 3, entitled "[Ensuresunscreen is safe for our reefs](#)," endorsed the pending legislation. However, the 25-member organizations of the Hawaii Skin Cancer Coalition — including physicians, nurses and cancer researchers — is concerned that the rules are based on misrepresentation of the current science surrounding common chemicals in sunscreen and their link to coral reef damage.

We agree that damage to coral reefs is precipitated by human interaction; but the primary sources of this damage are not swimmers wearing sunscreen, but rather land-based source pollution (e.g. industrial waste), over-fishing, invasive species and climate change. In fact, the foundational studies that report reef effects of oxybenzone and octinoxate (by Henry Lim in 2016, Sujin Kim in 2014 and C. A. Downs in 2014) were conducted in laboratory settings and do not test the actual risks to coral in a natural setting. One study even states that the sample obtained for testing from Hawaii's coral reefs had minimally detectible levels of oxybenzone and octinoxate (Downs 2014).

Morbidity and deaths from skin cancers are on the rise in the U.S. and Hawaii. The current focus of Hawaii's legislative policy limiting sale of sunscreen products will undermine years of progress toward addressing the effects of unprotected sun exposure, a primary risk factor for skin cancer.

According to the National Cancer Institute, nearly 5 million people in the U.S. are treated for skin cancers each year, at a cost of over \$8 billion to our health care system. Melanoma, the deadliest form of skin cancer, is now the second most common form of cancer for females aged 15-29 years old. Each year more than 10,000 people die of melanoma.

The leading scientific agencies in the U.S. all emphasize that using sunscreens is a critical part of regimens to prevent skin cancers, along with protective clothing, hats with brims, and shade. In open water, hats and shade are not options.

To protect Hawaii's natural resources, it is essential that we better understand the potential environmental effects of sunscreen use. Currently there is insufficient scientific evidence demonstrating that oxybenzone and octinoxate is responsible for coral bleaching. The Hawaii Skin Cancer Coalition members

suggest that Hawaii's legislators put forth efforts and resources to utilize the vast scientific expertise found at the University of Hawaii, including its world-renowned marine biology program and Cancer Center, to provide sound evidence concerning the effects of sunscreen use on coral.

Simultaneously, we support further research toward the development of effective, affordable and acceptable sunscreen products that are effective for cancer prevention and safe for our environment.

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