

Indoor Tanning Trends Among US Adults

Skin cancer is largely preventable. Ultraviolet (UV) radiation from either outdoor sun exposure or indoor tanning devices is the main cause of skin cancer, and reducing exposure to UV radiation is the best way to reduce skin cancer risk. Although the sun is the most common source of UV radiation exposure for most people in the United States (US), exposure from indoor tanning is avoidable and therefore an important target for cancer prevention interventions.

Indoor tanning devices are classified as a Group I human carcinogen by the World Health Organization, and research has consistently shown a strong association between indoor tanning and the risk of developing the three main types of skin cancer: basal cell carcinoma, squamous cell carcinoma, and melanoma. Furthermore, studies have shown that cancer risk increases as indoor tanning frequency rises, and that onset of indoor tanning at a younger age is more strongly related to lifetime skin cancer risk, likely due to the accumulation of exposure over time. Emerging research on tanning addiction also suggests that physical or psychological dependence can result in excessive tanning behavior in some individuals.

In response to evidence of the harms of indoor tanning, especially among youth, many states have implemented

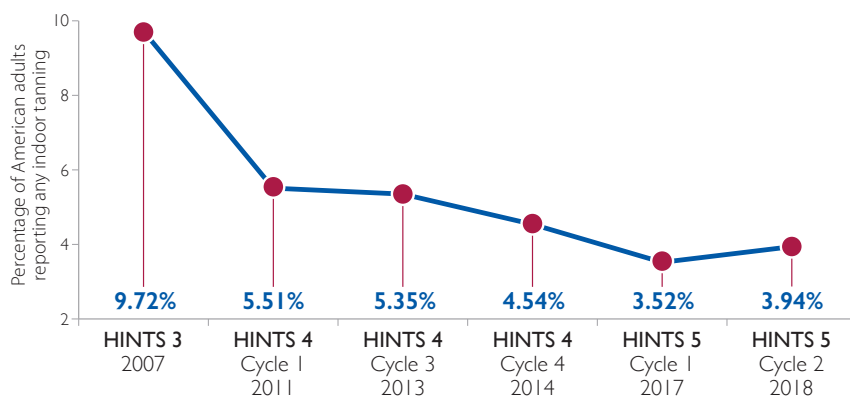
Quick Facts

- Skin cancer is the most commonly diagnosed cancer in the United States, with more than 5 million cases of skin cancer diagnosed annually.
- It is estimated that more than 6,000 people will die from melanoma skin cancer in 2020.
- Indoor tanning is a major risk factor for the most common types of skin cancer: melanoma, basal cell carcinoma, and squamous cell carcinoma.
- Currently, 44 states and the District of Columbia regulate the use of tanning facilities by minors.
- Adult indoor tanning prevalence has significantly decreased in states that have enacted youth access legislation, but has not significantly decreased over time in states with no age restrictions on indoor tanning use.

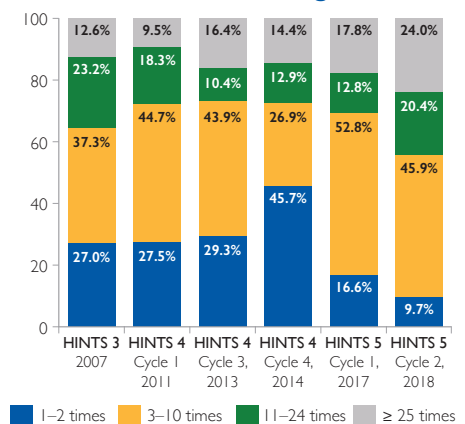
legislation restricting access to indoor tanning for minors (e.g., banning those under 18 from indoor tanning or requiring parental permission before minors can tan). These laws may influence attitudes toward indoor tanning by drawing attention to the risks associated with tanning behavior.

This HINTS *Brief* examines trends in indoor tanning among US adults between 2007 and 2018, as well as differences in indoor tanning prevalence by state-level youth indoor tanning legislation.

Past-Year Indoor Tanning Prevalence Among US Adults: 2007–2018



Indoor Tanning Frequency Among Those Reporting Past-Year Indoor Tanning



Changes in Indoor Tanning Behavior among US Adults, 2007–2018

A recently published analysis used six cycles of HINTS data to examine changes in indoor tanning behavior among adults. The study found that indoor tanning prevalence decreased significantly between 2007 and 2018 among adults overall as well as young adults aged 18–34, who are more likely to indoor tan than older individuals. Additionally, findings showed that while women reported higher levels of indoor tanning than men at all time points, prevalence significantly decreased among both women and men from 2007 to 2018. Despite the decrease in overall indoor tanning prevalence, the study found that frequent indoor tanning was still common, with about a quarter of those reporting any indoor tanning in 2018 saying that they tanned 25 times or more in the past year.

The study also explored the relationship between youth indoor tanning legislation and adult tanning behavior using HINTS data on indoor tanning as well as National Conference of State Legislatures data on youth access legislation. The analysis found that indoor tanning among adults significantly decreased in states that had enacted some type of youth access legislation by 2018, but it did not significantly decrease over time in states that did not have any regulations in place. Although this correlation helps demonstrate the possible effects of these policies on behavior, the authors note that some of the decline in indoor tanning prevalence could also be explained by other factors, such as the 10% excise tax on indoor tanning services enacted as part of the Affordable Care Act in 2010.

How Can This Inform Your Work?

The association between youth indoor tanning regulations and adult indoor tanning behavior points to the importance of raising awareness about indoor tanning risks and implementing policies that denormalize this behavior. Although adults were not direct targets of the indoor tanning regulations, the legislation may have served as a “risk signal” that influenced behaviors by altering perceptions of tanning risk at the population level. Greater awareness of tanning risk could also be raised through communication campaigns that provide information about the consequences of indoor tanning and correct misperceptions about tanning that are often promoted by the tanning industry.

Additional efforts to develop and test targeted messages to reduce tanning in different populations are also needed. For example, some research suggests that messages about the negative impact of indoor tanning on appearance may be more effective than health-based messages for young women, but it is unclear if men would also respond to these types of appeals. Similarly, whereas messages establishing social norms against indoor tanning may be an effective communication strategy for infrequent tanners, more research is needed to identify approaches that are effective in excessive tanners, as their behaviors may be driven, in part, by addiction. Such targeted messages could be useful to clinicians when they are counseling patients to minimize UV exposure by avoiding indoor tanning.

About HINTS

hints.cancer.gov

The National Cancer Institute (NCI) created the Health Information National Trends Survey (HINTS) to monitor changes in the rapidly evolving field of health communication. The survey data can be used to understand how adults use communication channels to obtain health information for themselves and their loved ones. HINTS data can also help practitioners create more effective health communication strategies. The HINTS survey has been fielded 12 times to date.

HINTS *Briefs* provide a snapshot of noteworthy, data-driven research findings. They introduce population-level estimates for specific questions in the survey and summarize significant research findings resulting from analyses of how certain demographic characteristics influence specific outcomes. Many *Briefs* summarize research findings from recent peer-reviewed journal articles that have used HINTS data.

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