



Harm reduction worker safety during the COVID-19 global pandemic

NATIONAL RAPID GUIDANCE

VERSION 2 - GUIDANCE DOCUMENT



Citation

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This publication is available in English. A French version will be available on the Canadian Research Initiative in Substance Misuse (CRISM)'s website: <https://crism.ca>

Land Acknowledgement

We respectfully acknowledge that the work to complete this rapid guidance document was hosted on Treaty 13 territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat people, and is now home to many diverse Indigenous Peoples including First Nations, Inuit and Métis Peoples.

We recognize that the ongoing criminalization, institutionalization, and discrimination against people who use drugs disproportionately harm Indigenous Peoples, and that continuous efforts are needed to dismantle colonial systems of oppression. We are committed to the process of reconciliation with Indigenous Peoples, and recognize that it requires significant and ongoing changes to the health care system.

We hope that this guidance document helps to reduce the harms faced by people who use drugs in the COVID-19 pandemic.

About the Canadian Research Initiative in Substance Misuse

Funded by the Canadian Institutes of Health Research (CIHR), the Canadian Research Initiative in Substance Misuse (CRISM) is a national research-practice-policy network focused on substance use disorders, comprising four large interdisciplinary regional teams (Nodes) representing British Columbia, the Prairie Provinces, Ontario, and Quebec/Atlantic. Each CRISM node includes regional research scientists, service providers, policy makers, community leaders, and people with lived experience of substance use disorders. CRISM's mission is to translate the best scientific evidence into clinical practice, health services, and policy change. More information about CRISM can be found at: <https://crism.ca>.

About this Document

This document is one of a series of six national guidance documents, rapidly developed by the CRISM network at the request of the Government of Canada. Collectively, the six documents address urgent needs of people who use substances, service providers, and decision makers in relation to the COVID-19 pandemic. The urgent nature of this work required rapid development and dissemination of this guidance. This, and the continuing evolution of the knowledge base regarding COVID-19, precluded CRISM from conducting a comprehensive review of the relevant literature. However, when available, scientific evidence is cited in support of the expert advice offered herein.

The guidance provided in this document is subject to change as new information becomes available. Readers should note that the intent of this document is to provide general guidance rather than detailed procedural and logistical advice. Readers are advised to consult local public health

and medical authorities for specific input on navigating their own unique regulatory and policy environments, as necessary.

The CRISM/COVID-19 guidance documents cover the following topics:

- Supporting People Who Use Substances in Shelter Settings During the COVID-19 Pandemic
- Telemedicine Support for Addiction Services
- Harm Reduction Worker Safety (this document)
- Strategies to Reduce SARS-CoV-2 Transmission in Supportive Recovery Programs and Residential Addiction Treatment Services
- Supporting People Who Use Substance in Acute Care Settings
- Strategies to Help Individuals Self-Isolate for People who use Drugs

Completed documents may be accessed at: <https://crism.ca/projects/covid/>. Each document was developed by a core CRISM national authorship committee, drawing on expert knowledge, available scientific evidence, and a review of relevant documentation from Public Health authorities. Draft documents produced by each authorship committee were reviewed by pan-Canadian panels of content and clinical experts. People with lived and living experience of substance use have participated in the production of the CRISM/COVID-19 guidance document series, either as part of review or authorship committees. A Canadian Institutes of Health Research (CIHR) Directed Operating Grant to CRISM provided funding for this work.

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The recommendations in this guidance document represent the view of the National Operational Guidance Document Review Committee, arrived at after careful consideration of the available scientific evidence and external expert peer review. The application of the guidance contained in this document does not override the responsibility of health care professionals to make decisions appropriate to the needs, preferences, and values of an individual patient, in consultation with that patient (and their guardian[s] or family members, when appropriate), and, when appropriate, external experts (e.g., specialty consultation). When exercising clinical judgment in caring for patients, health care professionals may take this guidance document into account while upholding their duties to adhere to the fundamental principles and values of their relevant code of ethics. Nothing in this guidance document should be interpreted in a way that would be inconsistent with compliance with those duties.

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*NOTE: Reviewers participated in guidance development activities in their individual capacity and not as institutional representatives.

**NOTE: Reviewers participated in guidance development activities for version 1 of this document.

Conflict of Interest

Detailed Summary- Disclosure of Interests (DOI) for CRISM Rapid Response COVID-19 Harm Reduction and Worker Safety Guidance Document

In accordance with the Guidelines International Network's Principles for Disclosure of Interests and Management of Conflict (Schunemann et al., 2015) authorship committee members and external reviewers were asked to disclose all sources and amounts of direct and indirect (i.e., research support) remuneration from industry, for-profit enterprises, and other entities that could potentially introduce real or perceived risk of bias. In addition, authorship committee members and external reviewers were asked to report indirect sources of bias, such as academic advancement, clinical revenue, and professional or public standing that could potentially influence interpretation of research evidence and formulation of recommendations. Of note, two of the authorship members are CRISM staff members.

No authorship committee members and external reviewers were excluded from participation due to direct financial conflicts of interest. Of the 25 authorship committee members and external reviewers, ten nine (40%) acknowledged potential direct conflicts of interest. Of these, five (20%) acknowledged employment or consulting with organizations including hospitals/health authorities, professional or regulatory associations, community outreach agencies or federal funding agencies, one (4%) of which (an external reviewer) has acted in a consulting role for a commercial entity (Merck). Five (20%) disclosed receiving research support and funding, including grants, sponsorships and collaborations. Two (9%) of which have received payment to participate in review activities, while two (9%) received non-monetary support in the form of paid travel. Of consideration, an external reviewer received research funding prior to guidance document involvement from two commercial entities (Gilead and Merck), which could theoretically benefit from document recommendations.

None of the authorship committee members or external reviewers reported any commercial conflicts of interests such as investment interests or intellectual property conflicts. One (4%) reviewer indicated they had provided expert opinion or testimony on the subject of these guidelines, while two (9%) members disclosed holding a position of office where they represented the interests or defended a position related to these guidelines.

In relation to indirect conflict of interests (such as academic advancement, clinical revenue streams and expert status), twelve (48%) reported this potential. None of the authorship committee or external reviewers indicated a potential for clinical revenue to be influenced by these guidelines. Six (24%) members disclosed that they had previously published on the effectiveness of an intervention recommended in this guideline, such as addiction treatment, while five (22%) indicated they are actively conducting research on a topic that could be influenced by the recommendations. Importantly, eight (32%) members disclosed that their personal or professional experience, including advocacy and support for harm reduction practices, or area of specialization (e.g., addiction medicine) could influence their perspective on the topic and recommendations.

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ABBREVIATIONS

AGMP: Aerosol generating medical procedures

CIHR: Canadian Institutes of Health Research

COVID-19: Novel Coronavirus disease of 2019

CRISM: Canadian Research Initiative in Substance Misuse

PPE: Personal Protective Equipment

PWUD: People Who Use Drugs

PWLE: People with Lived or Living Experience

SCS: Supervised Consumption Services

1.0 Key points of the guidance document

- The rapid spread of COVID-19 and its increased burden on the health care system has especially impacted structurally vulnerable communities, and particularly people who use drugs (PWUD).

- Harm reduction settings and interventions are critical for preventing and reversing drug overdoses, providing harm reduction equipment to prevent infectious disease (e.g. HIV) spread, linking people to treatment and health care while providing other supports to PWUD. During the pandemic, harm reduction services can offer an important opportunity for providing education on community-based infection prevention and control. They are perhaps even more crucial during a pandemic when access to equipment and a predictable drug supply may be more difficult to obtain.

- Workers in harm reduction settings are at a risk of contracting infectious diseases such as COVID-19 as they often work in close contact with program participants and may come into contact with body fluids (such as mucus and exhaled droplets). They may need to respond to urgent situations such as overdoses, which can place them at an even greater risk of infection (i.e. limited time to augment PPE).

- The current guidance document provides consolidated information based on the best available evidence to offer national recommendations for protecting harm reduction workers in harm reduction settings from COVID-19.

- As there are many different harm reduction settings, which vary in terms of access to and need for resources, the focus of these recommendations are for application within harm reduction sites in fixed locations including supervised consumption services and overdose prevention services, as well as mobile services within the community, including outreach.

- PPE (masks, gowns, non-latex gloves, goggles/face shields) reduces risks to harm reduction workers by preventing exposure to pathogens when used correctly.

- Harm reduction services should implement measures to ensure that adequate physical distancing and/or separation between individuals, such as staff and clients are maintained consistently, to help minimize the risk of COVID-19 transmission, when possible.

- **If adequate physical distancing cannot be maintained, staff should wear appropriate eye protection when interacting with clients. Routine masking is recommended for all staff and clients in harm reduction settings.**
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- **Governments must offer the highest level of required protection to all health care workers including individuals working in harm reduction settings and to allocate the necessary PPE resources, as well as to prepare for pandemics and other outbreaks by stockpiling PPE.**

2.0 Purpose and Scope

2.1 BACKGROUND

On March 11, 2020, COVID-19 was declared a global pandemic by the World Health Organization (Heymann, Shindo, & WHO Scientific and Technical Advisory Group for Infectious Hazards, 2020). Coronaviruses are a large family of viruses that include viruses such as the ones that cause the common cold and the Middle East Respiratory Syndrome (MERS-CoV), and Severe Acute Respiratory Syndrome (SARS-CoV). COVID-19 is defined as an illness caused by the novel coronavirus, which is now called severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). COVID-19 was initially identified during a respiratory outbreak in Wuhan City, Hubei Province, China, on December 31, 2019, where cases of pneumonia with an unknown cause were reported to the World Health Organization. Following the continued rise in infections, on January 30, 2020, the WHO declared the outbreak a public health emergency of concern, based on the high potential for the virus to spread internationally.

COVID-19 is spread from person to person, through respiratory droplets, which are produced once an infected person coughs or sneezes, through talking or breathing in close proximity to an infected person, or through contact with contaminated surfaces. Globally, 216 countries, areas or territories have been affected by COVID-19, with over 110.7 million confirmed cases and over 2.4 million confirmed deaths (World Health Organization, 2020b). In Canada, as of February 24, 2021, there are 855,126 confirmed cases and 21,807 deaths (Government of Canada, 2020b).

Compounded by the increased burden on health care systems, both internationally and nationally, the rapid spread of COVID-19 has impacted marginalized communities, and particularly people who use drugs (PWUD) (Canadian Centre on Substance Use and Addiction, 2020; Wood, Davies, & Khan, 2020). PWUD are at an increased risk of complications from COVID-19 due to pre-existing and underlying health conditions, including lung disease such as asthma/COPD, compromised immune systems, diabetes (Wood et al., 2020). PWUD may additionally be at greater risk due to other vulnerabilities such as homelessness, utilization of shelters, victims of violence, as well as limited access to critical harm reduction services and programs.

In response to COVID-19, public health experts have employed and recommended a variety of countermeasures, aimed at reducing the transmission and population impact of COVID-19. Public health orders, such as physical distancing, self-isolation and closures of non-essential businesses and gatherings have been implemented at varying times across the country. While these public health

measures are conducive in attempting to control the pandemic, PWUD still require access to harm reduction services, such as supervised consumption services, and as a result, may experience many unintended negative consequences. A particular concern has been the increase of opioid-related overdose deaths and problematic substance use in Canada (Government of Canada, 2020d) and lack of access to harm reduction services. 1,705 opioid toxicity deaths occurred between July and September 2020 across Canada, a 120% increase from the opioid toxicity deaths seen in the same time period in 2019 (n = 776 deaths). A similar number of apparent opioid toxicity deaths were seen between April and June 2020 (n = 1,646 deaths) across the country (Special Advisory Committee on the Epidemic of Opioid Overdoses, 2021). In December 2020, Toronto Public Health reported the highest number of illicit opioid-related deaths in a month, since September 2017 (Toronto Public Health, 2021). Overall, fatal suspected opioid overdose calls to paramedics were 90% higher in 2020 than in 2019 (Toronto Public Health, 2021). The British Columbia Coroners Service found that there were 1,716 suspected illicit drug toxicity deaths in 2020. This represents a 74% increase over the number of deaths seen in 2019 (n=984). There were 152 suspected illicit drug toxicity deaths in December 2020. This represents a 130% increase over the number of deaths in comparison to December 2019 (n=66) and a 4% decrease over the number of deaths in November 2020 (n=158) (British Columbia Coroners Service, 2020). In November 2020, Alberta Health Services said EMS crews were called to 514 opioid-related events across the province, compared to 224 opioid-related events in November 2019 (Government of Alberta, 2021). (Alberta Health Services, 2020b).

As such workers in harm reduction settings play an extremely pivotal role in facilitating access and providing critical harm reduction to PWUD, especially in the context of COVID-19, where risks for transmission, illness and substance-use related harms are heightened.

2.2 PURPOSE

The purpose of this document is to provide recommendations for protecting workers and service users in harm reduction settings from COVID-19 based on the best available existing evidence. Workers in harm reduction settings can be at a heightened risk of contracting and transmitting infectious diseases such as COVID-19 particularly because they often work in close contact with program participants and may come into contact with body fluids (such mucus and exhaled droplets). These individuals may need to respond to urgent situations such as overdoses, which can place them at an even greater risk of infection.

Harm reduction settings are critical for preventing and reversing drug overdoses and other harms (e.g. bloodborne infections), for providing access to, and safe disposal of harm reduction supplies (e.g. needles), and for providing support to PWUD (e.g. peer programming, basic needs, support groups). During the pandemic, harm reduction services can also offer an important opportunity for

extending the reach of the health system and providing education on the ways to protect oneself and to prevent the spread of COVID-19. These services are perhaps even more crucial during a pandemic when access to equipment and a consistent drug supply may be more difficult to obtain. Harm reduction services are also important at this time because social supports may be limited (as individuals are told to either self-isolate or to keep their number of contacts small). Yet using drugs with another individual present reduces likelihood of mortality if an overdose occurs.

It is therefore imperative to keep harm reduction services operational during the pandemic while also ensuring staff and client safety. Harm reduction services are designed to encourage easy use by limiting barriers to access services. However, some barriers may be introduced as an unintended consequence of new measures to protect workers (e.g., physical distancing may lead to longer lines to enter facilities). These barriers may be a deterrent to people using the services, reducing accessibility.

We recognize that there are many different harm reduction settings, which vary in terms of access to PPE and other resources, therefore the focus of these recommendations is for application within harm reduction sites in fixed locations including supervised consumption services and mobile locations within the community. We recognize that some of the recommendations may not be feasible in certain circumstances (e.g., if there is a shortage of N-95 masks). However, we believe that it is important to advocate for the best level of protection for workers in harm reduction settings.

Health care workers have expressed frustration with infection and prevention control guidelines that are long or unclear and local guidelines that do not match national guidelines (Houghton et al., 2020). With the proliferation of information about COVID-19, harm reduction workers may feel inundated with information (Houghton et al., 2020). The current guidance document therefore provides consolidated information based on the best available evidence to offer national recommendations for protecting workers in harm reduction settings from COVID-19.

2.3 INTENDED AUDIENCE

This document is intended to provide guidance to individuals working in harm reduction settings (e.g. supervised consumption services, outreach programs), including managers, frontline staff, public health officials, and other staff providing or supporting the delivery of harm reduction services for PWUD during COVID-19. We define the term harm reduction worker broadly to encompass all staff, volunteers and non-employees who provide services in fixed locations such as supervised consumption services and other harm reduction services for PWUD (not just regulated health care professionals) and in community outreach settings. For guidance pertaining to harm reduction workers in temporary shelters see a related document in this CRISM series ([Supporting People Who Use Substances in Shelter Settings during the COVID-19 Pandemic](#)).

Although policies vary by jurisdiction, it is also important to acknowledge that some harm reduction services include People with Lived Experience (PWLE) most of whom are engaged as volunteers, as salaried or hourly workers, or compensated via honoraria (BC Centre for Disease Control, 2017a, 2017b).

This document provides general guidance for supporting worker's safety within harm reduction settings across Canada, based on current and best available evidence. Implementation processes may vary depending on local, regional, or provincial/territorial jurisdictions. As such, readers should consult with local public health officials to ensure they are operating in accordance to their own unique policy and regulatory environment, if necessary.

2.4 EVIDENCE SELECTION AND REVIEW

Evidence was based on a systematic search of the peer-reviewed literature and a search of grey literature. There were many gaps identified in the existing literature and a need for recommendations in other settings (e.g. community outreach settings). This guidance document is an evolving document, which will be updated as new information becomes available.

2.4.1 Peer-Reviewed Literature Search

A search was conducted in Medline and Embase using OVID initially on May 11, 2020 for version 1 of this guidance document. A follow-up search was conducted on January 7, 2021 to gather additional evidence and update the recommendations. The purpose of these searches was to identify research articles focusing on harm reduction personnel/worker safety. A systematic search of the Cochrane Database of Systematic Reviews was also performed on January 7, 2021.

The initial search strategy was developed during the development of version 1 of the guidance document, which included a combination of keywords and MeSH terms related to respiratory illnesses and viral pneumonia (including Severe Acute Respiratory Syndrome [SARS]) to reflect the infectious disease literature more broadly. The search strategy has since been expanded in the current document to include keywords and MeSH terms based on additional areas of concern such as rapid testing, cleaning and disinfecting, and COVID-19 specific terms (e.g. Severe Acute Respiratory Syndrome Coronavirus 2 [SARS-CoV-2]), given the expanding literature and other resources specific to COVID-19. A broad screening/inclusion criteria was implemented to identify any relevant research articles that would be applicable to harm reduction worker safety in supervised consumption services. No date restrictions were applied during the initial search. However, as this is an update to the existing Harm Reduction Worker Safety Guidance Document, the search was restricted from June 2020 to January 7, 2021. The original document only included English language publications

and editorials and letters were excluded. In both documents, only reviews, systematic reviews and meta-analyses published in the English language were included. Additional relevant reviews were identified by searching through references and citations of included articles. Further details about the search strategy including **a list of keywords used are presented in Appendix 2**

A total of 1,635 articles were retrieved during the initial and follow-up searches from three databases (Medline, Embase and the Cochrane Database of Systematic Reviews). Two individuals independently screened all titles and abstracts of the papers for inclusion, and in case of any conflicts, full texts were obtained. After screening for relevance, 33 papers were reviewed. Through a screening of reference lists, five additional systematic reviews were identified (Bartoszko, Farooqi, Alhazzani, & Loeb, 2020; Chu et al., 2020; Couper et al., 2020; Jefferson et al., 2011) and 1 expert guidance document (Edelson et al., 2020). Therefore, the total number of articles reviewed was 39.

All recommendations and sources including ratings of the strength of the evidence (where available) are presented in Appendix 3. Where possible, recommendations were based on the highest level of evidence (a systematic review/meta-analysis). However, it is important to note that even where systematic reviews were available, the certainty of the evidence was often low. Specifically, the certainty of the evidence for PPE recommendations was evaluated as “low or very low” due to few studies, lack of randomized controlled studies and risk of bias, as determined based on the Grading of Recommendations, Assessment, Development and Evaluations (GRADE) framework (Bartoszko et al., 2020; Chu et al., 2020; Jefferson et al., 2011; Verbeek et al., 2020). The certainty of evidence related to barriers and facilitators was deemed “moderate to high” (Houghton et al., 2020). Certainty for CPR protocols during overdoses was “low to very low” (Couper et al., 2020). This highlights the need for additional research to inform best practice guidelines in the future.

None of the studies identified focused on workers in harm reduction facilities. It was therefore necessary to consult the grey literature to fill the gaps in recommendations specific to harm reduction settings.

2.4.2 Grey Literature Search

For Version 1 of the guidance document, a grey literature search was initially conducted between May 5 to May 27, 2020. Subsequent searches for the updated version were conducted between May 19, 2020 to February 24, 2021. All grey literature for the initial and current document was obtained via searches of general databases and websites, including provincial and national government websites. The search strategy, which focused on worker safety in harm reduction settings amid COVID-19, included pertinent keywords such as ‘harm reduction’, ‘worker safety’, ‘COVID-19’, and related terms and variations. The grey literature was comprehensively searched using web searching (e.g., Google), searching references of other reports, and by asking for resources from experts. Snowballing of references and citation lists of relevant papers were also reviewed to identify

additional resources. The grey literature included reports, community and government resources, which contained information regarding COVID-19 and harm reduction safety, as well as other infectious disease protocols and information that may be relevant. All documents were restricted to the English language for the initial guidance document, however, the current version of this document includes both English and French language sources. A total of 63 sources were identified for the initial document and 36 sources from the grey literature were identified to support the peer-reviewed evidence for the current version, with a total of 99 sources.

An independent CRISM authorship committee (n=8) and external reviewers (n=17) made up of experts and people with lived and living experience from each regional CRISM Node was assembled to participate and review this guidance document. Feedback and recommendations of committee members were sought through email communication as well as teleconferences when needed. Feedback from the authors and reviewers were collated and incorporated to develop Version 2 of this guidance document.

3.0 Results

The results presented below offer recommendations based on the peer-reviewed academic literature, and where applicable, grey literature and community resources. **The summary of the strength of the evidence for recommendations is provided in Appendix 3.**

While we recognize that some recommendations may not be applicable or relevant to every harm reduction setting, it remains imperative to highlight the evidence. The recommendations outlined below offer insight as to how the health of harm reduction workers in both fixed and community outreach settings could be protected with regards to the following measures: physical measures, screening – including rapid testing, hand hygiene, personal protective equipment (PPE), cleaning and disinfecting, responding to an overdose, and vaccinations.

3.1 PHYSICAL MEASURES

Harm reduction services should implement a variety of measures to ensure that adequate physical distancing and/or separation between individuals, including staff and clients are maintained consistently, to help minimize risk of COVID-19 transmission.

A systematic review and meta-analysis found that a distance of 1 metre probably reduces the risk of COVID-19 infection but that 2 metres is likely more effective (Chu et al., 2020). The study also found that for every additional 1 metre of distancing, the reduced risk of transmission could increase 2.02 times (Chu et al., 2020).

Physical measures could include physical barriers such as plexiglass windows, partitions or high walled cubicles, ensuring 2 metres (6 feet) of separation between work stations when physical barriers are not possible (Alberta Health Services, 2020a; Government of Canada, 2020c). Additionally, signage or physical markers (using tape, cones, table or chairs), and/or dedicated staff providing and facilitating direction, could be used to provide direction about appropriate physical distance (Government of Canada, 2020c). To further limit unnecessary close contact and maintain physical distancing, floors can be marked with tape to ensure distances of 2-metres are easily visible to staff and clients, for example when lining up to access harm reduction supplies (Alberta Health Services, 2020a; Government of Canada, 2020c).

It is advised that booths or tables at supervised consumption services should be a minimum of 2 metres apart. If services are using the existing infrastructure, signage, such as a chair, tape or cone, can be placed on every other booth/table to ensure sufficient distancing, from other injection booths

(Hyshka et al., 2020).

Transparent partitions are needed to allow interactions with clients to occur, such as assessments, counselling, completing paperwork, and/or picking up supplies (National Collaborative Centre for Environmental Health, 2020). These partitions should be designed to adhere to public health measures of physical distancing, and minimize airflow. The openings on the partitions should be kept as small as possible, and should be positioned on the partition to not compromise the breathing zone of either the service user or the provider.

Increasing ventilation by opening windows, if possible and when weather permits, may help reduce the risk of COVID-19 transmission (Government of Canada, 2020a, 2020c).

Further details regarding best practices for physical barriers during COVID-19 are available: [National Collaborating Centre for Environmental Health](#).

In mobile locations within the community, when possible, a 2 metre (6 feet) distance should be maintained between staff as well as between staff and clients. When travelling in vehicles together, staff should sit as far apart as possible (e.g. one person sit at the back on the opposite side of the driver), avoid face-to-face conversations and always wear a medical mask (INSPQ, 2020; Toronto Public Health, 2020). Eye protection designed to be used while driving should be worn by drivers, if possible, and when a 2 metre distance cannot be maintained from passengers (INSPQ, 2020). In addition, when possible, meet clients in outdoor settings and avoid close contact with clients. Designating one staff member to handle any multi-user devices, such as electronics, would reduce the need to clean and disinfect between use (Toronto Public Health, 2020).

3.2 SCREENING

A critical strategy to reduce the risk of COVID-19 transmission is to screen staff and clients for COVID-19 and quickly respond to suspected cases (e.g. offer testing, support isolation). To help reduce the risk of transmission to staff and clients, all sites and facilities should undertake passive and active screening (Ontario Ministry of Health, 2020). These screening measures should be applied to both the staff and clients.

3.2.1 Passive Screening

Signage should be posted on all entry points of every facility, which should prompt anyone to self-identify to a designated person/location if they believe they have symptoms of COVID-19, based on the latest [case definition of COVID-19](#). Case definitions are used for surveillance purposes and they

help identify probable and confirmed cases. Masks and hand hygiene stations should be available upon arrival with signs directing clients to wear masks and sanitize their hands.

3.2.2 Active Screening: Clients

- Clients should be screened for symptoms and possible exposures by harm reduction workers upon arrival;
- If a client is picking up supplies, they should be given what they need and asked to move from the space as quickly as possible;
- Harm reduction workers conducting screening should be situated behind a physical barrier, or standing 2 metres away from clients and be wearing appropriate PPE.

3.2.3 If a Client Screens Positive

- If a client screens positive and requires services on-site, and the harm reduction workers have assessed that the client still requires access to the service, staff should provide and instruct the client to perform hand hygiene and wear a medical mask (provided on site);
- If possible, place the client in a separate area, to avoid contact with other clients whom may be in a common area;
- Encourage the client to practice appropriate hygiene/cough etiquette, and provide tissues, alcohol-based hand rub and a waste bin;
- Staff should provide services to the client using appropriate PPE (as described in Table 1: **Summary of PPE Recommendations for Staff in Fixed Locations on page 26**).

Additionally, if a client screens positive, advise them to self-isolate and assist with facilitating access to COVID-19 testing and/or access to an isolation centre. It is important to note that the duration of self-isolation may differ by province, and as such, recommendations should be based on provincial guidelines.

When possible, harm reduction workers can also direct clients to the Health Canada self-assessment tool to review their symptoms and connect with provincial and territorial assessment tools and information: <https://ca.thrive.health/covid19/en>.

3.2.4 Active Screening: Staff

As part of routine practice, harm reduction workers should regularly monitor themselves for symptoms. They should be reminded to stay home if they are not well. Settings that are providing frontline service should create and implement sick leave policies that are non-punitive, flexible and consistent with public health guidance, to encourage workers to stay home when ill, undergoing COVID-19 testing, in quarantine, or taking care of children or someone who is sick (Chow et al., 2020; Government of Canada, 2020c). Paid sick leave is particularly important for services who rely on staff who are paid hourly or by honoraria.

Workers should conduct self-screening before they attend the work site for fever and symptoms consistent with COVID-19. Staff are encouraged to use this online [COVID-19 self-assessment tool](#). Staff with symptoms should also be tested. Information about when harm reduction workers with either a confirmed or suspected case of COVID-19, may return to work can be found here: [Criteria for Return to Work for Healthcare Personnel with Suspected or Confirmed COVID-19 \(Interim Guidance\)](#) or here: [Interim Guidance on Return to Work for Health-Care Workers with Confirmed or Suspected COVID-19](#).

For more information regarding staff screening and cohorting of shifts, see Hyshka et al., 2020 ([Supporting People who use Substances in Shelter Settings during the COVID-19 Pandemic](#)).

It is important to note that staff and clients may be asymptomatic, and as such, may not screen positive for COVID-19. It is thus critical for each service to maintain proper physical distancing between clients and staff, perform hand hygiene regularly, always don appropriate PPE (including masks) and thoroughly clean and disinfect the facility, to minimize transmission of COVID-19 (Hyshka et al., 2020).

3.3 PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE reduces risks to harm reduction workers by preventing exposure to pathogens if used correctly. SARS-CoV-2 remains on surfaces for up to 3 days (van Doremalen et al., 2020) suggesting that it can be transferred inadvertently when removing PPE if not executed correctly. It is also recommended that PPE should not be re-used except when adequate supplies cannot be obtained otherwise (Casanova, Rutala, Weber, & Sobsey, 2010). PPE of a more breathable material is recommended because it offers similar protection to water-repellant material but is much more comfortable (Verbeek et al., 2020).

The decision on what PPE should be worn is based on the type of care to be provided, the role in providing care and may be impacted by availability of resources. PPE should be used as a precaution

against aerosol, contact and droplet transmission when any direct care is being provided (e.g. support given within two metres [six feet] of the client or any physical care (Toronto Public Health, 2020).

3.3.1 Types of PPE

Masks

We encourage governments to consider the importance of offering the highest level of protection to all health care workers including individuals working in harm reduction settings and to allocate the necessary PPE resources when available, as well as to prepare for pandemics and other outbreaks by having such resources in stock. Most Canadian provincial/territorial guidelines recommend the use of N-95 masks for aerosol generating medical procedures (AGMP) only.

The current literature on the relative efficacy of N-95 masks compared to medical masks is conflicting, often depending on duration of use, compliance and the type of setting (Barbosa MH & KU, 2006; Bartoszko et al., 2020; Chaabna, Doraiswamy, Mamtani, & Cheema, 2021; Chu et al., 2020; Garcia Godoy et al., 2020; Howard et al., 2021; Jefferson et al., 2011; MacIntyre & Chughtai, 2020; X. Yin, Wang, Xu, & He, 2021). Additionally, most of the literature does not focus on COVID-19 specific outcomes, more specifically relies on influenza and other respiratory illnesses ((Howard et al., 2021; X. Yin et al., 2021).

Evidence has suggested that medical masks are effective in community settings (Chaabna et al., 2021) and are less expensive, more readily available and more comfortable over longer periods of time compared to N-95 masks (Jefferson et al., 2011). However, in order for medical masks to offer the highest level of protection, use should be combined with frequent hand hygiene (Chaabna et al., 2021). A systematic review suggested limited evidence of the superior effectiveness of N-95 masks over medical masks (Jefferson et al., 2011). An additional review indicated that there is “low certainty evidence” that medical masks and N95 respirators offer similar protection during non-aerosol generating medical procedures (Bartoszko et al., 2020). We therefore recommend the use of medical masks except when aerosol generating medical procedures are performed, which is consistent with existing Canadian guidelines. A list of medical procedures that are not considered AGMPs based on current existing evidence is available here: [COVID-19: Aerosol Generation from Coughs and Sneezes](#).

There is evidence suggesting that an N-95 mask may be more protective than a medical mask during AGMP (Chu et al., 2020; Howard et al., 2021). We therefore recommend that an N-95 be used if AGMP are being performed (e.g., Bag-Valve-Mask use with high flow oxygen therapy, manual ventilation, or intubation (Public Health Ontario, 2021). An N-95 mask should be worn as well as gown, gloves, and eye protection (goggles or a face shield) (World Health Organization, 2020a). In order to be fully effective, an N-95 mask should be fit tested to achieve a close facial fit (Garcia Godoy et al., 2020). It is therefore recommended that individuals who are responsible for responding to an AGMP be

mask fit tested, trained in appropriate donning and doffing and have access to an N-95 mask closely available. It is also important to note that facial hair can impact the seal and consequent efficacy of an N-95 mask.

Where medical masks are not available, the current Canadian guidelines recommend the use of non-medical masks that consist of at least two layers of tightly woven fabric (such as cotton) and a third middle layer consisting of a filter (e.g., non-woven polypropylene fabric, kitchen towel or a rinsed and dried baby wipe folded in half) (Government of Canada, 2021f). Additionally, to stop the spread of COVID-19, universal mask protection (both staff and clients) is imperative (Howard et al., 2021).

All masks should be disposed of if soiled or wet, after close contact with an individual with COVID-19 (or with COVID-19 symptoms), after use during an aerosol-generating procedure, or after contamination with bodily fluids (Garcia Godoy et al., 2020). Hand hygiene is required before removal and after disposal of the PPE. Additional guidance regarding how to improve mask protection can be found: [Improve How Your Mask Protects You](#).

Gowns

Gowns protect against exposure to pathogens (Chen et al., 2009; Nishiura et al., 2005; Seto et al., 2003; Teleman, Boudville, Heng, Zhu, & Leo, 2004; W. W. Yin et al., 2004). Long gowns are recommended because they are easier to remove without contamination risk and offer superior protection compared to aprons (Verbeek et al., 2020).

Gloves

In combination with frequent hand washing, gloves are an important way to prevent exposure to pathogens (Chen et al., 2009; Nishiura et al., 2005; Seto et al., 2003; Teleman et al., 2004; W. W. Yin et al., 2004), especially if client interactions involve contact with body secretions or fluid. Long gloves may offer more coverage and limit exposure (Jones, Bleasdale, Maita, Brosseau, & CDC Prevention Epicenters Program, 2020). Gloves must be changed in between client interactions, with hand hygiene performed as well. While gloves are protective, wearing of gloves must not be substitute to good hand hygiene.

Goggles and Face Shields

Use of goggles or masks with goggles for eye protection is effective against splash or spray of body fluids, including aerosolized particles from coughing (Chu et al., 2020). Face shields also provide protection from splash or spray of bodily fluids and aerosols, but their primary purpose is for eye

protection, and we therefore don't recommend their use on their own (in place of a mask) (Garcia Godoy et al., 2020).

3.3.2 Summary of PPE Recommendations

The PPE to be used will differ according to the role or activity being performed and the risk involved. Table 1 summarizes the PPE to be used for staff and clients.

Summary of PPE Recommendations for Staff in Fixed Locations

Harm reduction services	Activity	Role	Type of Mask	Other PPE
Screening	Preliminary contact not involving direct contact	Staff responsible for screening	Medical mask	Eye protection (goggles or face shield)
Harm reduction facilities (indoors)	Providing direct care (no aerosol-generating procedures)	Harm reduction workers	Medical mask	Non-latex gloves Eye protection (goggles or face shield)
	Direct care (aerosol-generating medical procedures (AGMP) are frequently performed)	Harm reduction workers	N-95 mask for individual providing direct care during AGMP.	Gown Non-latex gloves Eye protection (goggles or face shield)
	After an AGMP	Cleaners	A medical mask is recommended for cleaning.	Gown Non-latex gloves Eye protection (goggles or face shield)
Administrative areas	Administrative tasks that do not involve direct contact with clients	All staff, including harm reduction workers	Medical mask	Eye protection if staff are unable to maintain a 2-metre distance

Summary of PPE Recommendations for Clients in Fixed Locations

Harm reduction services	Activity	Target personnel or clients	Type of Mask
Screening	Any procedures related to screening Medical masks should be distributed to all clients upon entry	Clients without symptoms suggestive of COVID-19	Medical mask is preferred. If medical masks are not available, non-medical masks that consist of at least two layers of tightly woven fabric (such as cotton) and a third middle layer consisting of a filter (e.g., non-woven polypropylene fabric, kitchen towel or a rinsed and dried baby wipe folded in half) may be used.
	Any procedures related to screening Medical masks should be distributed to clients	Clients with symptoms suggestive of COVID-19	Medical mask is preferred. If medical masks are not available, non-medical masks that consist of at least two layers of tightly woven fabric (such as cotton) and a third middle layer consisting of a filter (e.g., non-woven polypropylene fabric, kitchen towel or a rinsed and dried baby wipe folded in half) may be used.
Harm reduction facilities (indoors)	Any activity except during oxygen delivery or AGMP	Clients without symptoms suggestive of COVID-19	Medical mask
	Any activity except during oxygen delivery or AGMP	Clients with symptoms suggestive of COVID-19	Medical mask
	During high pressure oxygen delivery or AGMP	Clients with or without symptoms suggestive of COVID-19	No mask because responders are able to wear appropriate PPE

Summary of PPE Recommendations for Staff in Community Locations

To prevent the transmission of COVID-19:

- Staff should always wear a medical mask when participating in any outreach related activities in the community, including travel;
- Staff interacting with clients should wear a medical mask, non-latex gloves, gown and eye protection (Toronto Public Health, 2020);
- Staff that do not interact with clients should wear a medical mask and eye protection (if possible); and
- If responding to AGMP, staff should wear an N-95 respirator, non-latex gloves, gown and eye protection (Toronto Public Health, 2020).

3.4 RAPID TESTING

Another important screening measure that could be considered at sites that have capacity is the use of rapid antigen detection tests (where possible according to availability in local jurisdictions). While lab based molecular (RT-PCR) testing remains the gold standard for detecting COVID-19 infections in Canada, the use of rapid antigen detection tests are beneficial in high-risk settings to help identify individuals who are asymptomatic or pre-symptomatic for COVID-19 as part of the pandemic response (Canadian Public Health Laboratory Network Laboratory Directors Council and the Canadian Public Health Laboratory Network Respiratory Virus Infection Working Group, 2021; Government of Canada, 2021d). Although less sensitive in detecting COVID-19 compared to lab-based molecular tests (Dinnes et al., 2020), rapid antigen tests have a short turnaround time and are easy to use by a wide range of trained staff, which would help provide an additional layer of active screening for staff, where possible, and for clients visiting harm reduction settings and prevent possible outbreaks (Health Canada, 2021).

For Clients:

- Clients who wish to be screened using a rapid test may choose to do so voluntarily; service should never be withheld from a client that refuses rapid testing;
- If a client receives a negative rapid test result, encourage the client to continue practicing good hand hygiene, wear a mask and physical distance (Government of Canada, 2021d); and

- If a client receives a positive rapid test result, and harm reduction workers have assessed that the client still requires access to the service, staff should:
 - Provide the client with a medical mask and instruct the client to perform hand hygiene;
 - Place the client in a separate area (if possible), to avoid contact with other clients. Alternatively, if the client does not require imminent access to the service, staff may provide clients with necessary supplies (Toronto Public Health, 2020); and
 - Advise the client to self-isolate based on provincial guidelines and assist with directing them to voluntary isolation centres, hotels or local COVID-19 testing or treatment centres, if available (Canadian Public Health Laboratory Network Laboratory Directors Council and the Canadian Public Health Laboratory Network Respiratory Virus Infection Working Group, 2021). Positive rapid test results should be confirmed by a lab-based PCR test (Government of Canada, 2021d).

3.5 HAND HYGIENE

Hand hygiene (hand washing) is critically important to prevent the spread of COVID-19. A common misconception is that hand hygiene is not needed when gloves are worn. In fact, contamination often occurs when removing gloves or gowns (Casanova et al., 2010; Kim et al., 2015). Thus, effective handwashing remains an important strategy even after gloves are removed.

Hand hygiene should be performed frequently. It is therefore recommended that sites provide easy access to a handwashing station or hand sanitizer for both harm reduction workers and clients. It is particularly important to remember to wash hands before and after physical contact, after contact with body fluids, and after contact with shared surfaces (Kim et al., 2015). Hand hygiene must be performed before and after donning and doffing PPE (Centre for Disease Control and Prevention (CDC), 2020d; Kim et al., 2015). Hands should be washed using soap and warm water (Kim et al., 2015) for at least 20 seconds (Centre for Disease Control and Prevention (CDC), 2020b). For detailed steps on handwashing see: [Reduce the Spread of COVID-19: Wash your hands.](#)

If soap and water are unavailable and hands are not soiled with visible contaminants, alcohol-based hand rub (ABHR) can be used (Kim et al., 2015). It is recommended that ABHR containing 60% to 90% alcohol should be used (Government of Canada, 2021c). If hands are visibly soiled, perform hand hygiene with soap and water. If unavailable, use a wipe (such as BZK (benzalkonium chloride) wipes) followed by alcohol-based hand rub (ABHR). BZK wipes have not shown to reduce the spread of COVID-19, therefore, ABHR should be used directly after using BZK wipes (Toronto Public Health,

2020). Similar steps should be followed when staff are in community settings, where access to soap and water may not always be possible.

If a harm reduction site is in a community with a Boil Water Advisory (BWA), staff and clients may continue to use soap and water to perform frequent hand hygiene. However, if the site is in a community with a Do Not Use (DNU) advisory, hand hygiene should be performed using bottled water instead (BC Centre for Disease Control, 2021). Alternatively, hand sanitizer may be used.

Jewelry, adhesive nails, and nail polish should also be avoided because they can become contaminated by COVID-19 and reduce hand hygiene effectiveness (Lee & Goh, 2021; Toronto Public Health, 2020).

3.6 DONNING AND DOFFING PPE

Protocols for putting on (donning) and removing (doffing) PPE correctly and in proper sequence are needed to prevent contamination (Verbeek et al., 2020). Doffing often occurs after a long shift and workers may be more prone to mistakes. Therefore, providing instructions while doffing is recommended, as it leads to fewer errors and lowers the risk of contamination (Verbeek et al., 2020). For instance, some services have included a second person to act as a don/doff helper. Public Health Ontario (PHO) has recommendations for putting on and removing PPE. The procedures are as follows (Centre for Disease Control and Prevention (CDC), 2020e; Public Health Ontario, 2020c):

3.6.1 How to Put On (Don) PPE Gear

More than one donning method may be acceptable. Below is one example of donning in a situation where full PPE is needed. Note that steps can be skipped where equipment is not being used.

1. **Perform hand hygiene** using soap and water or hand sanitizer if not available.
2. **Put on gown.** Tie neck and waist ties securely. Assistance may be needed from another staff member.
3. **Put on mask.** Place mask over nose and under chin. Secure ties, loops or straps. If the mask has a nosepiece, it should be fitted to the nose with both hands, not bent or tented. Do not pinch the nosepiece with one hand. Respirator/facemask should be extended under chin. Both your mouth and nose should be protected. Do not wear respirator/facemask under your chin or store in pocket.
 - **Medical Mask:** Mask ties should be secured on crown of head (top tie) and base of neck (bottom tie). If mask has loops, hook them appropriately around your ears.

- **N-95 Mask:** Respirator straps should be placed on crown of head (top strap) and base of neck (bottom strap). Perform a user seal check each time you put on the respirator.
- 4. **Put on protective eyewear.** Put on eye protection (face shields or goggles) and adjust to fit. When wearing an N-95 mask, select the appropriate eye protection to ensure that the mask does not interfere with the correct positioning of the eye protection, and the eye protection does not affect the seal or fit of the mask. Face shields provide full face coverage; they should fit over the brow.
- 5. **Put on non-latex gloves.** Put on non-latex gloves, ensuring not to tear or puncture the gloves. Gloves should cover the cuff (wrist) of gown.

3.6.2 How to Take Off (Doff) PPE Gear

More than one doffing method may be acceptable. Below is one example of doffing in a situation where full PPE is needed. Note that steps can be skipped where equipment is not being used.

1. **Remove non-latex gloves.** Ensure glove removal does not cause additional contamination of hands. Non-latex Gloves can be removed using more than one technique (e.g., glove-to-glove or skin-to-skin). Grasp outside edge near the wrist and peel away, rolling the glove inside-out. Reach under the second glove and peel away. Discard gloves immediately into waste receptacle.
2. **Remove gown.** Remove the gown in a manner that prevents contamination of clothing or skin. Untie all ties (or unsnap all buttons), starting with waist ties, then neck ties. Pull the gown forward from the neck ties and roll it so that the contaminated outside area of the gown is to the inside. Roll off the arms into a bundle. Dispose in trash receptacle (or laundry where applicable). Some gown ties can be broken rather than untied. Do so in gentle manner, avoiding a forceful movement. Reach up to the shoulders and carefully pull gown down and away from the body.
3. **Perform hand hygiene.**
4. **Remove eye protection.** Avoid touching the front of the face shield or goggles. Carefully remove face shield or goggles by handling the ear loops, straps or back and pulling upwards and away from head. Dispose into waste receptacle or into appropriate container to be sent for reprocessing. Personally-owned eyewear should be cleaned by the individual after each use.
5. **Remove mask.** Do not touch the front of the N-95 respirator or facemask. Untie bottom tie then top tie, or grasp straps or ear loops. Pull forward off the head, bending forward to allow mask to fall away from the face. Discard immediately into waste receptacle.

6. **Perform hand hygiene** after removing the N-95 respirator/face mask and before putting on a new face mask. Hand hygiene should always be performed before touching one's face.

For visual instructions see: [Public Health Ontario recommended steps](#).

3.7 BARRIERS AND FACILITATORS TO FOLLOWING INFECTION PREVENTION AND CONTROL GUIDELINES

3.7.1 Training

It is important that management demonstrate support for infection prevention and control guidelines to encourage uptake among harm reduction workers (Houghton et al., 2020). This includes clear communication of protocols and mandatory training in the proper use of PPE needed (Houghton et al., 2020; Kim et al., 2015). Repeated training and participation in drills may also increase adherence and reduce errors (Honda & Iwata, 2016).

Active training on the proper use and steps needed to don and doff PPE using video or computer simulation or spoken instructions may be more effective than passive training (lectures or no added instructions) (Verbeek et al., 2020). Additionally, training videos on donning and doffing procedures have been shown to be just as effective as in person instructor led training, reducing the need for contact during COVID-19 (Christensen, Rasmussen, Benfield, & Franc, 2020).

3.7.2 PPE Fit

It is important that PPE fit correctly to ensure that it is effective and to encourage use (Houghton et al., 2020). In particular, N-95 masks should be fit tested and fit testing should be up to date given that the fit can change with changes in weight, facial hair, etc.

3.7.3 Heat Stress

PPE can create heat stress because of reduced air flow which impacts compliance with PPE use and may lead to heat related illnesses such as heat stroke and dehydration (Honda & Iwata, 2016; Lee & Goh, 2021). It is therefore important to be aware of this in warmer climates or during summer months in facilities that do not have air conditioning. Staff should be monitored for signs of heat stress, drink plenty of fluids and have sufficient opportunities to take a break/remove PPE where possible. Wearing thin, moisture-wicking garments alleviates the potential for heat stress (Lee & Goh, 2021).

3.7.4 Use of Masks and Participants

Some participants in harm reduction services may react negatively to the use of masks or other PPE by harm reduction workers, particularly if it makes them feel isolated or stigmatized (Houghton et al., 2020). Letting clients know in advance that staff and other clients will be wearing masks and the importance of wearing masks to protect both clients and staff may help mitigate these concerns.

3.7.5 Hand Washing Availability

Ideally, harm reduction workers should have access to sinks with running water and soap. Where this is not possible, the next best thing would be provision of hand sanitizing stations (Houghton et al., 2020). To avoid skin irritation and dry hands due to frequent hand washing, it is recommended that hands should be washed with mild soap and lukewarm water for at least 20 seconds. Avoid wearing gloves when hands are still wet or damp from either hand washing or using an alcohol-based hand sanitizer, as it can increase the risk of skin irritation. If possible, staff should use a fragrance-free moisturizer after hand hygiene (Lee & Goh, 2021; Rundle et al., 2020).

3.7.6 Mental Health

Several studies have shown that the COVID-19 pandemic and the necessary public health measures have had a significant impact on the emotional and mental well-being of individuals at a population level (Mental Health Commission of Canada (MHCC), 2020; Pfefferbaum & North, 2020; Statistics Canada, 2020; Vigo, Patten, & Pajer, 2020). Frontline staff, including peer workers, may be particularly vulnerable to the negative mental health impacts of COVID-19 due to their greater risk of exposure to the virus, concerns about infecting loved ones, intense work conditions and limited supply of PPE (Pfefferbaum & North, 2020; Vigo et al., 2020). For harm reduction workers, the increase incidence of opioid-related overdose deaths is an additional stressor. Furthermore, staff may not have employment protections such as a union, counselling or benefits. These individuals may therefore not feel empowered or financially able to take time off when experiencing symptoms of COVID-19 or to ask for personal protective equipment (PPE), all of which may have detrimental effects on their mental health and well-being.

Harm reduction sites should make provisions for mental health support and resources for staff who are experiencing multiple loss, grief and trauma that reflect their experiences. In addition, staff should be encouraged to be aware of and respond to stressors that may have a negative impact on their well-being. To ensure protection of volunteers, staff and clients in harm reduction settings, it is critical that individuals with symptoms or high-risk exposures (e.g. direct contact with a known positive case) be able to stay home and that universal standards for training and PPE use be applied

to protect all individuals in these settings. A list of recommended online mental health resources can be found in Appendix 1.

3.8 FACILITY CLEANING AND DISINFECTING

Routine cleaning and disinfecting procedures must be implemented in all facilities to help prevent the transmission of COVID-19. Cleaning and disinfecting of frequently touched surfaces, can limit the transfer of the virus (Public Health Agency of Canada, 2020a). Standard existing cleaning protocols should be followed including ensuring that cleaning products are effective against Hepatitis C, SARS-CoV-2 and HIV (where protocols exist). As such, surfaces frequently touched with hands, such as: ID badges, keys, doorknobs, elevator buttons, light switches, handrails, tables, countertops, faucet tables, and electronics- are most likely to be contaminated, and require routine cleaning (Public Health Agency of Canada, 2020a; Toronto Public Health, 2020). It is recommended that facilities choose products that both clean and disinfect all at once. Cleaning products remove germs, dirt and impurities from surfaces, but do not necessarily kill germs. Disinfecting products kill germs on surfaces using chemicals (Centre for Disease Control and Prevention (CDC), 2021a; Public Health Agency of Canada, 2020a). Disinfectants should be readily available to staff for sanitizing surfaces after use. Facilities should only use approved-hard surface disinfectants that have a Drug Identification Number (8-digit number given by Health Canada that confirms the product is approved and safe for use in Canada). While most disinfectants will work against coronavirus, the approved disinfectants are supported by evidence following drug review, indicating that they are likely to be highly effective and may be used to clean potentially contaminated surfaces. If an approved disinfectant is not available, [use a diluted bleach solution](#) (Public Health Agency of Canada, 2020a).

3.8.1 How to Clean and Disinfect

Frequently touched surfaces should be cleaned and disinfected at least daily to help control the spread of COVID-19 (Government of Canada, 2020a). High traffic areas, such as washrooms, should be cleaned and disinfected at least twice daily.

Hard (Non-porous) Surfaces (door knobs, countertops, tables etc.):

- If surfaces look visibly dirty, they should be cleaned using soap or detergent and water prior to disinfection;
- Use only approved hard-surface disinfectants that have a Drug Identification Number. If an approved hard-surface disinfectant is not available, a diluted bleach solution may be used (Government of Canada, 2020a). A [list of disinfectants with evidence for use against](#)

[COVID-19 can be found here;](#)

- Use disposable cloths, such as paper towels or wipes; and
- Follow the manufacturer's instructions for concentration, application method and contact time.

Soft (Porous) Surfaces (carpeted floors, rugs etc.) (Centre for Disease Control and Prevention (CDC), 2021a, 2021b):

- Remove visible contamination with appropriate cleaners indicated for use on these types of surfaces;
- After cleaning, if the items can be placed into the laundry, then launder those items in accordance with the manufacturer's instructions, using the warmest appropriate setting for the items and then dry items completely; and
 - Do not shake dirty laundry. This reduces the risk of dispersing the virus through the air.
 - If items are stored in a hamper or receptacle prior to cleaning, clean and disinfect the hamper or receptacle accordingly.
 - Avoid using reusable bags that have not been laundered between uses.
- If items cannot be cleaned in the laundry machine, then use [disinfectants that have a Drug Identification Number](#) and that are suitable for soft surfaces.
- Staff should take off clothing as soon as they get home. The clothes should be put directly into the washing machine or store in a disposable bag that can be closed off until laundry can be done (Toronto Public Health, 2020).
- Use a vacuum equipped with a high-efficiency particulate air (HEPA) filter, if possible (Centre for Disease Control and Prevention (CDC), 2020c).
 - Wait until a room or space is empty to vacuum. Do not vacuum a room or space that is occupied by people.
 - If in-room, window-mounted, or on-wall HVAC units are present, temporarily turn them

off while vacuuming. However, do not deactivate central HVAC systems.

Electronics (tablets, keyboards, touch screens etc.) (Centre for Disease Control and Prevention (CDC), 2021a; Public Health Agency of Canada, 2020a):

- Consider the use of wipeable covers for electronics;
- Remove visible contamination if present;
- Follow the manufacturer’s instructions for all cleaning and disinfecting products; and
- If there are no instructions available from the manufacturers’, consider using alcohol-based wipes or sprays that contain at least 70% alcohol to disinfect the electronics. Surfaces should be thoroughly dried to avoid pooling of liquids.

3.8.2 Personal Protective Equipment (PPE) and Cleaning

Cleaning staff should wear a medical mask, disposable non-latex gloves and gowns for all tasks in the cleaning process, including handling garbage. Eye protection should be worn if at risk of liquid splash or spray. Cleaners should be cautious about potential sharp hazards particularly needle stick injuries.

- Cleaning staff must follow donning and doffing protocols as described above;
- Non-latex gloves and gowns should be compatible with the disinfectant products being used;
- Additional PPE may be required based on the products being used and whether there is a risk of splash, such as goggles or face shields;
- During cleaning, avoid touching the face (eyes, nose, and mouth);
- Hands must be cleaned immediately after the removal of non-latex gloves and doffing guidelines for PPE should be followed as previously outlined; and
- Generally, cleaning staff should perform hand hygiene often.

In addition to the above recommendations, frequently touched surfaces should be cleaned often during outreach. Implementing a pre-shift and post-shift cleaning schedule is recommended. This would include cleaning and disinfecting all equipment and frequently touched surfaces (such as keys, pens, phones, tablets, bags, steering wheels, seat belts, armrests, light and air controls etc.) (Centre for Disease Control and Prevention (CDC), 2020a; Government of Canada, 2020a).

3.9 RESPONDING TO AN OVERDOSE

There is currently a lack of information about how to appropriately respond to an overdose given the potential risks to harm reduction workers providing medical intervention including rescue breaths and chest compressions. There has been scientific debate about whether CPR is an aerosol generating medical procedure (AGMP). It is known that manual ventilation and intubation are aerosol generating medical procedures and therefore precautions are needed including the use of an N-95 mask (Public Health Ontario, 2020a). There is a lack of evidence suggesting that chest compressions are aerosol generating based on a recent systematic review (Couper et al., 2020). The best current evidence therefore suggests that chest compressions alone are not AGMP (Public Health Ontario, 2020a). This guidance applies to harm reduction settings where it is assumed that PPE is available for use by trained staff. It is important that harm reduction workers are properly trained to respond to an overdose in the context of COVID-19 and individuals are identified as the staff responsible for performing aerosolized medical procedures when the need arises. These individuals should be provided with the appropriate PPE and mask fit tested for N-95 masks (when needed). It is expected that bystanders (those who are not staff designated to respond to an overdose and therefore do not have PPE) should not respond during an overdose in a harm reduction setting.

In order to protect the health of harm reduction workers, it is best to assume that the individual who has overdosed may have COVID-19 and to therefore take appropriate universal precautions. Individuals providing any AGMP care (manual ventilation, high flow oxygen with nasal prongs, intubation) should wear eye protection (goggles or face shield), non-latex gloves, a gown and should don an N-95 mask prior to administering care (Public Health Ontario, 2021; Toronto Public Health, 2020). If overdose response involves non-AGMP procedures a medical mask, eye protection (goggles or face shield), gown and non-latex gloves are sufficient (Public Health Ontario, 2021). It is important to note that CPR face shields do not offer sufficient protection (Toronto Public Health, 2020). It is also important to note that nasal naloxone is not an AGMP (for a list of non-AGMP procedures see (Public Health Ontario, 2020b)). It is recommended that the room be evacuated during an AGMP except for those providing direct care to allow for proper cleaning to limit exposure (Edelson et al., 2020; Toronto Public Health, 2020). Detailed specific steps for responding to an overdose involving an AGMP can be found here: [COVID-19 Protocol for AGMP in The Works Supervised Injection Site \(SIS\) Environment](#).

Given the rising number of fatal drug overdoses across Canada, harm reduction workers, where possible, should provide and facilitate access to naloxone kits for clients. It is critical to provide essential resources to reduce the risk of overdose when clients leave these harm reduction settings (Dunlop et al., 2020). Evidence has suggested that increasing the use of naloxone in community settings, has reduced reliance on health care providers to reverse overdoses (Slaunwhite et al., 2020). Facilitating clients access to naloxone kits by harm reduction workers is critical as the risk of opioid overdoses has significantly increased. Training provided to clients should incorporate information on mitigating

potential COVID-19 risks to bystanders who respond to an overdose (Alberta Health Services, 2020a).

Staff responding to overdoses within the community should follow the same PPE guidelines outlined above. In addition, it is recommended that staff participating in outreach work be trained in overdose response protocols, PPE practices and environmental cleaning when in the community (Toronto Public Health, 2020). It would be beneficial to pre-plan overdose response roles (e.g. one staff member will call 911 while another administer naloxone and CPR), if possible (Toronto Public Health, 2020).

Detailed steps for community overdose response can be found here: [Toronto Public Health – COVID-19 Guidelines for Harm Reduction Outreach and Community Overdose Response.](#)

3.10 VACCINATIONS

Safe and effective COVID-19 vaccines are an important tool to help with managing the COVID-19 pandemic in Canada. As of March 1, 2021, Health Canada approved the Moderna COVID-19 vaccine, the Pfizer-BioNTech COVID-19 vaccine, the AstraZeneca COVID-19 vaccine and the Johnson & Johnson COVID-19 vaccine (Government of Canada, 2021b). The review and approval process in Canada followed a strict and rigorous protocol where experts conducted a thorough and independent review of all vaccine data as it became available. Vaccines are only approved if it is safe, if it works, if it meets manufacturing standards and if the benefits clearly outweigh the risks (Health Canada, 2020).

PWUD are at an increased risk of exposure and complications from COVID-19 due to pre-existing and underlying health conditions including lung disease such as asthma/COPD, compromised immune systems, diabetes (Wood et al., 2020) as well as other vulnerabilities such as homelessness, limited access to essential services and utilization of shelters. Staff and clients at harm reduction sites are encouraged to get vaccinated, if possible, to help protect themselves from the virus and to ensure that harm reduction services can continue to run.

After getting vaccinated, individuals may experience some side effects, which is normal part of the vaccination process. The most common side effect of the COVID-19 vaccine includes pain and swelling at the site of injection. In addition, some individuals may experience chills, fever and tiredness (Government of Canada, 2021a, 2021e, 2021g). These are common side effects of vaccines in general and do not pose a risk to health (Government of Canada, 2021a, 2021e, 2021g). Health Canada has carefully reviewed the available medical evidence to assess the safety of the vaccines and no major safety concerns have been identified (Government of Canada, 2021a, 2021e, 2021g).

3.10 COMMUNITY OUTREACH SETTINGS

3.10.1 Providing Supplies

To maintain safe distance between clients and staff, staff should place loose supplies (such as syringes, alcohol swabs, stericups, tourniquets etc.) in a bag instead of allowing clients to “self-serve” or access outreach bags. In addition, harm reduction supplies should be provided through drop offs rather than handing them directly to clients. If possible, encourage clients to take enough supplies to reduce the number of contacts required between clients and staff, alternatively, create and provide larger quantities of pre-packaged supplies that are easy to hand out to clients (Alberta Health Services, 2020a; Toronto Public Health, 2020). If clients need to use staff phones, staff should offer to make phone calls on their behalf. If that is not possible, clean and disinfect the device before and after client use (Toronto Public Health, 2020).

4.0 Conclusion

This document offers recommendations based on the peer-reviewed academic literature, and where applicable, grey literature and community resources. These recommendations address physical measures, frequent hand-washing, use of PPE, addressing barriers and facilitators to infection control adherence, facility cleaning recommendations, screening procedures – including rapid testing, vaccinations and how to protect oneself when responding to an overdose in both fixed and community outreach settings. Important measures in harm reduction facilities to protect workers, such as physical distancing and the implementation of physical barriers is imperative, when possible. It is also critical that adequate PPE be made available for harm reduction workers in harm reduction settings in order to ensure that services can continue to operate during pandemics.

With regards to PPE, training on the proper use, including donning and doffing protocols are essential to ensure that PPE are effective. The current guidance document outlines recommendations for protecting workers in both fixed harm reduction sites, such as supervised consumption services, and community outreach settings. The guidance is based on the best current available evidence. Those who work in harm reduction settings, such as supervised consumption services, are often at a heightened risk of exposure to COVID-19.

However, it is important to note that the available evidence for COVID-19 protection in harm reduction settings is limited and the strength of the evidence was often weak. As research becomes available this document will be further updated.

Appendix 1: Online Substance Use Resource Listing

Below is a list of online resources on substance use. Please note that this is not an exhaustive list of resources.

[Alberta Health Services: Harm Reduction and COVID-19 Guidance Document for Community Service Providers](#)

[Assembly of First Nations: COVID-19](#)

[British Columbia Centre on Substance Use: COVID-19](#)

[CDC: Cleaning and Disinfection for Community Facilities](#)

[CDC: Coronavirus \(COVID-19\)](#)

[Centre for Addiction and Mental Health \(CAMH\): Mental Health and the COVID-19 Pandemic](#)

[COVID-19 Protocol for Aerosol-Generating Medical Procedures \(AGMP\) in The Works Supervised Injection Site \(SIS\) Environment](#)

[First Nations Health Managers Association: COVID-19 Resources and Announcements](#)

[First Peoples Wellness Circle: COVID-19 Resource Page](#)

[Government of Canada: COVID-19 Self-Assessment Tool Health Canada](#)

[Government of Canada: List of Disinfectants with Evidence for Use against COVID-19](#)

[Government of Canada: Reduce the Spread of COVID-19. Wash your hands](#)

[INSPQ: Taxi, covoiturage et transport adapté – Mesures de prevention de la COVID-19 en milieu de travail – Recommendations intérimaires \(French\).](#)

[National Collaborating Centre for Environmental Health: Physical Barriers for COVID 19 Infection Prevention and Control in Commercial Settings](#)

[Ontario Ministry of Health: Case definition Novel Coronavirus \(COVID-19\)](#)

[Pandemic Narcotics Anonymous](#)

[Taking Care of Your Mental Health \(COVID-19\)](#)

[Toronto Public Health COVID-19 Guidelines for Harm Reduction Outreach and Community Overdose](#)

[Supporting People Who Use Substances in Shelter Settings during the COVID-19 Pandemic](#)

[Thunderbird Partnership Foundation: Harm Reduction during COVID-19](#)

[Wellness Together Canada: Mental Health and Substance Use Support](#)

[World Health Organization: Coronavirus disease \(COVID-19\) Pandemic](#)

Appendix 2: Search Strategy

Initial Search on May 11, 2020: Databases searched (using OVID)

1. Medline (Also Epub Ahead of Print, In-Process & Other Non-Indexed Citations)
2. Embase

#	Search Terms	Results
PPE and disease transmission		
1	disease transmission, infectious/ or infectious disease transmission, patient-to-professional/	110681
2	exp Personal Protective Equipment/ or protective clothing.mp. [mp=ti, ab, ot, nm, hw, fx, kf, ox, px, rx, ui, sy, tn, dm, mf, dv, kw, dq]	86707
3	exp Respiratory Protective Devices/	3524
4	or/1-3	194963
Covid and SARS terms		
5	covid-19.mp. or exp Coronavirinae/ or exp Coronavirus infection/ or exp Coronavirus/ or exp Pneumonia, Viral/ or exp Coronavirus Infections/ or covid-19.mp. or exp Betacoronavirus/ or SARS-CoV-2.mp. or 2019-nCoV.mp. or exp Pneumonia, Viral/ or exp SARS Virus/ or exp Severe Acute Respiratory Syndrome/	65500
Worker health safety		
6	exp worker/ or exp safety/ or exp occupational exposure/ or exp patient safety/ or exp occupational disease/ or exp occupational safety/ or exp occupational health/ or worker safety.mp. or exp health care personnel/ or exp Workplace/ or exp safety management/ or exp Accidents, Occupational/ or harm reduction.mp. or exp Harm Reduction/	3199680
Combining covid/sars with worker safety and disease/ppe		
7	4 and 5 and 6	1136
8	limit 7 to (editorial or letter)	261
9	7 not 8	875
10	9	875
11	limit 9 to English language	827
12	limit 11 to human	794
13	remove duplicates from 12	696

Recent Search on January 07, 2021: Databases searched (using OVID)

1. Medline (Also Epub Ahead of Print, In-Process & Other Non-Indexed Citations)
2. Embase
3. Cochrane Database of Systematic Reviews

#	Search Terms	Results
Physical Measures		
1	exp social distance/ or (social distance or physical distancing or (physical adj (distanc* or space or separation or barrier*))).mp.	24367
Screening		
2	Mass Screening/ or exp screening/ or exp risk assessment/ or (screening or anonymous testing or (mandatory adj (screening or test*))).mp.	2581104
Hand Hygiene		
3	hand hygiene.mp. or exp Hand Disinfection/ or exp Hand Hygiene/ or exp hand washing/	28443
Personal Protective Equipment (PPE)		
4	exp Personal Protective Equipment/ or protective clothing.mp. or exp protective equipment/ or protective equipment.mp. or (personal protective equipment or gown* or protective layer* or don* or doff* or ppe).mp.	1964011
5	exp Eye Protective Devices/ or (eye protective equipment or goggle* or visor* or safety glass*).mp.	7538
6	exp Respiratory Protective Devices/ or (N95 or respirator* or respiratory protection or filtering face piece or filtering facepiece).mp. or exp face mask/ or exp Masks/ or ((mask* or (surgical or procedural or face)) adj mask*).mp.	1724100
7	4 or 5 or 6	3618876
Cleaning and Disinfecting		
8	exp Disinfectants/ or exp Disinfection/ or exp disinfection system/ or disinfection.mp	678906
9	cleaning.mp. or exp cleaning/	69946
10	infection prevention.mp. or exp Infection Control/ or exp infection prevention/	241742
11	8 or 9 or 10	945408

#	Search Terms	Results
Rapid Testing		
12	exp Point-of-care Testing/ or (COVID-19 diagnostic test* or COVID-19 test* or 2019-novel coronavirus disease test* or covid19 test* or SARS-CoV2 testing or 2019-nCoV testing).mp. or (COVID-19 serological testing or 2019-novel coronavirus real-time reverse transcriptase diagnostic panel or COVID-19 nucleic acid testing).mp. or ((early or rapid*) adj2 (detect* or diagnos* or identif*)).mp. or ((real time or real-time or commercial*) adj3 (test or tests or testing or assay*)).mp. or COVID-19 antigen testing.mp.	790030
COVID-19 Terms		
13	covid-19.mp. or exp Coronavirinae/ or exp Coronavirus infection/ or exp Coronavirus/ or exp Coronavirus Infections/ or exp Betacoronavirus/ or 2019-nCoV.mp.	201714
14	(SARS-CoV-2 or severe acute respiratory syndrome coronavirus 2 or (((ncov19 or nCoV-19 or 2019-novel CoV or sarscov2 or sars-cov-2 or sars-cov2 or covid19 or (novel or new)) adj coronavirus) or corona virus) or (coronavirus* and pneumonia)).mp.	115191
15	13 or 14	211202
16	15 not (SARS or SARS-CoV or MERS or MERS-CoV or Middle East respiratory syndrome or camel* or dromedar* or equine or coronary or coronal or coudience* or covidien or influenza virus or HIV or bovine or calves or TGEV or feline or porcine or BCoV or PED or PEDV or PDCoV or FIPV or FCoV or SADS-CoV or canine or CCoV or zoonotic or avian influenza or H1N1 or H5N1 or H5N6 or IBV or murine corona*).mp.	116557
Worker Safety		
17	exp worker/ or exp safety/ or exp occupational exposure/ or exp patient safety/ or exp health care personnel/ or exp health personnel/ or health care workers.mp. or exp community health workers/ or frontline workers.mp. or community outreach workers.mp. or exp workplace/ or exp safety management/ or worker safety.mp.	3021137
Harm Reduction and Overdose		
18	Drug overdose.mp. or exp Drug Overdose/ or (drug overdose or drug overdos* or overdose response).mp.	44705
19	exp Harm Reduction/ or (harm reduction or harm reduct* or harm min* or needle syringe provi* or inject* equipment provi* or harm reduct* suppl* or safe inject* equipment or safe smoking equipment or naloxone kit* or naloxone distribution or drug test* or (mobile harm reduction unit* or mobile health unit*)).mp.	35446
Combining COVID-19 with Worker Safety Terms		
20	1 or 2 or 3 or 4 or 5 or 6 or 8 or 9 or 10 or 12 or 18	7466192
21	16 and (17 or 19) and 20	10058
22	limit 21 to english language	9826
23	limit 22 to human	9543

#	Search Terms	Results
24	limit 23 to yr="2020 -Current"	9126
25	limit 24 to (meta analysis or "review" or "systematic review")	1025
26	remove duplicates from 25	924
12	limit 11 to human	794
12	limit 11 to human	794
13	remove duplicates from 12	696

Note: Thirty-six papers were identified for full-text review. After screening for relevance, nine papers were reviewed. One additional review was identified through a screening of reference lists.

Appendix 3: Strength of Evidence According to Recommendations

Recommendation	References	Strength of Evidence	Design
Physical distancing of at least 1 metre is probably effective at reducing virus transmission and 2 metres is likely more effective. A minimum of 2 metres physical distancing where possible is therefore recommended as a precaution.	Chu et al., 2020	Moderate evidence certainty based on GRADE assessment	Systematic review and meta-analysis
Physical Distancing Implementation Recommendations	Alberta Health Services, 2020a; Government of Canada, 2020c; Hyshka et al., 2020; National Collaborative Centre for Environmental Health, 2020	No GRADE assessment	Grey literature
Ventilation Implementation Recommendation	Government of Canada, 2020a, 2020c	No GRADE assessment	Grey literature
Physical Distancing Implementation Recommendations in Community Settings	Toronto Public Health, 2020	No GRADE assessment	Grey literature
Screening Recommendations	Government of Canada, 2020c; Hyshka et al., 2020; Ontario Ministry of Health, 2020	No GRADE assessment	Grey literature
Screening Harm reduction settings providing frontline service should create and implement sick leave policies that are non-punitive, flexible and consistent with public health guidance, to encourage workers to stay home.	Chow et al., 2020	No GRADE assessment	Research letter published in peer reviewed journal
PPE (General) SARS-CoV-2 remains on surfaces for up to 3 days, suggesting that it can be transferred inadvertently when removing PPE if not executed correctly.	van Doremalen et al., 2020	No GRADE assessment	Simulation study

Recommendation	References	Strength of Evidence	Design
PPE (General) PPE should not be re-used except when adequate supplies cannot be obtained otherwise.	Casanova et al., 2010	No GRADE assessment	Based on single experimental study published in peer reviewed literature
PPE (General) PPE of a more breathable material is recommended because it offers similar protection to water-repellant material but is much more comfortable.	Verbeek et al., 2020	Very low evidence certainty based on GRADE assessment.	Cochrane systematic review
PPE (General) PPE should be used as a precaution against contact and droplet transmission when any direct care is being provided (e.g. support given within two metres (six feet) of the client or any physical care).	Toronto Public Health, 2020	No GRADE assessment	Grey literature
PPE (Masks) Medical masks are very effective and are less expensive, more readily available and more comfortable over longer periods of time compared to N-95 masks. There is limited evidence of the superior effectiveness of N-95 masks over medical masks.	Jefferson et al., 2011	Study assessments ranged from low to high risk of bias using GRADE assessment	Cochrane systematic review
PPE (Masks) There is evidence that medical masks and N-95 respirators offer similar protection during non-aerosol generating medical procedures (AGMPs). We therefore recommend the use of medical masks for non-AGMPs, consistent with existing Canadian guidelines.	Bartoszko et al., 2020	Low certainty evidence based on GRADE assessment	Systematic review and meta-analysis of randomized trials
PPE (Masks) An N-95 mask may be more protective than a medical mask during AGMP.	Chu et al., 2020	Low evidence certainty based on GRADE assessment	Systematic review and meta-analysis
PPE (Mask) List of AGMPs and IPAC recommendations	Public Health Ontario, 2021	No GRADE assessment	Grey literature

Recommendation	References	Strength of Evidence	Design
<p>PPE (Masks)</p> <p>An N-95 mask should be worn as well as gown, gloves, and eye protection (goggles or a face shield).</p>	World Health Organization, 2020a	No GRADE assessment	Grey literature
<p>PPE (Masks)</p> <p>In order to be fully effective, an N95 mask should be fit tested to achieve a close facial fit.</p>	Garcia Godoy et al., 2020	No GRADE assessment	Scoping review
<p>PPE (Masks)</p> <p>All masks should be disposed of if soiled or wet, after close contact with an individual with COVID-19 (or with COVID-19 symptoms), after use during an aerosol-generating procedure, or after contamination with bodily fluids.</p>	Garcia Godoy et al., 2020	No GRADE assessment	Scoping review
<p>PPE (Gowns)</p> <p>Long gowns are also recommended because they are easier to remove without contamination risk and offer superior protection compared to aprons.</p>	Verbeek et al., 2020	Low evidence certainty based on GRADE assessment	Cochrane systematic review
<p>PPE (Gloves)</p> <p>Long gloves may offer more coverage and limit exposure.</p>	Jones et al., 2020	No GRADE assessment	Research review article in peer reviewed literature
<p>PPE (Eye Protection)</p> <p>Use of goggles or masks with goggles for eye protection is effective against splash or spray of body fluids including aerosolized particles from coughing.</p>	Chu et al., 2020	Low evidence certainty based on GRADE assessment	Systematic review and meta-analysis
<p>PPE (Face Shields)</p> <p>Face shields also provide protection from splash or spray of bodily fluids and aerosols but their primary purpose is for eye protection and we therefore don't recommend their use on their own (in place of a mask).</p>	Garcia Godoy et al., 2020	No GRADE assessment	Scoping review
<p>Rapid Testing Recommendations</p> <p>Staff may provide clients with necessary supplies</p>	Toronto Public Health, 2020	No GRADE assessment	Grey literature

Recommendation	References	Strength of Evidence	Design
<p>Rapid Testing Recommendations</p> <p>Advise the client to self-isolate based on provincial guidelines and direct them to voluntary isolation centres, hotels or local COVID-19 testing or treatment centres, if available.</p>	<p>Canadian Public Health Laboratory Network Laboratory Directors Council and the Canadian Public Health Laboratory Network Respiratory Virus Infection Working Group, 2021</p>	No GRADE assessment	Grey literature
<p>Rapid Testing Recommendations</p> <p>Positive rapid test results should be confirmed by a lab-based PCR test</p>	<p>Government of Canada, 2021d</p>	No GRADE assessment	Grey literature
<p>Hand Hygiene</p> <p>Wash hands before and after physical contact, after contact with body fluids, and after contact with shared surfaces and before and after donning and doffing PPE.</p> <p>Hands should be washed using soap and warm water. If unavailable and hands are not soiled with visible contaminants, alcohol-based hand rub (ABHR) can be used.</p>	<p>Kim et al., 2015</p>	No GRADE assessment, based on expert opinion and descriptive studies	Prevention control guideline document for Middle Eastern Respiratory Syndrome (MERS) prevention. Published in peer reviewed literature.
<p>Hand Hygiene</p> <p>It is recommended that ABHR contain 60% to 90% alcohol</p>	<p>Government of Canada, 2021c</p>	No GRADE assessment	Grey literature
<p>Hand Hygiene</p> <p>Hands should be washed for at least 20 seconds.</p> <p>If hands are visibility soiled, perform hand hygiene with soap and water. If unavailable, use a wipe followed by an alcohol-based hand rub.</p>	<p>Centre for Disease Control and Prevention (CDC), 2020b; Public Health Agency of Canada, 2020b; Toronto Public Health, 2020</p>	No GRADE assessment	Grey literature
<p>Hand Hygiene</p> <p>If a community is under a Boil Water Advisory (BWA), soap and water may be used to perform frequent hand hygiene.</p> <p>If a community is under a Do Not Use (DNU), hand hygiene should be performed using bottled water. Alternatively, an alcohol-based hand rub may be used.</p>	<p>BC Centre for Disease Control, 2021</p>	No GRADE assessment	Grey literature

Recommendation	References	Strength of Evidence	Design
Hand Hygiene Jewelry, adhesive nails, and nail polish should be avoided because they can become contaminated by COVID-19 and inhibit hand hygiene effectiveness.	Toronto Public Health, 2020	No GRADE assessment	Grey literature
Hand Hygiene Jewelry, adhesive nails, and nail polish should be avoided because they can become contaminated by COVID-19 and inhibit hand hygiene effectiveness.	Lee & Goh, 2021	No GRADE assessment	Grey literature
PPE Donning and Doffing Protocols for putting on (donning) and removing (doffing) PPE correctly and in proper sequence are needed to prevent contamination.	Verbeek et al., 2020	Very low evidence certainty for doffing based on GRADE assessment	Cochrane systematic review
PPE Donning and Doffing Providing instructions while doffing is recommended as it leads to fewer errors and lowers the risk of contamination	Verbeek et al., 2020	Very low evidence certainty for mean errors. Low evidence certainty for fluorescence contamination. Based on GRADE assessments	Cochrane systematic review
PPE Donning and Doffing Recommendations	Centre for Disease Control and Prevention (CDC), 2020e; Public Health Ontario, 2020c	No GRADE assessment	Grey literature
Barriers and Facilitators to Adherence It is important that management demonstrate support for infection prevention and control guidelines to encourage uptake among harm reduction workers. This includes clear communication of protocols and mandatory training in the proper use of PPE needed.	Houghton et al., 2020	Moderate confidence based on GRADE-CERQual assessment approach	Cochrane systematic review.
Barriers and Facilitators to Adherence Repeated training and participation in drills may also increase adherence and reduce errors.	Honda & Iwata, 2016	No GRADE assessment	Review article published in peer reviewed journal

Recommendation	References	Strength of Evidence	Design
<p>Barriers and Facilitators to Adherence</p> <p>Active training on the proper use and steps needed to don and doff PPE using video or computer simulation or spoken instructions may be more effective than passive training (lectures or no added instructions).</p>	Verbeek et al., 2020	Very low evidence certainty based on GRADE assessment	Cochrane systematic review
<p>Barriers and Facilitators to Adherence</p> <p>Training videos on donning and doffing procedures have been shown to be just as effective as in person instructor led training, reducing the need for contact during COVID-19.</p>	Christensen et al., 2020	No GRADE assessment	Single randomized controlled trial published in the peer reviewed literature
<p>Barriers and Facilitators to Adherence</p> <p>It is important that PPE fit correctly to ensure that it is effective and to encourage use.</p>	Houghton et al., 2020	High confidence based on GRADE-CERQual assessment approach	Cochrane systematic review.
<p>Barriers and Facilitators to Adherence</p> <p>PPE can create heat stress because of reduced air flow which impacts compliance with PPE use and may lead to heat related illnesses such as heat stroke and dehydration. Therefore, staff should be monitored for signs of heat stress and be able to remove PPE where possible.</p>	Honda & Iwata, 2016	No GRADE assessment	Review article in published peer reviewed literature
<p>Barriers and Facilitators to Adherence</p> <p>Wearing thin, moisture-wicking garments alleviates the potential for heat stress.</p>	Lee & Goh, 2021	No GRADE assessment	Review article published in a peer reviewed journal
<p>Barriers and Facilitators to Adherence</p> <p>Some participants in harm reduction services may react negatively to the use of masks by harm reduction workers, particularly if it makes them feel isolated or stigmatized.</p>	Houghton et al., 2020	Moderate confidence based on GRADE-CERQual assessment approach	Cochrane systematic review.

Recommendation	References	Strength of Evidence	Design
<p>Barriers and Facilitators to Adherence</p> <p>Ideally, harm reduction workers should have access to sinks with running water and soap. Where this is not possible, the next best thing would be provision of hand sanitizing stations.</p>	<p>Houghton et al., 2020</p>	<p>Moderate confidence based on GRADE-CERQual assessment</p>	<p>Cochrane systematic review</p>
<p>Barriers and Facilitators to Adherence</p> <p>To avoid skin irritation and dry hands due to frequent hand hygiene, hands should be washed with mild soap and lukewarm water for at least 20 seconds.</p> <p>Avoid wearing gloves when hands are still wet from performing hand hygiene.</p> <p>If possible, staff should use a fragrance-free moisturizer after hand hygiene.</p>	<p>Rundle et al., 2020</p>	<p>No GRADE assessment</p>	<p>Review article published in a peer reviewed journal</p>
<p>Facility Cleaning and Disinfecting Recommendations</p>	<p>Centre for Disease Control and Prevention (CDC), 2020c, 2021a, 2021b; Government of Canada, 2020a; Public Health Agency of Canada, 2020a</p>	<p>No GRADE assessment</p>	<p>Grey literature</p>
<p>Responding to an Overdose</p> <p>There is a lack of evidence suggesting that chest compressions are aerosol generating.</p>	<p>Couper et al., 2020</p>	<p>Very low evidence certainty based on GRADE assessment</p>	<p>Systematic review</p>
<p>Responding to an Overdose</p> <p>Manual ventilation and intubation are aerosol generating medical procedures and therefore precautions are needed including the use of an N-95 mask.</p> <p>Chest compressions alone are not AGMP according to the best current evidence.</p>	<p>Public Health Ontario, 2020a</p>	<p>No GRADE assessment</p>	<p>Grey literature</p>

Recommendation	References	Strength of Evidence	Design
<p>Responding to an Overdose</p> <p>Individuals providing any AGMP care (manual ventilation, high flow oxygen with nasal prongs, intubation) should wear goggles, non-latex gloves, and a gown and should don an N-95 mask prior to administering care.</p>	Public Health Ontario, 2021; Toronto Public Health, 2020	No GRADE assessment	Grey literature
<p>Responding to an Overdose</p> <p>If overdose response involves non-aerosol generating medical procedures, a medical mask, goggles, and non-latex gloves are sufficient.</p> <p>Nasal naloxone is not an AGMP.</p>	Public Health Ontario, 2020a, 2021	No GRADE assessment	Grey literature
<p>Responding to an Overdose</p> <p>It is recommended that the room be evacuated during an AGMP except for those providing direct care to allow for proper cleaning.</p>	Edelson et al., 2020	No GRADE assessment	Expert guidance published in peer reviewed literature
<p>Responding to an Overdose</p> <p>It is recommended that the room be evacuated during an AGMP except for those providing direct care to allow for proper cleaning.</p>	Toronto Public Health, 2020	No GRADE assessment	Grey literature
<p>Responding to an Overdose</p> <p>CPR face shields do not offer sufficient protection.</p>	Toronto Public Health, 2020	No GRADE assessment	Grey literature
<p>Responding to an Overdose</p> <p>Detailed specific steps for responding to an overdose involving an AGMP.</p>	The Works, 2020	No GRADE assessment	Grey literature
<p>Responding to an Overdose</p> <p>It is critical to provide essential resources to reduce the risk of overdose when clients leave these harm reduction settings.</p>	Dunlop et al., 2020	No GRADE assessment	Opinion article identifying strategies for ongoing management of changes in demand and capacity for harm reduction and treatment services during COVID-19. Published in peer reviewed journal.

Recommendation	References	Strength of Evidence	Design
<p>Responding to an Overdose</p> <p>Increasing the use of take-home naloxone in community settings can reduced reliance on health care providers to reverse overdoses.</p>	<p>Slaunwhite et al., 2020</p>	<p>No GRADE assessment</p>	<p>Short communication published in peer reviewed journal.</p>
<p>Responding to an Overdose</p> <p>Training provided to clients should incorporate information on mitigating potential COVID-19 risks to bystanders who respond to an overdose</p>	<p>Alberta Health Services, 2020a</p>	<p>No GRADE assessment</p>	<p>Grey literature</p>
<p>Responding to an Overdose</p> <p>Staff should prioritize engaging paramedics early in the overdose response and limit the number of staff members providing direct care.</p> <p>It would be beneficial to pre-plan overdose response roles (e.g., one staff member will call 911 while another administers naloxone and CPR), if possible.</p>	<p>Toronto Public Health, 2020</p>	<p>No GRADE assessment</p>	<p>Grey literature</p>
<p>Providing Supplies in Community Outreach Settings</p> <p>Staff should place loose supplies in a bag instead of allowing clients to “self-serve” or access outreach bags.</p> <p>Harm reduction supplies should be provided through drop offs rather than handing them directly to clients.</p> <p>If possible, encourage clients to take enough supplies to reduce the number of contacts required between clients and staff.</p> <p>If clients need to use staff phones, staff should offer to make phone calls on their behalf.</p>	<p>Toronto Public Health, 2020</p>	<p>No GRADE assessment</p>	<p>Grey Literature</p>

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