

VIEWPOINT

A Call to Action to Eliminate Indoor Tanning

Focus on Policy

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An estimated 419 245 cases of skin cancer in the US each year are attributable to indoor tanning.¹ Efforts to increase regulations on indoor tanning continue, given its well-established association with melanoma and keratinocyte cancers as well as its popularity among adolescents and young adults. This Viewpoint provides an overview of legislative efforts to limit indoor tanning among minors, discusses policy adoption and implementation challenges, and calls on dermatologists and others to help eliminate indoor tanning to decrease skin cancer incidence.

Legislation Restricting Indoor Tanning

Policy is among the most effective strategies for influencing health behaviors and public health. Indoor tanning is regulated in 2 main ways: (1) states restricting minors' access and (2) the US Food and Drug Administration (FDA) attempting to minimize harm during indoor tanning sessions. Presently, 22 states and the District of Columbia have banned indoor tanning for all minors, 10 states have banned indoor tanning for some minors by age (eg, <14 years), and 12 states require parental consent or accompaniment, leaving 6 states with no indoor tanning laws. The FDA regulations designed to reduce harmful UV radiation exposure during tanning include protective eyewear requirements and session duration limits. In the US, the proliferation of state-level indoor tanning restrictions may be associated with the decline observed^{2,3} in the number of indoor tanning providers, consumer spending on indoor tanning, and past-year indoor tanning: among high school girls and high school boys, from 24.1% and 5.7% in 2009 to 9.5% and 3.3% in 2015, respectively²; and among young adults (18-34 years old), from 14% in 2007 to 4% in 2018.³

These indoor tanning reductions are notable public health achievements that are likely to help alleviate trends in melanoma incidence. It has been estimated⁴ that further restrictions on indoor tanning among minors would prevent thousands of melanomas and melanoma-related deaths during the lifetimes of tens of millions of US children, not to mention the potential to avoid keratinocyte cancers. However, as compared with total bans, bans on minors may only result in one-third of the benefits in skin cancers averted and cost savings. Achieving more restrictive legislation will require continued research, advocacy, and policy efforts to (1) overcome barriers to adopting additional restrictions and (2) identify and subsequently close remaining gaps in the implementation of existing laws restricting indoor tanning.

Policy Adoption

Legislators in most US states have passed or attempted to pass indoor tanning regulations. The number of indoor tan-

ning bills introduced annually is increasing, but the proportion of the bills that are passed remains very low. Political barriers include strong industry lobbying, education of legislators, postfiling proceedings, and lack of support from other organizations. For example, an FDA-proposed federal ban on indoor tanning for minors in 2015⁵ appears to have been thwarted by lobbyists for the tanning industry and other political factors, such as trends toward deregulation. The indoor tanning industry argues that indoor tanning restrictions have negative economic consequences on small businesses, ignoring the cost of the health hazards from which they profit. In addition, the industry and its lobbyists have argued that youth access laws are a restriction of parents' civil liberties.

Indoor tanning policy efforts also include legislative proposals to increase the stringency of existing indoor tanning laws, which demonstrates the iterative nature of effective policy making. Indoor tanning law stringency can include mandates applying to minor access (eg, ban vs consent), warnings, UV exposure controls, sanitation, device standards, facility operations, operator training or responsibility, enforcement, penalties, and marketing. Age restrictions appear to be particularly important components of indoor tanning policy, as reductions in indoor tanning rates among adolescents have been most consistently observed in states with age bans compared with those with parent accompaniment or consent laws. Unfortunately, the stringency of minor and adult access legislation in states with indoor tanning laws has been rated as low to moderate, with few strong policies.

Implementation of Legislation

Health risks can persist even after policy adoption, in part because of suboptimal enforcement and compliance. Enforcement of indoor tanning regulations is inconsistent. For example, the use and frequency of inspections for tanning salon compliance are highly variable across states, with only 12% of states rated as having very strong enforcement provisions for minors and only 28% for adults.⁶ Citations for violations are inconsistently used, and penalties are low-level fines or misdemeanors in most states, which are unlikely to create deterrence. Compliance with indoor tanning regulations is also imperfect. For example, most tanning salons have said that they allow first-time customers to tan daily, contrary to FDA recommendations.⁷ Compliance (mean [range]) with age restrictions (65% [0%-100%]), warning labels (44% [8%-72%]), and protective eyewear (92% [84%-100%])⁸ also varies widely. Undoubtedly, a lack of enforcement provisions and resources and competing priorities for health regulators are key factors in the lack of enforcement and low compliance.

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Complete bans on minors (ie, <18 years old) have achieved much higher compliance, another reason to enact them.

Comprehensive indoor tanning policy is complicated by the availability of tanning beds in nonsalon settings such as homes and other businesses (eg, gyms, apartment complexes, beauty salons). A notable minority of indoor tanners engage in nonsalon tanning. As recently as 2015, approximately half of top colleges had indoor tanning facilities on campus or in off-campus housing.⁹ These settings are less likely to be regulated and inspected and are often unattended by facility staff. There is also some evidence of poorer compliance with FDA recommendations, such as protective eyewear requirements, skin-type limits, and session duration limits, in nonsalon settings compared with salon settings.

What Dermatologists and Others Can Do

Dermatologists and others can help address the aforementioned challenges by using their expertise in policy research and advocacy. Little is known about the legislative process of adopting or rejecting indoor tanning bills, or what might facilitate more stringency of existing laws (eg, banning those <19 years old, <21 years old, or total ban). Comprehensive policy research efforts are needed on indoor tanning law deliberations, stringency, enforcement, and compliance to inform future decision-making and advance toward effective indoor tanning policies. Research is needed on whether parents are aware of parental consent or accompaniment laws and can be convinced to withhold permission. Previous research has often

used blunt measures (eg, ban vs no ban) or was conducted in a piecemeal manner (ie, only focused on stringency, enforcement, or compliance in a few states). Many of the most rigorous studies are outdated. Although several studies have estimated health-related costs of indoor tanning and skin cancer,⁴ they have not rigorously assessed other costs, such as potential business losses, which are often used by the industry to justify the health risks. Additionally, little is known about potential compensatory effects, such as individuals' moving from salon tanning to nonsalon, outdoor, or sunless (UV-free chemical) tanning.

Dermatologists can play an important role in indoor tanning policy. They should become aware of local indoor tanning regulations and take opportunities to educate patients, family members, legislators, schools and universities, childcare organizations, and beauty and fitness facilities about the risks of indoor tanning. They can also garner support from these groups in advocating for stronger policies and compliance with indoor tanning regulations. In addition to sharing data, a potentially powerful way to educate is to share clinical vignettes and patient or family testimonials about young indoor tanners who have been treated for and perhaps have died from melanoma. There are many partners for these efforts, such as the National Council on Skin Cancer Prevention, the American Academy of Dermatology, the Congressional Skin Cancer Caucus, and AIM at Melanoma. Together with these groups, dermatologists can present a strong united front to advance toward elimination of indoor tanning and improving public health.

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