

Public Health Considerations Related to Indoor Consumption of Shisha

1. Can you describe the impacts of secondhand smoke and if possible, the differences between tobacco and non-tobacco secondhand smoke?

- Is there any data or information you could provide that could be included as an attachment to the Committee report?

There is no new health information to support changing the bylaw to allow for the indoor consumption of shisha. Smoking continues to have a significant impact on health in Alberta with over 4000 deaths annually.¹ Waterpipe smoking and vaping, as well as having their own risks, increase the likelihood of smoking cigarettes.

Messages and ads about hookah products often say they are herbal and don't have tobacco. But this is misleading. Studies in Alberta have also found that "herbal shisha" can contain tobacco/nicotine in spite of labelling that it does not. As the health risks from combustion of herbal shisha are similar to those from tobacco shisha including exposure to carcinogens, similar protections are indicated.ⁱ

- Laboratory studies report that water only filters the nicotine without any significant impact on the other harmful chemicals.ⁱⁱ
- Several laboratory studies showed that switching to herbal products has no significant impact on harmful content of both mainstream and sidestream smoke.^{iii,iv} Studies on the air quality in waterpipe smoking venues in Canada and USA (where only herbal products were supposed to be smoked) showed that, in addition to the existence of nicotine vapour in some of those venues, the air quality was far from been healthy and represents public health risk for waterpipe smokers and non-smokers, and occupational hazards for employees.^{iii,v,vi,vii,viii,ix,x}

A 2020 review of published literature on options for waterpipe regulation found all waterpipe products with or without nicotine produce toxicants in similar quantities as cigarettes.^{xi} It also found charcoal and electrical heating both increased toxicant emissions in different ways.

- A study conducted in Germany on electronically heated steam stone in waterpipe showed that electronic waterpipe released various harmful substances that significantly impact the indoor air quality.^{xii}
- In an American study examining the impact of waterpipe smoke on alveolar cells, showed that electronically-heated shisha smoke caused significant alveolar cell damage and death. The author concluded that "neither tobacco nor charcoal are needed for those cytotoxic effects to occur".^{xiii}

¹ For the 14 percent of adult smokers in Alberta, commercial tobacco use is responsible for 4,394 deaths (Canadian Community Health Survey 2009-2019, Statistics Canada), and more than \$772 million in health care costs (Canadian Substance Use Costs and Harms 2021, Canadian Centre on Substance Use and Addiction).

The review also identified how the social experience and sharing increased the risks of infectious diseases being transferred from one smoker to another. This risk of waterpipe smoking promoting the spread of infectious disease was seen with COVID outbreaks in which waterpipe smoking was an associated activity.

- Hookah smoking contributes to the spread of communicable diseases including meningitis, herpes and COVID-19 transmission.^{xiv} For these reasons, the World Health Organization (WHO) recommends a ban on all waterpipe smoking in all workplaces and public places. Many countries in the Middle East including Saudi Arabia, and Kuwait have imposed bans on waterpipe use to curb the spread of coronavirus. The cities of Abu Dhabi and Dubai in United Arab Emirates, Cairo, Egypt, and New Delhi, India have recently banned hookahs at cafes and restaurants as a precaution against the spread of coronavirus.

There are significant harms associated with the smoking of “herbal” (non-tobacco) shisha not only for those partaking but others that would be exposed as well including workers. Anytime a hookah product is burned, it releases harmful chemicals. Burning hookah, including hookah that doesn’t have tobacco, still creates cancer-causing chemicals. The levels of these cancer-causing chemicals in hookah smoke are the same as or even higher than tobacco products. Smoke from hookah has been linked to the same diseases as smoking cigarettes, such as cancer, heart disease, lung disease, and pregnancy problems.

WHO found that a hookah user may inhale as much smoke in a 1-hour session as someone who smokes 100 or more cigarettes. These chemicals are in the smoke that you breathe in from the waterpipe. They’re also in the second-hand smoke that you breathe out. This means that if you’re around hookah smoke, including if you work in hookah bars, you’re at risk for health problems from second-hand smoke.

- From a public health perspective allowing a device, that within 45 minutes of a smoking session can produce about 50 L of smoke with poorly characterized chemical constituents, is not aligned with clean air and occupational health and safety legislation.

Waterpipe smoking in public settings has been banned in several Middle Eastern countries where it has been smoked for centuries like Syria, Lebanon, Turkey, and Jordan. The East African nations such as Tanzania, Rwanda, and Kenya have banned smoking of waterpipe based on the WHO’s concerns about its lethal effects on human health. The Southeast Asian countries like Singapore, and many jurisdictions across India have also banned hookah bars and lounges. In weighing risks outlined here against benefits, there were no foreseeable benefits to public health.

2. If City Council makes the decision to reverse the ban on indoor shisha consumption, what requirements should be put in place to mitigate exposure to secondhand smoke to:

- Patrons who are not interested in participating in shisha smoking? For example, are engineered “smoking rooms” with different or separate ventilation/HVAC systems sufficient?

According to Health Canada and the U.S. Centers for Disease Control there is no safe level of exposure to secondhand smoke.^{xv,xvi} Secondhand smoke contains dozens of toxins that pose significant health risks especially to those with underlying health conditions such as asthma, allergies and heart disease. Secondhand smoke from hookah pipes is just as harmful as secondhand smoke from cigarettes.ⁱⁱⁱ Both the firsthand and secondhand smoke produced by shisha use contain known carcinogens at levels equal to or greater than that of tobacco products.

- Permitting the allowance of shisha use in a smoking room will not provide adequate protection, and will expose all individuals on the premises to dangerous levels of secondhand smoke. No service area in a shisha establishment will be free from secondhand smoke.

Controls such as ventilation and physical separation are not sufficient, and there is no scenario that completely eliminates the need for non-partaking members of the public to enter a designated smoking room.

- Significant and long-standing evidence indicates that HVAC systems do not provide full protection from secondhand smoke in indoor public places and that only effective method to adequately protect non-smokers is to completely eliminate smoking indoors. There is no practical means of ventilating secondhand smoke, and for this reason ASHRAE (American Society of Heating and Refrigeration Engineers), North America’s leading authority on indoor air ventilation, heating and cooling, is now recommending against the construction and operation of separately ventilated smoking rooms.^{xvii}

- Employees?

It is important to note that eliminating risks to the public including workers is not possible outside of the current comprehensive indoor smoking ban. Controls such as ventilation and physical separation are not sufficient.

- In 2020, ASHRAE reaffirmed its position that the only means of avoiding health effects and eliminating indoor environmental tobacco smoke exposure is to ban all smoking activity inside and near buildings.^{xvii}

One of its strengths of the City of Edmonton’s *Public Places Bylaw 14614* is the emphasis on the protection of workers from significant occupational hazard of exposure to second-hand smoke, vape and shisha. *Bylaw 14614* promotes health equity for members of the public, workers in the hospitality industry, and equity in health standards for businesses by minimizing harms and protecting health.

- There are significant harms associated with the smoking of shisha not only for those partaking but others that would be exposed as well including workers. All workers deserve full and uniform protection from secondhand smoke in the workplace including those who work in the hospitality sector. Many of the people working in these establishments are earning the minimum wage and may already be confronting health inequalities as a result. Their exposure to secondhand smoke at work represents another health inequality that simply adds injury to insult.
- Many of these workers are in vulnerable positions with precarious employment and they simply cannot demand a smoke-free workplace. Many of these workers are unable to demand a smoke-free workplace without risking serious employment consequences. The health of all workers benefit from a completely smoke-free workplace, regardless of their occupation or wage level. City Council needs to protect these vulnerable workers from secondhand smoke on the job.
 - o Other parties (e.g. neighbouring businesses, AHS inspectors, AGLC inspectors, City of Edmonton staff, etc.)

A gold-standard level of health protection for Edmontonians of all cultural backgrounds requires the removal of exemptions for specific places or specific products, thus removing the resultant inequities for specific businesses, groups, or members of the public. We remain unable to support proposals seeking exceptions that pose a health risk and are not aligned with public health standards.

- City Council has created a level playing field for all hospitality businesses by prohibiting all forms of smoking in public establishments. This level playing field will be undermined by exempting hookah bars since these establishments will have a competitive edge over other businesses that is based on the promotion and presence of a public health hazard.
- Establishments that seek to operate within a business model to provide for the indoor consumption of tobacco-like products remain misaligned with the City's desire to protect its public, the City's need to protect workers, and the City's vision and goals.

According to Alberta Health Services (AHS) Safe and Healthy Environments:

- To enter a residence or business to conduct an inspection, AHS Inspectors are required to complete training, wear personal protective equipment (PPE) where applicable, ensure appropriate handling/disposal of materials, and practice in a well-ventilated area.
- AHS Inspectors are not expected to enter a site or indoor space where smoking is actively taking place.
- If an AHS Inspector identifies suspicious activity or a hazardous environment upon entry into a site, the AHS Inspector sends a referral to Alberta Occupational Health & Safety for further site inspection.

Hookah bars received a lengthy 15-year exemption from the ban on smoking in restaurants and bars. This extended delay provided these establishments with a tremendous amount of time to adjust their business plans in anticipation of a ban on hookah smoking in bars and restaurants.

3. Should minors not be allowed at any time?

- Are there age restrictions on who is allowed to work in these establishments?

Edmonton's current restrictions on waterpipe smoking follow the best practices of the WHO Eastern Mediterranean Region to regulate waterpipe use.^{xviii} Prohibition of waterpipe use in public places is recommended, similar to smoking. This is in recognition that waterpipe use is rising rapidly in the Eastern Mediterranean region particularly among women and young people. This increase is due to the misperception that waterpipe smoking is less harmful than smoking cigarettes and users' lack of knowledge of the health dangers. In response to this global public health concern this practice is banned in public settings where it is of cultural prominence including Turkey, Jordan, Syria, Lebanon, and Kuwait.

- Waterpipe users from different cultural backgrounds gave similar explanations for their motivations for initiation including, not cultural practice, but access, flavor, trend, and curiosity.^{xix,xx} Evidence has revealed that this behavior was linked by some to impropriety and indignity especially among women, and it was described as a shameful and disrespectful to the society.^{xxi,xxii}
- Those above terms were voiced by a participant, in a qualitative study conducted in Calgary, that has cultural ties to that region indicating that her parents were embarrassed when her relatives in the country of origin knew about her smoking the waterpipe.^{xxiii}

Contemporary waterpipe use is spreading among new non-traditional users, particularly youth and young adults. Ethno-cultural traditions are said to play only a minor role in the rising popularity of contemporary waterpipe use among new users.ⁱⁱⁱ As a result, international public health organizations identify waterpipe smoking as a growing public health issue with significant negative health effects.

- In a study conducted in USA among students who smoke waterpipe and that have cultural ties to Middle Eastern countries, only 4% of participants described waterpipe smoking as an important part of their culture.^{xxiv}
- In Alberta, analyses of students in Grades 9-12 show that 17.7% have tried hookah and 45.9% believe hookah to be less harmful than smoking cigarettes.^{xxv} Therefore, we stress the role of society in a young person's familiarity with shisha, perceived acceptability of smoking behaviors, and facilitating ease of access as important considerations for regulations that promote public health.

4. Has AHS been involved in helping with any mitigation efforts for other Alberta cities that have decided to allow shisha lounges?

- Have any citizens contacted AHS with concerns or questions regarding these lounges in other parts of the province?

AHS has been working with other municipalities and agencies to increase awareness of the hazards of water pipe smoking and implement measures to protect persons from exposure to tobacco and non-tobacco herbal shisha for a number of years since the health risks have been recognized. There has been an increased effort to implement protection since Alberta's Chief Medical Officer of Health recommended in 2012 to prohibit the use of waterpipe smoking in public places, workplaces.^{xxvi}

AHS has been contacted by other municipal and government agencies with regard to health and safety concerns that have been associated with shisha lounges. In Calgary, there was a multi-agency initiative involving AHS, City of Calgary Fire Department, Building Inspectors, Bylaw Officers, Calgary Police and Alberta Gaming, Liquor & Cannabis (AGLC) that identified a number of health and safety issues related to the operation of these lounges.ⁱ

- Findings included illegal switches to allow shutting off of ventilation systems to reduce operating costs and liquid nicotine that could be added to shisha.
- AHS has treated both patrons and staff from shisha lounges for carbon monoxide poisoning. For some patients their treatment required air transport to Edmonton for treatment in a hyperbaric oxygen chamber.

Hookah smoking has been prohibited in dozens of Canadian communities including 12 Alberta municipalities. The City of Edmonton has been a leader in protecting its residents from secondhand smoke in workplaces and public places for the past four decades.

- There has been a similar trend across Canada to ban all waterpipe smoking in public places, including non-tobacco "herbal" hookah smoking. Eight provinces and territories prohibit smoking of all waterpipe products, including herbal non-tobacco waterpipe products, in places where smoking is banned including Quebec, New Brunswick, Nova Scotia, Prince Edward Island, Newfoundland/Labrador, Yukon Territory, Northwest Territories, and Nunavut.
- In 2022, AHS has worked with- and offered public health recommendations and guidance to the following municipalities surrounding both indoor- and outdoor smoking prohibitions:
 - Edmonton Zone: Edmonton, Leduc, Strathcona County
 - Calgary Zone: Calgary, Airdrie, Banff, Chestermere, Cochrane
 - North Zone: Wood Buffalo
 - South Zone: Lethbridge, Medicine Hat

In November 2022, the Islamic Family and Social Services Association, Muslim Link Edmonton and Hindu Society of Alberta had expressed concern to City of Edmonton in response to Committee bringing to City Council a proposal on potential bylaw amendments for indoor shisha consumption.

- These local organizations represent many of the communities most affected by this issue, and have indicated that they do not support amending this ban.
- Local organizations point to data indicating hookah lounge patronage is not exclusive to cultural identity, despite claims by the shisha industry.
- Community organization leaders maintain their position that indoor shisha consumption in hookah lounges is an outdated practice, and thus does not reflect their cultures in the modern world.

5. Under the Tobacco, Smoking and Vaping Reduction Act there is an exemption for Cigar Lounges with specific requirements for operating. If the ban were to be reversed by City Council, would these be acceptable requirements to have in place for hookah lounges?

AHS' assessment is that the specific requirements for cigar lounges under the Tobacco Smoking and Vaping Reduction Act provide insufficient protection and recommend that municipalities not weaken their current levels of protection under their municipal bylaws to allow cigar lounges to operate. Cigar smoke contains the same carcinogens and harmful particle emissions as cigarette smoke. Separating smokers from nonsmokers, cleaning the air or ventilating the building, cannot achieve eliminating exposure of nonsmokers to secondhand smoke. The only effective means of reducing the risk for adverse health outcomes is to eliminate indoor smoking activities.

In 2012, the Alberta Government, in collaboration AHS, published the *Environmental Public Health Indoor Air Quality Manual*.^{xxvii} The manual states that a control measure for carcinogenic polycyclic aromatic hydrocarbons (PAHs) is to eliminate indoor tobacco smoking. The manual proceeds specifically to dissect environmental tobacco smoke (ETS), through review of compelling evidence, concluding that the only effective means of reducing the risk for adverse health outcomes is to eliminate indoor smoking activities. The manual also emphasizes that control measures such as ventilation and dedicated smoking rooms are not recommended as, “even separately enclosed, separately exhausted, negative-pressure smoking rooms do not keep secondhand smoke from spilling into adjacent areas”.

Similar conclusions have been made by other leading public health expert groups. The US Surgeon General published an extensive report on the evidence and determined there is no risk-free level of exposure to secondhand smoke.^{xxviii} They also concluded that separating smokers from nonsmokers, cleaning the air or ventilating the building, cannot achieve eliminating exposure of nonsmokers to secondhand smoke.

WHO also recommend complete removal of the pollutant (tobacco smoke) through 100% smoke-free environments as the only effective strategy to provide an acceptable level of protection from secondhand smoke, given that ventilation does not reduce exposure to safe levels and are therefore, not recommended. They also highlight there is no scientific basis for the exemption of particular spaces as every person is vulnerable to the harms of secondhand smoke exposure, and universal application of smoke-free legislation is needed for the critical principle of protecting human rights.

The conclusions made by health experts support ASHRAE's current policy that standards and guidelines shall not prescribe ventilation rates, or claim to provide acceptable indoor air quality in smoking spaces.^{xvii} ASHRAE shares the position that the only means of avoiding health effects and eliminating indoor environmental tobacco smoke exposure is to ban all smoking activity inside and near buildings. Where smoking is permitted, they recommend that building design practitioners educate and inform their clients of the limits of engineering controls of ETS exposure.

6. Is there any possibility that any of these exemptions are going to be removed in the near future?

AHS' current advice to municipalities is to ensure that their own bylaws do not allow for the operation of cigar lounges. In the public consultations that Alberta held for the Tobacco and Smoking Reduction Act review, health groups and some tobacco industry groups had recommended stronger protections against exposure to smoking and vaping. There is no mention in the review of the exemption that was provided for cigar lounges, so it is unclear what the basis for this exemption was or effectiveness of the requirements.

As for trends, there are increasing restrictions being placed on combustible tobacco products in Canada and other jurisdictions. For example, Canada has just completed consultations on requiring warning labels on individual cigarettes and cigars.^{xxvii}

New Zealand passed legislation in December 2022 with the intent to eliminate most smoking by 2025.^{xxx} Its measures prohibit the sale of tobacco products to any person born after January 1, 2009 (creation of a tobacco free generation) and substantial reduction in the number of tobacco retailers, perhaps as much as 95% and reducing the amount of nicotine in tobacco products. New Zealand's Tobacco End Game strategy which is aimed at eliminating the burden of tobacco related diseases is looked on as a potential model by other countries including Canada. Canada has also committed to a significant reduction in tobacco use to less than 5%.^{xxxi}

7. Can you tell us if there is anything happening with respect to legalization of cannabis lounges, including any potential space/ventilation requirements for Cannabis lounges?

There are no legal or licensed cannabis cafes and lounges in Canada. The Netherlands is in the process of restricting on-premise use in cafes. The City of Amsterdam has announced in early February 2023 that smoking cannabis in the Red-Light District will be prohibited starting from mid-May.^{xxxii} British Columbia has indicated that there will not be indoor consumption spaces for smoked cannabis.^{xxxiii}

Under the Gaming, Liquor and Cannabis Act and Regulations, AGLC prohibits use of cannabis in licensed premises.^{xxxiv} The regulation states that:

- No person may smoke, vape or use cannabis
- No cannabis licensee may permit any person to smoke, vape or use cannabis in licensed premises.

Canadian Centre on Substance Use and Addiction and AHS prepared a policy brief on public health and safety considerations surrounding on-premise cannabis use.^{xxxv} The brief notes that “those working on cannabis policy must keep in mind that revenue generation is not among the stated purposes of the Cannabis Act. The objectives of the Cannabis Act are to protect young person from accessing cannabis, to protect public health and safety, and to reduce the burden on the criminal justice system.”

The public health and safety concerns with cannabis cafes / lounges related to the on premise smoking or vaping of cannabis or consumption of cannabis edibles include:

- Smoke and vapour include health risks related to indoor air quality, carcinogens and adverse physiological effects similar to those seen with second hand tobacco smoke.
- Normalization of cannabis use in public leads to increases in rates of use, including renormalizing of all forms of smoking/vaping particularly for youth.
- Intoxication, impaired driving, overconsumption^{xxxvi}
 - o Delayed onset of effect: up to 30 mins after inhalation and longer for edibles.
 - o Longer duration of effects: lasting up to 6 hours
- Federal production licenses require all cannabis and related ingredients to be handled in a federally licensed processing facility, and produced in a separate building than conventional food products with regular testing for contaminants.^{xxxvii}

While ventilation can limit THC levels for those exposed to second-hand cannabis smoke, there are no engineering approaches, including current and advanced dilution ventilation and air cleaning technologies, that demonstrate complete control of health risks from second-hand smoke and vapour exposure in spaces where smoking and vaping is practiced.^{xvii, xxxviii}

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Appendix

Alberta Health Services would like to acknowledge the following members who contributed to the development of this response on public health considerations related to indoor shisha consumption:

NAME	ROLE
Dr. Christopher Sikora, MD MPH MSc CCFP FRCPC	Lead Medical Officer of Health, Edmonton Zone
Dr. Michael Zakhary, MBBCh, MPH, FRCPC	Medical Officer of Health, Edmonton Zone
Dr. Grazia Salvo, MD MSc FRCPC	Medical Officer of Health, Edmonton Zone
Darcy Garchinski, MHA CPHI(C)	Director, Environmental Public Health, Safe Healthy Environments, Edmonton Zone
Ken Dong	Manager, Environmental Public Health, Safe Health Environments, Edmonton Zone
Dr. Brent Friesen, MD FRCPC	Medical Officer of Health, Tobacco Vaping & Cannabis Program, Provincial Population & Public Health
Amy Woroniuk, RN MN	Director, Chronic Disease Prevention & Harm Reduction, Provincial Population & Public Health
Jamil Ramji, PharmD ACPR CTE	Health Promotion Facilitator II, Tobacco Vaping & Cannabis Program, Provincial Population & Public Health
Michelle Fry, MSc, CEP	Health Promotion Facilitator II, Tobacco Vaping & Cannabis Program, Provincial Population & Public Health
Katie Clampitt, BHSc, CTE	Program Coordinator, Tobacco Smoking & Vaping Enforcement Program, Provincial Population & Public Health
Kelsey Walper, MEd	Health Promotion Facilitator II, Provincial Addiction Prevention, Provincial Addiction & Mental Health Programs and Services