

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

December 9, 2011



Table of Contents

Executive Summary.....	3
Introduction.....	5
Indoor Tanning Working Group Process.....	6
Background.....	7
Health Impacts.....	10
The Current Debate over Indoor Tanning.....	13
Jurisdictional Review.....	18
Potential Regulatory Actions	19
Recommendations	27
Appendices	
1. Indoor Tanning Working Group (ITWG) Members.....	28
2. ITWG Terms of Reference.....	29
3. ITWG Meeting Minutes	31
4. Jurisdictional Scan.....	53
5. Definitions	56
6. Agents Classified by the IARC as Group 1: Carcinogenic to Humans.....	58
7. Bibliography of Medical Evidence.....	61

Executive Summary

This report summarizes the findings and details the recommended actions put forward by the Indoor Tanning Working Group (ITWG).

The ITWG was developed through direction from the Minister of Health that a working group be formed to provide the Minister with recommendations on a provincial approach to health protection by regulating the use of indoor tanning beds by minors. This followed the World Health Organization's identification of ultraviolet (UV) radiation from indoor tanning facilities as a known carcinogen.

The ITWG included representation from the:

- Joint Canadian Tanning Association (JCTA)
- BC Cancer Agency (BCCA)
- Canadian Cancer Society (CCS)
- Canadian Dermatology Association (CDA)
- BC Centre for Disease Control (BCCDC)
- Union of BC Municipalities (UBCM)
- Medical Consultant designated by the Provincial Health Officer (observer status)
- Ministry of Health:
 - Health Authorities Division
 - Population and Public Health Division, Health Protection Branch

Five in-person meetings were held during October and November 2011 to discuss medical research, jurisdictional best practices, potential regulatory actions, and to prepare this report. Guest speakers attended parts of the ITWG meetings.

The ITWG discussed 12 potential regulatory actions. The group agreed on the following:

- Controlling exposure during indoor tanning sessions through the presence of onsite and trained operators is essential, and self-serve unmanned machines should not be allowed.
- Truth in advertising is important.
- There are various additional regulatory actions that would help to protect minors, but there may be challenges with implementation for the government and, as such, require further analysis – for example, mandatory client record keeping, limits on exposure times and frequency, and operator licensing. Further work is also needed to ensure the training of operators is sufficient to enable enforcement of any regulatory measures.

The ITWG did not reach consensus on a ban versus parental consent. The group is putting forward the following two scenarios for the Minister's consideration:

Scenario 1: Ban youth under the age of 18 from using indoor tanning equipment without a medical prescription.

Supported by the BCCA, CCS, CDA, BCCDC and UBCM. Not supported by the JCTA.

In addition to the ban, the following actions are recommended:

- Require provincially approved training for all owners and operators of tanning equipment.
- Require tanning beds to be controlled by an onsite and trained operator; ban self-serve unmanned machines.
- Require UV-radiation warning signs to be posted in all tanning facilities and a health risk fact sheet to be distributed to all potential clients.
- Implement a provincial tanning-facility licensing framework, if it can be achieved with minimal cost to operators and government/health authorities.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- Prohibit misleading medical and health claims, and advertising and promotion of UV indoor tanning to minors.

Scenario 2: Ban youth under the age of 14 from using indoor tanning equipment without a medical prescription. Require in-person written parental consent for youth between the ages of 14 and 18.

Supported by the JCTA. Not supported by the BCCA, CCS, CDA, BCCDC and UBCM.

In addition, the following actions are recommended:

- Require provincially approved training for all owners and operators of tanning equipment.
- Require tanning beds to be controlled by an onsite and trained operator; ban self-serve unmanned machines.
- Require UV radiation warning signs to be posted in all tanning facilities and a health risk fact sheet to be distributed to all potential clients.
- Implement a provincial tanning-facility licensing framework, if it can be achieved with minimal cost to operators and government/health authorities.
- Require tanning facilities to keep client records of minors (proof of skin typing, exposure schedule, and parental consent form).
- Regulate exposure limits.
- Prohibit misleading medical and health claims, and advertising and promotion of UV indoor tanning to minors.

These two options are put forward to the Minister of Health for his consideration. The ITWG stands prepared to complete further work as directed.

Introduction

The World Health Organization (WHO) has identified ultraviolet (UV) radiation from indoor tanning beds as a proven carcinogen.¹ The WHO also states that the risk of melanoma – the most serious form of skin cancer – increases by 75% when tanning bed use starts before 35 years of age.

Many jurisdictions in Canada, the United States and across the world have set health-protective limits on indoor tanning by minors. These include bans, requirement of parental consent forms, restrictions on advertising, mandatory health warnings and signage, restrictions on frequency of use, and tanning service taxes.

In 2011, the Capital Regional District (CRD) in Victoria, B.C., passed a bylaw (Tanning Facility Regulations Bylaw, Bylaw 3711) banning youth under the age of 18 from using commercial tanning beds. A number of organizations have requested that the B.C. Government implement a similar provincial ban for minors. These include the BC Cancer Agency (BCCA), Canadian Cancer Society (CCS), Canadian Dermatology Association (CDA), BC Medical Association (BCMA), Medical Health Officers of BC and the Public Health Association of BC (PHABC).

At the 2011 Union of BC Municipalities (UBCM) Convention, local governments from the Association of Vancouver Island and Coastal Communities presented a resolution calling for the provincial government to introduce legislation banning indoor tanning for youth under the age of 18. Delegates at the convention endorsed the resolution.² Initiatives are underway by medical health officers, the Canadian Cancer Society and others to encourage action by local governments in Vancouver and Surrey to introduce bylaws for restricting the use of commercial tanning beds by minors.

The Joint Canadian Tanning Association (JCTA) has indicated support for a provincial regulatory approach, provided they are allowed full input and are involved in developing legislation. The JCTA's recommended approach is not to ban minors, but, rather, to require written consent from parents, skin typing for all users, client record keeping, and mandatory training and certification for operators who control the equipment.

To ensure a consistent approach to health protection for all British Columbia's youth and a consistent framework for industry, the Minister of Health directed that a working group, called the "Indoor Tanning Working Group (ITWG)," be formed to provide recommendations on a provincial approach to regulating the use of indoor tanning beds by minors.

This report contains a summary of the information presented and discussed by the ITWG, and an analysis by the working group of potential actions for the Minister to consider. The report is not a complete overview or critique of all the research on the health impacts of indoor tanning.

¹ The WHO's International Agency for Research on Cancer (IARC) has raised UV radiation from indoor tanning facilities to the highest cancer-risk category: Group 1, "carcinogenic to humans."

² **UBCM Resolution 2011-B157: Age Restrictions on Indoor Tanning**

WHEREAS using indoor tanning devices is particularly damaging for youth and increases their risk of melanoma (the deadliest form of skin cancer);

AND WHEREAS the Medical Health Officers' Council of BC calls upon the Province of British Columbia to use its regulatory powers to restrict use of indoor tanning beds by persons under the age of 18;

THEREFORE BE IT RESOLVED that UBCM lobby the provincial government to introduce legislation to ban indoor tanning for youth under the age of 18.

Indoor Tanning Working Group Process

The objective of the Indoor Tanning Working Group (ITWG) was to share information, consider recent research and findings, discuss issues and develop recommendations for the Minister of Health to consider, with respect to potential regulatory actions to protect the health of minors from the harmful effects of UV radiation from indoor tanning beds.

Membership

The ITWG included representation from:

- Joint Canadian Tanning Association (JCTA)
- BC Cancer Agency (BCCA)
- Canadian Cancer Society (CCS)
- Canadian Dermatology Association (CDA)
- BC Centre for Disease Control (BCCDC)
- Union of BC Municipalities (UBCM)
- Provincial Health Officer (PHO) (observer status)
- Health Authorities Division, B.C. Ministry of Health

The Health Protection Branch of the Ministry of Health chaired the meetings and provided secretariat services for the working group. (See Appendix 1 for details on the ITWG membership.)

Terms of Reference

Appendix 2 provides the Terms of Reference of the Indoor Tanning Working Group.

Meetings

The group had five meetings in Vancouver between October 18 and November 29, 2011. A Microsoft Sharepoint site was used for filing and sharing documents.

The group heard presentations from:

- Dr. David McLean, Head, Cancer Prevention, BC Cancer Agency; and Representative, Canadian Dermatology Association
- Steven Gilroy, Executive Director, Joint Canadian Tanning Association
- Kathryn Seely, Public Issues Director, Canadian Cancer Society, B.C. and Yukon
- Donna Hill, Executive Director, Manitoba Health
- Senator Ted Lieu and Jeff Gozzo, State of California

ITWG Group Meeting Minutes

Appendix 3 provides minutes of the ITWG meetings.

Background

Getting a tan for cosmetic purposes (and other reasons, such as acquiring a protective base tan) has become increasingly popular since the 1980s, accompanied by a large rise in the use of indoor tanning. Indoor tanning equipment (e.g., beds, booths and lamps) emit ultraviolet (UV) radiation, which – like UV in sunlight – stimulates the skin to release melanin to absorb the UV, causing the skin to darken.

According to the National Sun Survey, “young adults are the most likely to try to get a tan, either from the sun or by using tanning equipment.”³ It adds that indoor tanning is more common among young women than young men and older adults, with 27% of young women (ages 16-24) using tanning equipment.⁴

Kinds of Tanning Beds

Indoor tanning equipment includes all artificial UV light sources, including beds, booths, lamps and bulbs. It falls into four categories:

Medical Units

UV light can be prescribed as a form of treatment for psoriasis (phototherapy) in a closely monitored medical environment, such as a hospital clinic.⁵ When the skin condition is stabilized, the exposure to UV radiation is stopped. Home medical units may also be sold to patients to use unsupervised at home without a doctor’s prescription.

Commercial/Industry Units

These are tanning beds offered to the public on a fee-for-service basis. Tanning beds, booths, etc., can be found in numerous establishments, including indoor tanning facilities, spas, hair salons, fitness centres, hotels and even laundromats.

Residential/Home Use Units

These units are owned and operated privately for personal use. They come in a variety of styles and prices, and are mainly available online from manufacturers. Second-hand units can also be bought through private or commercial sellers, ranging in cost from \$200 to \$5,000.

Self-Serve Units

These units are operated by the customer without supervision, merely by inserting money or swiping a pre-loaded card into the machine. They are mostly found in Europe. In Canada, self-serve units make up a small part of the commercial tanning industry and are mostly located in fitness centres and laundromats. They are legally allowed in British Columbia, but there is no record of their number or location.

In this report, the term “tanning beds” are used interchangeably to refer to indoor tanning equipment. (“Sunbeds” are also used in some quotations.)

³ Shirley Huchcroft, Erin Pichora and Greg Kennedy, “National Skin Survey Highlights Report,” Ontario Sun Safety Working Group, <http://www.uvnetwork.ca/NationalSunSurveyHighlightsReport20080710.pdf> (accessed November 24, 2011), 3.

⁴ Ibid.

⁵ Dr. David McLean “Third Indoor Tanning Working Group Meeting” (Indoor Tanning Working Group Presentation, Vancouver, Canada, November 16th, 2011) stated that 50,000 treatments are administered annually, and monitored by B.C. Medical Practice. The treatments are administered in Vancouver Hospital and Victoria General Hospital, usually by a nurse or physiotherapist.

The Indoor Tanning Industry in Canada and British Columbia

In Canada, the commercial introduction of indoor tanning began in the early 1980s and is now a \$500 million industry. In British Columbia, there are about 550 tanning facilities, half of which are primarily tanning salons (tanning is their main source of business) and each with 7-8 beds, on average.⁶

The Joint Canadian Tanning Association (JCTA)

The Joint Canadian Tanning Association (JCTA) is “...a national non-profit organization created to increase understanding of the professional tanning industry's scientifically supported position that regular moderate ultra-violet exposure from sunshine or sunbed in a non-burning fashion is part of a responsible lifestyle that recognizes both the inherent benefits and the manageable risks associated with ultraviolet light exposure.”⁷

The JCTA was founded in 2001 and represents about 1600 salons across Canada. In B.C., it represents about 30% of tanning facilities, which it defines as equivalent to 60% of total gross sales of indoor tanning services for the province. The JCTA has information on its own members' facilities and has the ability to contact almost every facility in the province, including self-serve facilities, through existing member mailing lists.

The JCTA states the following about its UV tanning clients:

- About 75% are female, as compared to 85% in the 1990s.
- The average age is 30.
- Less than 10% are under 18 years. Most under-18 tanners are seasonal – tanning with families before taking family vacations or tanning for graduations and/or other special occasions.
- Less than 2% are under 16 and come mostly for medical reasons, referred by a physician.
- An estimated 20% of clients come in for therapeutic benefits from UV exposure as their primary reason for visiting a sunbed centre.

The JCTA estimates approximately 10%-12% of the population uses indoor tanning equipment.

The International Smart Tan Network – North America's educational institute for professional indoor tanning facilities – is a member of the JCTA through its branch office in West Kelowna.⁸ JCTA guidelines require members to have all staff who operate the equipment to be trained and certified (Basic Technical Certification, updated this year to UV Tanning). There are also advanced courses, which include such topics as “Spray Tanning, Red Light Therapy, Customer Service, Sanitation, Sales, Tanning Truth and D-Angel.”

The JCTA promotes skin typing by using the Fitzpatrick classification system (see “Skin Types and UV Radiation” on page 11 for details). The JCTA says “Most indoor tanning clients are Skin Type III, which means skin tans easily but can still sunburn if overexposed.... Skin Type I, the fairest, sunburns easily and is unable to develop a tan.”⁹ Skin Type I individuals are to be excluded from using UV equipment and advised to use non-UV spray tanning.¹⁰

According to the JCTA, the indoor tanning industry is comprised mainly of small business owners. About 2,750 people are employed in rural and large communities across the province. The industry states it pays approximately \$15.3 million in municipal, provincial and federal taxes, and purchases an estimated \$22 million in goods and services from other B.C. companies. The industry predominantly employs women and accommodates a wide range of shifts for women who are mothers, going to school or working full time.

⁶ Canada and B.C. statistics for tanning salons are from Steve Gilroy, JCTA.

⁷ Joint Canadian Tanning Association, About the JCTA, <http://www.tanacanada.org/about.php>.

⁸ Steve Gilroy is Vice President of Smart Tan Canada.

⁹ “News Release: JCTA Launches Canadian 'Skin Type' Awareness Program,” *Canadian Newswire*, June 10, 2010, <http://www.newswire.ca/en/story/605169/jcta-launches-canadian-skin-type-awareness-program>

¹⁰ Ibid.

Regulation, Guidelines and Inspection

Public Health Act¹¹ and Regulated Activities Regulation¹²

The legislative oversight of the tanning industry in B.C. falls under the *Public Health Act* and the Regulated Activities Regulation. The Regulated Activities Regulation establishes by definition that a facility with a tanning bed is a personal service and, as such, subject to the provisions of the *Public Health Act*. The *Public Health Act* places a duty upon operators of personal services such as tanning beds to take reasonable care to prevent health hazards from arising, and respond to health hazards that do arise, including mitigation of harmful effects.

B.C. Guidelines for Personal Service Establishments and Guidelines for Tanning Salon Operators¹³

The Guidelines for Personal Service Establishments have been developed to provide interpretation for the health authorities when implementing the *Public Health Act* and Regulated Activities Regulation.

The Guidelines for Tanning Salon Operators discuss the risks of tanning, provide information on certain cosmetic and medicinal products that increase UV effects, and include a list of general guidelines. The guidelines also recommend that each client sign a declaration of health risks, along with a consent form regarding being exposed to UV radiation. Although the guidelines do not prohibit minors from using tanning beds, they recommend that minors refrain from doing so. However, if a minor insists, the guidelines recommend that operators require minors to obtain written consent from parents. As stated, these are guidelines, not regulation and, therefore, parental consent is not a legal requirement – merely a recommendation.

Inspection

Tanning facilities are inspected by environmental health officers, mainly for health risks associated with infection and infectious disease; maintenance of the tanning beds; use and availability of protective eyewear; and appropriate health/injury warning signage.

Health Canada Guidelines for Tanning Salon Owners, Operators and Users¹⁴

These guidelines were prepared from similar documents published by British Columbia, Saskatchewan and Manitoba. They advise all clients of tanning facilities to discuss the health risks with their physician. In addition, they state that operators should advise clients with sensitive skin who always burn and never tan not to use the tanning equipment, and children under 16 should not use tanning equipment. As with the B.C. guidelines, these are not a legal requirement, merely recommendations.

Federal Radiation Emitting Devices Act and Regulations¹⁵

All brands and models of tanning lamps on the market in Canada must comply with federal regulations under the *Radiation Emitting Devices Act*. Owners and staff of tanning facilities must use equipment that complies with the Radiation Emitting Devices Regulations.¹⁶ The regulations cover a wide range of safety issues, including requirements for warning labels on tanning equipment. Warning labels list the recommended exposure times per session for different skin types, and contain other information that can help enhance safety during exposure to UV radiation.

¹¹ Canada, British Columbia, Ministry of Health, *Public Health Act* [Victoria, B.C.], 2011, http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_08028_01

¹² Canada, British Columbia, Ministry of Health, *Public Health Act: Regulated Activities Regulation* [Victoria, B.C.], 2011, http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/161_2011

¹³ Canada, British Columbia, Ministry of Health Services, *B.C. Guidelines for Tanning Salon Operators* [Victoria, B.C.], 2004, <http://www.health.gov.bc.ca/library/publications/year/2004/PHI080.pdf>

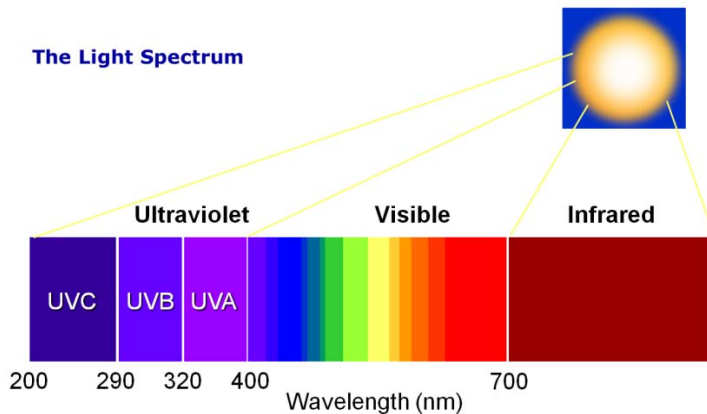
¹⁴ Canada, Health Canada, *Guidelines for Tanning Salon Owners, Operators and Users*, [Ottawa, Ont], 2005, <http://www.hc-sc.gc.ca/ewh-semt/pubs/radiation/tan-bronzage/index-eng.php>

¹⁵ Canada, Department of Justice, *Radiation Emitting Devices Act*, [Ottawa, Ont], 2011, <http://laws-lois.justice.gc.ca/PDF/R-1.pdf>

¹⁶ Canada, Department of Justice, *Radiation Emitting Devices Regulations* [Ottawa, Ont], 2011, http://laws-lois.justice.gc.ca/eng/regulations/C.R.C.,_c._1370/

Health Impacts

Ultraviolet (UV) Radiation and Human Health



Kang K, et al. Pathophysiology of ultraviolet irradiation; AAD website.

Types of Ultraviolet Radiation

- **UVA** (longest wavelength); can penetrate the middle layer of the skin (dermis).
- **UVB** (shorter wavelength); can penetrate the outer layer of the skin (epidermis).
- **UVC** (shortest wavelength); blocked by the ozone layer and does not reach Earth's surface.
- **UVA and UVB** reach the Earth's surface in a ratio of about 95% to 5%.

Exposure to ultraviolet radiation (UV) – from any source – is a known cause of damage to body tissues through prolonged or intense exposure. Tanning is the body's protective response against injury to the skin from UV exposure. When exposed to UV radiation, skin cells in the top layer of skin (epidermis) work to repair the damage and protect the skin. The body produces and releases more melanin (a skin pigment) to absorb the UV, which causes the skin to darken.

UVA causes immediate, short-term tanning – a slight darkening of the melanin that is already in the skin. The amount of tanning increases according to the skin's natural darkness and previous amount of tanning. UVB causes delayed, but long-term,¹⁷ tanning by stimulating the production and distribution of more melanin. In recent years, tanning bed lamps have been produced that emit higher levels of UVB to mimic the solar spectrum and enhance the tanning process.

Both UVA and UVB can cause sunburn (erythema), an often painful inflammation caused by an increase in blood flow beneath the skin. There is evidence that this type of exposure, as well as long-term exposure, is linked to serious forms of skin cancer later in life.

Skin Cancer

UVA and UVB exposure can damage DNA, and both can contribute in different ways to suppression of the immune system, which interferes with the immune system's ability to protect the body against the development and spread of skin cancer. (For details on the types of skin cancer, see the following page.)

Increased Rate of Aging of the Skin

Repeated UVA exposure is known to lead to photoaging: premature skin damage similar to the aging process. This damage is irreversible and includes wrinkling, sagging, blemishes and age spots.

¹⁷ Immediate tanning begins during UV exposure and fades within hours or days, depending on natural skin colour and previous amount of tanning. Delayed tanning occurs two to three days after UV exposure, and lasts from several weeks to months. It is maintained by repeated UV exposure.

Skin Types and UV Radiation

Individual sensitivity to UV radiation varies according to the amount of pigment in the skin and the skin's ability to tan.

Skin type is often categorized according to the Fitzpatrick Skin-Typing Scale. Skin Types I and II are at the highest risk of skin cancer.

Still, skin cancers do occur with darker-skinned groups, and these are often detected at a later, more dangerous stage.

Fitzpatrick Skin-Typing Scale		
Skin Type	Skin Color	Characteristics
I	White, very fair / red or blond hair / blue eyes / freckles	Always burns, never tans
II	White, fair / red or blond hair / blue, hazel, or green eyes	Usually burns, tans with difficulty
III	Cream white, fair / any eye or hair color/ very common	Sometimes mild burn, gradually tans
IV	Brown, typical Mediterranean Caucasian skin	Rarely burns, tans with ease
V	Dark brown, Mid-Eastern skin types	Very rarely burns, tans very easily
VI	Black	Never burns, tans very easily

Skin Cancer

Skin cancer is the most common type of cancer in North America, including Canada. However, it is also one of the most preventable by avoiding exposure to ultraviolet radiation. There are three main types of UV-related skin cancer. **Basal cell carcinoma (BCC)** is the most common (80% of all skin cancers), but also the least serious kind of skin cancer, growing slowly and rarely spreading. **Squamous cell carcinoma (SCC)** (15% of all skin cancers) is more serious than BCC because it does spread to vital organs, albeit slowly. BCC and SCC are highly treatable, with high survival rates.

Malignant melanoma (5% of all skin cancers) is a less common but the most dangerous kind of skin cancer because it may spread quickly from the outer layer of the skin through the lymph nodes or blood to internal organs. About 5,500 Canadians (850 in B.C.) are expected to be diagnosed with melanoma in 2011 and 950 (130 in B.C.) will die of it.¹⁸

Melanoma skin cancer is the third most common form of cancer in Canadian women between the ages of 15-29.¹⁹ There is consistent research showing that exposure to UV radiation, especially in childhood and adolescence,²⁰ plays a key role in the development of melanoma.²¹ Unlike many cancers, the incidence of melanoma is still growing. The incidence of melanoma increased in both Canadian males and females by 1.4% per year between 1998 and 2007.²² In Canada, the lifetime risk of melanoma for men is now 1 in 74.²³ For women, it is 1 in 90.²⁴ In comparison, the lifetime risk of melanoma for North Americans in the 1930s, when having a tan was not fashionable, was 1 in 1,500.²⁵

¹⁸ Canadian Cancer Society, *Canadian Cancer Statistics 2011*, Toronto, Ontario: Canadian Cancer Society.

¹⁹ Canadian Cancer Society, Statistics Canada, *Canadian Cancer Statistics 2009*, Provincial/Territorial Cancer Registries, Toronto, Ontario: Canadian Cancer Society.

²⁰ Philippe Autier and Peter Boyle, "Artificial Ultraviolet Sources and Skin Cancers: Rationale for Restricting Access to Sunbed Use Before 18 Years of Age," *Natural Clinical Practice Oncology*, 5 no.4 (2008), 178. States: "Mitotic activity of melanocytes [proliferation/division of pigment-producing cells] is maximal during childhood and adolescence, because skin surface area increases with growth. A considerable body of...data supports the hypothesis that childhood and adolescence are the key periods of life for initiation of the mechanism involved in the genesis of adult melanoma."

²¹ Gruber and Armstrong, From "Cutaneous and Ocular Melanoma," in *Cancer Epidemiology and Prevention*, ed. Schottenfeld and Fraumeni (New York: Oxford University Press, 2006), 1196-1129.

²² Canadian Cancer Society, *Canadian Cancer Statistics 2011*, Table 4.5, 52.

²³ Canadian Cancer Society, Statistics Canada, *Canadian Cancer Statistics 2009*.

²⁴ Ibid.

²⁵ Ibid.

The Economic Burden of Skin Cancer

In 2004, the total economic burden of skin cancer in Canada was estimated to be \$532 million – the majority being attributable to melanoma (83.4%), and the balance distributed between basal cell carcinoma (9.1%) and squamous cell carcinoma (7.5%). Of the \$532 million, \$66 million (12.4%) is associated with direct costs and \$466 million (87.6%) with indirect costs. Direct costs include primary care, day surgery and hospital care. Indirect costs include lost productive time from mortality and morbidity.²⁶

Treatment costs will likely rise in the future. Five new biologic agents for skin cancer are being developed – four for melanoma, with two likely to be approved in Canada in the next six months. These treatments are very effective in reducing symptoms. A treatment course will likely cost from about \$30,000 to \$50,000 per patient. If there is a positive response – and most patients in the studies have responded positively – the treatment will probably need to be continued, at further cost.²⁷

No studies have been done estimating the economic burden of skin cancer in B.C. alone, nor the contribution of indoor tanning to these costs.

Report of the International Agency for Research on Cancer (IARC)

IARC 2006: *Exposure to Artificial UV Radiation and Skin Cancer*
“Epidemiologic studies to date give no consistent evidence that use of indoor tanning facilities in general is associated with the development of melanoma or skin cancer. However, there was a prominent and consistent increase in risk for melanoma in people who first used indoor tanning facilities in their twenties or teen years.”

The IARC’s conclusions and recommendations were based on its 2006 meta-analysis of 19 studies conducted over 25 years on the use of indoor tanning equipment. The review, entitled *Exposure to Artificial UV Radiation and Skin Cancer*,²⁸ found evidence of:

- Both UVA and UVB rays causing DNA damage, which can lead to skin cancer.
- An association between indoor tanning and both malignant melanoma and squamous cell carcinoma.
- The risk of melanoma of the skin increasing by 75% when tanning bed use started before age 35.

The IARC study found that getting a tan through indoor tanning provided “practically no photoprotection” from burning due to subsequent sun exposure.²⁹

Childhood exposure to UV and the number of times a child is burnt by UV increases the risk of developing melanoma and the other skin cancers later in life. Therefore, the IARC recommended a ban on tanning bed use by those younger than 18 years.

Intensity of UV Radiation

According to the IARC, “the UV intensity of powerful tanning units may be 10 to 14 times higher than that of the midday sun, leading to UVA doses per unit of time received by the skin during a typical tanning session well above those experienced during daily life or even sunbathing. As a result, the annual UVA doses received by frequent indoor tanners may be 1.2 to 4.7 times those received from the sun, in addition to those received from the sun.”³⁰

²⁶ Canadian Partnership Against Cancer, “The Economic Burden of Skin Cancer in Canada: Current and Projected,” *Canadian Skin Patient Alliance*, 2010.

²⁷ Dr. David McLean, email to Indoor Tanning Working Group, November 2, 2011.

²⁸ IARC Working Group, *Exposure to Artificial UV Radiation and Skin Cancer*, (Lyon, World Health Organization, 2006).

²⁹ IARC, “The Association of Use of Sunbeds with Cutaneous Malignant Melanoma and Other Skin Cancers: A Systematic Review,” *International Journal of Cancer* 120, no.5 (2006): 1116-22.

³⁰ IARC Working Group, *Exposure to Artificial UV Radiation and Skin Cancer*, 5.

The Current Debate over Indoor Tanning

IARC 2006: *Exposure to Artificial UV Radiation and Skin Cancer*

“Although the available findings are therefore not conclusive, the strength of the existing evidence suggests that policymakers should consider enacting measures, such as prohibiting minors and discouraging young adults from using indoor tanning facilities, to protect the general population from possible additional risk for melanoma and squamous cell carcinoma.”

Acknowledging that there is still more to learn, the major dermatological, cancer and pediatric organizations agree that there is a consistent and strong association between UV exposure and melanoma, and that a precautionary approach should be taken where there is doubt about potentially very serious risks.

The indoor tanning industry and other proponents of indoor tanning are not in agreement with the healthcare organizations on several key aspects of this issue. This includes:

- The extent of the cancer risks and IARC methodology.
- Interpretation of statistics on the incidence of cancer with respect to commercial indoor tanning.
- The health benefits of tanning.
- Teen behaviour and the effectiveness of public education, parental consent and bans.

The following reflects the ITWG’s discussion on these points:

Cancer Risks and IARC Methodology

JCTA Position

The JCTA questions the methodology and conclusions of the IARC study – in particular, the extent of risk associated with exposure to commercial tanning beds that are maintained and operated according to the industry’s best practices, and which take into account skin typing.

The IARC study predicts a 75% increase in incidence of melanoma for young adults under 35, due to tanning bed use. However, the JCTA says the finding is based on a data set from seven studies which, when separated by sunbed location, showed that commercial tanning units led to a nonstatistically significant increase in relative risk³¹ (RR 1.06), compared to home tanning units (RR 1.40) and medical use of sunbeds (RR 1.96).

The JCTA says these figures are within the WHO data, but were not reported by the IARC in its 2009 article in *The Lancet*.³² Additionally, Grant 2010 showed that removing cases from the WHO report with Skin Type I (who the JCTA recommends do not tan in Canadian tanning facilities, but were in the European studies used in this report) completely eliminated any increase in risk in the report.³³

Further information not reported in *The Lancet* article is as follows:

- Lifetime risk for melanoma for all sunbed users (15%) included Skin Type I subjects. Removing them from the data set removed the risk completely.³⁴
- The WHO report showed no increase in basal cell carcinoma risk attributed to sunbeds.
- There was no reference to dosage.

³¹ In this report, “relative risk (RR)” is the risk of developing a disease relative to that of an ambiently exposed group. A relative risk of 1 means there is no difference in risk between the two groups. An RR of more than 1 means the event is more likely to occur in the experimental group than in the control group.

³² F.E. Ghissassi et al., “A Review of Human Carcinogens – Part D: Radiation,” *The Lancet Oncology* 10, no. 8 (2009).

³³ William B. Grant, “Critique of the International Agency for Research on Cancer Meta-Analyses of the Association of Sunbed Use with Risk of Cutaneous Malignant Melanoma,” *Dermatoendocrinology* 1, no. 6 (2010): 294-300, <http://www.landesbioscience.com/journals/dermatoendocrinology/article/11461/>.

³⁴ Ibid.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- The latest research in the IARC Report shows lower risks than older research for melanoma, other than one.³⁵
- Veierod research used in the IARC report reported that the relative risk (RR) for age 20-29 was 2.58.³⁶ That figure has been updated in a 2010 paper and is now reported as RR of –1.53. That has not been corrected by the IARC group. Also, if the Veierod research had reported all age groups in its data set (0-39), the risk would have been much lower in both years.
- The latest British study from Elliott showed no association between sunbed usage and melanoma.³⁷ The demographic for this paper would be similar to the B.C. population. As reported by Elliott 2011: Age at first use - <25 years - OR 1.16, Age at first use - >25 years - OR 0.98, Ever Use all ages combined - OR 1.06, Years since first use - >14 years - OR 0.9.

BCCA, CCS and CDA Response

Research shows that all types of UV radiation increase the risk of skin cancer. Both the National Toxicology Program and the IARC have concluded that tanning beds and solar radiation are cancer causing.

The IARC findings are based on a body of peer-reviewed evidence, not individual research. According to the IARC report, UV radiation is a known carcinogen, and risk increases with exposure. Tanning bed use increases a person's lifetime exposure to UV radiation and risk for skin cancer.

With respect to basal cell carcinoma, the IARC study did not support an association with the use of indoor tanning facilities. However, the IARC study pointed out that "... the fashion of indoor tanning is still very recent. Associations after long latency periods, such as may be expected for melanoma and basal cell carcinoma, may not yet be detectable."³⁸

While it is preferable that Skin Type I people do not use tanning equipment, there is no evidence in B.C. that they avoid indoor tanning. Also, fair-skinned people are more likely than darker-skinned people to seek a tan.³⁹ Since commercial tanning is mainly cosmetic, the benefit – considering the skin cancer risk – is nonexistent.

A 2008 audit of indoor tanning facilities in Toronto, undertaken by the Canadian Cancer Society, showed overwhelmingly that indoor tanning salons were not adhering to Health Canada's voluntary guidelines for youth.⁴⁰ For the survey, researchers visited 79 indoor tanning facilities across Toronto. Findings included:

- 60% of tanning facilities did not ask the age of minors.
- When the researcher's age was revealed, 51% of facilities would have let researchers under the age of 16 use the equipment.
- 60% of tanning facilities did not identify that the researcher had Type I skin that burns and never tans.
- 99% of tanning facilities did not recommend against tanning for Skin Type I researchers.
- Only 12% of facilities visited were reported to have the Health Canada voluntary guidelines posted in an area that could be seen by the researchers.
- 96% of personnel operating the tanning facilities did not communicate with the researchers about Health Canada's guidelines.
- 87% of facilities did not have the Health Canada Ultraviolet Radiation labels posted on their tanning equipment.

³⁵ Marit Bragelien Veierod et al., "A Prospective Study of Pigmentation, Sun Exposure, and Risk of Cutaneous Malignant Melanoma in Women," *Journal of the National Cancer Institute* 95, no. 20 (2003): 1530-1538.

³⁶ Ibid.

³⁷ Faye Elliott et al., "Letter to the Editor: Relationship between Sunbed use and Melanoma Risk in a Large Case-Control Study in the United Kingdom," *International Journal of Cancer*, August 30, 2011.

³⁸ IARC Working Group, *Exposure to Artificial UV Radiation and Skin Cancer*, 49.

³⁹ Joni A. Mayer et al., "Adolescents' Use of Indoor Tanning: A Large-Scale Evaluation of Psychosocial, Environmental and Policy-Level Correlates," *American Journal of Public Health* 101, no. 5 (2011): 930-938.

⁴⁰ The Toronto study of tanning facilities was conducted by the CCS Ontario Division in December 2007, with results analyzed during the first quarter of 2008. Three different types of researchers visited 79 indoor tanning facilities across Toronto: under-aged youth, and fair-skinned and olive-skinned youth. Researchers were not told the study was being conducted by the Canadian Cancer Society in order to keep results unbiased. At no point during the study were researchers exposed to ultraviolet radiation. The study, conducted by marketing research company Youthography, has a confidence interval of 95% (19 times out of 20).

Cancer Statistics

JCTA Position

The JCTA questions the interpretation of the Canadian Cancer Society's statistics. Although the incidence of melanoma is still increasing in Canada,⁴¹ the rate of the increase has slowed. The JCTA's position is that if there were an increased risk of melanoma from indoor tanning, it would be reflected in the data.

CCS trends in incidence and mortality for Canadians before and after the establishment of indoor tanning facilities in Canada in the mid-1980s include:

- Between 1970-1986, annual increase in incidence: 6% males/4.6% females.⁴²
- Between 1989-1996, annual increase in incidence: 2.7% males/1.6% females.⁴³
- Between 1998-2007, annual increase in incidence: 1.4% males/1.4% females.⁴⁴

No data exists that shows a direct link between indoor UV tanning facilities and skin cancer rates in British Columbia.

The JCTA also points out the following statistics: While overexposure to UV radiation should be avoided, it should be noted that UV radiation exposure is a minor contributor to the world's disease burden, causing an estimated annual loss of 1.6 million DALYs (disability adjusted life years); i.e., 0.1% of the total global disease burden. A markedly larger annual disease burden, 3.3 billion DALYs, might result from reduction in global UV radiation exposure to very low levels.⁴⁵

BCCA, CCS and CDA Response

There are a number of possible explanations for the lower rate of increase in melanoma. These include sun safety education and a resulting change in sun-exposure behaviours (e.g., using sunscreens and covering up) and a changing demographic (i.e., a higher proportion of darker-skinned people in the B.C. population in recent years). At the same time, it should be reiterated that the incidence of melanoma is still increasing (as outlined in the Skin Cancer section on page 11) and this is of serious concern.

Also, skin cancer can take many years to develop. Basal cell carcinoma, for example, takes 40 years on average. Therefore, it is difficult to attribute the degree of risk posed by commercial tanning beds as they have only been in widespread use since the 1980s.

All developing countries do not collect broad health data; therefore, statistics and information on global disease burden do not exist. Oral vitamin D is recommended in situations where there is a lack of vitamin D production as a result of too little UV light exposure from the sun.

Health Benefits

Indoor Tanning: An Effective Way to Acquire a Healthy Tan?

JCTA Position

Members of the JCTA promote their services as a way to acquire and/or maintain a tan. Tanning equipment is in a controlled environment, whereas outdoor exposure is not. JCTA indoor tanning operators are trained to identify the client's skin type to determine if he/she can tan and, if so, what the incremental exposure times should be, based on the manufacturer's recommendation. Health Canada recommends that the first exposure be at 100 J/m² as a test session. This permits the delivery of consistent, nonburning dosages of UV radiation

⁴¹ Canadian Cancer Society, *Canadian Cancer Statistics 2011*, Table 4.5, 52, states: the incidence of melanoma has increased in both Canadian males and females by 1.4% per year in the past decade between 1998 and 2007. The incidence of melanoma has increased in both Canadian males and females by 1.4% per year in the past decade between 1998 and 2007.

⁴² Canadian Cancer Society, "Special Topics: Smoking and Lung Cancer, Cancer in Inuits and Indians," 1991, Toronto, Ontario: Canadian Cancer Society, 30.

⁴³ Canadian Cancer Society, *Canadian Cancer Statistics 2001*, 44.

⁴⁴ Canadian Cancer Society, *Canadian Cancer Statistics 2011*, Table 4.5, 52.

⁴⁵ Robyn M. Lucas et al., "Estimating the Global Disease Burden Due to Ultraviolet Radiation Exposure," *International Journal of Epidemiology* 37, no.3 (2008): 654-667, doi:10.1093/ije/dyn017.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

to allow the client to gradually build up a tan. The JCTA recommends that those who are Type I not use UV tanning equipment.

BCCA, CCS and CDA Response

The concern shared by the BCCA, CCS and CDA is that there is no safe way to get a tan. Tanned skin is damaged skin. Besides the risk of skin cancer, indoor tanning can contribute to photoaging. In addition, the UV intensity of powerful tanning units may be 10 to 14 times higher than that of the midday sun.⁴⁶

Indoor Tanning: Provides a Protective Base Tan?

JCTA Position

The indoor tanning industry states that acquiring a base tan by indoor tanning can offer natural protection from the sun's ultraviolet radiation. A self-published study⁴⁷ suggests that by exposing people to the maximum intensity recommended by Health Canada and the U.S. Food and Drug Administration (FDA), the sun protection factor (SPF) of a base tan acquired through indoor tanning rises to 6.

BCCA, CCS and CDA Response

Although a base tan may produce some natural protection against the sun's UV radiation, it has been estimated that an indoor tan offers the same sun protection factor (SPF) of only 2-3, which is not adequate sun protection.⁴⁸ In addition, a base tan is created only at the expense of further skin damage, some of which will be permanent and additive damage to DNA. The protection thus created is mainly an illusion of protection, at a cost of permanent damage. An SPF of 30 is the minimum sunscreen recommended, and most dermatologists recommend even higher SPFs.

Indoor Tanning: A Healthy and Effective Way to Produce Vitamin D?

JCTA Position

The JCTA position is that "Vitamin D production is one of the benefits that has been associated with human exposure to ultraviolet-B (UVB) emitted in sunlight and by an estimated 90% of commercial indoor tanning equipment. While the North American indoor tanning industry conducts indoor tanning as a cosmetic service, an undeniable physiological side-effect of this service is that indoor tanning clients manufacture sufficient levels of vitamin D as a result of indoor tanning sessions. Because there is mounting evidence that vitamin D deficiency is prevalent in Canadian society, and because of Canada's northerly latitude which makes natural vitamin D production outdoors impossible six months of the year, the benefit of this side-effect from cosmetic tanning deserves due consideration." For more information, see Mason 2010.⁴⁹

The JCTA has provided studies stating that indoor tanning is the best possible surrogate for sun exposure and the natural, biologically intended way to develop vitamin D. Also, studies have shown a link between higher levels of Vitamin D and a reduced cancer risk.⁵⁰

BCCA, CCS and CDA Response

It is agreed that Canadians need vitamin D supplementation for bone health. Other health benefits often touted by tanning advocates, including the reduction of the risk of various cancers, are unproven. Due to lack of outdoor UV exposure, the body cannot manufacture vitamin D for more than half of the year. Health Canada recommends a daily intake of 600 IU of vitamin D for people from nine to 70 years of age. Milk has 100 IU of vitamin D per glass, salmon 400 IU per 4 oz, and cod liver oil 1300 IU per tbsp.

⁴⁶ IARC Working Group, *Exposure to Artificial UV Radiation and Skin Cancer*, 5.

⁴⁷ Don L. Smith, "Skin Damage Prevention: (Artificial) Sunscreen vs. (Natural) Facultative Pigmentation," Self-Published Article, July 14th, 2011.

⁴⁸ European Commission, Health and Consumer Protection Directorate-General, Scientific Committee on Consumer Products, Opinion on Biological Effects of Ultraviolet Radiation Relevant to Health with Particular Reference to Sunbeds for Cosmetic Purposes (2006), 6.

⁴⁹ Joint Canadian Tanning Association, Ultra-Violet Introduction, <http://www.tancanada.org/info.php>

⁵⁰ R.S. Mason et al., "Photoprotection by 1 α ,25-Dihydroxy Vitamin D and Analogs: Further Studies on Mechanisms and Implications for UV-Damage," *The Journal of Steroid Biochemistry and Molecular Biology* 121, no. 1-2 (2010): 164-168.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

A 1000 IU vitamin D3 tablet costs less than 1 cent per day. If people need more vitamin D than the sun can provide (e.g., because they live in northern regions) this should be supplemented through diet rather than indoor tanning. There are safer ways to get vitamin D. The Mason study referenced above by the JCTA did not recommend indoor tanning as a way to increase vitamin D levels.

Indoor Tanning: A Way to Help People Suffering from Seasonal Affective Disorder (SAD)?

JCTA Position

The JCTA emphasizes that some practitioners have found positive results between indoor tanning and SAD treatment. It adds that the positive results are due to UV exposure (which triggers endorphin production in the skin), rather than ocular exposure to white light, as many in the dermatology industry state.⁵¹ Many tanning clients in Canada visit salons for this reason. But as indoor tanning is a cosmetic service, the tanning facility promotes itself as a cosmetic industry and sets its exposure protocol based on cosmetic tanning.

BCCA, CCS and CDA Response

Light therapy can be effective in treating Seasonal Affective Disorder (SAD). However, SAD treatment requires either bright-white light with various visible-light wavelengths or blue light with a wavelength of about 460 nm – not UV light with wavelengths of 400 nm and below, as found in tanning beds. Unlike UV exposure from tanning beds, the bright visible light needed to treat SAD is not cancer causing. Tanning beds are a high-risk way to treat SAD.

Teen Behaviour

The mass media has a powerful influence on youth and the choices they make. Tanned skin, often called “a healthy glow,” is widely accepted as an attribute of health and beauty. Using UV indoor tanning equipment to tan artificially during months of the year when natural sunlight is not strong enough to darken skin has become popular.

Public education campaigns, such as Sun Smart, have been broadly implemented to raise awareness about the risks of UV exposure. Although this has been effective for many age groups, research shows that the message has not reached everyone, such as younger females who are particularly concerned about their body image. For example, one study stated that “although intellectually, young people (particularly females) realize that tanning may not be healthy for them, they continue to expose themselves to dangerous ultraviolet rays.”⁵²

Youth are heavily influenced by their peers in the choices and decisions they make. Peer pressure to fit into a clique or group of friends is heavily based on how they dress, act and look, which may include going to an indoor tanning facility.

Youth may not always have the experience and judgment to make decisions in their own health interest – especially when the adverse health impacts, such as skin cancer, may not show up for years. This is one of the reasons that society has restricted minors’ access to cigarettes and alcohol. Tobacco smoke and UV radiation from indoor tanning are both classified by the IARC as known carcinogens.

The effectiveness of parental consent as a deterrent has been reported by several studies as low because minors may find ways to get what they want through forged signatures or other means.⁵³ Also, it may be easier to obtain parental consent from mothers who indoor tan themselves. Research has shown that mothers may be the first to introduce their children to indoor tanning.⁵⁴

⁵¹ Dr. Norman Rosenthal, “NIH Research Workshop on Risks and Benefits of Exposure to Ultraviolet Radiation and Tanning,” Workshop, Bethesda, Maryland, September 16 to 18, 1998.

⁵² R Ashinoff et al., “Teens and Tanning Knowledge and Attitudes,” *Journal of Clinical and Aesthetic Dermatology*, 2, no. 2 (2009): 48-50, <http://www.ncbi.nlm.nih.gov/pubmed/20967182>

⁵³ Z Bagdasarov et al. “Indoor Tanning and Problem Behavior,” *Journal of American College Health* 56, no.5 (2008): 555-561, <http://www.ncbi.nlm.nih.gov/pubmed/18400668>

⁵⁴ Mary Kate Baker et al., “The Effect of Initial Indoor Tanning with Mother on Current Tanning Patterns,” *Archives of Dermatology* 146, no.12 (2010): 1427-1428.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

It also should be noted that in our society many parents find it challenging to say “no” to their children’s requests, especially when the parents are unaware of the risks themselves and subject to the same media influences.⁵⁵ Research has shown little difference in the tanning behaviour of teens in states with parental consent laws compared to those without.⁵⁶

Jurisdictional Review

Many jurisdictions in Canada and across the world have set limits on indoor tanning by minors. These include bans, parental consent forms; mandatory operator training; licensing and registration of tanning beds; restrictions on advertising, tanning sales; types of equipment; frequency of use; mandatory health warnings and signage; and the imposition of tanning service taxes.

Canada

In Canada, commercial indoor tanning has been banned in Nova Scotia for minors under 19 and in the Capital Regional District (Greater Victoria) for those under 18. Manitoba recently introduced legislation to require parental consent for minors under 18.

Manitoba’s regulation for parental consent under 18 will come into force after a working group completes the parental consent form and warning signs. This should be completed by the end of 2011. Parental presence and consent will be required for each tanning session for minors under the age of 16. Parental consent for individuals between 16 and 17 will be valid for a specific number of sessions. The consent form will also include a fact sheet to educate clients on indoor tanning. This was prompted after the WHO reclassified indoor tanning as a Group 1 carcinogen.

Other Jurisdictions

Numerous European jurisdictions have banned indoor tanning for minors under 18 including Austria, Belgium, Germany, Ireland, the United Kingdom, Finland, Portugal, Norway, Scotland, Spain, Sweden and France. France also regulates the type of tanning equipment that is available publicly (outlawing coin-operated beds) and requires that tanning beds be registered with its national health authorities. Australia has banned people under 18 and those with Skin Type I from indoor tanning, while Brazil has banned all indoor tanning services and equipment.

In the United States, a number of jurisdictions have limited indoor tanning bed access. Most recently, California has moved from parental consent to banning minors under 18 years from indoor tanning. This was prompted after the WHO reclassified indoor tanning as a group 1 carcinogen.

Penalties include fines up to \$2,500 per day and criminal misdemeanor for more grievous offences. Six states ban minors under the age of 14, two states ban minors under 16, while Texas has banned tanning for minors under 16.5 years. An additional 30 states require parental consent for minors under 18 and 16. The United States recently implemented a 10% tax on all tanning services.

For more details see Appendix 4: Jurisdictional Scan.

⁵⁵ Dr. David McLean (BCCA/CDA) noted in the ITWG meeting of Nov. 7, 2011 that he has had parents bring their teens to him to try and talk the teens out of tanning.

⁵⁶ Joni A. Mayer et al., “Adolescents’ Use of Indoor Tanning: A Large-Scale Evaluation of Psychosocial, Environmental and Policy-Level Correlates.”

Potential Regulatory Actions

The ITWG discussed a number of potential actions to protect minors:

1. Age Ban
2. Mandatory In-Person Parental Consent Forms (Only Relevant if a Ban Is Not Implemented)
3. Provincially Approved Mandatory Operator Training
4. Require Tanning Beds to Be Controlled by an Onsite Trained Operator; Ban Self-Serve Unmanned Machines
5. Additional Signage and Mandatory Health Risk Fact Sheet/Informed Consent
6. Tanning Equipment Registry
7. Licence to Operate
8. Mandatory Client Record Keeping for Minors (Only Relevant if a Ban Is Not Implemented)
9. Regulation of Exposure Times and Frequency (Only Relevant if a Ban Is Not Implemented)
10. Tanning Service Tax
11. Restrictions on Advertising and Promotion of UV Indoor Tanning to Minors
12. Prohibit Misleading Medical and Health Claims

1. Age Ban

Youth are legally banned from a number of activities in B.C. because of the activities' negative impact on human health. These include driving, smoking and drinking. The rationale is either that the activity is more harmful to youth because they are more susceptible to the harm (e.g., because their growth process has not been completed) or it is believed that youth do not possess the judgment and experience necessary to make an informed choice – and to understand the long-term health outcomes of their decisions.

There is some debate over the most appropriate age to apply youth bans. Other jurisdictions that have banned youth from using indoor tanning have selected several ages, such as 14, 16, 18 and 19. The CRD bylaw bans minors under the age of 18. The UBCM resolution – as well as the policy positions of the BC Cancer Agency, Canadian Cancer Society, Canadian Dermatology Association, BC Medical Association and Medical Health Officers of BC – calls for a ban for minors under the age of 18.

For certain medical conditions, such as psoriasis, doctors may prescribe UV treatment for youth, if there are no alternative, cost-effective treatments available and the benefits of UV treatment outweigh the risks. Generally, this treatment is performed by medical staff in an approved medical setting. However, in certain regions that do not have ready access to medical treatment, independent tanning facilities may be the only option. A medical exemption would be required with a youth ban.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Advantages

- Simplest and most cost-effective action to protect minors.
- Research has shown bans to be the most effective deterrent.
- Experience in other jurisdictions (e.g., California), has shown high rates of industry compliance with the law, with minimal on-the-ground compliance and enforcement required.
- A ban would emphasize the seriousness of unnecessary UV exposure and possibly result in a cultural shift and change long-term behaviour

Disadvantages

- Some reports suggest that bans have resulted in increased use of home tanning equipment, which has no operator supervision or controls on exposure times.
- Industry support is minimal. JCTA is only supportive of an age ban under the age of 14.
- Industry has indicated that employees under 18 may lose/quit jobs.

ITWG RECOMMENDATION: Consensus not reached.

2. Mandatory In-Person Parental Consent Forms (Only Relevant if a Ban Is Not Implemented)

The B.C. Guidelines for Tanning Salon Operators recommend that operators require minors to obtain written parental consent. As this is not a legal requirement, there is no monitoring, and it is not known how many facilities require parental consent.

This guideline could become a regulatory requirement. Manitoba is in the process of implementing a regulation requiring parental consent for minors under 18, which will come into force once the working group completes the parental consent form and warning signs. Parental presence will be required only for youth tanning under the age of 16.

In-person parental consent requirements would require that tanning facilities keep client records for minors, with the documented parental consent. Auditing the client records of tanning facilities and relying on a complaint-driven process could be utilized for compliance.

Advantages

- Would ensure parents are aware of and supportive of their children's activities.
- Would place the onus of limiting teen tanning on the parents and operators.
- Youth exposure to UV radiation from tanning beds remains a family issue and decision. Preserves public's right to choose.

Disadvantages

- Research shows no difference in tanning behaviour of teens in states with parental consent laws.
- Might not be effective, as some research suggests many teens are introduced to tanning by their parents.
- Parents might feel pressured by their teens to provide permission.
- Enforcement could be onerous.
- Groups currently calling for a ban will continue to pressure the government to do so.

ITWG RECOMMENDATION: Consensus not reached.

3. Provincially Approved Mandatory Operator Training

There is currently no government-required training for operators of tanning equipment. Industry-sponsored Smart Tan training is widely available and can be done in-person or online. The JCTA encourages its members to take the Smart Tan training. Completing the training is also a requirement for obtaining insurance coverage. The National Tanning Training Institute (NTTI) also offers training in Canada.

A provincially approved operator-training course (for indoor tanning equipment) could be developed that would build on existing industry training programs. The course would deal with health impacts from indoor tanning, as well as sanitation. All owners and operators of tanning equipment could be required to complete this course. Industry is fully supportive of this action.

Advantages

- Consistent training would ensure a base level of knowledge for all operators, and protection for users of tanning equipment.
- The requirement of time and effort might dissuade small, “problem” operators from continuing.
- All age groups – not just minors – would benefit, as this requirement is not specific to minors.
- Industry could work with government to convert existing industry-certification program.

Disadvantages

- Could be costly and time consuming to develop and implement the provincially approved training program.
- Additional training costs (probably minimal) for tanning facility owners and operators.

ITWG RECOMMENDATION: Require provincially approved training for all owners and operators of tanning equipment.

4. Require Tanning Beds to Be Controlled by an Onsite Trained Operator; Ban Self-Serve Unmanned Machines

Self-serve units are operated by the customer without supervision, merely by inserting money or swiping a pre-loaded card into the machine. They are mostly found in Europe. In Canada, self-serve units make up a small part of the commercial tanning industry and are mostly located in fitness centres and laundromats. They are legally allowed in British Columbia, but there is no official record of their number or location. In most cases, the self-serve machines currently in B.C. are a secondary source of limited income for the business owner.

Since staff are not present at the site operating the equipment, there is no ability to control who uses the equipment or exposure times, and no information is provided on safety measures and recommended precautions.

For approximately \$500, self-serve machines can be retrofitted to be controlled by the operator. Owners of self-serve machines may need to be identified and consulted.

Self-serve units could be banned in B.C., and it could be mandatory that all tanning beds be controlled by onsite trained operators. The required training would need to be provincially approved.

Advantages

- Would allow for access and exposure times to be controlled.
- All age groups – not just minors – would benefit, as this requirement is not specific to minors.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- Would remove public health risk regarding absence of sanitation process between each individual use.

Disadvantages

- Businesses currently providing this self-serve equipment could be negatively impacted financially.
- Would require the development of a provincially approved operator-training program.

ITWG RECOMMENDATION: Require tanning beds to be controlled by an onsite trained operator; ban self-serve unmanned machines.

5. Additional Signage and Mandatory Health Risk Fact Sheet/Informed Consent

Current B.C. guidelines recommend that tanning facilities post UV-radiation warning signs approved by the local medical health officer in the tanning bed area and client reception area. This recommended guideline could be made mandatory in a regulation.

Additional health risk information in a one-page fact sheet could be produced by the Ministry of Health with the involvement of the Canadian Cancer Society, BC Cancer Agency, Canadian Dermatology Association and the indoor tanning industry. This fact sheet would provide basic information on the health risks associated with UV exposure from using indoor tanning equipment. It could be mandatory that all tanning facilities distribute this fact sheet to clients. The fact sheet could require clients to sign that they have received and read the information, providing an informed consent.

Advantages

- Additional information on the risks might motivate people to limit their exposure to all forms of UV radiation – both from indoor tanning equipment and the sun.
- Relatively inexpensive and easy to implement.
- All age groups – not just minors – would benefit, as this requirement is not specific to minors.

Disadvantages

- Might not provide additional benefits. Some evidence suggests that knowledge of risks does not necessarily affect teen behaviour with regard to tanning.⁵⁷
- Additional costs (probably minimal) for tanning facility owners and/or the Ministry of Health associated with production and distribution of the fact sheets and signs.

ITWG RECOMMENDATION: Require UV-radiation warning signs to be posted in all tanning facilities and a health risk fact sheet distributed to all potential clients.

6. Tanning Equipment Registry

There is no official provincial registry of tanning equipment in the province. The JCTA has information on the majority of equipment/facilities in the province. The health authorities, through their inspection responsibilities, have visited or have information on most facilities.

If all owners of commercial tanning equipment were required to register their equipment with a provincial registry, it would be possible to know where equipment is located, and target education and enforcement actions more appropriately. This would also serve to regulate the use of tanning equipment that does not meet government standards.

⁵⁷ J. Matthew Knight et al., "Awareness of the Risks of Tanning Lamps does not Influence Behaviour among College Students," *Archives of Dermatology* 138, no. 10 (2002): 1311-1315, <http://archderm.ama-assn.org/cgi/content/full/138/10/1311>

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Advantages

- Would provide information that could enable better enforcement.
- All age groups – not just minors – would benefit, as this requirement is not specific to minors.

Disadvantages

- Could be costly and time consuming to implement.
- Other registries have had difficulties keeping information up to date.

ITWG RECOMMENDATION: More analysis needed. Not supported at this time.

7. Licence to Operate

Health authorities inspect tanning facilities for compliance with the *Public Health Act* and Regulated Activities Regulation, but do not license them. Business licences are obtained from the local government in which the tanning facility is located. Some municipalities have robust licence-application referral systems, whereby local health officials are notified of tanning facility licence applications. However, this is not a consistent or mandatory process.

A licensing system could be established whereby health authorities would license tanning facilities, similar to their licensing of restaurants and abattoirs. This would likely be in addition to the business-licensing process of local governments. The system could be based on a cost-recovery model, and a condition of licensing could be that owners and operators complete provincially approved training. The indoor tanning industry would support this if costs were minimal.

Advantages

- All facilities would be known to the health authority, making enforcement easier.
- Could provide a mechanism to ensure owners and operators were trained.
- Expectations regarding protection for minors could be clearly laid out in the conditions of licence.
- All age groups – not just minors – would benefit, as this requirement is not specific to minors.
- The industry would to some extent self regulate, as unlicensed facilities would likely be reported by competitors.

Disadvantages

- Could be costly and cumbersome to implement for government/health authorities. Staffing resources to review and inspect new facilities could be significant.
- Could be difficult to identify and license all existing facilities.

ITWG RECOMMENDATION: Implement a provincial tanning-equipment licensing framework, if it can be achieved with minimal cost to operators and the B.C. Government/health authorities.

8. Mandatory Client Record Keeping for Minors (Only Relevant if a Ban Is Not Implemented)

Generally, client record keeping by personal service establishments is useful when invasive services are performed, as individuals who may have been exposed to infection can be contacted directly. The JCTA recommends its members keep records on all clients, not just minors. These records are the property of the business owner, but not passed on to the B.C. Government or health authorities for review or inspection.

The ITWG only addressed client record keeping for minors because client record keeping for all clients was viewed as outside its mandate.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Client record keeping for minors could become a regulatory requirement, with the B.C. Government /health authorities able to access and review all records on demand. These records would document parental consent and the UV-exposure dose (frequency and intensity). The client records would be a tool in enforcing indoor tanning facility compliance with potential parental consent or exposure-limit requirements.

Advantages

- Would assist enforcement.

Disadvantages

- There might be privacy concerns.
- Time consuming and costly to maintain, review and inspect client records.

ITWG RECOMMENDATION: Mandatory client record keeping for minors – if a ban is not implemented.

9. Regulation of Exposure Times and Frequency (Only Relevant if a Ban Is Not Implemented)

Skin cancer risk increases with exposure to UV radiation. Limiting potential damage requires restricting exposure. Health Canada guidelines state that all pieces of tanning equipment are required to carry specific information about first and maximum exposure times, based on the client's skin type.

The exposure a client faces outside an individual facility is impossible for a tanning facility operator to know or control. However, there could be regulatory restrictions on the time between tanning sessions for each client at a particular facility, thereby limiting exposure. This would also serve to educate the client that further exposure (e.g., outdoor tanning or using another indoor tanning facility) would be unhealthy. For example, tanning sessions must be at least 48 hours apart. Client record keeping would be required to monitor compliance with the regulatory exposure limits.

Advantages

- Might educate the client that UV exposure has real potential health risks.
- Would create a benchmark maximum-exposure limit for all facilities, potentially reducing the amount of skin damage created industry-wide.

Disadvantages

- It would be impossible to monitor exposure times if a client was using more than one tanning facility without disclosing this information.
- Would create a requirement for record keeping that could be onerous.

ITWG RECOMMENDATION: Regulate exposure limits and include with mandatory record keeping – if a ban is not implemented.

10. Tanning Service Tax

In the United States, under the *Affordable Care Act*, a 10% tax on tanning services was enacted in July 2010. The tax is collected from tanning service providers on a quarterly basis and is applied on purchases of tanning services. The principle behind the tax is deterring the public from purchasing such a service for the purpose of vanity. The service is exempt from the indoor tanning services tax if performed by a licensed medical professional on the medical professional's premises.

B.C. could select a similar option in an attempt to deter minors and/or the general public from purchasing tanning services.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Advantages

- Could result in reduced demand. Evidence shows that increased taxes on tobacco have led to a reduction in consumption.
- Increased revenue for government.

Disadvantages

- Would require set up of a new administrative structure. If only minors were subject to the tax, the tax revenue would not likely be adequate to cover administration costs.
- Likely not supported by the industry and public.

ITWG RECOMMENDATION: Not supported at this time.

11. Restrictions on Advertising and Promotion of UV Indoor Tanning to Minors

There have been statements that the indoor tanning industry sometimes targets youth in its advertising and promotion. Restrictions could be placed on certain advertising and promotional activities of indoor tanning facilities – e.g., running targeted campaigns around graduation, or offering discount or packaged pricing for minors.

Enforcement could be complaint driven.

Advantages

- Would prevent the encouragement of UV indoor tanning to youth.

Disadvantages

- The indoor tanning industry is comprised of many small businesses. Monitoring all their advertising and business practices would be difficult.
- Widespread use of the Internet and social media would make it difficult to restrict youth access to misleading information.
- Some nonprofit groups may rely on revenue from indoor tanning facilities.

ITWG RECOMMENDATION: Prohibit advertising and promotion of UV indoor tanning to minors.

12. Prohibit Misleading Medical and Health Claims

There have been statements that the indoor tanning industry sometimes makes misleading health claims – for example, indoor tanning provides a protective base tan and indoor tanning is a good way to get vitamin D.⁵⁸ The JCTA does not agree that these claims are misleading, and believes that indoor tanning does provide a good base tan and is proven to be a good source of vitamin D.

Restrictions could be placed on this type of misleading advertising. This would be in addition to rulings related to truth in advertising by the Competition Bureau of Canada.⁵⁹ Enforcement could be complaint driven.

Advantages

- Would provide youth with more balanced information to enable informed decision making.

⁵⁸ See the presentation to the ITWG by Kathryn Seely of the Canadian Cancer Society, on Oct. 26, 2011.

⁵⁹ Competition Bureau of Canada, Home Page, last modified November 30 2011, <http://www.competitionbureau.gc.ca/eic/site/cb-bc.nsf/eng/home>

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Disadvantages

- Difficult to monitor and enforce. There could be controversy over what constitutes a misleading health claim. A process to determine violations and appeals would need to be determined.
- Widespread use of the Internet and social media would make it difficult to restrict youth access to misleading information.

ITWG RECOMMENDATION: Restrict misleading medical and health claims.

Recommendations

The ITWG did not reach consensus on a ban versus parental consent. The group is putting forward the following two scenarios for the Minister's consideration:

Scenario 1: Ban youth under the age of 18 from using indoor tanning equipment without a medical prescription.

Supported by the BCCA, CCS, CDA, BCCDC and UBCM. Not supported by the JCTA.

In addition to the ban, the following actions are recommended:

- Require provincially approved training for all owners and operators of tanning equipment.
- Require tanning beds to be controlled by an onsite trained operator; ban self-serve unmanned machines.
- Require UV-radiation warning signs to be posted in all tanning facilities, and a health risk fact sheet distributed to all potential clients.
- Implement a provincial tanning-facility licensing framework, if it can be achieved with minimal cost to operators and B.C. Government/health authorities.
- Prohibit misleading medical and health claims and prohibit advertising and promotion of UV indoor tanning to minors

Scenario 2: Ban youth under the age of 14 from using indoor tanning equipment without a medical prescription. Require in-person parental consent for youth between the ages of 14 and 18.

Supported by the JCTA. Not supported by the BCCA, CCS, CDA, BCCDC and UBCM.

In addition, the following actions are recommended:

- Require provincially approved training for all owners and operators of tanning equipment.
- Require tanning beds to be controlled by an onsite trained operator; ban self-serve unmanned machines.
- Require UV-radiation warning signs to be posted in all tanning facilities, and a health risk fact sheet distributed to all potential clients.
- Implement a provincial tanning-facility licensing framework, if it can be achieved with minimal cost to operators and BC Government/health authorities.
- Mandatory record keeping for minors.
- Regulate exposure limits.
- Prohibit misleading medical and health claims and prohibit advertising and promotion of UV indoor tanning to minors

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Appendix 1: Indoor Tanning Working Group (ITWG) Members

ITWG Member	Represents	Phone Number	Email
Steven Gilroy Executive Director	Joint Canadian Tanning Association	(800) 915-0367	info@tancanada.org
Sally Smith B.C. Director	Joint Canadian Tanning Association	(604) 460-8668	sally@sunseekertanning.ca
Kathryn Seely Public Issues Manager	Canadian Cancer Society, B.C. and Yukon	(604) 999-4659	kseely@bc.cancer.ca
Dr. David McLean Head, Prevention Programs	BC Cancer Agency Also: Representative, Canadian Dermatology Association	(778) 288-5083	dmclean@bc.cancer.bc.ca
Prabjit Barn Environmental Health Scientist	BC Centre for Disease Control	(604) 707-2463	prabjit.barn@bccdc.ca
Gary MacIsaac Executive Director	Union of BC Municipalities	Richmond: (604) 270-8226, ext. 105 Victoria: (250) 356-2956	gmacisaac@ubcm.ca
Dr. Brian Emerson Medical Consultant	Provincial Health Office (Observer Status)	(250) 952-1701	brian.emerson@gov.bc.ca
Val Stevens Director, Health Authority Relations and Patient Care Quality	Health Authorities Division, B.C. Ministry of Health	(250) 952-1990	valerie.stevens@gov.bc.ca
Brenda Janke, Chair Director, Integration and Engagement	Health Protection Branch, B.C. Ministry of Health	(250) 952-2108	brenda.janke@gov.bc.ca

ITWG Support

Hilary Wheeler, Policy Analyst, Health Protection Branch
Andrea Careless, Reporting Analyst, Health Protection Branch
Marlyn Fusek, Co-op Student, Health Protection Branch

Appendix 2: ITWG Terms of Reference

Status: Approved

Date: October 18th, 2011

1. Background

Following the recent approval of the CRD bylaw (Regulating Tanning Facilities, Bylaw 3711), the Minister of Health has directed that a working group be formed to provide the Minister with recommendations on a provincial approach to regulating the use of indoor tanning beds by minors.

2. Purpose

To provide a forum to share information, consider recent research and findings, discuss issues and develop recommendations for the Minister of Health to consider regarding potential regulatory actions to protect the health of minors from the harmful effects of UV radiation from indoor tanning beds.

3. Scope

The Indoor Tanning Working Group (ITWG) will:

- Review existing research, medical opinion, educational and regulatory approaches in other jurisdictions, and other relevant information regarding the exposure of minors to UV radiation from tanning beds and the regulation of use by minors.
- Based on the above, develop options for a provincial regulatory approach.
- Assess potential challenges and opportunities associated with each of the options.
- Provide the perspective and requirements of the agencies represented with the goal of determining the most appropriate option for regulatory action.

Elements that should be considered (but not limited to) in the development of the recommendations to the Minister include:

- **Enforcement:** Legal mechanisms, i.e., a regulation under the *Public Health Act*.
- **Application:** Additional public and/or industry consultation.
- **Public Information / Education:** Implementation.

The Health Protection Branch, Ministry of Health (MoH) will be responsible for:

- Drafting the recommendations, including writing, reviewing and submitting them to the Minister.
- Organizing and chairing the working group meetings.

3. Membership

The ITWG will include representation from the Joint Canadian Tanning Association; BC Cancer Agency; Canadian Cancer Society; Medical Consultant designated by the Provincial Health Officer (observer status); Canadian Dermatology Association; BC Centre for Disease Control; Union of BC Municipalities; BC Health Authorities Division of MoH; and the Health Protection Branch of MoH. Experts may be consulted as needed.

4. Decisions

Decisions will be made via a consensus-based model of the working group. If consensus is not achieved in a timely matter, the Health Protection Branch will develop options for the Minister to consider. Final decision on the selected provincial regulatory approach will rest with the Minister of Health.

5. Compensation

No compensation will be provided and participants will cover their own travel and/or telecommunication costs.

6. Procedures

- ITWG meetings will be organized by the Ministry of Health, and will be held in person and by teleconference. The Ministry of Health will provide secretariat support to the ITWG.
- There will be at least four meetings held, with an anticipated working group end-date of November 30, 2011. The first meeting will be in early October.
- The meetings will be held to address the issues outlined in these Terms of Reference. More detailed agendas will be distributed closer to meeting dates.

Appendix 3: ITWG Meeting Minutes (From Earliest to Latest)

ITWG Minutes: October 18, 2011

In Attendance

In Person

Steven Gilroy (JCTA)
Sally Smith (JCTA)
Kathryn Seely (CCS)
Dr. David McLean (BCCA and CDA)
Prabjit Barn (BCCDC)
Gary MacIsaac (UBCM)
Brenda Janke (MoH)
Hilary Wheeler (MoH)

Via Teleconference

Paul Bailey (MoH)
Valerie Stevens (MoH)
Marlyn Fusek (MoH)
Andrea Careless (MoH)

Regrets

Dr. Brian Emerson (PHO – observer status)

Agenda Items

1. **Welcome and roundtable introductions: Brenda Janke, Ministry of Health (Chair)**
2. **Approval of draft agenda: Brenda Janke, Ministry of Health:**

Action: Draft agenda approved.

- *Minutes: what level of detail and what format?*
 - Dr. D. McLean: Detail: have as much as possible and document where information derived.
 - S. Gilroy: Format: have action items at the bottom. More clarity and detail are preferred.

Action: Review draft minutes before posting on SharePoint.

- K. Seely: Attribute comments to organization.

3. **Terms of Reference for ITWG: Brenda Janke, Ministry of Health:**

- Dr. Emerson's status changed to "observer status" because the Office of the Provincial Health Officer under the *Public Health Act* is responsible for providing independent advice on health issues to the Minister.
- S. Gilroy: *Scope: is this working group focusing on indoor tanning facilities, home units and/or medical units?*
 - S. Gilroy: It should be restricted to indoor tanning in facilities, but research generalizes for all tanning.
 - K. Seely: Doesn't seem useful to narrow the scope.

Decision: Scope will remain as defined in the Terms of Reference. If necessary, differences will be reflected in the options.

- Dr. McLean: *Is it illegal to sell sunlamps in Canada?*
 - S. Gilroy: No. Distributors in Vancouver and Burnaby sell units to individuals. Furthermore, they are accessible online as well. They must meet Health Canada regulations; prices range from \$199 to \$10,000 (full bed).

Action: Terms of Reference approved. Draft watermark to be removed.

- B. Janke: Participants agreed that the final report will be made public. (Note: permission may need to be granted by the Minister.) The final report given to the Minister will reflect the opinions of the Indoor Tanning Working Group and be accompanied by a covering note drafted by MoH. The final copy of report will be provided to members before release.

4. **Present draft work plan and draft report outline: Brenda Janke:**

- K. Seely: Work plan gap: missing the consultation of youth and how this process impacts them.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- K. Seely: *Youth involvement: What do they think? Are they for or against indoor tanning? Are there statistics on this?* Suggest a UVic youth group be invited to present.
- S. Gilroy and Dr. D. McLean: Do not see this working group as a forum for public presentation/testimonial (also due to the short timeline).
- S. Gilroy: The regulations we put forward should be based on scientific evidence.
- P. Barn: We should use a generalized approach to uncover youth behavior with respect to bans and parental consent that may not be specific to tanning.

Action: K. Seely to present on youth behavior and can include youth perspective.

- K. Seely has done some jurisdictional research.
- P. Barn: Leave report outline in draft.

Action: B. Janke and S. Gilroy to provide name of California contacts.

- K. Seely: *What about the views of local governments?*
 - G. MacIsaac: My involvement on this working group will cover their position.

5. Regulatory approval process and options: Paul Bailey:

- Legislative ban:
 - B.C. *Public Health Act* (PHA) allows for a regulation to restrict minors from indoor tanning, which would be done via Order in Council.
 - Banning minors is already enforced within the U.S., with many states banning minors under 14 from indoor tanning facilities. In Canada, Nova Scotia has banned indoor tanning for minors under 19.
 - Enforceability: regulatory requirement would mandate operators to require proof of age from clients. It could be overseen by the environmental health officers (EHOs), who have responsibility for enforcing PSE regulations under PHA.
- Parental consent:
 - Currently enforced in Manitoba and some U.S. states.
 - Enforceability would be through proof of age and require operators to have records of consent. EHOs could potentially enforce this.
 - Challenge lies in verifying consent; may require parents to attend in person.
- Mandatory training:
 - It could be legislated under PHA as a requirement under a regulation to have a certificate (which would require specialized training).
 - Labor-Mobility Agreements: Trade Investment and Labour Mobility Agreement (TILMA)
 - Any training regulation would need to meet TILMA requirements. There may be exemptions for public health. Example: food safety training
 - S. Gilroy: *Could training be incorporated in an industry certification program?*
 - S. Gilroy: The JCTA has had a certification program in Canada since 2002. Some indoor tanning businesses have liability insurance (currently provided by three companies), but it is not mandatory to have professional liability insurance. *Could it be built into the liability professional insurance model and required for all tanning operators?*
 - S. Gilroy: The insurance company ensures controls are in place: skin typing, parental consent, trained and certified operators controlling the timer, plus more.
 - P. Barn: This could be done by regulation, but would be a complex regulatory structure.
 - S. Gilroy: Funeral home services use self regulation.

Action: MOH will follow up on this example.

- Mandatory signage:
 - Enforceable under the PHA.
 - This could be combined with any regulatory action described above.
 - Federal legislation already mandates signage on commercial tanning equipment.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- Mandatory skin typing:
 - P. Bailey: It is an option; however, questions arise around who would conduct and provide standardization about skin typing:
 - *What is the scientific research surrounding skin typing?*
 - *When, where and who would skin type?*
 - S. Gilroy: The JCTA provides skin typing training to its tanning operators.
 - P. Barn: The voluntary B.C. Guidelines recommend this, but are not a regulation.
- 6. **Dr. McLean's presentation: medical research and health impacts:**
 - (Uploaded to SharePoint under "Presentations" folder, Meeting Minutes.)
 - **Questions and answers from Dr. McLean's presentation:**
 - Dr. D. McLean: Immune-suppression clarification: some people can be subject to a burn that will affect their immunity.
 - Dr. D. McLean: Psoriasis responds well to UV therapy. There are approximately 40,000 visits per year to UVB machines in B.C.
 - Psoriasis is uncommon among young people.
 - Treatment costs approximately \$8.00 per visit, while alternatives can be very costly.
 - It is about weighing the risks.
 - Trained technicians and RNs perform the treatment in a controlled environment.
 - In more remote regions, commercial tanning facilities are prescribed by doctors where medical units are not available.
 - Skin cancer rates are higher among psoriasis group that have had UV treatments.
 - UV light treatment is no longer prescribed to treat acne.
 - S. Smith: sees approximately 15 people per month due to medical reasons coming to her salon.
 - Dr. D. McLean: prescriptions should be honored under the regulation.
 - There is a separate issue about governance regarding the variations among tanning equipment and uncontrolled lamps. Governed by the federal government under the *Radiation Emitting Devices Act*.
- 7. **S. Gilroy, JCTA presentation:**
 - (Uploaded to SharePoint under "Presentations" folder, Meeting Minutes.)
 - **Main points from JCTA presentation:**
 - CCS statistics show skin cancer rates are not rising except for male (mostly over 50) in B.C.
 - Female melanoma rates unchanged since tanning industry started in B.C.
 - Tanning industry clients – 85% female/15% male since industry started.
 - Tanning facilities has 6% risk for people under 35, if you include skin type.
 - Medical units have 96% risk – 16 times that of tanning facilities.
 - IARC Full Report in the executive summary says "Epidemiologic studies to date give no consistent evidence that use of indoor tanning facilities in general is associated with the development of melanoma or skin cancer."
 - Papas 2011 confirms WHO IARC executive summary – tanning facilities minimal risk.
 - Do food and UV light have the same carcinogenic effect based on dosage?
 - Sunlight and sun bed in the same Group 1 along with birth control pills, salted fish and being a painter.
 - **Questions and answers from JCTA presentation:**
 - JCTA represents salon owners that comprise approximately 70% of tanning beds, i.e., larger operators.
 - Rates of melanoma:
 - Dr. D. McLean: Mortality is going down due to early detection, but diagnosis is going up.
 - Dr. D. McLean: Most jurisdictions do not collect cancer data; therefore, statistics alone cannot be relied upon as an accurate description of cancer evidence.
 - Dr. D. McLean: B.C. collects data, but we must account for immigration of South and East Asians.
 - S. Gilroy: *Are the B.C. numbers inaccurate?*
 - Skin typing:
 - Dr. D. McLean: Fitzpatrick skin typing classification system is based on to European ancestry.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- Dr. D. McLean: His patients are typically within skin type 2 and 3 categories.
- S. Gilroy: JCTA uses the Fitzpatrick skin typing system.

8. **Wrap-up:**

- Dr. D. McLean: Minors are more susceptible to UV exposure. Their skin is thinner and they have more time in their life to develop skin cancer.
- Vitamin D is necessary:
 - Dr. D. McLean: UV light is not necessary for obtaining vitamin D; there are other forms of supplementation.
 - S. Gilroy disagrees with Dr. D. McLean's comment on vitamin D: 90% of all vitamin D comes from UVB light.

9. **Agreed Upon:**

- UV wavelengths are carcinogenic (all in agreement with exception of JCTA: S. Gilroy and S. Smith).
 - S. Gilroy: it depends on the dosage.
- Risk of damage is increased as exposure to UV light increases.
- Minors are more at risk – JCTA does not remember agreeing or disagreeing.
- For certain medical conditions, i.e., psoriasis, UV treatment may be prescribed by doctors as the most cost-effective option, in spite of the risks.

Action Items:

- All: Review draft minutes before posting on SharePoint.
- All: Provide Brenda Janke or Hilary Wheeler with questions regarding presentations to date and evidence.
- All: Upload relevant documents to SharePoint.
- Dr. D. McLean: Will bring evidence that Vitamin D organizations are partially funded by the tanning industry.
- S. Gilroy: Will bring evidence that the CCS is funded by sunscreen industry.
- K. Seely to present on youth behavior and can include the Kids Against Cancer perspective.
- Rob Wood (MoH): Investigate Consumer Protection B.C. model of Funeral Home Regulation model.
- M. Fusek: Conduct jurisdictional scan of European indoor tanning ban.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

ITWG Minutes: October 26, 2011

In Attendance

In Person

Steven Gilroy (JCTA)
Sally Smith (JCTA)
Kathryn Seely (CCS)
Dr. David McLean (BCCA and CDA)
Prabjit Barn (BCCDC)
Marylyn Chiang for Gary MacIsaac (UBCM)
Brenda Janke (MoH)
Hilary Wheeler (MoH)

Via Teleconference

Dr. Brian Emerson (PHO – observer status)
Marlyn Fusek (MoH)

Guest Speakers

(Via Teleconference):

Donna Hill (Government of Manitoba)
Jeff Gozzo (State of California)
Senator Ted Lieu (State of California)

Regrets

Paul Bailey (MoH)
Valerie Stevens (MoH)
Gary MacIsaac (UBCM)
Andrea Careless (MoH)

Agenda Items

1. Welcome, approval of draft agenda and October 18th minutes: Brenda Janke, Ministry of Health (Chair):

Action: Draft agenda approved.

- October 18, 2011 minutes, revised per member's suggestions.
- B. Janke: *Should the minutes include major points of presentations?*

Decision: Agreed.

2. Previous Action Items:

- B. Janke: Some items (research, position papers, journal articles, etc.) have been uploaded to SharePoint; please continue to upload your documents.
- B. Janke: B.C. Consumer Protection Model: *Could it be applied to the tanning industry similar to the funeral industry model?*
 - Voluntary and independent, like an industry association such as the tanning association.
 - Operates on cost-recovery basis. In this case, it would be funded by the tanning industry.
 - Under the *Public Health Act*, only designated health employees can perform inspections. This service would be addition to the PSE inspections currently performed by health authority staff. See attachment outlining B.C. consumer-protection-model application to the indoor tanning industry.
 - S. Gilroy: Ban in California did not look into skin typing, burning levels, no industry participation. *Why is research not yet on SharePoint to review?*

3. Manitoba's presentation: Donna Hill, Government of Manitoba:

- A private member's bill to amend the *Public Health Act* (PHA), introduced in 2010 that will require commercial tanning salons to obtain parental consent for clients who are under the age of 18.
- Details on implementation are being developed by government staff. Requirements likely to include:
 - Tanning operators to post warning signs around their salons.
 - For youth under 16: parents must accompany youth to every tanning session.
 - For youth between 16 and 17: parents would sign a consent form that would be valid for a limited time.
 - A fact sheet would be provided to parents before signing consent. The consent form would inform parents about vitamin D information, UV radiation and the higher risk associated with tanning. This fact sheet will be available to all tanning clients. The fact sheet is being prepared by Ministry of Health staff (not by industry).
- As it was a private member's bill, the legislation did not originate from staff policy and research analysis and advice.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- S. Gilroy: In 1998, Manitoba created a working group that generated options that provided the information to develop the private members bill.
 - S. Gilroy and D. Hill: Scope was just commercial tanning facilities operations, not home or medical units.
 - Dr. D. McLean: *Did you consider whether parental consent was effective?*
 - D. Hill: No.
 - K. Seely: *Does the government have a requirement under the Public Health Act to follow up on this legislation and its effectiveness?*
 - D. Hill: Not at this time. Under the *Public Health Act*, regulations are reviewable.
 - Dr. B. Emerson: *What resources are available for enforcement? How will this be enforced?*
 - D. Hill: Not clear at this point.
 - P. Barn: *Consent forms: how long do they have to be kept on file/premises?*
 - D. Hill: At this point, it remains unclear whether it will be a complaints process or regular monitoring.
4. **Jurisdictional review: Brenda Janke, Ministry of Health and Steve Gilroy, JCTA:**
- See attachment outlining current jurisdictional actions in the protection of minors.
 - Canada: Nova Scotia bans minors under 19 from indoor tanning. New Brunswick had a ban for minors but earlier this year repealed the legislation and now has voluntary guidelines. They recently sent out a survey to determine compliance. Results should be available later this fall.
 - S. Gilroy: Jurisdictional review highlights that legislation does not regulate home units with the exception of Brazil.
 - S. Gilroy: California is the only state to ban teens under 18. New Hampshire and South Dakota voted down bans.
 - B. Janke: *Steve, what was behind Brazil's move to ban tanning all together?*
 - S. Gilroy: Sao Palo had the majority of tanning salons. The tanning industry didn't have the funds to continue to fight the ban
 - K. Seely: *Did Brazil just ban commercial tanning?*
 - S. Smith: Did this include home and medical units or just commercial?
 - S. Gilroy: Brazil banned all commercial and home units. Many jurisdictions around the world have banned indoor tanning but they are not enforced. Recommendation in European Union came from working group and they now feel it was not effective, as it was not a comprehensive set of regulations. Included an increase in coin-operated units or unmanned units, with signs outside stating no under-18 use; that was it.
 - S. Smith: I have visited a tanned facility in England that was coin operated and unattended and I set my own time. There was no staff present to ensure that I set proper exposure time
 - The bans in Germany, Norway and Finland are facing difficulties. In Britain, there has been a dramatic increase of self-serve units from 5-10% units on the market to 50% of the indoor tanning market. Sweden's indoor tanning industry is 99% self-serve.
 - Question to S. Gilroy from B. Janke: *Steve, you had said in the last meeting that the European Union feels that the ban is not working?*
 - S. Gilroy: Yes, because they did not explore possible increase in home-unit purchases and coin-operated salons. They felt a ban would be a quick fix instead of looking at a comprehensive set of regulations and parental consent to open up the lines of communication/education.
 - Dr. B. Emerson: *Is phototherapy included in these bans?*
 - S. Gilroy: Dermatologists are increasingly installing phototherapy units.
 - K. Seely: *Is there evidence of this?*
 - B. Janke: *Is there any solid information regarding unintended consequences of a ban?*
 - S. Gilroy: 24-hour fitness centers have unregulated tanning beds.
 - P. Barn: *How are these regulated?*
 - B. Janke: Tanning salons receive a business licence from local governments and are regulated under the *Personal Services Establishment Regulation* and inspected by health authority staff. It's important that the options reflect the unintended consequences. Gyms are not regularly inspected under the Personal

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Services Establishment Regulation. However, the authority does exist, if the gym has a tanning bed. It would likely be complaints based.

- Dr. D. McLean: Are fitness centres' tanning beds unregulated/unsupervised?
 - S. Smith: I used to work in the fitness industry, and at the time they provided no training. Furthermore, staff or customers could set their own time. This was at Fitness World. There was no client card or skin typing.

5. California's presentation: State of California Senator Ted Lieu and Jeff Gozzo:

- California recently introduced a bill to ban minors under 18 from indoor tanning beds.
- Senator Ted Lieu attempted a similar initiative in 2007. Since then, there has been more medical research linking indoor tanning to skin cancer, so the public was more supportive.
- This legislative action is not aiming to put tanning operators out of business, but shift to tanning alternatives such as spray tanning or lotions.
- B. Janke: *What other options were considered?*
 - Senator T. Lieu: In 2007, California legislated parental consent for minors between 14 and 18 years old. It was found not to be working; this is supported by two studies for the following reasons:
 - Sometimes salon and parents would ignore the health warnings.
 - Some salons would download their consent forms and attach misleading information to it such as: "15 reasons why you should tan indoors," or "how tanning can help diabetes," with no supporting medical evidence. The information included with the consent forms promoted indoor tanning, and salons were not warning their clients of tanning's harmful effects.
 - Therefore, California has moved forward with its ban on indoor tanning in order to protect minors from a carcinogen,
- S. Gilroy: *Do you feel smoking and tanning have the same risk factors?*
 - Senator T. Lieu: Yes.
- Other reasons that contributed to the indoor tanning ban are:
 - Melanoma has skyrocketed in California.
 - Smoking and tanning are included in the same category in the World Health Organization's classification of carcinogens.
- Dr. B. Emerson: *Does the regulation allow a doctor to conduct phototherapy?*
 - Senator T. Lieu: The regulation does not include home units, but allows for prescription use.
- B. Janke: *What kind of enforcement is included in this regulation?*
 - Senator T. Lieu: Penalties include fines up to \$2,500 per day and for grievous offenses, a misdemeanor criminal charge.
- B. Janke: *Who will enforce this bill?*
 - Senator T. Lieu: The District Attorney.
- Dr. B. Emerson: *How is it being monitored?*
 - Senator T. Lieu: UV exposure is largely unregulated, no one knows how much UV exposure indoor tanning clients are getting and it's not safe given there are other alternatives.
 - S. Gilroy: *Senator, in response to the comment that UV exposure is unregulated, doesn't the FDA regulate tanning equipment?*
 - Senator T. Lieu: I don't know about FDA regulations and it cannot control the length of exposure. The Indoor Tanning Association was sued for stating and advertising that indoor tanning was "safe." They settled out of court.
 - S. Gilroy: That is not what I asked Senator Lieu, I asked if the FDA regulates tanning equipment because from my understanding the FDA has set maximum exposure schedule.
- Dr. B. Emerson: *Has there been any analysis of whether youth are complying with the ban?*
 - Senator T. Lieu: It's too soon to know until two to three years from now.
- B. Janke: *How has the public responded to this bill?*
 - Senator T. Lieu: Responses have been positive. Many parents were unaware of the harmful effects of tanning.
- B. Janke: *Has industry been cooperative?*

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- Senator T. Lieu: Industry has not been cooperative.
- P. Barn: Could you forward us those studies of youth compliance?
 - Senator T. Lieu: California is the first to ban indoor tanning under the age of 18. Prior to this, Texas had been the most progressive, banning youth under 16.5 years old from indoor tanning.

6. Canadian Cancer Society presentation: Kathryn Seely:

- (Uploaded to SharePoint under “Presentations” folder, Meeting Minutes.)
- **Major points of presentation:**
 - Canadian Cancer Society (CCS) purpose is to improve the quality of life for those living with cancer while working towards eradicating cancer.
 - CCS position on indoor tanning is that it is harmful and people under the age of 18 should be banned.
 - The indoor tanning industry should stop using misleading phrases such as that it is safe or it does not have harmful rays or adverse effects.
 - Indoor tanning is harmful and is a known carcinogen.
 - Melanoma rates are increasing.
 - There is no safe way to tan. Indoor tanning units emit UVR, which is five times greater than the midday sun.
 - Tanning does not provide adequate sun protection, nor is it a safe vitamin D source.
 - (Bylaw) regulation is important because public education, voluntary guidelines and parental consent are not working.
 - CCS advocates for province-wide ban of all indoor tanning for youth under 18.
- **Questions about CCS presentation:**
 - S. Gilroy: Questions the validity of CCS’s Ontario survey and the research methods.
 - K. Seely: Ontario division conducted research on 79 tanning salons in Toronto by hiring an independent research company. Researchers were not informed that it was a study for CCS. Researchers went into tanning salons and asked if they could use tanning equipment and how much it would cost.
 - S. Gilroy: When the survey was done, no one actually tanned, therefore the majority of salon would not have covered age, warning signs, skin typing and eyewear. Suggest if the people doing the survey had actually tanned(or looked like they had gone for a session), the results of the survey would have been very different
 - S. Gilroy: Nova Scotia: regulations started May 31, salons are just starting to be inspected.
 - S. Smith: Yes, I can attest to this, as if someone came into my salon for basic information (price, etc.) they would not be asked or told about these things. This only happens once a client asks to use a tanning bed, at that time they are required to fill out a client information form, record ID information, eye wear, etc., and see the warning signs in the tanning rooms.
 - B. Janke: Does the JCTA have a complete list of tanning beds?
 - S. Gilroy: JCTA does not have complete list of all tanning beds, just of members in the association. Member of the association has the most comprehensive list for B.C. JCTA says member could send out information.

Action: Clarify skin cancer statistics.

- S. Gilroy: Are the CCS statistics based on incidence in population or per 100,000? The 1985 data states that there were 2.1 cases per 100,000. Are these statistics reflected over population or per year?
- K. Seely: In the JCTA’s presentation, there was a slide that stated there were 2.1 per 100,000 cases. My records indicate that there are 10 per 100,000 (women) and 13 per 100,000 (male).
 - S. Gilroy: My numbers are directly from the CCS book of statistics.
- Dr. D. McLean and S. Gilroy: Disagree over whether melanoma rates are rising or decreasing.
- B. Janke: Is there any analysis on the burden skin cancer has on the health care system?
 - K. Seely: Comprehensive intervention would save the system a lot of money.
- S. Gilroy: Are there studies done on how costs or risks rise with the use of tanning beds?

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- Dr. D. McLean: Statistics don't tell the whole picture. Less exposure to a carcinogen is better. When you look at the population frequenting tanning beds and consider they are also going to the beach; less exposure to a carcinogen is better.
- S. Gilroy and Dr. D. McLean: In agreement, attributable risk hard to calculate.

Action: Investigate costs of skin cancer to health care system – see if any studies have been done.

- S. Gilroy: No one can say how much tanning beds cost the health care system.
- Dr. D. McLean: Parental involvement isn't necessarily sufficient.
 - S. Smith: It would still be beneficial (as a parent) to be a part of this conversation. In Manitoba's case, tanning salons will be required to hand out fact sheet, educating parents, *are you okay with taking away parental rights?*
- K. Seely: The fact sheet handed out in California was combined with misleading information.
 - S. Smith: This could be corrected with a comprehensive set of regulations.
- Dr. B. Emerson: Youth are often vulnerable due to the habit-forming tendencies. *If youth are exposed, is there any evidence that there is a greater likelihood to continue to tan into adulthood and that tanning has addictive elements?*
 - K. Seely: There are studies that tanning has addictive elements, not sure if there is a position on this.
 - Dr. D. McLean: There is a condition referred to as tanorexia. People claim they are addicted and frequent more than one tanning salon. Their skin has a leather appearance by 35.
 - S. Gilroy: Anything can be addictive, even food.

7. Medical research discussion (follow-up from first meeting), All:

- Dr. D. McLean: There are also noncarcinogenic impacts of UVA exposure, such as premature wrinkling of the skin. UVA destroys collagen and clumps elastin under the skin. After 30 years of UVA damage, there is a dramatic aging, which is another reason why UV exposure should be minimized, especially among minors.
- S. Gilroy: *Are people getting more UV exposure now than in the 1930s, given that many people work indoors now?*
 - Dr. D. McLean: It is not just intermittent exposure, but total exposure. In 1935, vacation time was limited to one to two weeks. Furthermore, it was socially unacceptable to show your body, and hats were popular at the time. Those who worked outdoors for extended periods of times (e.g., farmers) exposed maybe 6% of body surface. Now, it's socially acceptable to show off a large part of your body. Women protected themselves (paleness was equated to social status). In the 1950s travelling was expensive and a tanned complexion meant that you were rich enough to travel.
 - S. Gilroy: *Does that mean people working indoors are getting more sun exposure?*
 - Dr. D. McLean: UV exposure (even intermittent exposure) increases melanoma risks.
 - S. Gilroy: *Do you mean a sunburn?*
 - Dr. D. McLean: The summative photons hitting the skin.
 - S. Gilroy: Exposure guidelines regulate this, by Health Canada.
 - Dr. D. McLean: Dermatologists are not against tanning beds because it is bad for their business, but because of its harmful effects on skin.
- Dr. B. Emerson: *Is there any quantitative information on youth at risk?*
 - Dr. D. McLean: There are no controlled studies. The public and parents are generally unwilling to use children as subjects for a study.
- Dr. B. Emerson: *Are there studies on psoriasis (drug) treatments in medical devices?*
 - Dr. D. McLean: Long-term analysis on photosensitive drugs demonstrate devastating effects.
- S. Gilroy: *Did IARC include home units?*
 - Dr. D. McLean: Home units are not more or less dangerous, one photon in a home unit and salon unit is the same.
- S. Gilroy: Does binge sun exposure or overexposure increase the risks of UV light? Is the problem not overexposure? Are we not dealing with correlation?

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

8. **Wrap-up and next meeting, Brenda Janke, Ministry of Health:**

- B. Janke: Everyone should prepare policy actions for the next meeting. These do not have to be mutually exclusive.

Action Items:

- K. Seely: Clarify melanoma statistics.
- K. Seely: Provide information on research on economic burden of skin cancer to health care system.
- All: Present top policy actions to group.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

ITWG Minutes: November 7, 2011

In Attendance

In Person

Steven Gilroy (JCTA)
Sally Smith (JCTA)
Kathryn Seely (CCS)
Dr. David McLean (BCCA and CDA)
Prabjit Barn (BCCDC)
Gary MacIsaac (UBCM)
Brenda Janke (MoH)
Hilary Wheeler (MoH)

Via Teleconference

Dr. Brian Emerson (PHO – observer status)
Valerie Stevens (MoH)
Marlyn Fusek (MoH)
Andrea Careless (MoH)

Regrets

Paul Bailey (MoH)

Agenda Items

1. Welcome, approval of draft agenda and October 26, 2011 minutes: Brenda Janke, Ministry of Health (Chair):

- B. Janke: K. Seely had emailed regarding next week's meeting. *Can we schedule next week's meeting half an hour earlier?*

Decision: People to review their available times and get back to see if this is possible.

- S. Gilroy: The report contains misinformation regarding the JCTA that we will be correcting.
- K. Seely: The issue of statistics has been raised in previous meetings. Some points of clarification are:
 - Incidence rates of melanoma are increasing by 1.4% per year; see page 52 of the CCS booklet (available online).
 - Dr. D. McLean: Note: statistics are not annually collected in Canada because it is too expensive. Statistics reflect overall UV exposure, not commercial tanning beds. Furthermore, these statistics are reflective of national trends, not specifically B.C.
 - Dr. D. McLean: The population of B.C. has changed in recent years. There has been an increase in the number of people from Asian cultures who do not typically use sun beds. As well, the slowing rates of increase may be a result of greater sun awareness and precautionary measures taken.
- S. Gilroy: In the economic burden report, public education in Australia was shown to have a positive effect.
- B. Janke: Statistics reflect UV exposure that is not exclusively derived from tanning beds. *Are there estimates of how much skin cancer in B.C. is related to tanning bed use?*
 - Dr. D. McLean: UV exposure is summative. DNA degradation comes from UV wavelengths (photons) hitting the skin. There are no studies that measure how much UV damage is derived from tanning beds or the economic burden that indoor tanning has on the health care system in B.C.
 - S. Gilroy: It should be noted that Canadians are not exposed to adequate sun for three out of four seasons and it's important for clients that they have a controlled environment versus the uncontrolled risk of sun exposure in the summer.
 - Dr. D. McLean: Risk varies depending on the person and amount of exposure.

2. Cancer statistics and interpretation: all members:

- Dr. B. Emerson: *For the purposes of educating the public, are there any B.C. statistics that highlight the absolute risk over a lifetime of melanoma, squamous cell carcinoma and basal cell carcinoma?*
 - B. Janke: See 2009 CCS booklet, page 10.
- Dr. D. McLean: IARC showed a 75% increase added over lifetime with tanning equipment use.
- S. Gilroy: When I analyzed CCS statistics 10 years ago to analyze rate of increase; melanoma rate of increase has decreased (see 2001 and 2011).
 - Dr. D. McLean: This could be due to greater education; however, it should be noted that melanoma rates are not decreasing – just the rates of increase.
 - S. Gilroy: The rate of increase is slowing. Death rates have reached a plateau now at 0.6.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- B. Janke: We are not only concerned with death rates from melanoma.

3. Report structure: Brenda Janke, Ministry of Health:

- B. Janke: Actions were received from some. Main disagreement seems to be on whether or not the recommended action should be a ban (either aged 18 or 19) or parental consent.
- CCS, BCCA, CDA and UBCM support a ban on under 18.

4. Industry's proposed actions, taken from JCTA recommendations:

- Option 1
 - Enact JCTA guidelines as regulations.
- Option 2
 - Parental Involvement: Parental consent under the age of 18 with fact sheet (similar to Manitoba).
 - Consent form should be kept up until the age of 18 and renewed once a year.
 - Parent must be with teen for every session under the age of 16.
 - Separate youth files for easy access for inspectors.
 - 15 J/m² maximum exposure per year – approximately 28 sessions per year at maximum exposure time for anyone under 18.
 - Warning sign similar to B.C. warning sign in every room.
 - Skin type every client and ban Skin Type I from indoor sunbathing except for medical exemptions.
 - Professional training for every operator – industry certification or something else.
 - Industry certification program able to work with government to make certification as required by government (manual already on SharePoint for review).
 - Remote-controlled timers operated by trained operators (this would stop coin-operated /self-serve machines).
 - Client record keeping – skin type, exposure time, date last used. Two options already exist to do this: computer or client cards.
 - Salon must carry professional liability insurance – no real additional cost for salon. Double protection for youth.
 - You must register your facilities with the health department.

5. Roundtable discussion of recommendations:

1. Ban self-serve, unmanned (slide-card operated) tanning beds:

- S. Gilroy: Currently, self-serve tanning beds are uncontrolled in Canada. They operate in fitness centers, laundromats, grocery stores, gas stations based on an unmanned, slide-card system.
 - B. Janke: Is there a list of unmanned/self-serve tanning beds in British Columbia?
 - S. Gilroy: No. However, I know of a major supplier of tanning beds who may be able to provide you with that information.
- S. Gilroy: In 1998, Manitoba got rid of coin-operated beds and now has trained and/or certified operators. The beds can still be on a coin-operated, but the operator would drop the coin.
- B. Janke: *What would the economic impact be for facilities that offer coin-operated beds?*
 - S. Gilroy: Impacted businesses could install a remote timer for as little as \$400-\$500 per bed. Franchises are coming from the United States, open 24 hours a day and seven days a week with a slide-card operation.
 - Ireland and Sweden have banned self-serve beds. It should be noted that the JCTA is very different than the Indoor Tanning Association (ITA). JCTA fully supported this initiative and wanted to be a part of the working group.
- S. Gilroy: The transition from slide-card to remote-controlled tanning bed is required for all operators who want professional liability insurance. Timing device and control on tanning bed must be outside the room at a minimum. Some salons are hardwired to control the beds at the front desk.
- Dr. D. McLean: My concern with a remote control is that an operator could control a number of locations or beds remotely, with no onsite awareness of what is going on.
 - S. Gilroy: This could potentially be possible.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- K. Seely: This highlights the danger of having unmanned units; it has the potential to increase the likelihood that anyone can go in.
 - S. Smith: Currently the JCTA requires sun beds be supervised onsite by a trained personnel.
- B. Janke: Nova Scotia's legislation does not include a ban on self-serve machines.
- Pros: Use by minors and exposure times could be monitored.
- Cons: Businesses are impacted by the \$400-\$500 cost of conversion.

Decision: Agreed, ban on self-serve or unmanned tanning beds. Tanning bed usage must be supervised (onsite) by a trained and certified operator.

2. Fact sheet or informed consent:

- Aimed to educate the public.
- S. Gilroy: Manitoba is finalizing their consent fact sheet.
- B. Janke: *What would be included in the fact sheet and who would prepare it?*
 - K. Seely: It would important not to allow health benefits of tanning to appear on the form.
 - Dr. D. McLean: I would like to see the causes of skin cancer.
 - Dr. B. Emerson: It could provide basic information along with a signature that it has been read.
 - Dr. D. McLean: The fact sheet should be very clear with only a few paragraphs.
 - S. Gilroy: Agreed, Victoria's consent form is over seven pages and Manitoba's is four pages. The shorter the form, the more likely clients will actually read the information.

Decision: Agreed, fact sheet should be distributed to all clients prepared by Ministry, CCS, BCCA and CDA.

3. Tanning bed registry:

- Dr. B. Emerson: This model could entail a provincial licence to operate.
- S. Gilroy: *Could it be built into a building permit checklist?*
 - G. MacIsaac: It would not apply to any older buildings. Business permitting is municipally controlled but, does not ensure all businesses will be included (especially those that fall outside municipal boundaries). This would have to be controlled centrally.
- B. Janke: One model is a provincial licensing regime, similar to meat inspection, administered by the health authorities.
 - S. Gilroy: As long as it is not too costly.
 - B. Janke: It could take the form of a fee for service licence.
- Dr. B. Emerson: Personal service establishments are regulated by the health authorities, but not permitted by them.
- S. Gilroy: Alberta had a tanning bed registry.
- Dr. B. Emerson: *What about registration at the time of sale on tanning beds?*
 - B. Janke: Home units are easily bought online.
- S. Smith: It's important that we distinguish the scope of home or commercial units.
- Dr. D. McLean: U.S. and Canadian customs are vigilant about federal regulations, but it is unclear how stringent they are. Furthermore, regulating within Canada would be difficult and costly.
- B. Janke: Registry is costly and teens do not represent the biggest market share of home tanning equipment sales.
- B. Janke: *How much does professional liability insurance cost?*
 - S. Gilroy: \$250 for 10 beds.
- S. Smith: Another option is to mandate being a part of a professional association such as the JCTA.
 - S. Gilroy: Due to the discounted rate of insurance to operators, there is no added cost for operators to join the JCTA.
 - B. Janke: It would be difficult to mandate operators to join a professional association.
- S. Gilroy: *What about mandatory client record keeping?*
 - B. Janke: That would only really be an option for the keeping of the parental consent forms. The province is not considering keeping records of everyone who visits tanning facilities.
- Cons: Registries are expensive to set up and maintain. Teens are not the primary market for purchasing tanning equipment

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- Pros: would allow for more effective enforcement.
- 4. Provincial licence to operate tanning equipment:
 - S. Gilroy: Worth investigation if there is minimal cost involved.
 - Dr. B. Emerson: Licence must be enforceable, meaning that there must be a mechanism to remove equipment if operator fails to comply.
 - S. Gilroy: Agreed, Alberta's registry failed for this reason.

Decision: Further investigation required. Agreed in principle, if cost was minimal.

- 5. Additional signs:
 - B. Janke: *What guidelines are in place now in terms of signage?*
 - S. Gilroy: According to Health Canada's guidelines. In 2001 (black-and-white, but beside the tanning bed), 2005 (full color with mandated wording). Visibility depends (in Manitoba's case); signage must be visible one metre from the bed.
 - Dr. D. McLean: Federal guideline signage is restricted to the machine.

Action: Upload B.C.'s signs to SharePoint.

- 6. Training/certification of operators:
 - S. Gilroy: Smart Tan Canada offers certification of JCTA members and others in the tanning industry that began since 2002 and originated in the United States in 1994.
 - In the U.S., has worked with government (some jurisdictions have adopted the certification) or use the Smart Tan certification system. The Smart Tan curriculum is taught in the classroom and online (for four hours, tested by multiple-choice questions and answers). Costs \$74.95 for nonmembers and \$34.00 for members, \$64 in classroom with a minimum of 80% to pass training. National Tanning Training Institute (NTTI) also offers training in Canada and the United States. Twelve states have legislated that indoor tanning operators must be trained. Smart Tan has worked with these jurisdictions to create a certification system and in other cases it has been adapted.
 - B. Janke: A jointly developed training or certificate program would be best.
 - S. Smith: Many salons are Smart Tan certified for additional cost to operators.
 - Dr. D. McLean: A possibility is to have operators recertified every five years.
 - Pros: Greater expertise in operators.
 - Cons: Additional cost to operators.
- 7. Control of length of time and exposure:
 - S. Gilroy: U.S. has skin typing and has set exposure schedules. Health Canada also has recommendations on the amount of exposure. Manitoba's model will allow parent to choose frequency.
 - S. Gilroy: JCTA would recommend that exposure be restricted to no more than every 48 hours (or three times a week and for adults as well) but already foresees complaints. New Brunswick saw 800 complaints when this was regulated.
 - Dr. D. McLean: My concern is that sunburns are usually visible within 24 hours but may take longer to be seen.
 - S. Smith: Sunburn awareness is taught in the Smart Tan certification.
 - S. Gilroy: It would be a challenge to regulate adults.
 - K. Seely: CCS does not agree with this as an option to protect minors.
 - B Janke: It would be very difficult to monitor and control the frequency with which minors went to tanning beds.
- 8. Marketing or promotion regulation of the tanning industry:
 - Dr. B. Emerson: Regulation that would monitor where and what is said about tanning.
 - G. MacIsaac: We should be endorsing truth in advertising.
 - S. Gilroy: It is important to differentiate between health and medical claims.
 - K. Seely: CCS is alarmed with Vitamin D claims and skin protection (from sunburn) claims being made by the tanning industry.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- S. Gilroy: According to the Competition Bureau, the tanning industry can claim Vitamin D is produced from tanning. The 2-4 SPF health claim is unsubstantiated. *Where was the 2-4 number derived from?*
- B. Janke: It would be difficult for the province to enforce restrictions on advertising claims. Our jurisdiction is restricted to within the province. With information available on the web, it would be very difficult to control the type of information minors' access about the alleged benefits of tanning.
- Dr. D. McLean: It's not possible to regulate every advertisement.
 - S. Smith: This is especially true with the number of small businesses and with social media.
- Dr. B. Emerson: It's also worrisome when the tanning industry is sponsoring youth activities.
 - K. Seely: Or specifically targeting youth, example during prom season.
- Dr. D. McLean: This is a grey area where there are yearbook ads, lunch and grad specials.
 - S. Smith: This is difficult when tanning salons are being approached for sponsorship.
 - Dr. B. Emerson: Quebec prohibits advertising to children through a complaints process.
- B. Janke: *Protection of staff and operators: is there any danger to operators from radiation from tanning beds?*
 - S. Smith: Working conditions are covered by WorkSafe BC.
 - S. Gilroy: I have never heard of any danger. Staff are not in the room while clients are tanning, so they are not exposed to UV light.
 - Dr. D. McLean: I have not heard of any danger.
- Dr. B. Emerson: *What about eye protection?* It should be a standard practice.
 - S. Gilroy: Agreed. As members of the JCTA, it is mandatory that clients wear eye protection.

Decision: Difficult to regulate and enforce. Marketing complaints will continue through the Competition Bureau. Agree that truth in advertising is important. Enforcement would be complaint driven.

9. Taxation:

- B. Janke: The United States has implemented a tax on tanning services. This could be an option to deter youth.
 - S. Smith: We already have HST/GST, which the U.S. does not have.
- Dr. D. McLean: Pricing can be an effective way to influence behavior. The 10% increase on the price of tobacco decreased youth usage by 3%.
- B. Janke: Not sure how high the tax would have to be to have an impact.

Decision: No Interest at this time.

10. Parental consent vs. ban:

- Dr. D. McLean: *What age should tanning be banned?*
 - S. Gilroy: JCTA supports parental involvement. A ban does not reflect concerns regarding equipment types or the need for parental involvement.
- Dr. D. McLean: *Can we agree on a ban for younger people?*
- B. Janke: *Can we agree that youth under 14 should be banned unless prescribed by a doctor?*
- G. MacIsaac: *What percentage of clients are under 14?*
- S. Smith: This depends on a number of factors, e.g., location and proximity to youth.
- Dr. D. McLean: I have been approached by parents to talk to their children who are younger than 14 about the risks of tanning.

Decision: The working group agreed that youth under the age of 14 should be banned from indoor tanning. No consensus reached on parental consent for youth, versus ban for under 18.

6. Agreed-Upon Items

- Unanimous agreement on a ban on self-serve, unmanned tanning facilities. Require tanning treatments be delivered by trained and certified, operators who are onsite.
- If a banning age is chosen that is less than 18, a fact sheet on health impacts be produced and provided to all clients.
- Additional signage be required.
- Requirements be introduced for training/certification of all operators.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- All parties could agree on a ban at some age, but there were differences of opinion on what the age should be.
- The JCTA agreed to support a ban for minors under 14, while the CCS, BCCA, CDA and UBCM support a ban for minors under 18.

Action Items:

- Upload B.C. warning signs to SharePoint.
- Review report draft by Tuesday November 15, 2011.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

ITWG Minutes: November 16, 2011

In Attendance

In Person

Steven Gilroy (JCTA)
Sally Smith (JCTA)
Kathryn Seely (CCS)
Dr. David McLean (BCCA and CDA)
Prabjit Barn (BCCDC)
Gary MacIsaac (UBCM)
Brenda Janke (MoH)
Hilary Wheeler (MoH)

Via Teleconference

Dr. Brian Emerson (PHO – observer status)
Valerie Stevens (MoH)
Marlyn Fusek (MoH)
Andrea Careless (MoH)

Regrets

Paul Bailey (MoH)

Agenda Items

1. Past agenda items:

- Revisions of November 7, 2011 minutes only reflect JCTA edits.

Action: Review former minutes to make revisions.

2. Discussion of first draft of report:

- S. Gilroy: Many JCTA additions to the report were not present, especially given that the JCTA's comments are supported by credible research. Having our research present in the report will reflect our credibility as an industry.
- B. Janke: JCTA's contribution will be reflected in "Current Debate" section and in appendix which will have more information. I want to avoid duplication in the report. Our aim is to review and create policy actions.
- S. Gilroy: My concern is with the 75% general risk factor, especially when it applies and influences regulation. My concern is that this risk percentage does not reflect the significant risk in home units. Furthermore, the first paragraph does not break down the risk and our concern is misrepresentation.
 - Dr. D. McLean: WHO's research, is based on many papers. 75% is not an undisputed standard. However, the amount of research compiled disputed by a few papers is not as credible.
- S. Gilroy: Papas research analyzed the location of equipment. It shows the risk lies in the home units and that commercial tanning only accounts for 6% increased risk.
 - Dr. D. McLean: This research should be inserted into the appendix.
 - B. Janke: *Is Papas' research on SharePoint?*
 - S. Gilroy: Yes, what Papas' research analyzes is the seven research papers that the IARC report is based on. My concern is that the Minister should know that commercial tanning units have a 6% increased risk factor, rather than the 75% cited.
- B. Janke: The Terms of Reference directs us to create recommendations on how to protect minors and it is an increased risk. *How should risk be articulated in the report?*
 - Dr. D. McLean: The report should note that there is an increased risk.
 - S. Gilroy: It would be important to represent JCTA's statistics. Furthermore, if Skin Type I is included, risks are further diminished.
- B. Janke: Many people with Skin Type I are visiting tanning facilities. How would one ban Skin Type I when Fitzpatrick skin-typing is based on self-reporting?
 - S. Gilroy: JCTA wants to ban Skin Type I from tanning. England has banned Skin Type I.
 - Dr. D. McLean: People are much more sensitive than they realize.
 - S. Gilroy: The Fitzpatrick tool is the only tool available to operators. We are open to any other tools you have to reduce risk. We have found through our modified client card (available on SharePoint) risk factor decreased to nearly zero.
- Dr. D. McLean: On page 13, quotation "MED" should be deleted.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- K. Seely: CCS study of Ontario tanning salons analyzing compliance was not included in the report.
 - S. Gilroy: I disagree with this study because your own presentation stated that no youth tanned. If they had tanned, they would have undergone the process and the study's results would be different.
- S. Smith: Page 1, lists group 1 carcinogens such as tobacco smoke and is unnecessary.
 - Dr. D. McLean: This portion could be reworded to UV radiation including tanning beds and insert the term "proven carcinogen."
 - S. Smith: The carcinogen list can be referenced.
 - S. Gilroy: My concern is that it is comparing plutonium to the sun.
 - Dr. D McLean: It's a matter of dosage.
- S. Gilroy: *What about page 11 where the report talks about rates of melanoma but not basal cell carcinoma (BCC)?*
 - Dr. D. McLean: BCC develops in people ages 50 to 60 because there is a 30- to 40-year delay. Therefore, it is impossible to provide statistics at this time. However, it should be noted that it was considered unfashionable 50 years ago to be tanned.
- B. Janke: JCTA's concern of the interpretation of IARC's statistics will be noted in the statistics portion of the report.
 - S. Gilroy: This is not an interpretation but a fact from IARC data.
- S. Smith: I have a question about the medical units on page 6: *Is it possible to provide a manual for reference?*
 - Dr. D. McLean: 50,000 people are treated a year and it is monitored by B.C. Medical Practice. These are administered in Vancouver Hospital and Victoria General Hospital usually by a nurse or physiotherapist.
- K. Seely: *I have a variety of questions regarding the actions:*
 1. Require tanning beds to be controlled by an onsite certified and trained operator; ban self-serve unmanned machines:
 - S. Gilroy: Eight or nine states have approved certification program in the U.S.
 - Dr. D. McLean: It should be noted that the U.S. has a very different medical system and legislative process from Canada. It may be more useful to compare to Europe instead of the U.S., especially based on our medical system.
 2. Mandatory health risk fact sheet/informed consent:
 - K. Seely: My impression was that the group had agreed to more signage and eyewear protection.
 - S. Gilroy: Warning about eyewear is on the current signs.
 - S. Gilroy: *Could we insert industry involvement in the report?* JCTA is concerned with what happened with Victoria's consent form.

Action: Amend fact sheet industry participation to "involvement" in "mandatory health risk fact sheet/informed consent" portion of report.

- Dr. D. McLean: Requiring a parent present places a burden on parents and it usually falls to mothers.
 - S. Gilroy/S. Smith: Salons are open late to accommodate this.
 - S. Gilroy: Majority of minors come with their guardian.
- B. Janke: Some minors begin tanning as a result of their parent or guardian taking them.
- 3. Tanning equipment registry:
 - S. Gilroy: I would like to clarify that the JCTA has access to 99% of tanning beds in the province. It is able to provide those operators with information but cannot provide a list to the group.
 - S. Smith: More analysis is needed as stated in the report.
 - S. Gilroy: Licensing could be a potential to regulate for this.
 - S. Smith: Other salons or facilities would report each other if not licensed.
 - P. Barn: *How would one know if they are licensed?*
 - S. Smith: It could look like a business licence and be posted on the wall.
 - Dr. D. McLean: Licences and registries would only work if there is a regulatory agency willing to enforce them.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

4. Licence to operate:

- K. Seely: My impression was that we had agreed as long as it was at moderate cost to operators.
- B. Janke: It was supported with more analysis required based on moderate cost.
- S. Smith: *Would the licence address existing salons?*
- S. Gilroy: Illinois requires operators to have insurance displayed like a business licence.

5. Training of operator:

(See first recommended action, and November 7/October 26 (2011) meetings for more information.)

- Dr. B. Emerson: *I had a question about the age of the operator.*
- S. Gilroy: In the past, bans have resulted in firing anyone under the age of 18. On average, there are 1.5 persons under the age of 18 per location working in salons in various capacities, such as stocking shelves.
- Dr. B. Emerson: Perhaps it may be useful to look at tobacco and alcohol for their legislation.
- G. MacIsaac: Lifeguard has to be 16.
- S. Gilroy: Based on Nova Scotia, businesses fired anyone under 18 because fines were \$2,500 per day.
- Dr. D. McLean: It would be important that staff have the judgment of an adult. Nevertheless, it is unlikely that the government would regulate this for fear of overregulation.

6. Mandatory client record keeping:

- Dr. B. Emerson: This is would be regulated under *Personal Information Protection Act*. People would have to sign consent on this act to release information to the government.
- S. Gilroy: Privacy was also a concern in Manitoba. Their *Public Health Act* can bypass their *Personal Information Act*. *Can B.C.'s Public Health Act override the Personal Information Protection Act?*
- Dr. B. Emerson: No, it is not as far reaching. There would have to be a specific reason to breach privacy (why and what information is gathered).
- P. Barn: Name, age, birth date and frequency would have to be included in a registry.
- Dr. D. McLean: Every doctor's visit is documented and records kept.
- S. Gilroy: It should be noted that 80% of the industry already keeps records. The JCTA would like to see 100% of the industry record keeping.
- B. Janke: The recommendation should apply to minors.
- P. Barn: *How long does a tanning facility keep client records?*
- S. Gilroy: Currently records are held for seven years, which includes skin types.
- S. Smith: Could require patrons to sign a waiver, just as they must initial waiver for financial audit purposes.
- G. MacIsaac: This option could be incorporated into a licence.
- Dr. D. McLean: Could be a subset of record keeping and track exposure time.
- S. Gilroy: It should be noted that the majority of salons are looking at protecting the public.
- B. Janke: *Does the ITWG want to support setting limits on exposure time, as discussed as a stand-alone or in conjunction with another recommended action?*

Decision: Not supported at this time.

7. Restrictions on advertising and health claims by tanning industry:

- K. Seely: I'm concerned that the tanning industry is promoting health claims through advertising.
- Dr. B. Emerson: There may be two issues: promoting to youth and advertising health benefits.
- S. Gilroy: It's important to differentiate between medical and health claims.
- Dr. D. McLean: I am concerned that tanning be credited with the prevention of breast cancer.

Consensus Achieved: In some cases, it may be difficult to differentiate between a health and a medical claim.

- B. Janke: *Who would administer it, a complaint-driven process?*
- Dr. B. Emerson: In tobacco there is an administrator designated that adjudicates complaints.
- G. MacIsaac: For economic reasons, it would have to a complaint driven process.
- B. Janke: *Is it possible to ban ads targeted at minors?*
- S. Gilroy: There is a curfew set on alcohol advertising.
- Dr. B. Emerson: I think that is a broadcaster standard of practice.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

8. Tanning service tax.

- Dr. D. McLean: It would increase revenue. In tobacco, price is the biggest determinant towards reducing consumption.
- Dr. B. Emerson: We will consult the tobacco division at the Ministry of Health for more information.

Decision: Not supported at this time.

3. Layout of report:

- B. Janke: *How would the group prefer the recommended actions discussed in the report?*
 - Dr. D. McLean: The ban should be first and contingent. For example, if legislative action is a ban under 18, here are the recommended actions.
 - B. Janke: *How about wording it “the working group came up with the following scenarios”?*
 - Ban minors under 18 with increased signage.
 - Ban minors under 14 with required parental consent between 15 and 18.
 - G. MacIsaac: Report should include a statement of consensus rather than only positions.
 - Dr. D. McLean: The Minister may want to see what consensus reached.
 - B. Janke: Perhaps a statement such as “all recommended actions should or is aimed to protect minors.”
 - S. Smith: Problem with banning is that home units and other tanning equipments remain uncontrolled and that uncontrolled exposure is what the industry wants to control.
 - S. Gilroy: Once a ban is implemented, then these concerns are not addressed.

Overview of Recommended Actions Addressed in this Meeting:

- *Consensus reached:* Agreed to require tanning beds to be controlled by an onsite certified and trained operator; ban self-serve unmanned machines.
- *Consensus reached:* Agreed to mandatory health risk fact sheet/informed consent.
- *Consensus reached:* Agreed not to move forward with tanning equipment registry.
- *Consensus reached:* Agreed with licence to operate as long as it was cost effective.

Two Scenarios:

1. Ban minors under 18, as well as self-serve tanning equipment, and have trained operators.
2. Ban minors under 14 from indoor tanning and require in-person parental consent for minors between 18 and 14.

Action Items:

- All: Review former minutes to make revisions.
- M. Fusek: Amend fact sheet industry participation to “involvement” in “mandatory health risk fact sheet/informed consent” portion of report.
- B. Janke or B. Emerson: Consult Tobacco division at MoH regarding advertising and relevant studies.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

November 29, 2011 (Final Meeting)

In Attendance

In Person

Steven Gilroy (JCTA)
Sally Smith (JCTA)
Kathryn Seely (CCS)
Dr. David McLean (BCCA and CDA)
Brenda Janke (MoH)
Hilary Wheeler (MoH)
Marlyn Fusek (MoH)
Andrea Careless (MoH)

Regrets

Paul Bailey (MoH)
Valerie Stevens (MoH)
Gary MacIsaac (UBCM)
Dr. Brian Emerson (MoH)
Prabjit Barn (BCCDC)

Recommended Changes to Final Report

- Update tanning bed picture on cover of report.
- Ensure “UV indoor tanning” is consistent.
- In Exec Summary, page 3: first bullet on actions agreed to will be REMOVED: “providing info on health protection... to reduce their UV exposure.”
- In Exec Summary, page 4: last bullets under each scenario will be REWORDED to read “Prohibit misleading medical and health claims and advertising and promotion of UV indoor tanning to minors.”
- In Intro, page 5: Last sentence in first paragraph REMOVED: “ melanoma is one ... aged 15 to 19.”
- In Intro, page 5: REWORD last sentence in 4th paragraph to read “Initiatives are currently underway by medical health officers, the Canadian Cancer Society and others to encourage action by local governments in Vancouver and Surrey to introduce bylaws for restricting the use of commercial tanning beds by minors.”
- In Intro, page 5, REMOVE last sentence in last paragraph ‘ “Rather, it is ... working group.”
- In footnote 5 on page 7, REWORD to “there are approximately 50,000 treatments a year.”
- Under JCTA on page 8, in third paragraph REWORD to: “ The JCTA states the following about its UV tanning clients...”
- Under JCTA on page 8, REWORD the second sentence in the last paragraph to read, “The industry *states it* pays approximately....”
- Under the Report of the IARC on page 12, REMOVE the reference to the Icelandic study.
- Under Cancer Risks and Methodology on page 13, under JCTA position, page 13, third paragraph, in the 2nd sentence, add into the bracketed statement “(who *the JCTA recommends* do not tan).”
- Under Cancer Risks and Methodology on page 14, under BCCA, CCS and CDA response, add the following paragraph at the bottom:

“A 2008 audit of indoor tanning facilities in Toronto, undertaken by the Canadian Cancer Society, showed overwhelmingly that indoor tanning salons were not adhering to Health Canada’s voluntary guidelines for youth. For the survey, researchers visited 79 indoor tanning facilities across Toronto: Findings included:

 - 60% of tanning facilities did not ask the age of minors.
 - When the researcher’s age was revealed, 51% of facilities would have let researchers under the age of 16 use the equipment.
 - 60% of tanning facilities did not identify that the researcher had type I skin that burns and never tans.
 - 99% of tanning facilities did not recommend against tanning for Skin Type I researchers.
 - Only 12% of facilities visited were reported to have the Health Canada voluntary guidelines posted in an area that could be seen by the researchers.
 - 96% of personnel operating the tanning facilities did not communicate with the researchers about Health Canada’s guidelines.
 - 87% of facilities did not have the Health Canada Ultraviolet Radiation labels posted on their tanning equipment.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

- Footnote to read: About the Toronto study of tanning facilities: The study was conducted by Ontario Division in December 2007 with results analyzed during the first quarter of 2008. Three different types of researchers visited 79 indoor tanning facilities across Toronto – under-aged youth and fair-skinned and olive skinned youth. Researchers were not told the study was being conducted by the Canadian Cancer Society in order to keep results unbiased. At no point during the study were researchers exposed to ultraviolet radiation. The study, conducted by marketing research company Youthography, has a confidence interval of 95% (19 times out of 20)."
- Under Cancer Statistics, JCTA page 15, insert the following paragraph at the end:
"The JCTA also points the following statistics: while overexposure to UVR should be avoided, it should be noted that UVR exposure is a minor contributor to the world's disease burden, causing an estimated annual loss of 1.6 million DALYs (disability adjusted life years); i.e., 0.1% of the total global disease burden. A markedly larger annual disease burden, 3.3 billion DALYs, might result from reduction in global UVR exposure to very low levels. Lucas 2008 – Estimating the global disease burden due to ultraviolet radiation exposure – International Journal of Epidemiology 2008;1–14doi:10.1093/ije/dyn017"
- Remove Ontario study reference from Health Benefits section.
- Footnote on page 16 for the base tan SPF. Should be changed from 5 to 6.
- Page 16, fourth paragraph, second sentence: Our body "Due to lack of outdoor UV exposure, the body...."
- Page 17 section on Teen Behaviour, add paragraph "Research has shown little different in the tanning behaviour of teens in states with parental consent law versus those without." (Footnote)
 - Also add a piece on the Sun Safety Study and footnote.
- Page 20, Option 1 Advantages, add: "A ban would emphasize the seriousness of unnecessary UV exposure and possibly result in a cultural shift and change long-term behaviour."
- Page 20, Option 1 Disadvantages: lose/quit jobs.
- Page 20, Option 2 Advantages, bullet 2: Places the onus of limiting teen tanning on the parents and the operators.
- Page 20, Option 2 Advantages, bullet 3: remove "not a societal."
- Page 20, Option 2 Disadvantages, remove bullet 4 "does not meet the rec...."
- Page 21, Option 3 Disadvantages: "implement the provincially approved government training program."
- Page 21, Option 4, end of first paragraph: "In most cases, the self-serve machines currently in B.C. are a secondary source of limited income for the business owner."
- Page 22, Option 4 Disadvantages, add: "May need to identify and consult with owners of self-serve machines."
- Page 22, Option 5 Disadvantages: "Additional costs (probably minimal) for tanning facility owners...."
- Page 23, Option 8 Disadvantages: Ministry of Health to follow up re: privacy concerns.
- Option 9: add "Only relevant if a ban is not implemented."
- Option 11: change any reference to tanning to "UV indoor tanning."
- Option 11: remove "sponsorship of youth activities such as sporting activities and yearbooks."
 - Remove "Financial support...listed as a financial supporter."
 - Advantages, change to: "Prevent the encouragement of UV tanning to youth."
- Option 11 recommendation to say: "Prohibit advertising and promotion of UV tanning to minors."
- Page 25, second paragraph of Option 12: add after the first sentence: "This would be in addition to the authority of the Competition Bureau of Canada (footnote)."
- Page 26, Advantages: replace "accurate" with "balanced."
- Page 26, Recommendation to read: Prohibit misleading medical and health claims."
- Page 27, Scenario 1, last bullet: "Prohibit misleading medical and health claims and prohibit advertising and promotion of UV tanning to minors."
- Page 27, Scenario 2, remove last bullet, add "Prohibit misleading medical and health claims and prohibit advertising and promotion of UV tanning to minors."
- Page 26, Include "Tanning Equipment" to list of definitions (also add to page 7 where unit types are defined).
- Page 40, Include a disclaimer that "this is not comprehensive review of literature."

Appendix 4: Jurisdictional Scan

Ban on Indoor Tanning	
Jurisdiction	Age of Ban
Canada	
Capital Regional District, B.C.	Under 18
Nova Scotia	Under 19
Europe	
Austria	Under 18
Belgium	Under 18
Finland	Under 18
France	Under 18 – ban on UV Type 1 and 3 for professional use (ban on selling UV1,2 and 4 devices), mandatory signs must be displayed
Germany	Under 18
Ireland	Under 18
Portugal	Under 18
Scotland	Under 18
Spain	Under 18
Sweden	Under 18
United Kingdom	Under 18
Brazil	
All	<u>All</u> commercial tanning banned
Australia	
All	Under 18 and all fair-skinned people
United States	
California	Under 18
Delaware	Under 14; unless medically necessary
Illinois	Under 14
Maine	Under 14
New Hampshire	Under 14, unless medically necessary
New Jersey	Under 14
New York	Under 16
North Carolina	Under 13; unless medically necessary
North Dakota	Under 14; unless medically necessary
Texas	Under 16.5
Wisconsin	Under 16

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Mandatory Parental Involvement (Consent and Accompaniment)		
Jurisdiction	Consent	Accompaniment
Canada		
Manitoba	Parental consent under 18, in person	
New Zealand		
All		Under 18
United States		
Arizona	Under 18, in person	
Arkansas	Under 18, in person	
Connecticut	Under 16	
Delaware	Between 14-18 in person	
Florida	Between (14 and 18), agrees to wear eye protection	Under 14
Georgia	Under 18, in person	
Illinois	Between 14-17, in person	
Indiana	Under 18, in person	Under 16
Kentucky	Between 14-17, in person valid for 12 months	Under 14
Louisiana	Between 14-17, agrees to wear eye protection	Under 14
Maine	14 and older, in person, valid for 12 months	14 and 15
Maryland	Under 18, in person	
Massachusetts	14-17	Under 14
Michigan	Under 18, in person	
Minnesota	Under 16, in person	
Mississippi	Between 14-17, in person	Under 14
New Hampshire	Under 18, in person valid for 12 sessions	Under 14
New Jersey	14 through 17	
New York	Between 14 and 17, in person; valid for 12 months, agrees to wears eye protection	
North Carolina	Under 18	
North Dakota	Under 18, in person; valid for 12 months	Under 14
Ohio	Under 18, in person; valid for a number of tanning sessions specified by parents	
Oregon	Under 18, in person	
Rhode Island	Between 14 and 18, in person	
South Carolina	Under 18, in person	
Tennessee	Under 18, in person	Under 14
Texas		Under 18, in person, agrees to wear eye protection
Utah		Under 18, in person; valid for 12 months and number of tanning sessions as specified by parent
Virginia	Under 15; valid for 6 months	
Wyoming	Between 15 and 18, in person, valid for 12 months	Under 15

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Tanning Equipment Legislation

France

UV 1 Type	High UVA – professional use only; cannot be sold to the public
UV3 Type	Limited level of emission is for professional use, can be sold to the public
UV2 and UV4 Type	Strictly limited to medical use; cannot be sold to the public

Legislated Tax

United States

Federal Tax	10% on tanning services
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Appendix 5: Definitions

Term	Definition
Basal Cell Carcinoma	Skin cancer that forms in the lower part of the epidermis (the outer layer of the skin). Basal cell carcinoma is the most common form of skin cancer in Canada. This type of skin cancer is the least dangerous. However, it must be treated, or else it will continue to grow.
Dermis	Middle layer of skin, under the epidermis – a layer of fatty connective tissue.
Epidermis	Top or outer layer of skin.
Erythema	A redness of the skin resulting from inflammation, for example, as caused by sunburn.
J/m ²	Joules per metres squared. This expresses the UV dose, defined as the intensity of UV radiation (W/m ²) x retention time (s).
Malignant Melanoma	A less common but most dangerous form of skin cancer. It starts in the melanocytes found in the outer layer of the skin. These cells grow out of control and form a tumour. Melanomas are often brown and black in colour but can show other shades.
Melanin	The pigment made by melanocytes.
Melanocytes	Pigment-producing cells in the skin that determine its colour, and are responsible for the change in colour when the skin is exposed to sunlight. Melanocytes are part of the epidermis and also found in the hair and eyes.
Meta-analysis	A meta-analysis combines the results of several studies on a group of related research hypotheses. The general goal of a meta-analysis is to better estimate the true “effect size,” compared to a smaller “effect size” derived from a single study.
Mitotic Activity	Having to do with the presence of dividing (proliferating) cells. Cancer tissue generally has more mitotic activity than normal tissues.
nm	Nanometre: one billionth of a metre. Used to specify the wavelength of electromagnetic radiation.
Photoaging	Premature skin damage caused by the breakdown of collagen in the skin by UV, similar to the aging process. This damage is irreversible and includes wrinkling, sagging, blemishes and age spots.
Photoprotection	A group of mechanisms that nature has developed to minimize the damage the human body suffers when exposed to UV radiation. Photoprotection can also mean taking precautions to prevent UV exposure, such as keeping out of the sun, wearing clothing and hats, and applying sunscreen.

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Term	Definition
Seasonal Affective Disorder (SAD)	A type of significant depression that is often associated with the lack of daylight in extreme northern and southern latitudes from the late fall to the early spring.
Squamous Cell Carcinoma	Skin cancer that forms in squamous cells (flat cells that form the surface of the skin). Squamous cell skin cancer is the second most common form of skin cancer in Canada after basal cell skin cancer. This form of skin cancer must be treated because the lesion may continue to grow in size, damaging surrounding tissue, and may spread to other areas of the body.
SPF (Sun Protection Factor)	A number assigned to a sunscreen that is the factor by which the time required for unprotected skin to become sunburned is increased when the sunscreen is used. SPFs can range from 2 to 100.
Tanning Equipment	Ultraviolet or other lamps intended to induce skin tanning by irradiating the human body with ultraviolet radiation, and equipment containing such lamps, including ballasts, starters, reflectors, acrylic shields, timers, and airflow cooling systems.
Tanning Facility	Any location, place, area, structure or business that provides customer access to tanning equipment.
Ultraviolet (UV) Radiation	Part of the (sun's) light spectrum, along with visible and infrared radiation. Ultraviolet radiation has wavelengths of 100-400 nm, and encompasses UVA, UVB, and UVC.
UVA	Ultraviolet A radiation: UVA has the longest wavelength and, therefore, can penetrate the middle layer of the skin (dermis). 95% of the UV rays we come in contact with naturally (from the sun) are UVA. UVA are the "aging rays."
UVB	Ultraviolet B radiation: UVB has a shorter wavelength than UVA and can penetrate the outer layer of the skin (epidermis). 5% of the UV rays we come in contact with naturally are UVB. UVB are the "burning rays."
UVC	Ultraviolet C radiation: UVC has the shortest wavelength and is almost completely absorbed by the ozone layer, and does not reach the Earth's surface. UVC can be found in artificial sources, however, such as mercury arc lamps and germicidal lamps.

Appendix 6: Agents Classified by the IARC as Group 1: Carcinogenic to Humans

Classification of Carcinogens

The International Agency for Research on Cancer (IARC) has developed the most widely used system for classifying carcinogens. Over the last 30 years, the IARC has evaluated the cancer-causing potential of more than 900 likely candidates, placing them into one of the following groups:

IARC Classification of Carcinogens		
Group 1	Carcinogenic to humans	107 agents
Group 2A	Probably carcinogenic to humans	59 agents
Group 2B	Possibly carcinogenic to humans	267 agents
Group 3	Not classifiable as to its carcinogenicity to humans	508 agents
Group 4	Probably not carcinogenic to humans	1 agent

It is difficult to test these candidate carcinogens, so most are listed as being of probable, possible, or unknown risk. Just over 100 are classified as "carcinogenic to humans." For a complete list of all IARC groups, see "Agents Classified by the *IARC Monographs*, Volumes 1-102," at <http://monographs.iarc.fr/ENG/Classification/ClassificationsGroupOrder.pdf>

Group 1: Carcinogenic to Humans

- Acetaldehyde (from consuming alcoholic beverages)
- Acid mists, strong inorganic
- Aflatoxins
- Alcoholic beverages
- Aluminum production
- 4-Aminobiphenyl
- Areca nut
- Aristolochic acid (and plants containing it)
- Arsenic and inorganic arsenic compounds
- Asbestos (all forms) and mineral substances (such as talc or vermiculite) that contain asbestos
- Auramine production
- Azathioprine
- Benzene
- Benzdine and dyes metabolized to benzdine
- Benzo[a]pyrene
- Beryllium and beryllium compounds
- Betel quid, with or without tobacco
- Bis(chloromethyl)ether and chloromethyl methyl ether (technical-grade)
- Busulfan
- 1,3-Butadiene
- Cadmium and cadmium compounds
- Chlorambucil
- Chlornaphazine
- Chromium (VI) compounds
- *Clonorchis sinensis* (infection with)
- Coal, indoor emissions from household combustion

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Group 1: Carcinogenic to Humans, continued

- Coal gasification
- Coal-tar distillation
- Coal-tar pitch
- Coke production
- Cyclophosphamide
- Cyclosporine
- Diethylstilbestrol
- Epstein-Barr virus (infection with)
- Erionite
- Estrogen postmenopausal therapy
- Estrogen-progestogen postmenopausal therapy (combined)
- Estrogen-progestogen oral contraceptives (combined) (Note: There is also convincing evidence in humans that these agents confer a protective effect against cancer in the endometrium and ovary)
- Ethanol in alcoholic beverages
- Ethylene oxide
- Etoposide
- Etoposide in combination with cisplatin and bleomycin
- Fission products, including strontium-90
- Formaldehyde
- Haematite mining (underground)
- *Helicobacter pylori* (infection with)
- Hepatitis B virus (chronic infection with)
- Hepatitis C virus (chronic infection with)
- Human immunodeficiency virus type 1 (HIV-1) (infection with)
- Human papilloma virus (HPV) types 16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 59 (infection with) (Note: The HPV types that have been classified as carcinogenic to humans can differ by an order of magnitude in risk for cervical cancer)
- Human T-cell lymphotropic virus type I (HTLV-1) (infection with)
- Ionizing radiation (all types)
- Iron and steel founding (workplace exposure)
- Isopropyl alcohol manufacture using strong acids
- Kaposi sarcoma herpesvirus (KSHV)/human herpesvirus 8 (HHV-8) (infection with)
- Leather dust
- Magenta production
- Melphalan
- Methoxsalen (8-methoxypsoralen) plus ultraviolet A radiation
- 4,4'-Methylenebis(chloroaniline) (MOCA)
- Mineral oils, untreated or mildly treated
- MOPP and other combined chemotherapy including alkylating agents
- 2-Naphthylamine
- Neutron radiation
- Nickel compounds
- N'-Nitrosomornicotine (NNN) and 4-(N-Nitrosomethylamino)-1-(3-pyridyl)-1-butanone (NNK)
- *Opisthorchis viverrini* (liver fluke; infection with)
- Painter (workplace exposure as a)
- 3,4,5,3',4'-Pentachlorobiphenyl (PCB-126)
- 2,3,4,7,8-Pentachlorodibenzofuran
- Phenacetin (and mixtures containing it)

REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

Group 1: Carcinogenic to Humans, continued

- Phosphorus-32, as phosphate
- Plutonium
- Radioiodines, including iodine-131
- Radionuclides, alpha-particle-emitting, internally deposited (Note: Specific radionuclides for which there is sufficient evidence for carcinogenicity to humans are also listed individually as Group 1 agents)
- Radionuclides, beta-particle-emitting, internally deposited (Note: Specific radionuclides for which there is sufficient evidence for carcinogenicity to humans are also listed individually as Group 1 agents)
- Radium-224 and its decay products
- Radium-226 and its decay products
- Radium-228 and its decay products
- Radon-222 and its decay products
- Rubber manufacturing industry
- Salted fish (Chinese-style)
- *Schistosoma haematobium* (flatworm; infection with)
- Semustine (methyl-CCNU)
- Shale oils
- Silica dust, crystalline, in the form of quartz or cristobalite
- Solar radiation
- Soot (as found in workplace exposure of chimney sweeps)
- Sulfur mustard
- Tamoxifen (Note: There is also conclusive evidence that tamoxifen reduces the risk of contralateral breast cancer in breast cancer patients)
- 2,3,7,8-Tetrachlorodibenzo-para-dioxin
- Thiotepa
- Thorium-232 and its decay products
- Tobacco, smokeless
- Tobacco smoke, secondhand
- Tobacco smoking
- ortho-Toluidine
- Treosulfan
- Ultraviolet (UV) radiation, including UVA, UVB, and UVC rays
- Ultraviolet-emitting tanning devices
- Vinyl chloride
- Wood dust
- X- and Gamma-radiation

Appendix 7: Bibliography of Medical Evidence

(Posted on the Indoor Tanning Working Group's Sharepoint website)

Note: This bibliography is a summary of the information presented and discussed by the working group. It is not a complete compilation of all the research on the health impacts of indoor tanning.

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Autier, Philippe and Peter Boyle. "Artificial Ultraviolet Sources and Skin Cancers: Rationale for Restricting Access to Sunbed use before 18 Years of Age." *Natural Clinical Practice Oncology* 5, no. 4 (print, 2008): 178-179, <http://dx.doi.org/10.1038/ncponc1069>.

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Canada, British Columbia, Ministry of Health Services. *B.C. Guidelines for Tanning Salon Operators*. Victoria, B.C., 2004. <http://www.health.gov.bc.ca/library/publications/year/2004/PHI080.pdf>.

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REPORT OF THE INDOOR TANNING WORKING GROUP (ITWG)

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