

Looks Can Kill: The Dark Side of Indoor Tanning and What States Need to do to Help Protect Young Adults from This Deadly “Glow”

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*ABSTRACT: This Note addresses tanning bed regulations. There is mounting evidence regarding the severe consequences indoor tanning can have on an individual’s health, some of which are fatal. This Note argues that in order to combat these negative health consequences, states need to step in by implementing more aggressive tanning bed regulations. This Note proposes a ban on individuals under the age of 21 from using tanning beds due to the unique circumstances surrounding this age group. Although banning minors under the age of 18 is sufficient for some activities, it is not sufficient for tanning beds. This is due in part to the cumulative deleterious effect of tanning, the social pressures that occur particularly during this age range, and the fact that the brain is not yet fully developed to understand the long-term risks of tanning, which are especially severe given that some of these risks are increased when first exposure occurs at a young age.*

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## I. INTRODUCTION

Why are citizens of the United States willing to allow college-aged individuals, who are susceptible to societal pressures and years away from having fully developed brains, to utilize tanning beds for small, short-term cosmetic benefits when the long-term consequences are potentially disfiguring, if not fatal? This Note examines the consequences of tanning beds and the potential steps states need to take to tackle this indoor tanning phenomenon.

This problem is extremely pervasive in the United States. One in five Americans will be affected by skin cancer, and this number is only increasing.<sup>1</sup> “Thirty-five percent of American adults, 59 percent of college students, and 17 percent of teens have reported using a tanning bed in their lifetime.”<sup>2</sup> For individuals between 18 and 29 years old, 76% of melanomas—the deadliest form of skin cancer—are attributable to tanning bed use.<sup>3</sup> Unfortunately, studies suggest those who engage in indoor tanning at younger ages are more likely to develop skin cancer, potentially due to the accumulation of damage caused by exposure to UV rays.<sup>4</sup> Compounding this problem is the power that peer pressure has over youths and the fact that the brain is not fully developed until the mid-20s.<sup>5</sup> Given these statistics, it is of the utmost importance that states strengthen their current tanning bed regulations and ban individuals under the age of 21 from the use of tanning beds.

This Note argues why a ban on tanning beds for individuals under the age of 21 is necessary to combat the harms that result from indoor tanning. Part II explores the history of tanning, including how it came to be popular, how indoor tanning devices work, the science and health consequences behind tanning beds, and the regulations that followed the studies showing these health consequences.<sup>6</sup> Part III addresses the extensive problems that result from indoor tanning, the problems that help perpetuate indoor tanning beds’ existence, and the problems specifically affecting minors.<sup>7</sup> Part IV proposes a ban on tanning beds for individuals under the age of 21 in order to combat the aforementioned problem most effectively. Part IV then lays out alternative solutions—some of which may also be used in a

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1. Michael Pan & Lauren Geller, *Update on Indoor Tanning Legislation in the United States*, 33 CLINICS DERMATOLOGY 387, 387 (2015).

2. *Indoor Tanning*, AM. ACAD. DERMATOLOGY, <https://www.aad.org/media/stats/prevention-and-care> (last visited July 16, 2017).

3. Pan & Geller, *supra* note 1, at 388.

4. *The Surgeon General’s Call to Action to Prevent Skin Cancer*, U.S. DEP’T HEALTH & HUM. SERVS., <http://www.surgeongeneral.gov/library/calls/prevent-skin-cancer/exec-summary.html> (last visited July 16, 2017).

5. *At What Age is the Brain Fully Developed?*, MENTAL HEALTH DAILY, <http://mentalhealthdaily.com/2015/02/18/at-what-age-is-the-brain-fully-developed> (last visited July 16, 2017).

6. See *infra* Part II.

7. See *infra* Part III.

combination with one another—such as implementing a complete ban on indoor tanning, requiring parental consent for minors, implementing a tanning tax, amending warning labels, or implementing a ban for those under 18.<sup>8</sup> Part V concludes by summarizing the problem, specifically as it pertains to those under 21, and calling states to action to combat this pervasive phenomenon.<sup>9</sup>

## II. EVOLVING VIEWS OF BEAUTY AND INDOOR TANNING, AND THEIR RESPECTIVE REGULATION CHANGES IN RESPONSE

The belief that the shade of your skin is related to beauty and health is not a new idea; however, it has changed over the years. Unfortunately, this belief has not changed in response to the rising concern of skin cancer. This Part covers (1) this new conception of beauty and health;<sup>10</sup> (2) the evolving views of ultraviolet light and the introduction of tanning beds;<sup>11</sup> (3) how indoor tanning devices work and their natural consequences;<sup>12</sup> (4) the pervasiveness of tanning nationwide;<sup>13</sup> (5) how public health services have debunked myths about indoor tanning;<sup>14</sup> and (6) the evolution of regulations on tanning beds.<sup>15</sup>

### A. A NEW CONCEPTION OF BEAUTY AND HEALTH

Tanned skin was not always considered to be beautiful. Prior to the Industrial Revolution, pale skin was desired, as it was associated with a “life of leisure” and seen as a sign of affluence.<sup>16</sup> Darker skin, on the other hand, was associated with doing manual labor in the sun all day.<sup>17</sup> To avoid sun exposure, individuals would use “parasols, hats, protective clothing, and bleaching products.”<sup>18</sup> Some would even use poisonous whiteners to make their skin lighter.<sup>19</sup> After the Industrial Revolution, the working class began laboring in mines and factories, and would spend their leisure time “indoors,

8. See *infra* Part IV.

9. See *infra* Part V.

10. See *infra* Part II.A.

11. See *infra* Part II.B.

12. See *infra* Part II.C.

13. See *infra* Part II.D.

14. See *infra* Part II.E.

15. See *infra* Part II.F.

16. Sophie Wilkinson, *A Short History of Tanning*, GUARDIAN (Feb. 19, 2012, 9:30 AM), <https://www.theguardian.com/commentisfree/2012/feb/19/history-of-tanning>.

17. *Id.*

18. Jo M. Martin et al., *Changes in Skin Tanning Attitudes: Fashion Articles and Advertisements in the Early 20th Century*, 99 AM. J. PUB. HEALTH 2140, 2140–44 (2009), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2775759/pdf/2140.pdf> (examining articles and advertisements to pinpoint when tanning became “fashionable”).

19. Wilkinson, *supra* note 16.

to avoid the smog and soot of the streets.”<sup>20</sup> Due to the increased amount of time spent indoors, children were prone to diseases caused by vitamin D deficiency, such as rickets and other bone abnormalities.<sup>21</sup>

In the early 20th century, soon after Theobald Palm recognized the important role sunlight plays in bone development,<sup>22</sup> the medical community promoted sunlight as a preventive and therapeutic health measure.<sup>23</sup> Tanned skin became “a sign of both good health and beauty.”<sup>24</sup> In 1928 there was a dramatic increase in the promotion of a tanned appearance.<sup>25</sup> Articles would even showcase “fashion, makeup, and accessories intended to optimally show off tanned skin.”<sup>26</sup> In fact, a majority of the medical and public health communities promoted ultraviolet light “as an important form of preventive medicine.”<sup>27</sup> At the time, these communities believed ultraviolet light exposure was an effective treatment for a host of medical conditions, including: pneumonia, heart disease, hypertension, diabetes, obesity, and anemia.<sup>28</sup> There were also claims that ultraviolet light “improved metabolism,” “tissue tone,” “skin tone,” “mental activity, [and] circulation.”<sup>29</sup> The medical community went as far as providing the public with advice on how to increase their ultraviolet light exposure.<sup>30</sup> Although the medical community recommended that people gradually increase their exposure to the sun, the press promoted ways in which to gain as much exposure as possible—such as using coconut oil and wearing clothing that revealed more skin.<sup>31</sup> Due to the increasing demand for ultraviolet light, companies that

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20. *Id.*

21. *Id.*

22. *Id.*

23. Martin et al., *supra* note 18, at 2144.

24. *Id.* at 2145.

25. *Id.* at 2142.

26. *Id.* at 2144 (There was “no evidence of a focused fashion or corporate marketing effort related to any one product to explain the sudden change in attitude.”).

27. Michael R. Albert & Kristen G. Ostheimer, *The Evolution of Current Medical and Popular Attitudes Toward Ultraviolet Light Exposure: Part 2*, 48 J. AM. ACAD. DERMATOLOGY 909, 911 (2003).

28. *Id.* at 910–11.

29. *Id.* at 910 (citations omitted).

30. *Id.* at 912. The medical community advocated sunbathing, and encouraged the public to wear clothing that was “[p]orous, thin and loosely woven” to “allow[] greater penetration of ultraviolet light”; wearing stockings; and wearing “low-necked dresses.” *Id.* at 911–12 (citation omitted). For children, “sun suits” became popular attire, and recommendations were made to schools that children should wear “loin cloths” and have “musical drills” where they would “dance [a]round [a] lamp of artificial sunlight.” *Id.* at 912 (citation omitted). Additionally, “[c]hildren were urged to ‘keep [to] the sunny side of the road and never walk on the shady side,’” “sunbaths were recommended for infants,” and a special “[g]lass was developed [to] more efficiently transmit[] ultraviolet radiation” since ordinary glass blocked ultraviolet rays. *Id.* This special glass was “utilized by schools, hospitals, and hotels.” *Id.* There were also public health programs instituted to instruct mothers on how to sunbathe their children, including recommended exposure schedules children were to have with the sun. *Id.* at 912–13.

31. *Id.* at 914.

formerly sold ultraviolet lamps to physicians started to sell them to individuals for home use as well.<sup>32</sup> It was not until the 1930s and 1940s that concerns were expressed regarding the dangers of ultraviolet light.<sup>33</sup>

*B. EVOLVING VIEWS OF ULTRAVIOLET LIGHT AND THE INTRODUCTION OF  
TANNING BEDS*

Due to an increase in studies showing a link between indoor tanning and skin cancer, several health organizations have strongly advocated for consumer protection measures, especially for minors.<sup>34</sup> These anti-tanning messages are common today but originated in the early 1930s, when the U.S. Public Health Services recommended that people only use home UV lamps under medical supervision and the American Medical Association produced guidelines for the use of UV lamps.<sup>35</sup> Also at this time, the public was starting to learn that excessive UV light exposure could cause skin cancer.<sup>36</sup> Over the next ten years, the carcinogenicity of UV light gained widespread public attention,<sup>37</sup> and the Federal Trade Commission went after UV lamp manufacturers who made misleading statements.<sup>38</sup> However, despite the warnings of medical professionals, it has been extremely difficult to change the public's beliefs and attitudes towards tanning.<sup>39</sup>

Contrary to previous years, when pale skin had been a "mark of privilege," after the 1960s, a tan became a sign that one lived a life of leisure and was wealthy enough to travel to exotic locations.<sup>40</sup> A tan was also a sign that one enjoyed outdoor activities, indicating he or she was physically fit and in good health.<sup>41</sup> Since not everyone had the money or the time to take these tropical vacations, UV tanning beds were introduced in the United States in 1978, allowing people to give others the impression that they lived a life of leisure.<sup>42</sup>

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32. *Id.* at 915.

33. *Id.* at 917.

34. *See infra* Part III.A.

35. Michael R. Albert & Kristen G. Ostheimer, *The Evolution of Current Medical and Popular Attitudes Toward Ultraviolet Light Exposure: Part 3*, 49 J. AM. ACAD. DERMATOLOGY 1096, 1096-97 (2003).

36. *Id.* at 1100.

37. *Id.*

38. *Id.* at 1097.

39. *See id.* at 1103 ("[T]he medical profession . . . issu[ed] warnings about sunbathing . . . . Once established, however, popular beliefs and practices related to sunbathing and suntanning proved difficult to modify. Even at present, favorable attitudes toward suntanning persist . . . .").

40. Deborah S. Sarnoff, *The Tale of Tanning*, SKIN CANCER FOUND. (Nov. 17, 2011), <http://www.skincancer.org/prevention/tanning/tale-of-tanning>.

41. *Id.*

42. *Id.*

C. HOW INDOOR TANNING DEVICES WORK AND THEIR NATURAL  
CONSEQUENCES

Many people may not realize it, but that “glow” that so many people strive to attain through tanning is actually the skin’s attempt to try to protect itself by producing more melanin—a pigment that causes the skin to darken.<sup>43</sup> This damage accumulates over time, leading to premature skin aging and sometimes even skin cancer.<sup>44</sup> UV-A and UV-B rays are categories of UV radiation that penetrate the skin.<sup>45</sup> “UV-B rays penetrate the top layers of skin [the epidermis] and are most responsible for sunburns,” while “UV-A rays penetrate to the deeper layers of the skin [the dermis] and are often associated with allergic reactions, such as . . . rash[es].”<sup>46</sup> Both UV-A and UV-B rays are damaging and can cause skin cancer.<sup>47</sup> “Modern high-intensity tanning beds” emit mostly UV-A rays and some UV-B rays, and modern “high pressure” tanning beds emit a “more concentrated UV exposure.”<sup>48</sup> The National Toxicology Program has classified these “UVR-emitting devices in the highest risk category of known human carcinogen alongside . . . tobacco smoke, coal tar, and formaldehyde.”<sup>49</sup>

A tan occurs when UV radiation exposure causes the skin to increase its production of melanin as a self-defense mechanism to protect the skin from additional damage, causing the skin to darken over the 48 hours following sun exposure.<sup>50</sup> UV rays can also cause sunburns by damaging the cells in the epidermis and causing the immune system to “increase[] blood flow to the affected areas,” making the skin red and warm.<sup>51</sup> These “damaged skin cells release chemicals that send messages through the body until they are translated as a painful burning sensation by the brain.”<sup>52</sup> Accumulation of harmful exposure to UV rays also leads to premature aging, wrinkles, and loosened skin folds because the UV rays break down the elastic fibers and collagen in the skin.<sup>53</sup> Extended UV exposure or frequent sunburns can also cause dark spots, a leathery texture on the skin’s surface, and permanently

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43. *Indoor Tanning: The Risks of Ultraviolet Rays*, FDA, <http://www.fda.gov/ForConsumers/ConsumerUpdates/ucm186687.htm> (last updated Dec. 18, 2015).

44. *Id.*

45. *Id.*

46. *Id.*

47. *Id.*

48. Pan & Geller, *supra* note 1, at 388.

49. *Id.*

50. *The Risks of Tanning*, FDA, <http://www.fda.gov/Radiation-EmittingProducts/RadiationEmittingProductsandProcedures/Tanning/ucm116432.htm> (last updated Oct. 14, 2015). “Melanin is the same pigment that colors your hair, eyes, and skin.” *Id.*

51. *Id.*

52. *Id.*

53. *Id.*

darker skin.<sup>54</sup> Lastly, UV radiation may cause skin cancer by either “damaging the DNA in skin cells, causing the skin to grow abnormally and develop benign or malignant growths,” or “[b]y weakening the immune system and compromising the body’s natural defenses against aggressive cancer cells.”<sup>55</sup>

The International Agency for Research on Cancer (“IARC”) reviewed 19 studies conducted over 25 years and found: (1) a relationship “between indoor tanning and two types of skin cancer: squamous cell carcinoma and melanoma”; (2) a relationship “between UV-emitting tanning devices and cancer of the eye (ocular melanoma)”; (3) that “[b]oth UV-A and UV-B rays caus[e] DNA damage, which can lead to skin cancer”; and (4) that “[t]he risk of melanoma of the skin increase[es] by 75 percent when tanning bed use started before age 35.”<sup>56</sup> One investigation found that approximately 3,234 injuries treated in emergency departments in the United States every year are related to indoor tanning.<sup>57</sup>

#### D. PERVASIVENESS OF TANNING NATIONWIDE

As discussed above, “[35] percent of American adults, 59 percent of college students, and 17 percent of teens have reported using a tanning bed in their lifetime.”<sup>58</sup> “57.7% of women and 40% of men” who have tanned indoors reported tanning 10 or more times within the past year.<sup>59</sup> The growth in popularity for indoor tanning generates approximately five billion dollars in annual revenue for the tanning industry.<sup>60</sup> Furthermore, approximately 30 million Americans use tanning beds, 2.3 million of whom are adolescents.<sup>61</sup> Research has suggested that in the U.S. alone, this indoor tanning phenomenon is responsible for over 400,000 new cases of skin cancer annually,<sup>62</sup> making this a significant public health concern.

#### E. PUBLIC HEALTH SERVICES DEBUNK MYTHS ABOUT INDOOR TANNING

As the dangers of indoor tanning become clearer, some individuals try to justify indoor tanning by voicing what they believe to be the positive side-effects associated with indoor tanning: most notably, the benefits of

54. *Id.*

55. *Id.*

56. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.

57. *Indoor Tanning*, *supra* note 2. These injuries included: “burns, loss of consciousness and eye injuries.” *Id.* This investigation was conducted between the years of 2003 and 2012. *Id.*

58. *Id.*

59. *Use of Indoor Tanning Devices by Adults—United States, 2010*, CTRS. FOR DISEASE CONTROL & PREVENTION: MORBIDITY & MORTALITY WKLY. REP. (May 11, 2012), <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6118a2.htm>.

60. Pan & Geller, *supra* note 1, at 388.

61. *Id.*

62. *Indoor Tanning*, *supra* note 2.



phototherapy.<sup>63</sup> Although the use of phototherapy may be prescribed as a treatment for chronic skin diseases, the American Academy of Dermatology has emphasized that phototherapy and indoor tanning are not synonymous.<sup>64</sup> “[P]hototherapy is closely monitored and supervised by a dermatologist, a medical doctor who has the appropriate training and expertise in this area.”<sup>65</sup> Operators of tanning salons, however, “have minimal knowledge about the potential side effects of UV light.”<sup>66</sup> Furthermore, “tanning bed lamps have variable amounts of UVA and UVB light.”<sup>67</sup> Moreover, the AMA reported phototherapy to be “exploited beyond its limitations.”<sup>68</sup>

Another common claim among tanning bed users is that sunlamps are more effective than the sun and are somehow less dangerous. There is no evidence that supports this claim; to the contrary, since tanning beds are able to emit high intensity rays all year round, they may be even more dangerous than the sun.<sup>69</sup> Furthermore, a study found that the average tanning bed emitted four times the UVA radiation, and two times the UVB radiation, of the midday summer sun in Washington, DC.<sup>70</sup> It further found that “high-speed sunlamps emit a UVA dose of six times, and high-pressure sunlamps 12 times, that of the Washington, DC, summer sun.”<sup>71</sup> The myth that exposure to ultraviolet rays is a “magic cure-all” is not only false, but is unnecessarily dangerous to the public’s health.<sup>72</sup>

Individuals also often claim that tanning is beneficial because it provides the body with vitamin D.<sup>73</sup> Although sun exposure does provide vitamin D, which undoubtedly has health benefits, the risks associated with the sun’s radiation far outweigh these limited benefits.<sup>74</sup> In fact, the amount of vitamin D that Caucasians—who make up the vast majority of tanning bed users—can

63. Phototherapy, also known as “light therapy,” is typically used to treat skin conditions by “exposing the skin to ultraviolet light on a regular basis and under medical supervision.” *Phototherapy*, NAT’L PSORIASIS FOUND., <https://www.psoriasis.org/about-psoriasis/treatments/phototherapy> (last visited July 16, 2017).

64. Daniel M. Siegel, *American Academy of Dermatology’s Statement Regarding the American Suntanning Association*, AM. ACAD. DERMATOLOGY (Jan. 7, 2013), <https://www.aad.org/media/news-releases/4b5odeaf316a-43d6-b9e1-34130ec2f3e6>.

65. *Id.*

66. *Id.*

67. *Id.*

68. Albert & Ostheimer, *supra* note 35, at 1097.

69. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.

70. SUN PROTECTION OUTREACH TEACHING BY STUDENTS, TRAINING MANUAL 108 (2008), <http://spots.wustl.edu/SPOTS%20manual%20Final/Book%20SPOTS%20Print%20Manual%20August%202008.pdf>.

71. *Id.*

72. Albert & Ostheimer, *supra* note 35, at 1098.

73. Press Release, Skin Cancer Found., The Skin Cancer Foundation Busts Myths Surrounding Vitamin D and Sun Exposure (Jan. 29, 2013), <http://www.skincancer.org/media-and-press/press-release-2013/vitamin-d>.

74. *Id.*

produce reaches its limit “after just *five to 10 minutes* of midday sun exposure,” and once it reaches this limit “the vitamin D stored in the body begins to break down, leading to lower vitamin D levels.”<sup>75</sup> Furthermore, although the sun may emit UV-B rays, which produce vitamin D, tanning bed bulbs emit mostly UV-A rays.<sup>76</sup> Lastly, the Skin Cancer Foundation, along with many others in the medical field, recommends vitamin D be obtained through diet or supplements, and not through tanning.<sup>77</sup>

Additionally, some tanning bed users claim that tanning helps improve certain skin conditions. Although it used to be fairly common practice for a doctor to treat skin conditions—such as psoriasis, eczema, and acne—by prescribing tanning lamps, this practice has since been called into question for its effectiveness, especially due to the bacteria that is found in tanning beds that may actually cause acne.<sup>78</sup> Luckily, there are now more effective and far safer alternatives for remedying such conditions.<sup>79</sup>

Lastly, many individuals tan before going on vacation claiming a “base tan” will protect them from getting a sunburn. However, the protection a “base tan” provides is comparable to the protection gained by applying sunscreen with an SPF of 2 or 3.<sup>80</sup> Furthermore, believing this myth may lull some individuals into a false sense of security, causing them to be less cautious when tanning outdoors.<sup>81</sup>

Although these myths may have once worked as justifications for tanning, given the widespread knowledge the public has today about these myths’ inaccuracy and healthier alternatives, as well as the Federal Trade Commission’s authority to regulate the content of indoor tanning advertisements—by “prohibit[ing] false, misleading or deceptive claims”—these excuses are no longer viable.<sup>82</sup>

#### F. EVOLUTION OF REGULATIONS

Both the U.S. Food and Drug Administration (“FDA”) and the states have begun regulating tanning beds in response to health concerns that indoor tanning presents. Over the years, as researchers have collected more data, regulations are becoming stricter,<sup>83</sup> and states are beginning to take more aggressive actions.<sup>84</sup>

75. *Id.*

76. *Id.*

77. *Id.*

78. Veronica Knapp, *FDA’s Regulation of Tanning Beds: How Much Heat?*, 66 FOOD & DRUG L.J. 25, 29 (2011).

79. *Id.*

80. *Id.* at 26–27.

81. *Id.*

82. *Id.* at 30.

83. *See infra* Part II.F.1–2.

84. *See infra* Part II.F.3.

## 1. The FDA's Initial Classification

In 1974, the FDA started drafting proposals to regulate tanning beds in order to address concerns regarding injuries caused by sunlamps.<sup>85</sup> The FDA initially classified tanning beds as a Class I medical device—a category that usually includes low-risk devices.<sup>86</sup> This classification did “not reflect a belief that exposure to tanning beds poses the same danger as a Band-Aid [another Class I device]; rather, it ‘reflect[ed] the fact that FDA relie[d] more on its radiation safety authorities than on its device authorities to regulate these products.’”<sup>87</sup> This radiation safety authority gives the FDA the power to “develop[,], administer[, and enforce] safety performance standards.”<sup>88</sup>

## 2. The FDA's Reclassification

A recent change affecting the tanning bed industry is the FDA's reclassification of indoor tanning devices. Though these devices were once classified as a Class I medical device, on May 29, 2014, the FDA reclassified them as a Class II medical device.<sup>89</sup> The main reasons for this reclassification were the mounting evidence demonstrating the link between indoor tanning devices and skin cancer<sup>90</sup> and many health organizations advocating anti-tanning policies.<sup>91</sup> This reclassification means that indoor tanning devices will be subject to “additional premarket controls and revised labeling requirements.”<sup>92</sup> Since the FDA's scope of authority does not reach “addressing the consumer's repeated exposure or changing behavior,” this standard's focus is geared more toward “preventing accidents.”<sup>93</sup> Although

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85. Michelle Kay Pulley, *Government Tan Lines: Examining the Reach and Effectiveness of Federal and State Efforts to Protect Consumers from the Dangers of Indoor Tanning*, 36 PEPP. L. REV. 1161, 1172 (2009) (footnote omitted).

86. Knapp, *supra* note 78, at 27. Devices are assigned to one of three regulatory classes: Class I, Class II, or Class III. *Classify Your Medical Device*, FDA, <https://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/Overview/ClassifyYourDevice/default.htm> (last updated July 29, 2014). “Class I includes devices with the lowest risk and Class III includes those with the greatest risk.” *Id.* “Class I medical devices are . . . only subject to general controls such as registration, listing and current good manufacturing practices.” Knapp, *supra* note 78, at 28.

87. Knapp, *supra* note 78, at 27 (quoting FOOD AND DRUG LAW 1065 (Peter Barton Hutt et al. eds., 2007)).

88. *Id.* at 27–28.

89. Pan & Geller, *supra* note 1, at 389 (“Class I represents the lowest risk to consumers and these devices are exempt from premarket notification, including demonstration that the device is as safe and efficacious as a similar legally marketed device and meets performance standards. Class II devices require premarket notification, [and] class III devices represent the highest risk and require premarket approval with submission of clinical trials.”).

90. Darren Mays & John Kraemer, *FDA Regulation of Indoor Tanning Devices and Opportunities for Skin Cancer Prevention*, 313 JAMA 2423, 2423 (June 2015), <http://jamanetwork.com/journals/jama/article-abstract/2300343>.

91. Pulley, *supra* note 85, at 1178–79.

92. Mays & Kraemer, *supra* note 90.

93. Knapp, *supra* note 78, at 28.

this increased classification is a step in the right direction, the FDA is very limited in its ability to control indoor tanning, which means a majority of these tanning regulation efforts must be done by the states themselves.<sup>94</sup> Additionally, due to the unsuccessful attempts to get stricter regulations at the federal level—mainly due to aggressive lobbying by the indoor tanning industry—health organizations have also started to focus on getting regulation through at the state and local levels.<sup>95</sup>

### 3. State Regulations

Recently, there has been an increase in the amount of state and local regulation regarding indoor tanning, especially for minors.<sup>96</sup> Despite the tanning bed industry's strong lobbying efforts greatly diminishing its opponents' ability to pass legislation at both the federal and state level, several organizations that support a complete ban on indoor tanning for minors have been able to push legislation forward.<sup>97</sup> There is a growing trend among states to restrict adolescent access to tanning facilities.<sup>98</sup> In 2003, only Wisconsin, Illinois, and Texas had implemented such restrictions.<sup>99</sup> However, by 2005, there were 21 states, and by 2012, there were 33 states that had implemented age-based restrictions.<sup>100</sup> In the beginning of "2015, [41] states and the District of Columbia [had implemented] some form of" adolescent restrictions,<sup>101</sup> and as of 2016, two more states had implemented these

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94. Pan & Geller, *supra* note 1, at 389–90.

95. Pulley, *supra* note 85, at 1179, 1183.

96. Kruti Gandhi, *Indoor Tanning Beds: The Dangers of Adolescent Tanning*, PRAC. DERMATOLOGY, May 2013, at 34, 36.

97. *Id.* at 35–36; Pan & Geller, *supra* note 1, at 389. The organizations that support a complete ban on indoor tanning for minors include: "[T]he World Health Organization, the American Academy of Pediatrics, the American Medical Association, the American Academy of Dermatology," and many more. *Id.* at 389.

98. Gandhi, *supra* note 96.

99. *Id.*

100. *Id.* The 21 states in 2005 that restricted a minor's access to indoor tanning facilities are Arizona, California, Florida, Georgia, Illinois, Indiana, Louisiana, Maine, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, North Carolina, Ohio, Oregon, Rhode Island, South Carolina, Tennessee, Texas, and Wisconsin. Shayla O. Francis et al., 2005: *A Banner Year for New US Youth Access Tanning Restrictions*, 141 ARCHIVES DERMATOLOGY 524, 525 (2005). The 33 states in 2012 that restricted a minor's access to indoor tanning facilities are Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oregon, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Wisconsin, and Wyoming. Robert P. Dellavalle & Samantha Guild, *Additional Restrictions of Indoor UV Tanning*, 148 ARCHIVES DERMATOLOGY 1093, 1094 (2012).

101. Pan & Geller, *supra* note 1, at 390. The 41 states that had implemented restrictions on adolescents at the beginning of 2015 are Alabama, Arizona, Arkansas, California, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Hampshire,

restrictions as well.<sup>102</sup> By the beginning of 2017, 44 states and the District of Columbia had implemented regulations restricting indoor tanning for minors.<sup>103</sup>

When it comes to regulating tanning bed usage among minors, regulators have three general options: (1) impose a ban prohibiting minors from using indoor tanning beds; (2) implement an age restriction, other than 18, on the use of tanning beds; or (3) require parental consent before a minor can use a tanning bed.<sup>104</sup> By 2017, 16 states and the District of Columbia completely banned individuals under the age of 18 from accessing tanning devices,<sup>105</sup> four states restricted individuals under 17 years old,<sup>106</sup> two states restricted individuals under 16 years old,<sup>107</sup> one state restricted individuals under 15 years old,<sup>108</sup> five states restricted individuals under 14 years old,<sup>109</sup> and only six states had not enacted laws regulating tanning access.<sup>110</sup> Additionally, states like Arizona are being creative in their efforts and are requiring public schools to teach students about the risks associated with skin cancer.<sup>111</sup> Furthermore, approximately half of the states require eye protection be worn and restrict users' exposure times in order to comply with the time recommended by tanning bed manufacturers.<sup>112</sup> Unfortunately, "[l]ess than 11 percent of the facilities followed [the] FDA's recommended exposure schedules," and many promote "'unlimited tanning' [with] discount price packages."<sup>113</sup>

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New Jersey, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming. *Id.* at 389-90.

102. *Indoor Tanning Restrictions for Minors: A State-by-State Comparison*, NCSL (May 3, 2017), <http://www.ncsl.org/research/health/indoor-tanning-restrictions.aspx>. The two additional states that implemented tanning bed restrictions on adolescents in 2016 were Idaho and Kansas. *Id.*

103. *Id.* (The additional state that implemented tanning bed restrictions on adolescents in 2017 was Oklahoma.).

104. Pan & Geller, *supra* note 1, at 390.

105. *Id.* The 16 states that ban individuals under the age of 18 from tanning beds are California, Delaware, Hawaii, Illinois, Kansas, Louisiana, Massachusetts, Minnesota, Nevada, New Hampshire, North Carolina, Oklahoma, Oregon, Texas, Vermont, and Washington. *Indoor Tanning Restrictions for Minors: A State-by-State Comparison*, *supra* note 102. The first state to ban minors was California on January 1, 2012. Pan & Geller, *supra* note 1, at 390.

106. *Indoor Tanning Restrictions for Minors: A State-by-State Comparison*, *supra* note 102 (Connecticut, New Jersey, New York, and Pennsylvania).

107. *Id.* (Indiana and Wisconsin).

108. *Id.* (Alabama).

109. *Id.* (Georgia, Idaho, Maine, North Dakota, and West Virginia).

110. *Id.* (Alaska, Colorado, Iowa, Montana, New Mexico, and South Dakota).

111. *Id.*

112. *Id.*

113. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.

#### 4. Regulations in Other Countries

The United States is not the only country concerned with this recent tanning bed phenomenon. This blatant disregard for long-term health consequences in exchange for a perceived short-term cosmetic benefit is happening around the globe, and other countries are also putting forth regulations to help protect the public. As early as 2003, France and Brazil implemented nationwide tanning laws, and by 2012, 11 countries had banned minors from using indoor tanning beds.<sup>114</sup> As of 2014, New South Wales, Australia, and Brazil had completely banned indoor tanning, and 12 countries had prohibited minors from tanning.<sup>115</sup>

### III. PROBLEMS REGARDING INDOOR TANNING

Strict regulations on indoor tanning are necessary because tanning beds have severe consequences while only possessing minor superficial benefits. This Part looks at: (1) the overall harm caused by tanning beds;<sup>116</sup> (2) whether there is insufficient education regarding tanning beds;<sup>117</sup> (3) the strength of social norms;<sup>118</sup> (4) the potential for an addiction to tanning;<sup>119</sup> (5) the economic costs of indoor tanning;<sup>120</sup> (6) the lack of adherence to FDA recommendations for indoor tanning;<sup>121</sup> and (7) problems pertaining specifically to minors using tanning beds.<sup>122</sup>

#### A. OVERALL HARM CAUSED BY TANNING BEDS

Attorney General Schneiderman has cautioned: “Make no mistake about it: There is nothing safe about indoor tanning.”<sup>123</sup> Regardless of the misleading information that some irresponsible tanning-bed businesses claim,

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114. Elena B. Hawryluk et al., *Indoor Tanning: The Link to Melanoma is No Longer Deniable*, MELANOMA LETTER, Winter 2013, at 3, <http://www.skincancer.org/publications/the-melanoma-letter/winter-2013-vol-31-no-3/link>. “These 11 countries are France, Spain, Portugal, Germany, Austria, Belgium, England, Wales, Northern Ireland, Scotland, and Brazil.” Mary T. Pawlak et al., *Legislation Restricting Access to Indoor Tanning Throughout the World*, 148 ARCH DERMATOL 1006, 1008 (2012), <http://jamanetwork.com/journals/jamadermatology/fullarticle/1216974>.

115. *The Surgeon General’s Call to Action to Prevent Skin Cancer*, *supra* note 4 (France, Spain, Portugal, Germany, Austria, Belgium, the United Kingdom, Australia, Iceland, Italy, Finland, and Norway).

116. See *infra* Part III.A.

117. See *infra* Part III.B.

118. See *infra* Part III.C.

119. See *infra* Part III.D.

120. See *infra* Part III.E.

121. See *infra* Part III.F.

122. See *infra* Part III.G.

123. Press Release, Eric T. Schneiderman, A.G. Schneiderman Announces Lawsuits Accusing Two NYC & Upstate Tanning Salon Companies of Unlawfully Concealing Indoor Tanning Risks (Apr. 23, 2015), <https://ag.ny.gov/press-release/ag-schneiderman-announces-lawsuits-accusing-two-nyc-upstate-tanning-salon-companies>.

indoor tanning is extremely dangerous.<sup>124</sup> Not only does tanning increase the risk of melanoma<sup>125</sup>—which is the most fatal form of skin cancer, causing 9,000 fatalities in the United States annually—but indoor tanning also increases the risk of other forms of skin cancer such as basal cell carcinoma and squamous cell carcinoma.<sup>126</sup> Although these non-melanoma skin cancers

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124. *Id.*

125. *Id.* Melanoma occurs because

cancerous growths develop when unrepaired DNA damage to skin cells . . . triggers mutations (genetic defects) that lead the skin cells to multiply rapidly and form malignant tumors. These tumors originate in the pigment-producing melanocytes in the basal layer of the epidermis. Melanomas often resemble moles; some develop from moles. The majority of melanomas are black or brown, but they can also be skin-colored, pink, red, purple, blue or white. Melanoma is caused mainly by intense, occasional UV exposure (frequently leading to sunburn), especially in those who are genetically predisposed to the disease.

*Melanoma*, SKIN CANCER FOUND., <http://www.skincancer.org/skin-cancer-information/melanoma> (last visited July 16, 2017). “If melanoma is recognized and treated early, it is almost always curable, but if it is not, the cancer can advance and spread to other parts of the body, where it becomes hard to treat and can be fatal.” *Id.* Once melanoma has been diagnosed, “the next step is to classify the disease as to its degree of severity” by the stage the disease is in. *The Stages of Melanoma*, SKIN CANCER FOUND., <http://www.skincancer.org/skin-cancer-information/melanoma/the-stages-of-melanoma> (last visited July 16, 2017). “The stage refers to the thickness, depth of penetration, and the degree to which the melanoma has spread.” *Id.*

Early melanomas (Stages 0 and I) are localized; Stage 0 tumors are in situ, meaning that they are noninvasive and have not penetrated below the surface of the skin, while Stage I tumors have invaded the skin but are small, nonulcerated, and are growing at a slow mitotic rate. Stage II tumors, though localized, are larger (generally over 1 mm. thick) and/or may be ulcerated or have a mitotic rate of greater than 1/mm<sup>2</sup>; they are considered intermediate melanomas. More advanced melanomas (Stages III and IV) have spread (metastasized) to other parts of the body.

*Id.* Identifying the stage is important to determine which kind of treatment is necessary. *Id.*

126. Schneiderman, *supra* note 123; see also *Basal Cell Carcinoma (BCC)*, SKIN CANCER FOUND., <http://www.skincancer.org/skin-cancer-information/basal-cell-carcinoma> (last visited July 16, 2017) (Basal cell carcinoma (“BCC”) is a type of skin cancer that results from “abnormal, uncontrolled growths or lesions that arise in the skin’s basal cells, which line the deepest layer of the epidermis (the outermost layer of the skin). BCCs often look like open sores, red patches, pink growths, shiny bumps, or scars and are usually caused by a combination of cumulative and intense, occasional sun exposure. BCC almost never spreads (metastasizes) beyond the original tumor site. Only in exceedingly rare cases can it spread to other parts of the body and become life-threatening. It shouldn’t be taken lightly, though: it can be disfiguring if not treated promptly.”); *Squamous Cell Carcinoma (SCC)*, SKIN CANCER FOUND., <http://www.skincancer.org/skin-cancer-information/squamous-cell-carcinoma> (last visited July 16, 2017) (“Squamous cell carcinoma (SCC) is an uncontrolled growth of abnormal cells arising in the squamous cells, which compose most of the skin’s upper layers (the epidermis). SCCs often look like scaly red patches, open sores, elevated growths with a central depression, or warts; they may crust or bleed. They can become disfiguring and sometimes deadly if allowed to grow. . . . SCC is mainly caused by cumulative ultraviolet (UV) exposure over the course of a lifetime; daily year-round exposure to the sun’s UV light, intense exposure in the summer months, and the UV produced by tanning beds all add to the damage that can lead to SCC. SCCs may occur on all areas of the body including the mucous membranes and genitals, but are most common in areas frequently exposed to the sun, such as the rim of the ear, lower lip, face, balding scalp, neck, hands, arms

are not usually fatal, they “can cause noticeable disfigurement,”<sup>127</sup> and one in five Americans will be affected by skin cancer.<sup>128</sup> Over the years, cases of both melanoma and non-melanoma skin cancer have been gradually increasing for individuals of all ages, despite our increasing knowledge of the dangers.<sup>129</sup> Unfortunately, “the highest and most rapidly increasing incidence rate [is] found in 15- to 19-year-old girls and women.”<sup>130</sup> Melanoma is extremely pervasive in our society. In fact, “[m]elanoma is the most common type of skin cancer in those under the age of 20”; as well as the “second most common cancer in women and third most common cancer in men.”<sup>131</sup> For individuals between 18 and 29 years old, 76% of melanomas are attributable to tanning bed use.<sup>132</sup> If an individual uses a tanning bed before they turn 35, his or her risk of developing melanoma increases dramatically.<sup>133</sup> Furthermore, tanning bed use has also “been positively associated with other risk-taking behavior.”<sup>134</sup>

This year, over 68,000 Americans will be diagnosed with melanoma and “one out of eight” of these diagnoses will result in death.<sup>135</sup> Roughly 65–90% of melanoma cases are due to UV exposure.<sup>136</sup> The link between tanning beds and melanoma is so strong “that women who use tanning beds more than once a month are 55 percent more likely to develop melanoma,”<sup>137</sup> and the risk continues to increase with each use.<sup>138</sup> In fact, the American Academy of Dermatology has reported that for women between the ages of 20 and 29, melanoma is the second most common cancer.<sup>139</sup>

Although melanoma is the deadliest form of skin cancer, there are other very serious risks that also increase with each tanning session. One can increase his or her risk of developing basal cell carcinoma by the time they

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and legs. Often the skin in these areas reveals telltale signs of sun damage, including wrinkles, pigment changes, freckles, ‘age spots,’ loss of elasticity, and broken blood vessels.”). “Squamous cell carcinoma is [also] the second most common form of skin cancer.” *Skin Cancer Facts & Statistics*, SKIN CANCER FOUND., <http://www.skincancer.org/skin-cancer-information/skin-cancer-facts> (last visited July 16, 2017).

127. Schneiderman, *supra* note 123.

128. Pan & Geller, *supra* note 1, at 387.

129. *Id.*

130. *Id.* at 388 (emphasis added).

131. *Id.* at 387–88 (emphasis added).

132. *Id.* at 388.

133. *Id.* (“There is a relative risk of 1.20 . . . of developing melanoma in people who have ever used a tanning bed, increasing to 1.87 . . . if tanning beds were used before the age of 35.”).

134. *Id.* Some of these risk-taking behaviors include “binge drinking and having sexual intercourse.” *Id.*

135. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.

136. Karen Glanz et al., *Guidelines for School Programs to Prevent Skin Cancer*, MORBIDITY & MORTALITY WKLY. REP. (Apr. 26, 2002), <https://stacks.cdc.gov/view/cdc/6984>.

137. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.

138. *Indoor Tanning*, *supra* note 2 (explaining that “the risk [of melanoma] increases with each use”).

139. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.



turn 50 by tanning indoors before the age of 24.<sup>140</sup> Furthermore, “one indoor tanning session can increase users’ risk of developing squamous cell carcinoma by 67 percent and basal cell carcinoma by 29 percent.”<sup>141</sup> Additionally, the UV-B radiation emitted from tanning beds harms “the skin’s natural defenses,” while also compromising the immune system, making it susceptible to diseases—such as skin cancer.<sup>142</sup> Tanning may also cause irreversible eye damage, allergic reactions, and premature aging.<sup>143</sup> Although the physical effects of premature aging may not be apparent until several years after tanning, over time, tanning gradually “causes the skin to lose elasticity and wrinkle prematurely,” ultimately leading to premature aging.<sup>144</sup> Given the severity of the health consequences resulting from tanning, the states must do something to protect the population.

### B. LACK OF EDUCATION?

There is a clear disconnect between the public’s knowledge of the dangers associated with indoor tanning and the public’s behavior.<sup>145</sup> One study found that 90% of tanning bed users were aware of the dangers of

140. *Indoor Tanning*, *supra* note 2; *see also supra* text accompanying note 126 (defining basal cell carcinoma).

141. *Indoor Tanning*, *supra* note 2; *see also supra* text accompanying note 126 (defining squamous cell carcinoma).

142. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.

143. *Id.*

144. *Id.* Photoaging, premature aging caused by the sun, accumulates “[o]ver time, [as the] skin ages and loses its youthful appearance.” *What is Photoaging?*, SKIN CANCER FOUND. (Jan. 12, 2012), <http://www.skincancer.org/healthy-lifestyle/anti-aging/what-is-photoaging>. “While some [premature aging] . . . [is] natural and unavoidable, many of the visible signs of aging are caused by the sun, and can be avoided.” *Id.* “Skin is composed of three layers: the epidermis, or outermost layer; the dermis, or middle layer; and the subcutis, or basement layer. The dermis contains collagen, elastin, and other fibers that support the skin’s structure. It is these elements that give skin its smooth and youthful appearance—and that are damaged by UV radiation (UVR).” *Id.* “When UVR hits the skin, cells in the dermis scramble to produce melanin to the epidermis. This is the process that gives you a tan, which is really just your skin attempting to block the radiation from penetrating your skin.” *Id.*

UVB rays are shorter than UVA rays, and are the main culprit behind sunburn. But it is the UVA rays, with their longer wavelength, that are responsible for much of the damage we associate with photoaging. UVA rays penetrate deep into the dermis, where they damage the collagen fibers. This damage causes increased production of abnormal elastin. The unusual amounts of elastin result in the production of enzymes called metalloproteinases. These enzymes, which rebuild damaged collagen, often malfunction and degrade the collagen, resulting in incorrectly rebuilt skin. As this process is repeated with daily UVA exposure, the incorrectly rebuilt skin forms wrinkles, and the depleted collagen results in leathery skin.

*Id.* “Repeated sun exposure can also cause what are commonly called age spots, or liver spots.” *Id.* “An ‘age spot’ is . . . a small bit of pigmentation caused by sun exposure.” *Id.*

145. Clara Farley et al., *Tanning Beds: A Call to Action for Further Educational and Legislative Efforts*, 112 J. SURGICAL ONCOLOGY 183, 186 (2015).

tanning beds, yet chose to tan regardless,<sup>146</sup> even though the most common reasons for tanning were as trivial as: “to look good (90%), feel good (69%), and relaxation (56%).”<sup>147</sup> This disconnect between realizing the dangers of tanning and continuing to tan anyways is extremely troubling. Unfortunately, as was clear from the educational programs and campaigns urging the public to stop smoking, programs aimed at changing behavior must also combat “cultural norms, peer pressure, and addiction.”<sup>148</sup>

### C. THE STRENGTH OF SOCIAL NORMS

Despite initiatives to warn the public about the dangers of tanning beds and skin cancer, a significant number of individuals continue to tan because they believe it improves their appearance, it helps them relax,<sup>149</sup> and they associate being tan with leisure and health.<sup>150</sup> Over 90% of individuals who use tanning beds know the risks (such as premature aging and skin cancer) but continue to tan for “cosmetic reasons.”<sup>151</sup> Social norms creating the belief that tanned skin is more attractive and healthy are significant barriers to reducing the number of individuals who purposefully tan.<sup>152</sup> This social pressure is particularly strong for women, especially at young ages, which may be a significant contributing factor to why women tan more than men do,<sup>153</sup> and why the incidence of “melanoma [] is increasing faster in females age 15–29 than in males of the same age group.”<sup>154</sup>

### D. POTENTIAL FOR ADDICTION

One problem with allowing individuals to begin tanning when they are young and irrational is the serious danger that they will become addicted to tanning.<sup>155</sup> Tanning repeatedly, despite the possibility of death and disfigurement, “suggests a compulsive behavior similar to other addictive disorders.”<sup>156</sup> Studies show between 30–50% of individuals who frequently use tanning beds are actually addicted to tanning.<sup>157</sup> Tanning is addictive because it “releases endorphins that can create withdrawal symptoms when a user

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146. *Id.* at 183.

147. Arianne S. Kourosh et al., *Tanning as a Behavioral Addiction*, 36 AM. J. DRUG & ALCOHOL ABUSE 284, 285 (2010).

148. Farley et al., *supra* note 145, at 186.

149. *Id.* at 183; Knapp, *supra* note 78, at 26.

150. Knapp, *supra* note 78, at 26.

151. Martin et al., *supra* note 18, at 2145.

152. *The Surgeon General's Call to Action to Prevent Skin Cancer*, *supra* note 4.

153. *Id.*

154. *Skin Cancer*, AM. ACAD. DERMATOLOGY, <https://www.aad.org/media/stats/conditions/skin-cancer> (last visited July 16, 2017).

155. *Indoor Tanning*, *supra* note 2.

156. Kourosh et al., *supra* note 147, at 284.

157. Knapp, *supra* note 78, at 26.

abstains from tanning, and . . . frequent tanning is driven by an opioid-dependent mechanism.”<sup>158</sup> Analogous to a smoking addiction, the age a person begins tanning indoors is inversely related to his or her ability to quit.<sup>159</sup> Furthermore, similar to an alcoholic’s tolerance level, a tanner’s tolerance level increases over time, requiring frequent tanners to tan for longer periods of time in order to achieve the same psychological effect they once received in a shorter period of time when they started tanning.<sup>160</sup>

The high frequency of sunburns among intentional tanners and the persistence in tanning to the point of scorching the skin, resulting in over 700 emergency room visits per 10,000 tanning facilities annually, suggest that many subject themselves to UV exposure beyond the threshold necessary to obtain a tan. This could imply a form of tolerance to UV light that is beyond the level the skin can withstand, analogous to patients who consume dangerous amounts of alcohol or opioids.<sup>161</sup>

Some preliminary evidence also suggests tanning bed users may experience “UV withdrawal.”<sup>162</sup>

Another sign of addiction is the fact that 35% of individuals with a family history of melanoma use tanning beds; in other words, even after watching a loved one experience one of the most destructive effects tanning can have on a person, 35% of these tanners still decided to continue to tan.<sup>163</sup>

Exacerbating this problem is the fact that the warning labels on tanning beds do not mention addiction, and indoor tanning bed users do not realize this risk.<sup>164</sup> Since the younger an individual starts tanning the more challenging it becomes for him or her to quit,<sup>165</sup> a ban on individuals under 21 is effective in several respects.

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158. *Id.*

159. Kourosh et al., *supra* note 147, at 285.

160. *Id.* at 286.

161. *Id.*

162. *Id.* A study was conducted “using UV-emitting versus sham tanning beds,” and randomly administering “opioid antagonist naltrexone . . . prior to UV exposure to both frequent tanners . . . and infrequent tanners . . . . When given naltrexone before UV exposure, 50% of frequent tanners reported nausea, a symptom consistent with opiate withdrawal, while infrequent tanners experienced no adverse symptoms.” *Id.*

163. *Id.* at 285.

164. *Id.* Sherry L. Pagoto et al., *Society of Behavioral Medicine Position Statement: Ban Indoor Tanning for Minors*, SOC’Y OF BEHAV. MED., Aug. 2013, at 1, 2, [http://www.sbm.org/UserFiles/file/IndoorTanning\\_WebsiteVersion\\_FINAL.pdf](http://www.sbm.org/UserFiles/file/IndoorTanning_WebsiteVersion_FINAL.pdf).

165. Kourosh et al., *supra* note 147, at 285.

### E. ECONOMIC COSTS

The annual treatment cost associated with skin cancer in the United States is estimated to be around 8.1 billion dollars.<sup>166</sup> Approximately 3.3 billion dollars is attributable to melanoma.<sup>167</sup> In the United States alone, approximately 5 million people are diagnosed with some form of skin cancer annually, and almost 9,000 people are killed by melanoma—"one of the most common types of cancer among U.S. adolescents and young adults."<sup>168</sup> Every year, over 3,000 emergency room visits are attributable to injuries related to indoor tanning, and over 400 of these patients are under the age of 18.<sup>169</sup> These costs are huge and do not even account for loss of productivity due to absence from work.<sup>170</sup> Furthermore, there is evidence that investing in programs aimed at skin cancer prevention would reduce the incidence of skin cancer and decrease health care costs in the long run.<sup>171</sup>

### F. LACK OF ADHERENCE TO FDA RECOMMENDATIONS

In order to address all of the aforementioned problems, it is imperative to enforce regulations that are put into place. One study found that despite the FDA's recommendation of only allowing first time tanning bed users to tan for "three or fewer sessions the[ir] first week," "[l]ess than 11 percent of the facilities followed" this recommendation.<sup>172</sup> Likewise, approximately 71% of facilities were willing to permit a teenager to tan every day of their first week, and, in fact, several facilities offered unlimited tanning at a discounted price, therefore encouraging repeated tanning.<sup>173</sup> Other studies have shown at least 94% of facilities do not even have the FDA's recommendations for a tanner's first week of exposure posted, and 95% of indoor tanners exceed these restrictions<sup>174</sup>—with more than 30% of these tanners "starting at the maximum allowable exposure time."<sup>175</sup> One benefit of having a complete ban for minors is that studies have shown that 70–77% of tanning businesses comply when age restrictions are instituted.<sup>176</sup>

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166. *The Surgeon General's Call to Action to Prevent Skin Cancer*, *supra* note 4.

167. *Id.*

168. *Id.*

169. *FDA Proposes New Safety Measures for Indoor Tanning Devices: The Facts*, FDA (Dec. 22, 2015), <https://www.fda.gov/ForConsumers/ConsumerUpdates/ucm350790.htm>.

170. Schneiderman, *supra* note 123.

171. *The Surgeon General's Call to Action to Prevent Skin Cancer*, *supra* note 4.

172. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.

173. *Id.*

174. Pagoto et al., *supra* note 164.

175. Knapp, *supra* note 78, at 29.

176. Pagoto et al., *supra* note 164.

### G. PROBLEMS PERTAINING SPECIFICALLY TO MINORS

Although many of these problems are relevant to individuals of all ages, there are certain problems specific to minors, further increasing the pertinence of a ban on minors. Problems pertaining specifically to minors include: (1) problems that occur specifically because an individual begins tanning early in life;<sup>177</sup> (2) the minor's inability to make informed decisions and properly weigh instant gratification against long-term consequences;<sup>178</sup> and (3) peer pressure being especially strong for minors.<sup>179</sup>

#### 1. Problems Specific to Engaging in Indoor Tanning Early in Life

There is a strong correlation between the risk of developing skin cancer and beginning to tan indoors at a young age, most likely due to "the accumulation of exposure over time."<sup>180</sup> Because of this correlation, age-based restrictions can have a positive impact on individuals by postponing, or possibly preventing, initiation of indoor tanning.<sup>181</sup> Furthermore, laws restricting access may change the current conception of beauty by influencing social norms.<sup>182</sup> Knowing these health problems are exacerbated when individuals begin tanning as a minor, society has an enhanced obligation to protect minors. This obligation is especially strong considering minors' inability to make informed decisions and their susceptibility to peer pressure.

#### 2. Minors' Inability to Make Informed Decisions: Inability to Weigh Instant Gratification Against Long-Term Consequences

Given the extensive amount of research showing a link between tanning and skin cancer, it is not rational to tan. However, many women, including adolescents, have stated "that they were aware of the health risks but cared more about how they looked now."<sup>183</sup> In fact, one university student even said "If I get skin cancer I'll deal with it then. . . . I can't think about that now. I'm going to die of something."<sup>184</sup> These statements are not rational to most adults.

One reason so many adolescents tan regardless of the health consequences is because "the [brain's] ability to maintain self-discipline and avoid impulsive behaviors [does not reach] its peak until the 20s."<sup>185</sup>

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177. See *infra* Part III.G.1.

178. See *infra* Part III.G.2.

179. See *infra* Part III.G.3.

180. *The Surgeon General's Call to Action to Prevent Skin Cancer*, *supra* note 4.

181. Gery P. Guy Jr. et al., *State Indoor Tanning Laws and Adolescent Indoor Tanning*, 104 AM. J. PUB. HEALTH 69, 72 (2014).

182. *Id.*

183. Sabrina Tavernise, *Warning: That Tan Can Be Hazardous*, N.Y. TIMES (Jan. 10, 2015), <https://www.nytimes.com/2015/01/11/health/indoor-tanning-poses-cancer-risks-teenagers-learn.html>.

184. *Id.*

185. *At What Age is the Brain Fully Developed?*, *supra* note 5.

[A]s we enter our 20s, our decision making improves. This is due to the fact that our prefrontal cortex helps us think logically and make more calculated assessments of situations. Our brain weighs the risks and tells us whether a certain behavior or choice is a good idea vs. a bad one.<sup>186</sup>

The prefrontal cortex is responsible for evaluating situations and weighing “long-term rewards” against “immediate gratification.”<sup>187</sup> Since this section of the brain is not fully developed in minors, it makes sense to protect minors from making irrational and potentially fatal decisions.

### 3. Peer Pressure

The element of peer pressure only compounds minors’ inability to turn down immediate gratification for long-term rewards. Unfortunately, there is often significant peer pressure to tan.<sup>188</sup> This pressure is “particularly [strong] in small-town high schools.”<sup>189</sup> In addition to the social pressures previously discussed,<sup>190</sup> another reason why an indoor tanning restriction on minors is necessary is because of the fact that minors cannot handle peer pressure like adults can and are therefore much more susceptible to the influence of their peers.<sup>191</sup>

## IV. PROPOSED RESOLUTION: A BAN ON INDIVIDUALS UNDER 21 AND ALTERNATIVE SOLUTIONS

Although several potential solutions can help alleviate the negative health consequences of tanning by reducing the amount of indoor tanning—such as a complete ban, requiring parental consent, implementing a tanning tax, improving education and amending warning labels, and banning minors<sup>192</sup>—a ban on individuals under 21,<sup>193</sup> in combination with some of the other suggested alternatives,<sup>194</sup> will be the most effective.

### A. PROPOSAL: A BAN ON INDIVIDUALS UNDER 21

I propose to ban the use of tanning beds by individuals under the age of 21. Although the government typically uses the age of 18 when it seeks to protect minors from harming themselves, I argue that the age of 21 is more

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186. *Id.*

187. *Id.*

188. Tavernise, *supra* note 183.

189. *Id.*

190. *See supra* Part III.C.

191. *At What Age is the Brain Fully Developed?*, *supra* note 5 (“Adults over the age of 25 tend to feel less sensitive to the influence of peer pressure and have a much easier time handling it.”).

192. *See infra* Part IV.B.

193. *See infra* Part IV.A.

194. *See infra* Part IV.B.3–4.

appropriate for tanning bed restrictions because of (1) brain development;<sup>195</sup> (2) social pressure;<sup>196</sup> (3) the fact that restricting early access can prevent future use;<sup>197</sup> and (4) the feasibility of this proposal.<sup>198</sup>

### 1. Brain Development

There is consensus among neuroscientists that the brain continues to develop “until *at least* the mid-20s—possibly until the 30s.”<sup>199</sup> Further, while lack of experience contributes to riskier decision-making by 18-year-olds, the main reason 18-year-olds struggle with impulsive decisions is the fact that their brains are not fully developed.<sup>200</sup> Additionally, during puberty, “[t]he brain’s reward system tends to reach a high level of activation” which does not begin to “drift[] back to normal level[s]” until the age of 25.<sup>201</sup> Although a restriction on individuals under the age of 25 may be more effective, this is not as politically feasible as a restriction on individuals under the age of 21.

### 2. Social Pressure

While adults are generally better at handling peer pressure,<sup>202</sup> college is rampant with peer pressure, especially for women.<sup>203</sup> The fact that many colleges and universities provide indoor tanning—sometimes free of charge—only exacerbates the problem.<sup>204</sup> In fact, “[a]lmost half of the top 125 colleges and universities in the United States . . . have tanning beds either on campus or in off-campus[sic] housing.”<sup>205</sup>

### 3. Restricting Early Access to Help Prevent Cumulative Damage

Restricting early access to indoor tanning can help prevent cumulative damage by either pushing off initiation or eliminating it completely.<sup>206</sup> Because of the cumulative deleterious effect of tanning, targeting not only individuals under 18, but also those aged 18 to 21—when their brain is not fully developed and peer pressure is particularly high—is imperative.<sup>207</sup>

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195. See *infra* Part IV.A.1.

196. See *infra* Part IV.A.2.

197. See *infra* Part IV.A.3.

198. See *infra* Part IV.A.4.

199. *At What Age is the Brain Fully Developed?*, *supra* note 5.

200. *Id.*

201. *Id.*

202. *Id.*

203. Jenna Rosenstein, *The Shocking College Campus Danger You Didn't Know About*, ALLURE (Sept. 13, 2015), <http://www.allure.com/story/college-tanning-bed-cancer-risk>. Peer pressure is especially heightened for women in sororities. *Id.*

204. *Id.*

205. *Id.*

206. See *infra* Part IV.A.3; *supra* Part III.G.1.

207. See *infra* Part IV.A.3.

Over half of the UV exposure that an individual accrues over his or her lifetime will have occurred by the end of his or her adolescence.<sup>208</sup> Due to the cumulative effect of UV damage, the risk of skin cancer increases exponentially as one ages and his or her total exposure to UV radiation increases.<sup>209</sup> “Melanoma is one of the most common cancers” in individuals under the age of 30, “is the most common cancer” in individuals between the ages of 25 and 29, and is “the third most common” cancer in individuals between the ages of 20 and 24.<sup>210</sup> Given that individuals between the ages of 18 and 21 are the most frequent users of tanning beds, banning their use will dramatically reduce the incidence of skin cancer.<sup>211</sup>

Regulations on tanning beds need to focus on 18- to 21-year-olds because this is the age group most affected by tanning beds and an age during which the brain has not yet fully developed, therefore requiring more governmental protection. In the United States, 18- to 21-year-old white women had “the highest rates of indoor tanning” at 31.8%, followed by white women aged 22–25 years at 29.6%.<sup>212</sup> The highest rates by region are “among those aged 18–21 years in the Midwest (44.0%), and those aged 22–25 years in the South (36.4%).”<sup>213</sup> Furthermore, white women between the ages of 18 and 21 averaged a total of 27.6 tanning sessions per year with 67.6% claiming to have tanned over 10 times in the past year.<sup>214</sup> The rate at which young women use tanning beds is too high to ignore—“59 percent of college students, and 17 percent of teens have reported using a tanning bed in their lifetime.”<sup>215</sup> Although a ban on minors’ access to tanning beds would decrease the 17% of teenagers who use tanning beds, it may not significantly deter the 59% of college students from using tanning beds.

A study was conducted comparing individuals diagnosed with melanoma with those who were in the same age group and location but had not developed melanoma. The study found that “[o]n average, the women who were diagnosed with melanoma in their 20s started using indoor tanning at age 16 and had 110 tanning sessions in their lifetimes.”<sup>216</sup> The study also found that women who had tanned indoors “were 2.3 times more likely to be diagnosed with melanoma in their 40s, and six times more likely to be diagnosed with melanoma in their 20s,” than women of the same age who had

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208. Glanz, *supra* note 136, at 1 (citations omitted).

209. *Id.* at 3 (citations omitted).

210. *Id.* at 3–4 (citations omitted).

211. *Use of Indoor Tanning Devices by Adults—United States, 2010*, *supra* note 59.

212. *Id.*

213. *Id.*

214. *Id.*

215. *Indoor Tanning*, *supra* note 2.

216. Rachael Rettner, *Young Women’s Cancer Risk Linked to Tanning Beds*, LIVE SCI. (Jan. 27, 2016, 11:00 AM), <http://www.livescience.com/53493-melanoma-indoor-tanning-women.html>.



never tanned indoors.<sup>217</sup> Only two “[o]f the 63 women who were diagnosed with melanoma before” they turned 30 had never been indoor tanning.<sup>218</sup>

#### 4. Feasibility

Although a ban on minors (under the age of 18) may receive greater support and be easier to accomplish, it is not too much of a stretch to ban tanning beds for those under the age of 21. This is especially true given how important it is to protect those aged 18–21 from the effects indoor tanning will have on them for the rest of their lives.

Furthermore, even though the age of 18 is the most common age used for indoor tanning bans, states have felt the age restriction of 21 was necessary for other activities, such as alcohol use, and may find the same age restriction is now necessary for indoor tanning. The effects of alcohol use and tanning bed use are similar enough to support comparable age restrictions. Similar to how the brain continues to develop in one’s 20s, and the concern that excessive drinking before the brain is fully developed “may produce disproportionately greater cognitive deficits among adolescents relative to adults,” tanning also disproportionately affects adolescents because of the cumulative effect it has.<sup>219</sup> Furthermore, when states increased their minimum drinking age to 21, not only did those under 21 years old drink less, but those between the ages of 21 and 24 also drank less.<sup>220</sup> Similarly, if individuals are not allowed to use tanning beds before they are 21, they may be less likely to ever tan, or at least tan less as they get older, because social pressures decrease after the age of 21.

#### B. ALTERNATIVE SOLUTIONS

If for some reason the ban on individuals under the age of 21 is not met with widespread support, or states want to implement stricter regulations or supplement this law, there are alternative solutions to combat this indoor tanning phenomenon. Some of these alternative solutions include: (1) a complete ban;<sup>221</sup> (2) requiring parental consent;<sup>222</sup> (3) implementing a tanning tax;<sup>223</sup> (4) improving education and amending the warning labels;<sup>224</sup> (5) banning minors (under the age of 18);<sup>225</sup> or a mixture of several of these solutions. The following sections will discuss these potential solutions along

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<sup>217</sup>. *Id.*

<sup>218</sup>. *Id.*

<sup>219</sup>. Ralph W. Hingson, *The Legal Drinking Age and Underage Drinking in the United States*, 163 ARCHIVES PEDIATRIC & ADOLESCENT MED. 598, 598 (2009).

<sup>220</sup>. *Id.* at 599 (footnotes omitted).

<sup>221</sup>. *See infra* Part IV.B.1.

<sup>222</sup>. *See infra* Part IV.B.2.

<sup>223</sup>. *See infra* Part IV.B.3.

<sup>224</sup>. *See infra* Part IV.B.4.

<sup>225</sup>. *See infra* Part IV.B.5.

with their respective advantages and disadvantages. Although some preventive restriction is better than no restriction, the disadvantages of these alternative solutions demonstrate why a ban on those under 21 is the most appropriate and beneficial solution.

### 1. A Complete Ban is Not Politically Feasible

Although this is a very controversial option and not very “politically palatable,” it is nevertheless theoretically possible to completely ban the use of tanning beds for individuals of all ages.<sup>226</sup> However, even the FDA has expressed the view that “once informed of the risks and protected from accidents, the user can make his or her own decisions to tan.”<sup>227</sup> The FDA states:

There is value in allowing *adults* to make these types of choices for themselves, especially once they have been provided with the necessary information to make their decisions, and when the risks vary depending on the user’s genetic make-up, and the level of consumption of or exposure to the product.<sup>228</sup>

Furthermore, it would be extremely hard to completely ban something that has been legal and frequently used by consumers for years.<sup>229</sup>

Another similar option, that has virtually the same effect as a complete ban, is to restrict tanning beds for prescription uses only.<sup>230</sup> Although on its face this would seem “less intrusive than an outright ban,” since it allows the physician and patient to weigh the risks, it is essentially an outright ban since in actuality “[l]ess than 10 percent of tanning bed users” claim they are tanning for medical purposes and “even fewer have prescription statements for their medical uses.”<sup>231</sup>

### 2. Requiring Parental Consent is Too Ineffective

At the less aggressive end of the spectrum is the solution of requiring parental consent for minors to tan. This kind of legislation incorrectly presumes parents are informed of the risks associated with indoor tanning.<sup>232</sup> Although several states have parental consent laws for tanning, these laws were found to have “no effect on rates of indoor tanning,” which may in part be due to few facilities actually complying with these laws.<sup>233</sup> However, one study found that “87 percent of facilities required parental consent,” lending itself

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226. Knapp, *supra* note 78, at 38.

227. *Id.*

228. *Id.* at 39 (emphasis added).

229. *Id.* at 38.

230. *Id.* at 39–40.

231. *Id.* at 40.

232. Pagoto et al., *supra* note 164, at 1–2.

233. *Id.* at 1–2.

to the conclusion that “many parents are allowing their teens to tan and are providing written consent or accompaniment.”<sup>234</sup>

Despite “87 percent of facilities requir[ing] parental consent[,] . . . at least 2.3 million American teenagers tan each year.”<sup>235</sup> These numbers suggest that parents do not seem to be able to understand the severity of the risks involved in indoor tanning, proving that parental consent requirements are inadequate to protect minors.<sup>236</sup> One survey found that for some mothers and daughters, “[i]ndoor tanning . . . ha[d] become . . . a mother-daughter bonding ritual, like shopping or going to the hairdresser,” and approximately 40% of first-time tanning bed users went with their mother.<sup>237</sup> Distressingly, the average age of these girls who first went with their mothers was 14.<sup>238</sup>

Even if parents do understand some of the risks and still find tanning to be an acceptable activity for their child, once they give consent they may not be able to control what happens afterwards.<sup>239</sup> This means that even if a parent only “intend[s] to consent to their teenager’s occasional tanning bed use for a specific event, the teenager may in fact visit the tanning bed much more frequently . . . and may be exceeding the recommended exposure schedule and neglecting to wear eye protection despite a parent’s instructions to the contrary.”<sup>240</sup> Furthermore, consent may last for a year or, in some states, may last until the child turns 18.<sup>241</sup> Because parental consent is so inefficient, several health organizations have recommended a complete ban for individuals under the age of 18 instead of merely implementing a parental consent requirement.<sup>242</sup>

### 3. Implementing a Tanning Tax Can Be Used in Combination with Other Solutions But is Ineffective Alone

Another potential solution is to increase the tax on tanning. The Affordable Care Act subjected “all indoor tanning services, excluding sunless tanning such as sprays,” to a 10% excise tax.<sup>243</sup> Although the effects of this tax are uncertain, a survey conducted in Illinois found that the tax did not deter

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234. *Indoor Tanning: The Risks of Ultraviolet Rays*, *supra* note 43.

235. Knapp, *supra* note 78, at 42.

236. *Id.*

237. Roni Caryn Rabin, *The Tans That Bond*, N.Y. TIMES (Dec. 28, 2010, 12:01 PM), <http://well.blogs.nytimes.com/2010/12/28/the-tans-that-bond>. The survey was conducted at East Tennessee State University and consisted of over 200 female students. *Id.*

238. *Id.*

239. Knapp, *supra* note 78, at 41.

240. *Id.* at 42.

241. *Id.* at 41.

242. *Id.* These organizations include: “The American Medical Association, American Academy of Pediatrics, American Academy of Dermatology, World Health Organization and the IARC.” *Id.*

243. Patient Protection and Affordable Care Act, Pub. L. No. 111-148, 124 Stat. 119 (2010) (codified at 42 U.S.C. § 18001 (2010)); Pan & Geller, *supra* note 1, at 389.

customers.<sup>244</sup> This survey led legislatures to believe that they must be more aggressive with their legislation to combat this indoor tanning phenomenon.<sup>245</sup>

Tanning salon owners claim that in order to keep their clients, they are likely to “absorb the tax themselves.”<sup>246</sup> Additionally, people who use tanning beds most frequently, and are therefore in the most danger, are the least likely to change their behavior due to an increase in price.<sup>247</sup> Fortunately, regardless of whether or not this tax will deter tanning bed users, the revenue raised through a tanning tax can be earmarked to fund education, prevention, and treatment of skin cancers. However, this alone is not enough.

#### 4. Improving Education and Amending Warning Labels in Combination with Other Solutions

While education campaigns may be beneficial, these campaigns should not be the primary solution to this problem because they are not highly effective at preventing this unhealthy behavior of indoor tanning.<sup>248</sup> However, certain avenues may be more effective than others at disseminating this information. Currently, the medical community is tasked with the job of informing the public of the health risks associated with tanning beds, even though the medical community has limited interactions with the general public.<sup>249</sup> One way to help alleviate this problem is through non-medical skin care professionals, who typically have direct contact with the people who are particularly interested in skin care.<sup>250</sup> A survey was taken of cosmetologists, estheticians, and massage therapists regarding their knowledge of melanoma and how they would act once armed with information about the dangers of melanoma.<sup>251</sup> Even though over half of them knew melanoma was a potentially fatal type of cancer, not nearly enough of them educated their clients on this matter.<sup>252</sup> After these non-medical skin care professionals were

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244. Pan & Geller, *supra* note 1, at 390. (“[This] 2012 survey of more than 300 tanning salons in Illinois . . . found that 73% of salons did not lose clients after the implementation of the tanning tax, with the majority (>70%) of salons reporting that customers opposed but were undeterred by the tax.”).

245. *See id.*

246. Knapp, *supra* note 78, at 32 (internal quotation omitted).

247. *Id.*

248. Farley et al., *supra* note 145, at 186.

249. Angie T. Ng et al., *A Simple Intervention to Reinforce Awareness of Tanning Bed Use and Skin Cancer in Non-Medical Skin Care Professionals in Southern California*, 51 INT’L J. DERMATOLOGY 1307, 1308 (2012).

250. *Id.*

251. *Id.* at 1308–09. This survey included 132 cosmetologists, 87 estheticians, and 35 massage therapists. *Id.*

252. *Id.* (finding that 65% of respondents “recognized melanoma as a harmful form of cancer” yet only 42% “reached out to educate their clients” and even “few[er] (21%) had kept up with updates regarding tanning bed safety.”).

given more information, the results seemed to suggest educating non-medical skin care professionals may prove to be more fruitful than merely educating the general public.<sup>253</sup> After this intervention, the researchers found there was an increase in the number of non-medical skin care professionals who claimed they would communicate the risks associated with tanning bed use to their clients,<sup>254</sup> a decrease among the skin care professionals in their own tanning bed use,<sup>255</sup> and a decrease in the “belief that tanning beds are an excellent cosmetic tool.”<sup>256</sup>

Additionally, the current warning labels on tanning beds should be amended to clearly reflect the true dangers of indoor tanning. “[T]he current label is difficult to read due to its length and paragraph format.”<sup>257</sup> It is also “ambiguous as to the risks of skin cancer, and should be strengthened to reflect . . . tanning beds as known carcinogens.”<sup>258</sup> Although studies show that individuals, including college students, choose to tan even though they know the general deleterious effects of tanning, it is unlikely they know the severity of the risks since the current label is deficient in depicting the extent of the potential harm.<sup>259</sup> Furthermore, graphics should be added to the label to help communicate the risks in a way that may be more effective.<sup>260</sup> Since the majority of tanning bed users tan for perceived cosmetic benefits, graphic warnings depicting wrinkles and other cosmetic risks of skin cancer may help to dissuade these consumers.<sup>261</sup>

##### 5. Banning Minors (Under the Age of 18): Effective, But May Not Be Enough

The medical community, including the American Academy of Dermatology, American Academy of Pediatrics, American Medical

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253. *Id.* at 1307, 1311. After a “10-minute oral presentation on tanning bed use and its association with melanoma” the non-medical skin care professionals were asked to take another survey, which seemed to suggest educating this profession may be more fruitful. *Id.*

254. *Id.* at 1309. This statistic increased from 42% to 66%. *Id.*

255. *Id.* This statistic decreased from 23% to 15%. *Id.*

256. *Id.* This statistic decreased from 29% to 20%. *Id.*

257. Knapp, *supra* note 78, at 33.

258. *Id.*

259. *Id.* at 34.

260. *Id.*

261. *Id.* Other proposed changes from the FDA include: (1) updating the requirements for warning statements so that the warnings are more effective; (2) “[i]mproving eye safety by adding requirements that would limit the amount of visible light allowed through protective eyewear to protect consumers’ eyes from intense light”; (3) improving the labels on replacement bulbs to reduce the risk of accidental burns caused by incorrectly installed bulbs; (4) preventing potentially dangerous alterations to devices “without re-certifying and re-identifying the device with the FDA”; and (5) “[r]equiring all sunlamp products to have an emergency shut-off switch (or panic button) that users can easily find and identify by touch or sight.” *FDA Proposes New Safety Measures for Indoor Tanning Devices: The Facts*, *supra* note 169.

Association, IARC, World Health Organization,<sup>262</sup> Society of Behavioral Medicine, United States Department of Health and Human Services, and the United States Food and Drug Administration, supports a complete ban on indoor tanning for minors.<sup>263</sup>

Adolescents as a group are most likely to take risks without much regard for their long-term health.<sup>264</sup> To make matters worse, individuals' "risk of developing melanoma goes up by 75 percent" if they use tanning beds before they are 30, and they are at an increased risk for developing squamous cell carcinoma if they are first exposed to a tanning bed before they are 20.<sup>265</sup> Given these increased risks that occur when one begins tanning at a younger age, it is unacceptable that "[a]t least one in every four teenage girls, and nearly one of every two girls aged 18 or 19, has tanned indoors at least three times."<sup>266</sup>

Society has already approved of other measures to protect minors from "health-harming substances" such as tobacco and alcohol.<sup>267</sup> UV radiation from tanning beds is just another health-harming substance from which minors need to be protected.<sup>268</sup> In fact, there are many similarities between tobacco and tanning, including: (1) "their lack of demonstrable benefits to health that cannot be obtained elsewhere more safely"; (2) the lack of regulatory uniformity at the state level; (3) public health campaigns' failure to reduce consumption; (4) "the industry's denial of the connection between their product and disease"; and (5) "the industry's practice of targeting young people in their advertising."<sup>269</sup> Additionally, the tobacco and tanning industries share: (1) the addictive nature of their products; (2) the use of advertising campaigns to "appeal to a sense of social popularity and acceptance"; (3) targeting youth "by appealing to image-based social norms and by cost-reduction promotional strategies"; (4) supporting third-party lobbyists and advocacy groups as they advance the interests of the industry; and (5) the fact that the user can be harmed by the product even if they use the product "according to the manufacturer's instructions."<sup>270</sup>

In 1996, the FDA decided "that due to the 'unique circumstances surrounding the use of tobacco products, the only way to provide a reasonable assurance of the safety of these products is to prevent children and

262. Knapp, *supra* note 78, at 41.

263. Pagoto et al., *supra* note 164, at 1.

264. Knapp, *supra* note 78, at 42.

265. *Id.* at 40; *see also supra* text accompanying note 126 (defining squamous cell carcinoma).

266. Knapp, *supra* note 78, at 40.

267. Pagoto et al., *supra* note 164, at 1.

268. *Id.*

269. Knapp, *supra* note 78, at 43.

270. Craig Sinclair & Jennifer K. Makin, *Implications of Lessons Learned from Tobacco Control for Tanning Bed Reform*, 10 PREVENTING CHRONIC DISEASE 1, 1-2 (2013), [http://www.cdc.gov/pcd/issues/2013/12\\_0186.htm](http://www.cdc.gov/pcd/issues/2013/12_0186.htm).

adolescents from using and becoming addicted to them.”<sup>271</sup> The FDA based its decision on two facts: (1) “Most tobacco users begin during childhood and adolescence”; and (2) “[m]ost tobacco users are addicted.”<sup>272</sup> Both of these premises are also true of tanning bed users. Although congressional support was needed to help restrict access to cigarettes, tanning bed restrictions should be easier for the FDA to enforce since the FDA has greater authority over tanning beds given their established classification as medical devices.<sup>273</sup> Unfortunately, because of the cumulative deleterious effect of tanning and the special circumstances surrounding the 18 to 21 age group—such as the additional pressures surrounding college students, the fact that these individuals’ brains are still developing, and the statistics showing that this group has the highest rate of indoor tanning—banning minors alone is not enough.

## V. CONCLUSION

Skin cancer is going to continue to affect at least one in five Americans until states are more aggressive in their tanning bed regulations.<sup>274</sup> Until it is politically feasible to completely ban tanning beds, states need to strengthen their current tanning bed regulations by banning individuals under the age of 21. Far too many individuals are adversely affected by this growing, yet avoidable problem. States cannot ignore the fact that they have the power and the obligation to limit the effects of indoor tanning.

Several states have already banned tanning for minors, and many place restrictions on minors. Therefore, the next logical step is to attack this problem aggressively by increasing the minimum tanning age to 21. The age of 21 is not arbitrary, but is used principally because indoor tanning affects those aged 18 to 21 in especially salient ways. In addition to this ban, states should also implement an increased tanning tax—to help fund education, prevention, and the treatment of skin cancers—and continue to update and amend warning labels so they are easier to understand and represent all of the negative consequences that result from indoor tanning.

Until states are more aggressive with their tanning bed regulations, individuals are going to continue to develop skin cancer and other irreversible damage, such as premature aging and eye damage, at an increasing rate unnecessarily. Looks can kill, and the only way to combat this dark side of indoor tanning is for the states to protect those who are most affected by peer pressure and this deadly “glow,” and those are individuals under the age of 21.

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271. Knapp, *supra* note 78, at 43 (citation omitted).

272. *Id.*

273. *Id.* at 44.

274. Pan & Geller, *supra* note 1, at 387.