



A Process Evaluation of the Skin Cancer Prevention Act (Tanning Beds): A Survey of Ontario Public Health Units

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Abstract

Evidence of the dangers of indoor tanning and its popularity, including among youth, led the Government of Ontario to pass the Skin Cancer Prevention Act (Tanning Beds) (SCPA) in 2014. This legislation includes prohibiting the sale of indoor tanning services to individuals under 18, requiring warning signs be posted, and other safety regulations. We collected information from Ontario Public Health Units to conduct a process evaluation of the SCPA to: understand legislation implementation; assess available evidence about compliance, inspection, and enforcement; and, note barriers and facilitators related to inspection and enforcement. Data was collected March–April 2018. All 36 Ontario Public Health Units were invited to participate in an online questionnaire about the SCPA. Questions covered complaints, inspection, and enforcement, and used both close- and open-ended questions. Participants from 20 Public Health Units responded to the questionnaire; a response rate of 56%. These agencies reported 485 facilities offer indoor tanning. Since 2014, there have been 242 infractions by tanning facility owner/operators related to the SCPA, with most being uncovered during non-mandatory routine inspections ($n = 234$, 97%), rather than mandatory complaint-based inspections ($n = 8$, 3%). Most infractions were related to warning signs ($n = 201$, 83%). No charges were issued for any infractions. Instead, providing education ($n = 90$, 62%) and issuing warnings ($n = 33$, 23%) were the most common enforcement strategies. SCPA amendments are needed, including mandatory, routinely scheduled inspections. In addition to providing education, fines may improve compliance. More resources are required for inspection and enforcement of the SCPA.

Keywords Skin Cancer Prevention Act · Indoor tanning · Enforcement · Inspection · Compliance

Introduction

Skin cancer is the most common cancer in Canada, and also one of the most preventable cancers [1]. Together, cases of melanoma and keratinocyte carcinomas (non-melanoma skin cancers) equate to the same number of cancer cases as the four major cancers (lung, breast, colon, and prostate) combined [1]. In 2013, there were 3409 incident cases of melanoma skin cancer reported in Ontario, Canada [2]. The main risk factor for melanoma and keratinocyte carcinomas is exposure to ultraviolet (UV) radiation, either naturally from the sun, or artificially from indoor tanning devices [1]. Indoor tanning devices emit UV radiation, but at a higher intensity than the sun [3, 4]. Therefore, exposure to UV radiation is a significant public health concern, and one deserving of policy action.

In 2003, the World Health Organization recommended governments around the world implement legislation,

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especially with a focus on banning indoor tanning by youth under 18 years of age [5]. Since 2009, UV radiation from indoor tanning beds has been classified as a known cancer-causing agent in humans [6]. Indoor tanning significantly increases the lifetime risk of melanoma, and there is evidence of a dose–response relationship between indoor tanning and cutaneous melanoma [6–9], with the highest risk associated with indoor tanning at a young age [9, 10].

The increase in the risk of skin cancer has been a major driver for the implementation of indoor tanning legislation, especially banning youth access [9, 11, 12]. In response to evidence of the health risks of indoor tanning, many jurisdictions across the Americas, Europe, and Australia, have implemented legislation restricting indoor tanning [5, 6, 13].

In Canada, federal legislation and regulation provide tanning equipment construction and function standards (e.g., safety features, UV-emitting light bulbs) and mandate federal warning labels to be posted on indoor tanning equipment [14], but do not address use or access. In Canada, legislation regarding indoor tanning equipment use is dictated by each province and, as of 2108, all ten provinces, and one territory have indoor tanning legislation [15]. In Ontario, the Skin Cancer Prevention Act (Tanning Beds) (SCPA), became enforceable in May, 2014 [16]. The SCPA prevents the sale of indoor tanning services to individuals under 18, requires age verification for individuals who appear less than 25 years old, prohibits advertising or marketing to individuals under 18, mandates the posting of signs warning of health effects, requires the presence of an attendant during indoor tanning, requires the provision of protective eyewear, and requires indoor tanning businesses to register with the Medical Officer of Health (MOH) in their jurisdiction (Table 1) [16]. In 2014, the Ontario Ministry of Health and Long-Term Care issued a protocol to direct boards of health on how to

implement and enforce the SCPA [17]. According to the Tanning Beds Compliance Protocol, 2014, enforcement is complaint-driven. Public Health Units (PHUs) are the agencies governed by boards of health under the *Ontario Health Protection and Promotion Act (HPPA)*, and are responsible for administering promotion and prevention programs [18]. Each of the 36 PHUs in Ontario are responsible for implementation, inspection, compliance monitoring, and enforcement of the SCPA within their respective jurisdictions.

Although the SCPA has been enforceable since 2014, the functioning of the legislation has not been assessed. Just prior to the legislation's enactment, seven percent of Ontario youth had ever used indoor tanning devices [19]. Research conducted since the implementation of the legislation suggests it may not be achieving optimal effects, as there was no reduction in the percentage of youth using indoor tanning devices the year after the legislation was enacted [20]. It is unclear why there was no change in youth tanning in the first year after enactment; however, examining enforcement of the legislation by Ontario's PHUs and the extent to which indoor tanning businesses are complying may assist with our understanding of this issue.

Although research has evaluated the impact of the SCPA on indoor tanning use in the first year after enactment [20], it is important to evaluate how this legislation is being implemented, enforced, and complied with in Ontario, as this may uncover potential areas for improvement to inform policy makers and public health professionals. Hence, the objective of this study was to collect information from Ontario PHUs to: (1) understand how this legislation has been implemented; (2) assess available evidence of compliance, inspection, and enforcement from PHU records; and, (3) note the barriers to and facilitators of inspection and enforcement according to PHU staff.

Table 1 Skin cancer prevention act sections and descriptions of offences

SCPA section (Ontario Regulation 99/14)	Description of offence and section
Underage sale	Selling, offering for sale, or providing tanning services/UV light treatments to individuals less than 18 years old? 2 (1)
Age verification	Failing to request identification for individuals who appear less than 25 years old before providing tanning services/UV light treatments? 2 (2)
Self-tanning	Permitting self-tanning (i.e., services or treatments without requiring the presence of an attendant)? 3 (1)
Underage marketing	Advertising or marketing tanning services/UV light treatments to persons who are less than 18 years old? 4 (1)
Signage	Failure to post signage in accordance with regulations: Point of sale warning sign? 5 (2) Health warning sign? 5 (3) Age restriction and identification decal? 5 (4) Employee reminder decal? 5 (5) Signage in general (type not specified)? 5 (1)
Eyewear	Failure to provide protective eyewear, and instructions, to individuals using the tanning services/UV light treatments? 6 (2), 6 (3)
Business registration	Failure to provide Medical Officer of Health with notice of operation including business name, address, and telephone number? 7 (1)

Methods

Questionnaire Development

We sought to electronically survey Ontario's 36 PHUs about the SCPA. A questionnaire developed by the authors with input from members of the Ontario Sun Safety Working Group (OSSWG), was based on the overall objectives of the study. The questions were created based on the legislation itself, the government-issued Tanning Facility Inspection Report form used by PHU staff to record details of inspection visits to indoor tanning facilities, the protocol document issued by the Ontario Ministry of Health and Long-Term Care to provide direction to boards of health about the implementation and enforcement of the SCPA [21], and through discussions with public health personnel tasked with conducting inspections related to the Act. To ensure questions were comprehensive, clear, and interpreted as intended, multiple iterations of the questions were shared and discussed with a public health inspector, other front-line public health professionals working with the legislation, and additional stakeholders who contributed to the creation and evaluation of the legislation. With their input, questions were edited for wording accuracy, clarity, and comprehension.

Twenty-four questions were used to determine the type of inspection and enforcement activity conducted by the PHUs related to the SCPA. Respondents were queried about: the number of indoor tanning facilities in their jurisdiction; who at the PHU is responsible for inspecting and enforcing the SCPA's requirements; and, whether training had been provided to employees responsible for inspection and enforcement. In addition, core questions covered: whether inspections conducted were education/routine and/or complaint-based inspections; the number of complaints regarding the SCPA that the PHU had received for each of the possible categories of offence (Table 1) each year since SCPA enactment; and the number of infractions, and actions taken in response to infractions, arising from both routine/education and complaints-driven inspections. Open-ended questions were also included to gain an understanding of the respondents' opinions and perceptions of the SCPA by asking if they had anything further to share on each of the topics.

Questionnaire Distribution

The project was approved by the University of Guelph Research Ethics Board (REB # 17-12-013). The MOH or their designate was contacted at each PHU. They were

each sent a hardcopy letter by mail introducing the questionnaire and inviting their PHU's participation, followed by an email that included the questionnaire link. The MOH or their designate was asked to delegate the completion of the questionnaire to the most appropriate individual on staff at the PHU. Hence, study respondents were employees at Ontario PHUs.

Questionnaire responses were de-identified 2 weeks after the questionnaire closed and all findings are presented in aggregate so that individual PHUs cannot be identified. Questionnaire responses were collected through Qualtrics (Qualtrics, Provo, UT), a self-administered online survey tool. Based on inspection records and SCPA enforcement experiences, respondents answered questions that were formatted as binary (yes or no), multiple choice, numerical entry, and open-ended. Respondents had the option to select "unknown", "prefer not to answer", or skip the question if they did not wish to answer a question. Respondents were also given the opportunity to input written comments into text boxes for the open-ended questions.

The questionnaire was available online starting March 1, 2018, and the last completed questionnaire was submitted on April 19, 2018. One reminder was sent to the MOH at each PHU 4 weeks after the initial email was sent, reminding them to have an employee complete the questionnaire if they had not already done so.

Analysis

All statistical analyses were performed using STATA version 13.1 (StataCorp LP, 2013. College Station, Texas, USA). Descriptive statistics based on frequencies (counts) were generated. Qualitative data from open-ended responses was used to further understand quantitative findings by identifying common themes and insightful responses to illustrate the opinions of the respondents.

Results

Demographics

Twenty PHUs completed the online questionnaire and were included in the subsequent analysis; a 56% response rate. Responding PHUs can be categorized as being from five urban areas, six rural areas, and nine urban–rural mixed areas, based on population centre size from the 2016 census [22]. Responding PHUs were in low and high population density areas, and a variety of geographic regions (e.g., North, South, East, West) throughout Ontario.

Indoor Tanning Facilities

Most ($n = 19$) of the responding PHUs indicated they had a listing of the facilities offering indoor tanning services in their jurisdiction. PHUs reported, in total, 485 facilities offer indoor tanning in their jurisdictions. Most records of indoor tanning facilities were updated within the past year (2017–2018) ($n = 18/19$ of PHUs). One PHU reported not having updated their list of facilities since the legislation in 2014, “as there have not been complaints under the Act.”

Regarding the maintenance of the list of tanning facilities, most respondents noted technology (i.e., inspector software and/or databases), inspectors, and tanning operator telephone calls in their open-ended responses ($n = 19/19$). However, responses generally did not articulate how the list is kept up to date (i.e., how new facilities are determined to be added, and closed facilities removed). One PHU indicated, “some facilities have not reported opening as a new establishment,” suggesting there were establishments unknown to them because tanning facility operators were not reporting their operation as required by law. Another PHU highlighted their use of the municipal licensing system to aid in keeping track of new facilities: “Tanning bed operators [...] must file for an annual business license; we have established a system with the licensing dept of [the city] that includes joint inspections.”

The number and type of indoor tanning business in each PHU jurisdiction varied, from one to 129 facilities per jurisdiction (mean = 26; [SD = 28]). Indoor tanning services were reported in tanning salons ($n = 214$, 44%), beauty salons or spas ($n = 145$, 30%), gym and fitness facilities ($n = 122$, 25%), and other types of facilities ($n = 4$, 1%) (e.g., university residence, or wellness centres). These facilities reported by PHUs encompass 51% (214/420) of indoor tanning salons and 46% (122/268) of gyms with indoor tanning in Ontario [23].

Complaints

All PHUs indicated that when a complaint is reported, they record the complaint regarding the SPCA and follow-up with an inspection of the indoor tanning facility. However, from 2014 to 2017, only 40% ($n = 8$) of responding PHUs reported receiving complaints about possible or actual SCPA infractions by indoor tanning facilities, and of these, seven maintained records of the complaints, and six specified these complaints.

Since the SCPA was enacted in 2014, there were 20 complaints to six PHUs about possible or actual infractions by indoor tanning facilities (mean = 3, range = 1–7). Complaints most commonly related to signage ($n = 8$, 40%) and underage sale ($n = 4$, 20%). Additional details pertaining to complaints

Table 2 Complaints related to the SCPA by year reported by 7 Ontario public health units

SCPA section	Year				Total
	2014	2015	2016	2017	
Underage sale	0	2	2	0	4
Age verification	0	0	0	2	2
Self-tanning	0	1	0	0	1
Underage marketing	0	0	0	0	0
Signage	0	2	2	4	8
Eyewear	0	0	0	2	2
Business registration	2	1	0	0	3
Total per year	2	6	4	8	20

received by PHUs about SCPA non-compliance appear in Table 2.

Responding PHUs were queried through open-ended questions if there was any other information the PHUs collect about complaints or responses to complaints. Of those that responded, half ($n = 11/20$) indicated there was no additional information collected and that there had been few complaints overall, while emphasizing the provision of pre-emptive education. For example: “We have not received any complaints”; and “Not many complaints. We strive to educate first.”

Inspection, Infractions, and Enforcement

Public health inspectors were identified as those primarily responsible for inspecting and enforcing the SCPA’s requirements ($n = 16/20$). Other PHU employees responsible for inspecting and enforcing the SCPA’s requirements include public health nurses ($n = 2/20$), public health promoters ($n = 1/20$), and tobacco enforcement officers ($n = 2/20$). Most ($n = 18/20$) employees responsible for inspection and enforcement were trained. Of the responding PHUs, 90% ($n = 18/20$) conducted mandatory complaint-based inspections, while 65% ($n = 13/20$) conducted non-mandatory routine inspections related to the SCPA.

Respondents were asked, through an open-ended question, about the minimum number of routine inspections conducted per year. Responding PHUs ($n = 13/20$) typically inspect each tanning facility once annually at minimum, while a few of these responding PHUs ($n = 3/13$) noted that each tanning facility received one inspection in the first year, followed by complaint-based inspections only thereafter. For example, “We conducted one full round of inspections in the first year [of the Act]. From that point, it has been complaint-based only.” Respondents were also asked through an open-ended question if there was any other information the PHU would like to share related to inspection and enforcement. Responses ($n = 6/20$) typically focused on the importance of

routine inspections and one response highlighted the need for resources to facilitate this: “There needs to be mandatory compliance, education and routine inspections for the Act. If this occurs, there needs to be more resources allocated [...]” Additionally, one response outlined a possible alternative to complaints-based inspections: “We are exploring a youth test-shopping program. We feel that complaint-based inspections for underage provisions are an inadequate measure to ensure compliance.”

Since 2014, half ($n = 10/20$) of the responding PHUs noted infractions, totalling 242 SCPA infractions (mean = 19, range = 1–115). Eight of these infractions were derived from mandatory complaint-based inspections noted by four PHUs (mean = 2, range = 1–3, $n = 4/18$), while 234 were from non-mandatory routine inspections noted by nine PHUs (mean = 26, range = 1–115, $n = 9/13$). Most infractions were related to the posting of warning signs ($n = 201$, 83%), followed by business registration ($n = 18$, 7%). There were six (2%) infractions for age verification (failing to request age identification), and one

infraction (0.4%) related to underage sale (illegally permitting the sale of tanning services to minors). There were no infractions related to self-tanning (tanning without an operator present). Details of the infractions recorded by PHUs are found in Table 3.

In response to infractions, PHUs reported a variety of enforcement activities (Table 4): providing education ($n = 90$, 62%) was the most common, followed by issuing warnings ($n = 30$, 23%), and follow-up visits ($n = 22$, 15%). No charges ($n = 0$, 0%) were issued for any infractions.

As can be seen when comparing the total infractions in Table 3 and the total responses to infractions in Table 4, there are fewer responses than infractions. For example, 201 infractions related to signage were reported; however, only 120 enforcement responses to these infractions were reported. This discrepancy occurred because some PHUs did not report follow-up to infractions, some reported single follow-up, and others reported multiple follow-ups (e.g., warning, follow-up, and education provided for each signage infraction).

Table 3 Compliance: SCPA infractions reported by ten Ontario public health units (2014–2017)

SCPA section	Infractions from complaint inspection	Infractions from routine inspection	Total recorded infractions
Underage sale	1	0	1
Age verification	0	6	6
Self-tanning	0	0	0
Underage marketing	0	8 ^a	8
Signage	3	198	201
Eyewear	1	7	8
Business registration	3	15	18
Total	8	234	242

^aOne PHU included data from 2016 and 2017 only

Table 4 Enforcement: responses to SCPA infractions by ten Ontario public health units (2014–2017)^b

SCPA section	Response to infraction						
	No action	Warning issued	Follow-up visit	Education provided	Charges issued	Unknown/not reported	Total known responses
Underage sale	0	0	0	1	0	0	1
Age verification	0	6	0	0	0	0	6
Self-tanning	0	0	0	0	0	0	0
Underage marketing	0	7 ^a	0	0	0	1	7
Signage	0	17	21	82	0	81	120
Eyewear	0	3	1	4	0	0	8
Business registration	0	0	0	3	0	15	3
Total	0	33	22	90	0	97	145

^aOne of the responding PHUs included data from 2016 and 2017 only

^bThe number of infractions does not match the number of enforcement responses. Multiple infractions may have only needed one response (e.g. multiple signage infractions with only one enforcement response)

Discussion

Our results indicate that as of Spring 2018, 485 Ontario facilities were offering indoor tanning within the jurisdictions of the 20 PHUs that responded to the questionnaire. Almost all responding PHUs conducted complaint-based inspections, while two-thirds conducted non-mandatory routine inspections. Since 2014, there have been 20 complaints and 242 infractions related to the Act. Most infractions were the result of routine inspections and most were related to warning signage. In response, PHUs often provided education or issued warnings, and did not issue any fines for infractions.

Both the 2014 and 2018 versions of the compliance protocol issued by the Ontario Ministry of Health and Long-Term Care to the boards of health dictate inspections of indoor tanning facilities related to the SCPA occur on a complaints-driven basis [21]. Between 2014 and 2017, 40% of responding PHUs reported receiving complaints about possible or actual infractions. This suggests more than half of PHUs have not been receiving complaints, and thus have not been required to conduct inspections for compliance with the SCPA. Further, seven of the responding PHUs solely conduct complaint-based inspections, and only one of these PHUs has ever received a complaint. This suggests that six of the PHUs have not conducted any inspections related to the SCPA. We can assume that while there have not been complaints in many PHU jurisdictions, indoor tanning facility compliance is imperfect. Although complaints-driven inspections are important, they are likely insufficient on their own.

Approximately two-thirds of responding PHUs also conduct non-mandatory routine inspections, beyond what is required by the SCPA [16]. Importantly, most infractions reported by PHUs were derived from these routine inspections (97%), rather than complaints-driven inspections. It is possible that these routine inspections were conducted during other mandated types of inspections, perhaps under the HPPA [24]. Routine inspections are associated with positive outcomes, including increased compliance with legislation [25, 26], as has been demonstrated in the realms of tobacco control and food safety [27, 28]. Further, routine, unannounced inspections may be most effective for tanning service compliance [29, 30]. With tobacco control, the use of unannounced inspections significantly increased compliance with youth access legislation [28, 30]. Routine inspections, complemented by complaints-based inspections as they arise, would likely help make the SCPA a more impactful piece of legislation.

Additionally, a schedule for how often these routine inspections occur should be dictated by the legislation. A recent indoor tanning policy scan found routine

inspections are handled differently from one Canadian province to the next, but do not include a specific inspection schedule to follow, and rather state inspections are conducted on a vague schedule, such as “from time to time” [15]. With a dictated routine inspection schedule, at least annually, in combination with follow-up to complaints, greater enforcement related to the SCPA would be expected.

PHUs are required to make warning signs available to operators of tanning facilities [21] and, in addition, all warning signs and a list of their required locations are available online [16]. Despite their availability, most of the reported infractions were related to the posting of warning signs (83%). Previous literature has similarly described a lack of compliance with posting of warning signs in indoor tanning facilities [31]. This suggests the indoor tanning industry may be resistant to posting warning signs, possibly because they have the potential to deter indoor tanning use by communicating risk information to consumers. A lack of required warning signs could result in consumers being under-informed about the risks associated with indoor tanning, and the legal requirement of being at least 18 years of age. Warning signs communicate health risk and legal information in indoor tanning facilities; therefore, ensuring they are posted in accordance with legislative requirements is important, as a lack of compliance prevents the risk communication aspects of the SCPA to be fully realized.

Indoor tanning businesses are also required to provide Notice of Operation to the MOH in their jurisdiction [21]. The second most common infraction was related to business registration (7%): two PHUs reported this type of infraction (i.e., there were indoor tanning businesses in their jurisdiction that failed to report their operation). Additionally, several of the open-ended comments revealed a challenge with keeping track of new indoor tanning facilities, with respondents revealing that there is no good way to ensure new tanning businesses register with the MOH, and some tanning businesses have been operating without being registered. These results indicate a better system to keep track of indoor tanning facilities is needed. In jurisdictions with business licensing requirements, municipal licensing officials could require registration with the MOH, and an initial inspection, for an indoor tanning facility to obtain a business license. If indoor tanning facilities are not registered with the PHU, it is difficult to ensure they are inspected and fully compliant with the SCPA.

Typically, PHUs responded to infractions by providing education to the owners/operators of the tanning facilities. Previous research suggests there are low levels of operator knowledge regarding UV radiation exposure, safety, and health risks [32–34] and that false and misleading health information is provided by some tanning businesses [23, 35, 36]. Hence, in addition to ensuring operators are educated

about the SCPA, more must be done to ensure accurate risk communication by operators to patrons. PHUs may have a role to play in this regard, an idea supported in the open-ended responses. Relatedly, the infractions noted for marketing indoor tanning services to youth are concerning, especially when coupled with recent findings that misleading health claims are being made by tanning salons [23]. Enforcing this component of the legislation could help to reduce the misinformation supplied by indoor tanning facilities. It is unclear how inspections for these types of infractions were conducted, or where the infractions occurred (e.g., in person, in print, or online).

Previous research suggests businesses are less likely to comply with legislation if non-compliance is not penalized [29]. Although charges for noncompliance are outlined in the Schedule of Fines for the SCPA, between \$50 and \$300 per infraction [37], PHU respondents to our questionnaire indicated no charges have been laid in response to any of the reported infractions. Using fines will likely encourage indoor tanning operators to comply with the SCPA. Previous research has shown lenient penalties for non-compliance with youth access legislations are associated with lower compliance [38]. Therefore, small penalties may not be enough to encourage compliance. For example, a fine of \$300 [37] for youth access may not deter sale of indoor tanning services to youth. Health policy makers should consider whether the SCPA should be amended to increase these fines, and include a schedule of fines, to encourage compliance amongst tanning salon owners and operators.

Responding PHUs indicated there was only one recorded infraction associated with youth access, which is an underestimate of youth tanning. Indeed, 7% of youth in Ontario participated in indoor tanning in the year after the implementation of the SCPA, which did not differ from the percent of youth indoor tanning prior to implementation of the SCPA [20]. This is of concern owing to the increased lifetime risk of melanoma when indoor tanning occurs early in life [9]. A better method to check for compliance with youth indoor tanning could be done through “secret shoppers”, whereby youth attempt purchases to monitor compliance with legislation prohibiting underage sales [39]. The “secret shopper” method is used for tobacco control, and previous research supports this method as a way to improve youth identification checks, increasing legislative compliance with youth access [39]. For indoor tanning, in-person checks provide the most accurate reflection of true compliance with indoor tanning legislation [31]. Ontario PHUs could implement “secret shopper” methods as one way to combat the rates of youth indoor tanning, although this would be resource-intensive. SCPA infractions noted in questionnaire responses reflect what is more easily inspected (e.g., warning signs), where inspections for compliance with age restrictions is more involved and thus difficult in a limited resource

environment. Hence, resource availability may be influencing infraction records.

A lack of resources is likely a significant barrier to inspection and enforcement related to the SCPA. This was reported by PHUs throughout the open-ended responses. Results of this research suggest more resources are needed for those conducting inspections related to the SCPA. Possible ways to increase funds available for inspection and enforcement could include an indoor tanning business registration fee or an indoor tanning tax, as has been implemented in the US [40], which may also help to deter the behaviour.

Policy Implications and Recommendations

Complaint-based inspections are sub-optimal to ensure indoor tanning facilities are complying with the SCPA. Thus, we recommend the legislation be amended to mandate routine inspections and include a schedule for such inspections. Complaints-driven inspections should be retained to complement routine inspections.

Providing education to indoor tanning facility operators should continue as a part of the response to an infraction. The SCPA enables fines to be issued in response to infractions; PHUs may find compliance increases when fines are issued. The Schedule of Fines indicates fines for infractions are low; increasing the severity of these fines to encourage compliance, especially for non-compliance with underage sale, should be considered.

Finally, more resources (financial and personnel) should be allocated to PHUs for enforcing the SCPA. Greater resource allocation for this issue should lead to better enforcement and, in-turn, greater compliance with the SCPA.

Limitations

We did not assess whether certain types of tanning facilities (e.g., tanning salons vs gyms with tanning) differed regarding complaints or infraction type or quantity as the data did not enable linkage between facility type and complaints or infractions. Complaints and infractions were not equally distributed across participating PHU jurisdictions and may have clustered around certain jurisdictions. Our data did not enable us to address this. Our data may underestimate the number of infractions related to Business Registration. The tanning facility inspection report form used by PHUs to record infractions does not include a section for this type of infraction, which may or may not influence how PHUs track this and, in turn, how they reported on it in the questionnaire. Although we achieved a reasonable response rate of 56%, had even more health units agreed to participate, we would have even more confidence in generalizing our results across the province.

Conclusions

To our knowledge, this study provides a first look at how the SCPA is being inspected and enforced in Ontario, Canada. The purpose of this legislation is to protect the health of the population from the risks associated with artificial UV radiation from indoor tanning. For the SCPA to be more effective, amendments must be made. These include requiring routine inspections, improving the way youth access is being inspected and enforced, and increasing the resources allocated to PHUs to better facilitate inspection and enforcement.

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Compliance with Ethical Standards

Conflict of interest The authors declare they have no conflicts of interest.

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