

Inhalation room: Technical information

The inhalation room is 8'6" wide, 8'7" long and 8' high. There are three stainless steel tables referred to as "booths," although there are no dividers because they interrupt air flow. The system designed for the inhalation room was based on a similar system used in Prairie Harm Reduction's safe consumption site in Saskatchewan.

The exhaust system is controlled by a timer mounted above the desk where staff monitoring the consumption area sit. There are three levels of filtration:

1. When the exhaust system is not running, make-up air is supplied via a duct on the floor. There is also a heat recovery ventilator (HRV) return air duct on the floor. The flow rate is 136 cubic feet per minute (cfm).
2. When the exhaust system is turned on, the in-floor HRV return air duct damper closes and the exhaust fan starts operating in the inhalation room and above the consumption booths (for injection, snorting and oral consumption). The flow rate is 184 cfm.
3. There is an emergency purge switch on the wall outside the inhalation room. In the event of an emergency (e.g., an overdose), staff turn on the purge switch to rapidly evacuate the air in the room. When it is switched on, a damper within the exhaust system closes to isolate the inhalation room from the consumption booths. The flow rate is 309.5 cfm.

In the event of an emergency, staff will have to enter the inhalation room to provide care. To ensure staff safety, a contractor conducted a smoke tube test to determine how long it takes for smoke to be cleared from the inhalation room with the exhaust system and emergency purge function switched on. The test was conducted with the use of handheld smoke tubes (sealed glass tubes that, when broken open, create smoke). The smoke was released at a higher rate than would be expected by a person smoking drugs in the inhalation room.

With the exhaust system turned on (over the consumption booths and in the inhalation room), the mean time until all of the smoke was visibly cleared from the room was 14.06 seconds. The contractor introduced smoke at an even higher rate to conduct the test with the purge switch activated. The mean time for the smoke to be visibly cleared from the room was 29.51 seconds. The reason the time period is longer with the emergency purge function on is that it takes approximately 15 seconds for the dampers to close and the purge function to turn on.

On the basis of this test, staff are required to wait 30 seconds after initiating the purge system to enter the inhalation room in an emergency. There is a mounted timer next to the purge switch that is set to 30 seconds so that staff only need to click start after turning on the purge. These 30 seconds can be used to gather emergency response supplies and don personal protective equipment.