Appendix R:

Guidance for Outdoor Inhalation Overdose Prevention Services (OPS) and Supervised Consumption Sites (SCS)

This guidance is only applicable to outdoor Inhalation Overdose Prevention Services (OPS) and Supervised Consumption Sites (SCS). Outdoor Inhalation OPS/SCS are outdoor structures that may have a roof or covering and where:

- less than 50% of the wall space is covered by any material that does not permit air to flow easily through it, and;
- walls are configured in a way that optimizes air flow.

Potential locations for outdoor inhalation OPS/SCS include hospital grounds, outside of supportive housing facilities, and adjacent to existing injection OPS/SCS. Depending on the setting, separate or additional requirements may apply, such as operational, contractual, or municipal requirements. Not all scenarios are covered within this document. If you have any further questions regarding outdoor inhalation OPS/SCS guidance that is not covered in this document, please email: harmreduction@bccdc.ca

From the British Columbia Centre for Disease Control (BCCDC) 2018 Harm Reduction Client Survey, more than half of participants identified smoking or inhalation as their preferred method of substance use compared to injection and other methods of consumption.[1] In addition, people who use stimulants are more likely to smoke or inhale rather than inject and may be opioid naïve, meaning these populations are not supported at OPS/SCS that do not provide inhalation services. Outdoor inhalation OPS/SCS promote safer use of unregulated substances through direct observation and reduce the risks associated with using alone. In BC, OPS are authorized emergency health services under Ministerial Order M488/2016. Federally, Supervised Consumptions Sites (SCS) are authorized under a Controlled Substances and Substances Act (CDSA) exemption.

Exposure Limits

Unintentional particulate and vapour exposure (colloquially referred to as “smoke”) to workers and others at or near Outdoor Inhalation OPS/SCS sites must be eliminated or minimized as much as possible. This document is intended to provide some guidance and best practices for outdoor inhalation OPS/SCS and has been reviewed by WorkSafeBC.

Exposure limits are airborne concentrations of a contaminant that the typical worker can experience without adverse health effects such as the potential for respiratory depression or other neurological effects. There is no exposure limit for “unregulated drugs” as it is a mixture of various substances. However, WorkSafeBC has recently adopted exposure limits for fentanyl, which is a common ingredient in the unregulated drug supply.

These exposure limits are 1) an 8-hour time-weighted average (TWA) exposure limit for of 0.1 µg/m3 (inhalable fraction in air and, 2) an excursion limit for fentanyl and fentanyl citrate which correspond

to 0.3 µg/m3 no more than 30 minutes during the work period, and 3) an excursion limit of no more than 0.5 µg/m3 at any time. Employers must take mitigation measures to prevent exposure under section 5.48 of the Occupational Health and Safety Regulation.

WorkSafeBC has not adopted the American Conference of Governmental Industrial Hygienists (ACGIH) short term exposure limit (STEL) of 0.2 µg/m3, however, employers may decide to use the ACGIH STEL as a guide where air monitoring is conducted.

For more information on potential signs and symptoms of exposure to unregulated substances and guidance on post-exposure management, review BCCDC guidance.

This document includes both requirements and recommendations. Requirements are enforceable under the Workers Compensation Act and Occupational Health and Safety Regulation. Recommendations were developed by the BC Centre for Disease Control, WorkSafeBC, and Health Authorities Steering Committee on Controlled Substance Exposures to ensure worker health and safety.

Requirements for employers

- Employers must ensure workers are made aware of all known or reasonably foreseeable health or safety hazards and must ensure the health and safety of workers and other persons present at the workplace.
- The employer must develop and implement safe work procedures for working at an outdoor inhalation OPS/SCS and ensure all workers receive education and training in procedures, such as:
    - Health emergency response, overdose recognition, response, and the administration of naloxone.
    - Surface cleaning and safe disposal of unregulated substances
- Employers must control exposure to unregulated substances by any route of exposure to below harmful levels, which includes implementing engineering controls, administrative controls, and PPE.

Responsibilities

Responsibilities for employers, owners, prime contractors, supervisors, and workers under the Workers Compensation Act and Occupational Health and Safety Regulation for ensuring health and safety of workers and other persons near or at the site include the following:

Note: In most situations, a peer support worker being paid a regular wage for time worked is considered a worker under the Workers Compensation Act. If there are questions about whether a peer worker qualifies as a worker, contact the WorkSafeBC Employer Service at 1-888-922-2768 for assistance.

Employers' responsibilities include:

- Identifying, assessing, and ensuring adequate procedures and personal protective equipment are in place to eliminate or minimize risks, including but not limited to:
  - Workplace violence
  - Working alone or in isolation
  - Ergonomics
  - Indoor air quality - tobacco and e-cigarettes
    - Note: Under the Tobacco Control Act, tobacco, cannabis, e-cigarette and vape products are not allowed within Outdoor Inhalation OPS/SCS
  - Chemical and biological agents
  - Refer to WorkSafeBC for more information on controlling risk and the hierarchy of controls
- It is recommended that the risk assessment is done in consultation with or by a Qualified Person[1] with consideration of:
  - Layout of the facility – degree of confinement, natural or other sources of air flow, wind breaks/barriers between workers and clients, proximity to other public areas, proximity to businesses, worker proximity to consumption areas, etc.
  - Work activities that require entry into the facility (i.e., type of work, duration, frequency) and those that can be done from the outside to reduce risk of exposure
  - Information about the type of substances that will be smoked including current information from local/regional drug checking about composition and potency of substances to assist workers and clients in decision-making regarding precautions

[1] WorkSafeBC accepts that a qualified person is a person (or a group of persons) who is knowledgeable of the work, the hazards the work presents, and the means to control the hazards, through education, training, and experience. .https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohsregulation/ohs-guidelines/guidelines-part-05

- Number of clients permitted (occupancy limit) in the inhalation space at once, which influences the accumulation of particulates from inhalation of unregulated substances
- Duration of time that clients are smoking within the outdoor inhalation space which determines the level of potential worker exposure to accumulated particulates when entering the inhalation space
- Employer's policies, procedures, and training
- Routes of exposure – inhalation, skin, inadvertent ingestion, which relate to worker exposure risk

- □ Establishing the health and safety program
- □ Conducting an annual review of the health and safety program
- □ Training supervisors
- □ Providing a safe and healthy work environment

Owners' responsibilities include:

- □ Providing and maintaining the owner's land and premises that are being used as a workplace in a manner that ensures the health and safety of persons at or near the workplace,
- □ Giving the employer or prime contractor at the workplace the information known to the owner that is necessary to identify and eliminate or control hazards to the health or safety of persons at the workplace

Prime contractors' responsibilities in a multi-employer workplace include:

- □ Ensure that the activities of employers, workers and other persons at the workplace relating to occupational health and safety are coordinated, and
- □ Do all that is reasonably practicable to establish and maintain a system or process that will ensure compliance with the OHS provisions and the regulations in respect of the workplace.

Supervisors' responsibilities:

- □ Providing a health and safety orientation to new workers
- □ Providing ongoing training to workers
- □ Taking part in inspections and investigations
- □ Reporting any safety or health hazards
- □ Correcting unsafe acts and conditions
- □ Ensuring that appropriate personal protective equipment is:

a. available to workers,

b. properly worn when required, and

c. properly cleaned, inspected, maintained and stored

Workers' responsibilities include:

- ☐ Learning and following safe work procedures
- ☐ Correcting hazards or reporting them to supervisors
- ☐ Participating in inspections or investigations where appropriate
- ☐ Using personal protective equipment (PPE) where required
- ☐ Helping to create a safe workplace by recommending ways to improve the health and safety program

For claims assistance

- ☐ Refer to your employer's process for reporting workplace injuries and/or disease.
- ☐ WorkSafeBC Claims Call Centre (for reporting a workplace injury or disease):
  - Phone: 1-888-967-5377
  - Hours of Operation: Monday to Friday, 8 a.m. to 6 p.m.

For health and safety assistance

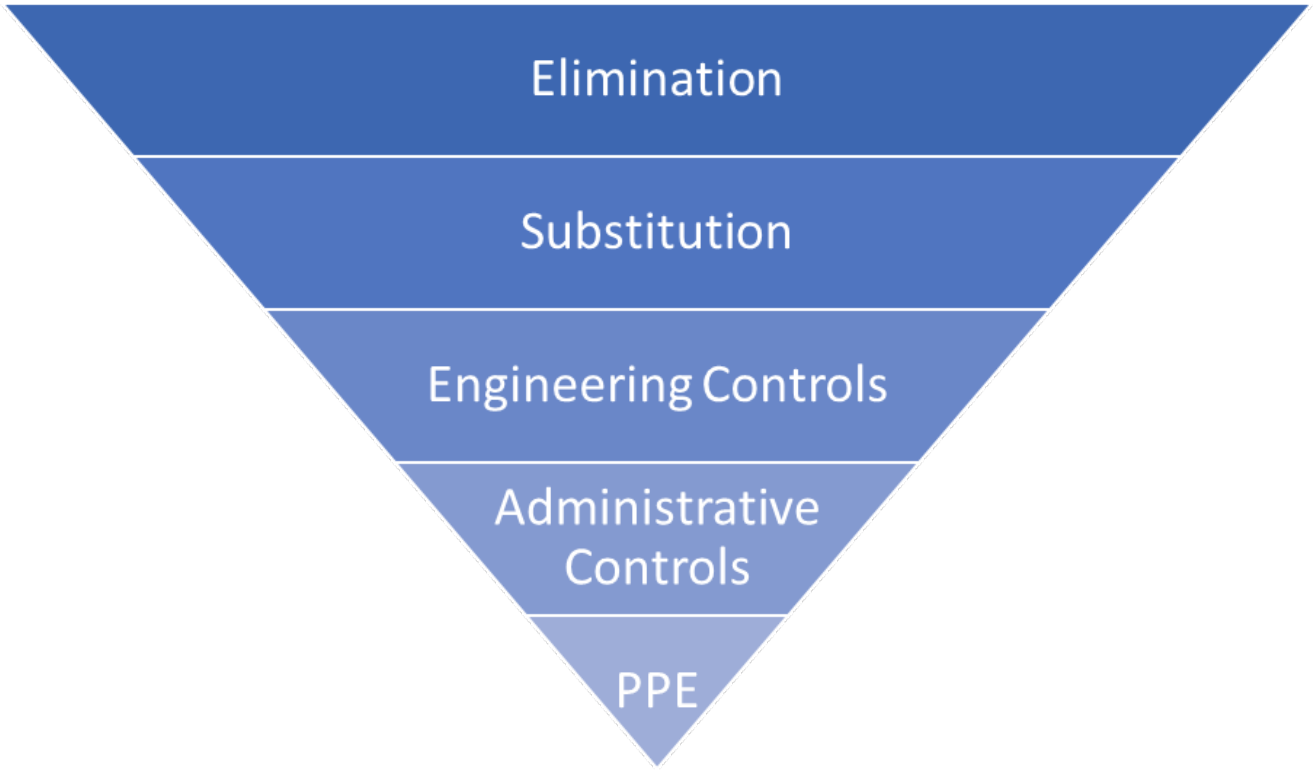
- ☐ WorkSafeBC Prevention Information Line for health and safety assistance:
  - Phone: 1-888-621-7233
  - Hours of Operation: Monday to Friday, 8:05 a.m. to 4:30 p.m.

For questions regarding this guidance

- ☐ Contact the harm.reduction@bccdc.ca for more information

Hierarchy of Controls

The hierarchy of controls is a method of determining which actions will best control exposure concerns. When controlling a hazard in the workplace, selection of controls should be based on the Hierarchy of Controls. Control measures include: 1) elimination, 2) substitution, 3) engineering controls, 4) administrative controls, and 5) Personal Protective Equipment (PPE). Each outdoor inhalation OPS/SCS site can be unique. The controls utilized to mitigate the risks associated with particulate and vapour exposure may be different. It is important to employ adequate and effective measures at each step of the hierarchy of controls to reduce the risks posed to workers at these sites. Because exposure cannot be entirely eliminated, sites must demonstrate that there is no undue risk to workers. Understanding these exposures can be complicated. In collaboration with a qualified person, you can utilize these recommendations and requirements to design and develop the site.



Recommendations

1) Engineering Controls

Ventilation

- □ Ensure more than 50% of the nominal wall space is open to natural ventilation.
- □ Optimize natural air flow as much as possible using prevailing wind direction, fans, air vents, and/or other means.
    - A fan can be used to enhance natural ventilation and to exhaust air out of the outdoor inhalation OPS/SCS away from clients, workers, and the public. Consider using a flag, ribbons, smoke tube, or theatrical smoke to help determine where air flow needs to be improved. Other ventilation options may be available, such as portable extractor fans; however, these options may require further assessment.
- □ It is recommended to not position the inhalation space within 6 meters from any air intake, door, or window.

Heating, cooling, and fire safety

- □ If heating equipment is used to warm the outdoor inhalation OPS/SCS, ensure proper fire safety practices are followed:
    - Electric heaters should be used to heat outdoor inhalation OPS/SCS instead of open flame or gas/propane which pose a risk of fire and carbon monoxide exposures.
    - When using electric heating equipment, ensure compliance with manufacturer's instructions for placement away from combustible material, such as furnishings and outdoor inhalation OPS/SCS exterior fabric.
- □ All exterior fabric used for outdoor inhalation OPS/SCS should be rated as flame resistant as required by the BC Building Code (contact local building official).
- □ Ensure that fire extinguisher inspections are up to date, and that fire extinguishers are properly stored, accessible, and that workers are trained in their use.
- □ Keep furniture and other combustible material in or near outdoor inhalation OPS/SCS away from open flame devices (e.g., lighters or butane torches) and electric heaters.
- □ Provide an adequate number of non-combustible safe disposal options for discarded harm reduction supplies.
- □ In warmer conditions, fans can be used to move hot air outside the inhalation space.
- □ Consider that keeping the space at a comfortable temperature is important for the safety and comfort of both clients and workers.

Layout

- □ Layout should maximize natural ventilation and minimize stagnant spaces/barriers, such as furniture that may block air flow. Smoke tubes or theatrical smoke may be useful in identifying stagnant spaces.
- □ Ensure the ability to move safely and freely through the space as much as possible.
- □ Have a 'chill out' area in a separate area to reduce particulate and vapour exposure.
- □ Where possible, include handwashing stations at the entrance and exit of the site. Hand sanitizer can increase dermal absorption of substances through the skin and is not recommended.
- □ Place containers for waste contaminated with unregulated substances outside the exit of outdoor inhalation OPS/SCS, if possible, to improve flow and reduce worker exposure
- □ Workers should conduct tasks such as paperwork, questionnaires, and other outreach activities outside of the outdoor inhalation OPS/SCS area to limit time spent in the inhalation space. Barriers can be used to reduce worker exposure, such as transparent tent flaps.
- □ These sites are recommended to monitor clients in a similar way to injection OPS/SCS spaces. Agencies should consider sight lines and who will be monitoring this space for overdoses or other related harms. Clear roles and responsibilities need to be defined at the site (e.g., peer monitoring, worker, video, etc.).
- □ Remote observation from outside the outdoor inhalation OPS/SCS (via transparent curtains or video cameras) should be used where practical to conduct the observation outside of the inhalation space.

Considerations for Housing Locations

- □ An outdoor inhalation OPS/SCS should not be the only smoking area available to residents (i.e., people who smoke tobacco must be offered a place where there is not unregulated substance use also happening and vice versa).

2) Administrative Controls

Policies and Procedures

- □ The employer will follow the approved Regional Health Authority Manual where applicable:
  - Interior Health: Overdose Prevention Services Site Manual
  - Fraser Health: Overdose Prevention Site Manual
  - Vancouver Coastal Health: Overdose Prevention Site Manual
- □ The employer has reviewed provincial BCCDC Guide to Overdose Prevention Sites or Vancouver Coastal Health Housing Overdose Prevention Site Manual and agrees to utilize as a guiding document in service provision.
- □ The employer is aware of the data collection requirements and agreeable to completing reporting to Regional Health Authorities (RHAs) as required.
- □ Depending on the setting, additional policies, procedures, and requirements may apply.

Training

- □ The employer must ensure that all workers at the site have received adequate education and training in overdose recognition and response, including the administration of naloxone. If eligible, the site must be registered with the BCCDC Facility Overdose Response Box Program.
  - Note: community-based non-profits are eligible for FORB, not government or for-profit agencies. Government and for-profit agencies can access occupational naloxone through their employer and can access harm reduction supplies and Take-Home Naloxone through the BCCDC Harm Reduction and Naloxone Programs.
- □ The employer must ensure that all workers at the site receive adequate education and training in violence prevention, surface cleaning, and disposal of unregulated substances

Overdose/Emergency Response

- □ If there are instances when workers must enter the outdoor inhalation OPS/SCS for a short period of time to respond to a client emergency (e.g., overdose), they must follow safe work procedures to minimize unintentional exposure to particulates or vapour as much as possible. These procedures may include enhanced ventilation to further minimize the potential inhalation exposure to workers. Remove the person experiencing a health emergency from the inhalation space and clear the area to reduce worker exposure to particulates and vapours.
- □ If there are instances when a worker/individual must enter the inhalation space to respond to an employee or worker emergency, the worker must additionally follow standard first aid procedures.

Surface cleaning

As substances are smoked or cooked, unregulated substance particles settle on surfaces (e.g., walls, tables, ceiling, and furniture) and need to be safely cleaned to reduce the risk of exposure. Fentanyl is not easily absorbed by in-tact skin; however, there are other potential routes of exposure (via inhalation, mucosal contact (via contact to nose or eyes), unintentional ingestion) if surfaces are contaminated. Other unregulated substances (meth, heroin, etc.) and by-products from the burning of unregulated substances are likely to be present on surfaces. Specific safe work procedures for surface cleaning must be developed for the site. As new research becomes available, the guidance on how to clean surfaces may change; therefore, this should be considered a "living document", and sites should regularly review and update their safe work procedures as necessary.

All surfaces should be considered "contaminated", even immediately after cleaning, as completely eliminating surface contamination at an OPS/SCS site is a considerable challenge given that consumption may be occurring at the same time as surface cleaning, depending on the site procedures. There is a surface limit for fentanyl (through the American Conference of Governmental Industrial Hygienists) and methamphetamine (through the US Environmental Protection Agency); these are not WorkSafeBC surface limits, but they may be used to verify the cleanliness of surfaces and/or the efficacy of the cleaning procedures. Always wear nitrile gloves when interacting with surfaces that may have been exposed to particulates or unregulated substance contamination.

General cleaning considerations

- Safe work procedures for general cleaning of the facility and disposing of equipment are outlined earlier in the BCCDC OPS guide – this includes guidance on preventing needlestick injury when handling used paraphernalia.
- Select the exterior covering, tables and other furnishings made from non-porous, flame-resistant materials to facilitate the necessary cleaning/decontamination of surfaces.
- Avoid dry sweeping/dusting in the OPS/SCS, as this can cause unregulated substances that have deposited on surfaces to get into the air and be breathed in.
- Cleaning frequency (for both regular and deep cleaning) should be determined by the employer, considering factors such as occupancy, site layout, and construction (wood siding, plastic siding, etc.), contents, and frequency of use.
- Wear nitrile gloves for all cleaning activities; additional PPE may be required depending on the layout and procedures on site. Gloves protect the hands from contamination but can introduce a hazard if contaminated gloved hands are used to eat or wipe the face/eyes: change gloves and wash hands with soap and water frequently.
- If you are using chemical cleaners (such as concentrated peroxide cleaners, bleach, specialty decontamination products, etc.), make sure to check the safety data sheet (SDS) for safety information (such as additional PPE needs or eye wash stations). Soap and water and low concentration hydrogen peroxide wipes (e.g., oxivir) are not considered concentrated cleaning products and would not need additional PPE.
- Workers must be trained on cleaning procedures before doing any cleaning. If materials from the site are being sent away for cleaning, or if third party contractors are being used for

cleaning activities, the employer has a responsibility to inform third parties of potential hazards to their workers.

- If a site would like to evaluate the efficacy of their cleaning procedures, one way to do so is to do surface sampling for unregulated substances on site. Information on surface sampling is on the password protected section of the Towards the Heart website.

Regular cleaning procedure guidelines

- Surfaces such as tables, high-touch surfaces, and other furnishings should be cleaned regularly
- Provide instructions for the client to clean any debris and wipe down surfaces after consuming their substances. Then, a worker will clean surfaces again.
- Surfaces should be wiped down twice ("two-step decontamination"); a new wipe should be used for each wipe down, but it can be the same type of wipe. Follow the instructions on the packaging, paying special attention to the required contact time (or, how long the surface should be "wet" with the product to be effective).
- Currently available literature identifies hydrogen peroxide as an effective active ingredient for decontamination of substance-contaminated surfaces: 0.5% - 4.5% hydrogen peroxide is sufficient. Examples of hydrogen peroxide wipes are Accel Sporicidal wipes and Oxivir TB wipes.
- Other cleaning products may be used if they are shown to be effective: some examples of other cleaning products identified in the literature, including some strengths and limitations, are shown in Table X.
- If bloodborne pathogens are a concern on site, use wipes that will address this: some basic information on cleaning for pathogens is in this link. A table of commonly used disinfectants and what pathogens they are useful against is available in this link.

Deep cleaning guidelines

Deep cleaning of surfaces should be performed periodically to reduce residual build-up of contamination and should be done on all high-touch surfaces (tabletops, doorknobs, etc.); walls, floors, and other surfaces may be included based on the risk assessment. Before deep cleaning, perform a regular cleaning of the surfaces to reduce substance residues on surfaces. Deep cleaning can be done with soap and water, but this does not "dissolve" the substances present, it only removes them from the surface. Therefore, waste soapy water should be removed/rinsed from the surfaces and not be allowed to dry, or else substance residues may re-deposit the substances. Wastewater containing low levels of substances do not require special disposal measures, although sinks and drainage tubs should be washed and decontaminated following disposal of wastewater to ensure substance residues do not remain.

Table X: Information on potential cleaning chemicals for outdoor OPS/SCS from a rapid literature review that focused specifically on surface cleaning of substances*		
Chemical	Considerations for use	Citations
Hydrogen Peroxide	Most studied surface cleaner so far. Many studies looked at OxyClean, which has hydrogen peroxide as active ingredient; however, the concentration of hydrogen peroxide present is unknown (a review of the SDS for OxyClean lists a range of 15-40%). A BCCDC study found that 5-10% hydrogen peroxide solution is a good concentration but results from different studies on hydrogen peroxide cleaners conflict with each other, which may be a product of different cleaning methods rather than the cleaners themselves. One study looked at alkalized hydrogen peroxide: making modified hydrogen peroxide cleaners should not be attempted without risk assessment.	Froelich et al 2018, Oudejans et al 2021, Leung 2018, Owens 2017, Sisco et al 2019
Water, soap and water, or physical removal	Contaminated water left to dry on surfaces will re-deposit residues. Physical removal (via wipes, sweeping, etc.) will require throwing away wipes/residues as hazardous waste. Soap and water mostly studied on methamphetamine; other substances data is limited.	Oudejans et al 2021, Ciesielski 2020, Sisco et al 2019
Bleach	Studies looked at different "types" of bleach (different pH, with different additives) making exact efficiency of bleach overall difficult to know – one study found lower pH is more effective but requires chemical mixing to achieve. Additional PPE (eye protection) will be required for making bleach dilutions. Making lower pH bleach should not be attempted without risk assessment.	Radi et all 2023, Oudejans et al 2021, Serrano et al 2012
Specialty decontamination cleaners	Commercial-grade cleaners designed specifically for decontamination of substance residues on many different building materials. May not be accessible in Canada, will be more expensive than other solutions, and are likely to introduce hazards due to chemical strength. Found to be most effective in available studies. Read safety data sheet and perform risk assessment before use.	Oudejans et al 2021, Serrano et al 2012, Sisco et al 2019
Other: isopropanol, misc. Residential-grade cleaners, methanol	Only one study for each of these cleaners, so very limited results. Effectiveness is mixed. Alcohol-based cleaners (like isopropanol) can increase dermal absorption of substance residues. Before using any cleaners, read safety data sheets (if available).	Leung 2018, Serrano et al 2012, Sisco et al 2019

*Rapid review is not a full literature review. The search focused on studies that cleaned surfaces in some way and did not consider studies that were evaluating substance decontamination in solutions (i.e., putting a liquid substance inside of a liquid cleaner to see if it is decayed/transformed in some way).

3) Personal Protective Equipment (PPE)

PPE for Dermal and Inhalation Exposure Concerns

- For protection from inhalation exposure, an appropriate respirator (such as an N95 respirator) is recommended if workers need to enter the inhalation space. First responders, such as hospital code teams, ambulance and fire rescue, may have different PPE requirements.
    - If there are additional particulate and vapour exposure concerns (e.g. greater than usual occupancy, less airflow, etc.), employers and workers must use the hierarchy of controls to guide their actions to reduce exposure risks, including but not limited to adding a fan, opening another wall of the inhalation tent, reducing occupancy, and, if available, donning higher-level PPE)
    - Preliminary data collected from sites in BC suggests that the vast majority of constituents of "smoke" are in the particulate phase, not the vapour phase. It is unlikely that additional controls need to be implemented for vapour.
- Workers who may need to wear respirators that have an effective seal with the face (such as N95 respirators) need to be fit tested for that respirator to ensure an adequate fit for protection. For N95, half face respirators, and similar, workers must be clean-shaven for the seal to be effective. However, other respiratory protection options exist. Consultation with the Qualified Person will be required for assigning alternative protection.
- Workers who may need to wear a respirator must be trained in how to put them on, take them off, check the seal, care/maintain the respirator, and understand the limitations of their assigned respirator (e.g., what they do and do not provide protection from).
- When performing tasks where workers may contact surfaces contaminated with unregulated substances, the employer must provide and workers must wear appropriate skin protection based on an assessment of the risks (e.g., Nitrile gloves).
- Fentanyl is not easily absorbed by intact skin; however, there are other potential routes of exposure (via inhalation, mucosal contact (via nose or eyes), unintentional ingestion) if surfaces are contaminated.

4) Harm Reduction Considerations

Layout

- ☐ It is recommended to set up the inhalation spaces in a booth style for privacy or in a circular arrangement when possible to build community. Have somewhere for people to sit, put their substances down, prepare, and use.
    - Having a booth style service considers the importance of privacy and may help to reduce sharing of materials, forced/coerced sharing of substances and considers the vulnerability of some clients in these settings (e.g., Women).

Signage

- ☐ Consider posting signage that acknowledges the space as an inhalation OPS. It is also recommended to engage service users of the space in developing common ground rules and posting these as well.
    - Suggested language for signage "*This outdoor structure is intended to operate as an inhalation Overdose Prevention Site in accordance with BC's Overdose Public Health Emergency and the Ministerial Order M488. This location is monitored for the safety of people who are using substances within.*"

Supports

- ☐ Consider providing substance checking services. Talk to your Regional Harm Reduction Coordinator(s) for more information.
- ☐ Have Take Home Naloxone onsite to provide training and distribution to individuals who need kits.

Supplies

- ☐ Safer smoking supplies, such as straight glass tubes, bubble pipes, mouth pieces, screens, and push sticks can be ordered through the BCCDC Harm Reduction Supply Program. Connect with your Regional Harm Reduction Coordinator(s) for more information on ordering.

[1] http://www.bccdc.ca/health-professionals/data-reports/harm-reduction-and-substance-use

This document is based on the Interior Health Recommendations for Sites Offering Inhalation OPS document.