5/25/11

Pennsylvania Health Panel:

Testimony of the American Cancer Society Cancer Action Network

On behalf of the American Cancer Society Cancer Action Network, thank you for the opportunity to testify at today's hearing. The American Cancer Society Cancer Action Network (ACS CAN) is the nonprofit, nonpartisan advocacy affiliate of the American Cancer Society that supports evidence-based policy and legislative solutions designed to eliminate cancer as a major health problem.

Tanning Beds and Cancer Risk

Skin cancer is the most common of all cancer types, with more than one million skin cancer diagnoses each year in the United States[1].

An individual who uses an indoor tanning device will have a substantially higher dose per unit time of UV radiation than is experienced in regular daily life. One 15- to 30-minute session in an indoor tanning device is believed to be the equivalent of one day at the beach in the sun. The increased UV radiation intensity and frequency in which individuals can use indoor tanning devices could substantially increase their risk for skin cancer.

The association between UV exposure from indoor tanning devices and melanoma is consistent with what we already know about the association between UV exposure from

[1] American Cancer Society. *Cancer Facts & Figures 2009*. Atlanta: American Cancer Society; 2009.

the sun and melanoma[2]. The harmful effects, including several types of skin cancer, associated with excessive sun exposure are due to the net effect of both UVB and UVA radiation from the sun. While UV radiation from the sun is primarily UVA radiation (~95 percent), it was previously believed that only UVB radiation caused skin cancer. Now as the evidence builds, it is becoming clearer that UVA radiation also causes skin cancer.

Compounding the risk for skin cancer from use of indoor tanning devices are the data that show individuals already vulnerable to skin cancer - adolescent girls with some sun sensitivity who believe people look better or healthier with a tan – are frequent users of indoor tanning devices[3].

Because the harmful effects of UV exposure are cumulative over time, indoor tanning devices pose a high risk for children and adolescents by potentially increasing overall lifetime UV exposure.

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[2] International Agency for Research on Cancer (IARC). Exposure to Artificial UV Radiation and Skin Cancer: Working Group Reports. 2006, Volume 1. http://www.iarc.fr/en/publications/pdfs-online/wrk/wrk1/ArtificialUVRad&SkinCancer.pdf. IARC. The association of the use of sunbeds with cutaneous malignant melanoma and other skin cancers: A systematic review. *Int J Cancer.* March 1, 2007; 120(5): 116-122.

[3] Robinson JK, Kim J, Rosenbaum S, Ortiz S. Indoor Tanning Knowledge, Attributes, and Behavior Among Young Adults from 1988-2007. *Arch Dermatol.* 2008; 144(4): 484-488. Cokkinides V, Weinstock M, Lazovich D, Ward E, Thun M. Indoor Tanning Use Among Adolescents in the US, 1998-2004. *Cancer.* January 1, 2009; 115(1): 190-198. Cokkinides VE, Weinstock MA, O'Connell MC, Thun MJ. *Pediatrics.* 2002; 109: 1124-1130. Geller AC, Colditz G, Oliveria S, Karen E, Jorgensen C, Aweh GN and Frazier AL. Use of Sunscreen, Sunburning Rates and Tanning Bed Use Among More than 10,000 US Children and Adolescents. *Pediatrics.* 2002; 190: 1009-1014.

Recent Scientific Findings on Tanning Bed Exposure and Skin Cancer

The association between use of indoor tanning devices and skin cancer is recognized by leading scientific institutions. The World Health Organization (WHO), the International Commission of Non-Ionizing Radiation Protection, the National Toxicology Program (US), the National Radiological Protection Board (UK), the National Health and Medical Research Council (Australia) and EUROSKIN have all issued reports on the adverse health effects of the use of indoor tanning devices and most have recommended that minors under the age of 18, as well as individuals with additional risk factors for skin cancer, not use indoor tanning devices[4].

A meta-analysis conducted in 2006 by the International Agency for Research on Cancer (IARC) found that individuals who initiate use indoor tanning devices at younger age have a 75 percent increased risk for melanoma than individuals who never use indoor tanning devices. The meta-analysis concluded that there is sufficient evidence for a casual relationship between indoor tanning device use and melanoma.

[4] WHO (2003). *Artificial tanning sunbeds – risks and guidance,* Geneva, World Health Organization. ICNIRP (2004). Guidelines on limits of exposure to ultraviolet radiation of wavelengths between 180 nm and 400 nm (incoherent optical radiation). *Health Physics*, 87; 171-186. National Toxicology Program (2002). Report on Carcinogens, 10th Edition, Substances Profiles, National Toxicology Program, Research Triangle Park, NC. National Radiation Protection Board (NRPD) (2002). *Statement by the advisory group on non-ionizing radiation, use of sunbed and cosmetic tanning.* In: Health Effects from Ultraviolet Radiation, 13: 279-282. Australian Cancer Network Melanoma Guidelines Revision Working Party. Clinical Practice Guidelines for the Management of Melanoma in Australia and New Zealand. Cancer Council Australia and Australian Cancer Network, Sydney and New Zealand Guidelines Group, Wellington (2008). EUROSKIN. WHO Workshop. Recommendations on Sunbeds (May 200)), Hamburg, Germany. http://www.euroskin.eu/downloads/sunbedseuroskin.pdf

The IARC report also addressed the issue of vitamin D and UV exposure. The report indicates that due to the serious health consequences associated with use of indoor tanning devices, the fact that they are more expensive and less convenient than vitamin supplements, and the consumers' inability to assess how much UVB exposure they are actually receiving for vitamin D photosynthesis, the use of these devices as source of vitamin D should be discouraged.

Additionally, the WHO concludes that the lack of government regulation of these devices is part of what makes them a critical health issue.

Usage Patterns

Since 1988, there has been a substantial increase in the number of teens and young adults who report using an indoor tanning device – from approximately one percent to 27 percent[5].

In 2004, almost a fifth of teenaged girls reported using an indoor tanning device[6]. Teenagers who use indoor tanning devices are more likely to have parents who also use them[7]. The risk associated with the use of indoor tanning devices and skin cancer is clearly not well understood or appreciated by teens and young adults or their parents.

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[5] Robinson JK, Kim J, Rosenbaum S, Ortiz S. Indoor Tanning Knowledge, Attributes, and Behavior Among Young Adults from 1988-2007. *Arch Dermatol.* 2008; 144(4): 484-488.
[6] Cokkinides V, Weinstock M, Lazovich D, Ward E, Thun M. Indoor Tanning Use Among Adolescents in the US, 1998-2004. *Cancer*. January 1, 2009; 115(1): 190-198.
[7] Cokkinides V, Weinstock M, Lazovich D, Ward E, Thun M. Indoor Tanning Use Among Adolescents in the US, 1998-2004. *Cancer*. January 1, 2009; 115(1): 190-198

Current Regulation

Currently the Food and Drug Administration (FDA) only recommends, but does not require or enforce any regulation on the use of indoor tanning devices.

31 states currently regulate the use of indoor tanning devices by minors, although policies vary widely between states.

One study found that a mere 11 percent of tanning salons followed the FDA's recommendation of three sessions or fewer in the first week of tanning[8]. Additionally, 71 percent of salons responded they would allow a teen to tan seven days a week. Other studies have consumers reporting that they are not being warned of the health risks associated with indoor tanning nor did they see a warning sign in the salon[9]. In addition to the tanning industry's lack of compliance, states and localities are not actively enforcing their laws. In one study, less than half were issuing citations for violations and a third did not perform compliance checks at all[10]. Many states report not having staff capacity to perform annual compliance checks despite their benefit.

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[8] Pichon LC, Mayer JA, Hoerster KD, Woodruff SI, Slymen DJ, Belch GE, Clapp EJ, Hurd AL, Forster JL, Weinstock MA. Youth Access to Artificial UV Radiation Exposure: Practices of 3647 U.S. Indoor Tanning Facilities. *Arch Dermatol.* 2009; 145 (9): 997-1002.

[9] Kwon HT, Mayer JA, Walker KK, Yu H, Lewis EC, Belch GE. Promotion of frequent tanning sessions by indoor tanning facilities: two studies. *J Am Acad Dermatol.* 2002; 46(5): 700-705. Oliphant JA, Forster JL, McBride CM. The use of commercial tanning facilities by suburban Minnesota adolescents. *Am J Public Health.* 1994; 84: 476-478.

[10] Mayer JA, Hoerster KD, Pichon LC, Rubio DA, Woodruff SI, Forster JL. Enforcement of State Indoor Tanning Laws in the United States. *Prevention Chronic Disease.* October 2008; 5(4): 110. http://www.cdc.gov/pcd/issues/2008/oct/07_0194.htm

ACS CAN Position

Based on a review of the best science currently available, ACS CAN supports initiatives that would prohibit minors' use of tanning facilities due to an increased risk for skin cancer, ensure tanning salons are properly regulated, that effective enforcement provisions are in place and that all consumers are properly informed about the risk of using indoor tanning devices prior to use.