



RISK ASSESSMENT GUIDELINE FOR GENERAL WORKPLACES

This guide provides information for conducting a RISK ASSESSMENT FOR COVID-19 in 5 easy steps

- The risk assessment of each job task must clearly demonstrate that exposure is unavoidable and all methods of control are reasonably practical.
- There is no prescribed method for assessing risk and the tools or checklists differ by company, however this document aims to provide guidance on a tool.
- Risk assessment must be done by any personnel trained and deemed competent to do so.

¹ | **Note:** All employers and self-employed persons must do a risk assessment irrespective of the number of employees. However, the Department of Employment and Labour inspectors may deem it necessary for the employer to have health and safety representative/s because of the nature of the activities being carried out, section 17 of the Occupational Health and Safety Act (No 85 of 1993).

CORONAVIRUS DISEASE OF 2019 (COVID-19)

The corona virus outbreak has been declared a pandemic by the World Health Organization (WHO) and is a huge public and occupational health concern posing the biggest current threat to the global economy. The outbreak is caused by the Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) commonly called the coronavirus. Common symptoms include dry cough, fever, body pains and shortness of breath, which can present alone or combined. The transmission is mainly through respiratory droplets from coughing, sneezing, exhaling or talking and contact with contaminated surfaces or fomites, exposure of mucous membranes and skin surfaces (intact and non-intact) and exposure to sprays and splatter. Breaking a link at any point of chain of infection will reduce the risk of exposure. Ideally, the link(s) closest to the source or reservoir should be targeted in particular (figure 1). There is currently no vaccine available and thus general control measures are mainly hand and respiratory hygiene, surface disinfection, social distancing and employee supportive care.

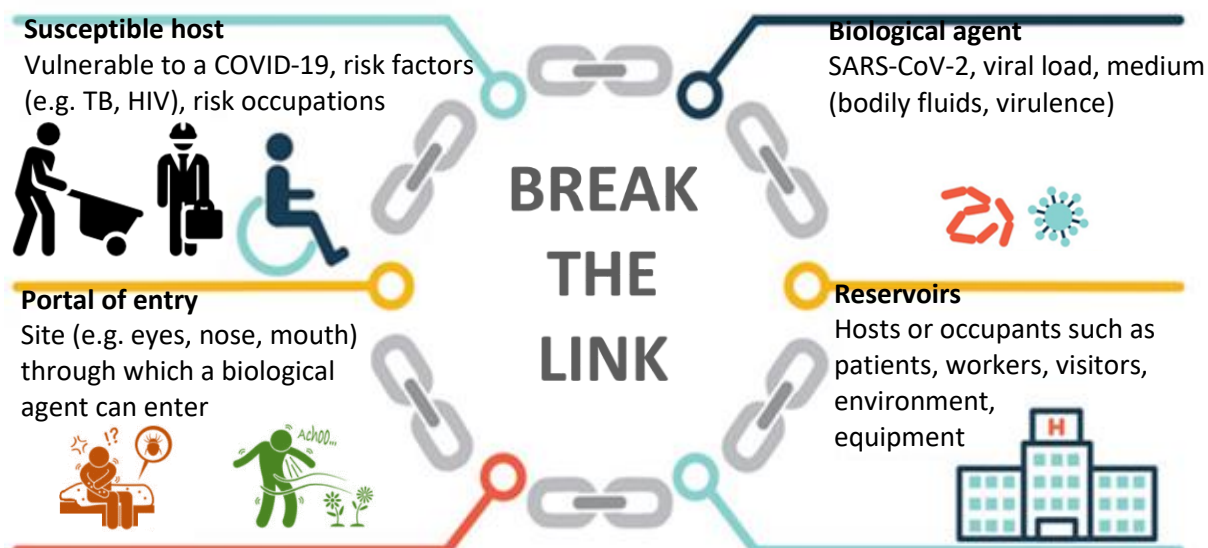


Figure 1 An illustration of the chain of transmission.

WHAT IS HEALTH RISK ASSESSMENT?

The **coronavirus** is a **hazard** as it has the potential to cause harm to a person. The coronavirus only becomes a **risk** if a person is exposed to it through droplets or touching contaminated surfaces.

The **risk assessment (RA)** is a structured approach to identifying, evaluating and controlling health risks at work associated with exposure to the virus.

BASIS FOR CONDUCTING A RISK ASSESSMENT

The purpose of RA is to recommend control measures that aim to protect the worker, visitors, contractors, the environment and the public. The risk assessment is an integral part of an occupational health and safety management plan and is conducted with a multidisciplinary team. An employer's health and safety policy must stipulate how the risks will be managed. People with different risk levels must also be considered (inexperienced workers, persons with co-morbidities e.g. diabetes, frequency of exposure).

The process of risk assessment (RA) should identify risk levels (e.g. negligible, low, intermediate, high) of an individual focusing on work environment, tasks, agent and assigning priorities for preventive interventions. Ideally, the risk assessment should be performed within a framework of multidisciplinary cooperation involving a team (e.g. managers or supervisors, microbiologists, medical or occupational medicine specialists, occupational hygienists, occupational health nurses, infection control practitioners, health and safety professionals, engineers and importantly employees). In smaller companies where these individuals are not available their expertise may be sought through consultation with external advisors.

CLASSIFICATION OF BIOLOGICAL HAZARDS AT THE WORKPLACE

Biological hazards (pathogens) are generally classified into four risk groups according to their level of risk of infection, spread to the community and availability of prophylaxis. Agents that are not listed shall be classified in the highest risk group among the alternatives. The four classifications include:

GROUP 1	GROUP 2	GROUP 3	GROUP 4
Unlikely to cause human disease	<ul style="list-style-type: none">▪ May cause human disease and pose a hazard to exposed worker▪ Unlikely to spread human disease▪ Effective prophylaxis and treatment available	<ul style="list-style-type: none">▪ Cause severe human disease and serious hazard to exposed worker▪ Can spread to community▪ Effective prophylaxis and treatment available	<ul style="list-style-type: none">▪ Cause severe human disease and serious hazard to exposed worker▪ Can spread to community▪ No Effective prophylaxis and treatment available

WHO IS REQUIRED TO CONDUCT A RISK ASSESSMENT?

Employers are legally obliged to undertake a risk assessment to protect their workers. The risk assessment must be conducted by a trained and competent person/s following relevant laws, regulations, codes or standards, as well as the organisational policies and procedures. It must be done at least every two years or if there has been a significant change in procedures or processes or additional risk e.g. COVID-19 outbreak. This risk assessment needs to be communicated to ALL employees who must sign to acknowledge their understanding of the SARS-CoV-2 risk assessment report.

WHY IS RISK ASSESSMENT FOR COVID-19 IMPORTANT?

01

- To raise awareness of the biological hazard (SARS-CoV-2 or coronavirus) and associated risk

02

- To prevent the spread of SARS-CoV-2 or COVID-19 thus protecting the workers

03

- To determine if a prevention and control programme is required for the identified risk

04

- To evaluate the effectiveness of existing control measures or implementation of additional measures

05

- To comply with legal requirements where applicable

06

- For decision-making in prioritising risk in the context of limited financial resources

07

- To promote a culture of health and safety improvement

5 STEPS TO RISK ASSESSMENT

How Do You Do A Risk Assessment?



1

IDENTIFY THE HAZARDS (SARS-CoV-2)

One of the most important aspects of your risk assessment is accurately **identifying** those activities that have the potential to cause harm from exposure to SARS-CoV-2.



2

DECIDE WHO MIGHT BE HARMED AND HOW

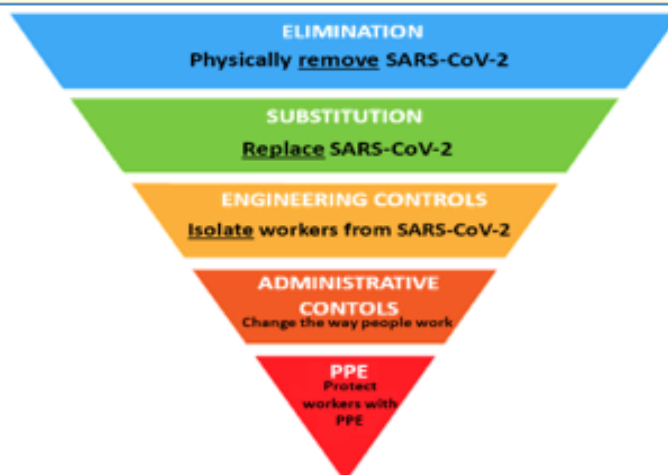
For each activity you need to be clear about **who** might be harmed. It will also help you identify the best way of characterising and controlling the risk.



3

EVALUATE THE RISKS AND DECIDE ON CONTROLS

Evaluate the risk and its impact on workers and the organisations by determining the **likelihood** and **consequence** of exposure to the SARS-CoV-2 and the consequence. For the likelihood, consider how often and for how long the worker would be in contact with the virus, and for consequence consider the severity of potential harm to the worker from the virus (mild versus severe symptoms like pneumonia). Decide on preventive action by using the hierarchy of controls to address and prioritise each risk.



4

RECORD SIGNIFICANT FINDINGS

Make a record of your significant findings and keep for **40 years** as per legal requirement.



5

REVIEW YOUR ASSESSMENT AND UPDATE IF NECESSARY

The risk assessment is a **living document** and must be kept current and regularly reviewed to ensure change is managed and controlled. It must be accessible to all workers and relevant authorities when requested.

RISK ASSESSMENT TOOL

Before completing this risk assessment please see guidance notes in section A – C below. Actions should be taken based on the risk score. Assign a priority (very high, high, medium or low) based on existing and required control measures, in consultation with your supervisor or relevant committee.

PART I		General aspects of the work environment and duties or activities of the worker																	
COMPANY:		XYZ retail store					DATE OF ASSESSMENT:		13 April 2020										
ASSESSOR NAME:		Joe Soap					APPROVED BY:		Health & Safety Rep										
SIGNATURE:							SIGNATURE:												
SCOPE OF WORK:		Assist customers with check-out process.					LOCATION:		Cashier points										
REVIEW DATE:		Every two (2) years, after reportable incidents or change in scope of work Next possible date: 13 April 2022																	
PART II RISK MATRIX		LIKELIHOOD OF EXPOSURE TO SARS-CoV-2																	
		Unlikely Not very possible to occur in the near future					Possible Feasible to occur in the near future					Likely Very possible to occur in the near future							
CONSEQUENCE OF EXPOSURE TO SARS-CoV-2	Severe Fatal or permanent disability	Medium					High					Very high							
	Moderate Medical attention >14 days and complete recovery	Low					Medium					High							
	Negligible Near miss or unlikely to happen	Very low					low					Medium							
Keep monitoring the process		Keep the process going, but monitor regularly and consider a control plan					Keep the process going, and implement a control plan as soon as possible					Investigate the process and implement controls immediately					Stop the process and implement controls		
PART III		Identification of risk and proposed preventative measures to reduce risk																	
HAZARD	WHO MAY BE AT RISK	TASK or ACTIVITY	ROUTE OF EXPOSURE	HEALTH EFFECTS	FINAL RISK LEVEL = C x L					EXISTING CONTROL MEASURES	PROCEED WITH EXISTING CONTROLS		ADDITIONAL CONTROL MEASURES	ACTION BY	DUE DATE				
					VERY LOW	LOW	MEDIUM	HIGH	VERY HIGH		YES	NO							
EXAMPLE: SARS-CoV-2	Cashier	Ringing up sales, bagging items, requesting prices, collecting payment and giving change	Contact: mouth, eyes, nose	COVID-19					✓		Training, surgical mask, hand washing	YES	NO ✓	Plastic screen	Facilities manager	20/04/'20			

KEY: C – consequence (severe, moderate, negligible); L (unlikely, possible, likely)

A. RISK CHARACTERISATION

This is a process of understanding the nature of the hazard and determining the level of risk to exposed persons. Knowledge about the outbreak and virus is still evolving and thus it is important to keep updated with information from reliable sources like the National Department of Health, NIOH, NICD and WHO. Therefore, once a hazard like SARS-CoV-2 has been identified, the likelihood and possible severity of COVID-19 need to be assessed before determining how best to minimize the risk. The analysis includes an estimation of risk, and provides a basis for risk evaluation and decision about controlling the risk. Key points to consider when characterising the risk include:

- Possible sources of exposure, duration (minutes or hours per shift) and frequency (times per day, shift, week, month, year) of exposure, classification of agent (currently class 3), reservoir of the agent, stability in the environment, aerosol generation or splatter, transmission route and health effects.
- The actual and potential exposure of workers (i.e. how many workers may be exposed, what that exposure is or anticipated, individual susceptibility and how often they will be exposed).
- Work environment such as location of the work/task/activity carried out (e.g. indoors, outdoors, process plant, waiting area), layout or design of the workspace, condition of the facility.
- Any possible interactions with other activities in the area and if the task could affect others (e.g. cleaners, maintenance workers, visitors, etc.).
- The education, training and skill of workers that may be exposed.

B. RISK ASSESSMENT MATRIX

The risk assessment matrix is the tool which allows assessment of the risk to the business from each identified hazard which could have a significant impact on the health of the workforce and the reputation of the company. Ranking or prioritizing help to determine which risk is the most serious (based on likelihood and consequence of risk) and to control first. Employees who do the same job may have different exposures due to job profile, posture, working style, personal hygiene etc and exposure is controlled by considering these factors.

The process of ranking requires objective judgement and tolerance of risk. A risk matrix or scoring system can be helpful when evaluating and ranking the risk (Part III above). Practicality is needed when applying the likelihood categories. A detailed review of preventive controls only apply if the risk is medium, high or very high. Low risks are managed for continuous improvement through standard procedures.

C. RISK CONTROL THROUGH THE HIERARCHY OF CONTROLS

The employer has a duty of due diligence and is responsible for taking all reasonable precautions, under the particular circumstances, to prevent exposure in the workplace. Risk control may involve monitoring, re-evaluation, and compliance with the decisions taken. The hierarchy of control should always be considered when assessing the effectiveness of control. The higher in the hierarchy, the more effective the control usually is. Elimination of the hazard is always the preferred control however not possible for corona virus, and PPE being the least effective control as it is dependent on the user's behaviour. The need for PPE must be informed by the risk assessment. However, a combination of controls may be required to get the best results. The types of control vary in their effectiveness according to the control hierarchy. There could also be significant running costs with controls lower in the hierarchy such as personal protective equipment. An evaluation should be done to confirm if the hazard has been eliminated or if the risk is appropriately controlled. Ongoing or periodic monitoring should be done to ensure that the control(s) remain effective. It is important to keep documents or records detailing the process used to assess the risk, outlining any evaluations, or detailing how conclusions were made.

IMPORTANT CONSIDERATIONS WHEN INCLUDING COVID-19 IN YOUR RISK ASSESSMENT

- Each hazard (e.g. SARS-CoV-2, TB) should be presented separately taking into account the interactions between the different risk factors identified.
- It is also important to check that the use of disinfectants to reduce exposure to coronavirus does not increase the risk of chemical exposure to employees.
- Individual susceptibility to health risks varies from person to person, based on their heredity, age (young versus elderly), sex, personal habits (smoking), life history to date, the state of their health at the time and other unclear factors.
- When assigning priority, other factors may need to be considered, for example, urgency, feasibility/sustainability of risk control measures, delivery and installation time and training availability.

NOTE: COVID-19 is emerging and knowledge of the disease is changing and growing regularly. It is imperative that you keep abreast of new knowledge to ensure that your risk assessment remains valid.

APPLYING THE HIERARCHY OF CONTROLS FOR COVID-19

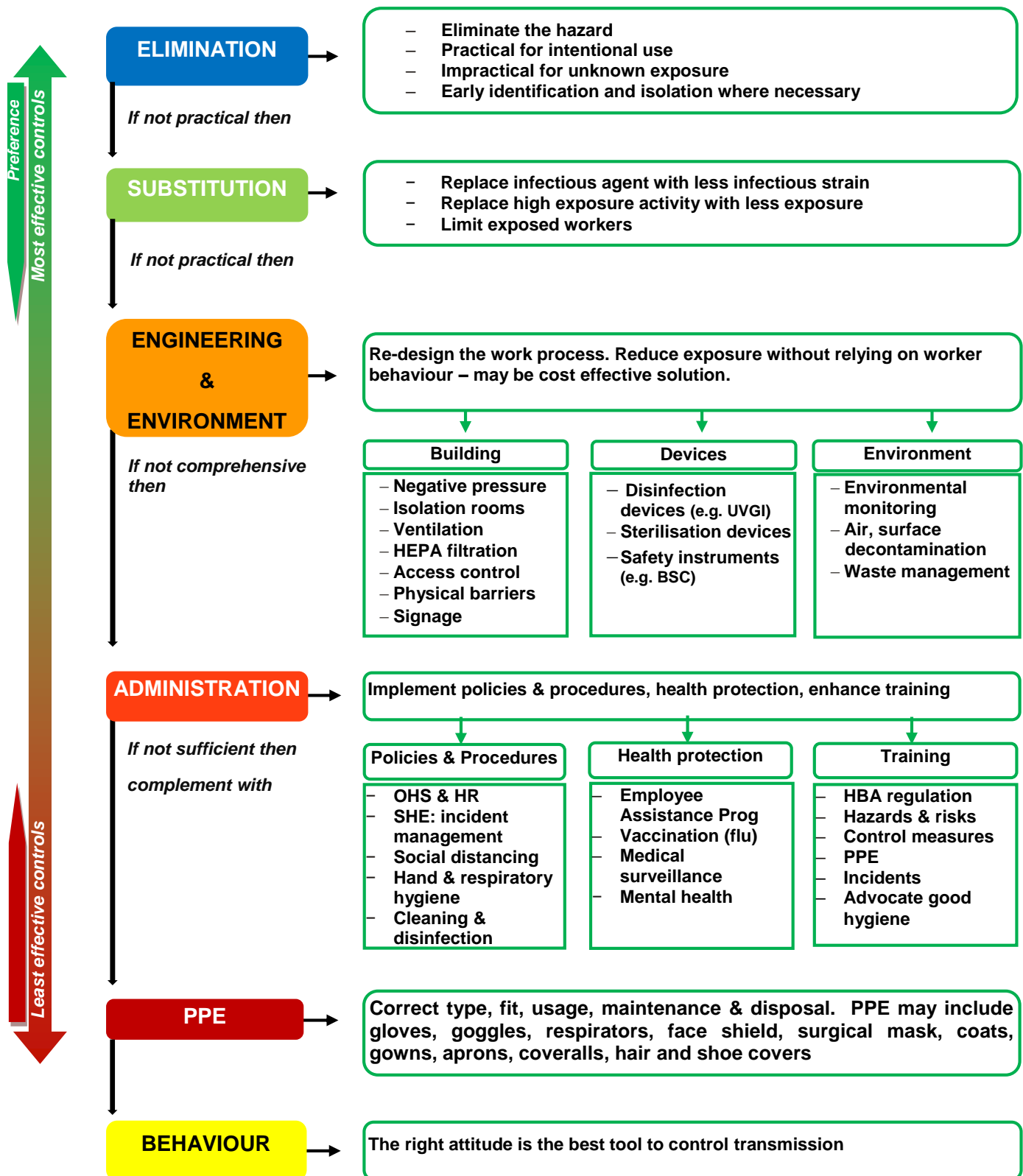


Figure 2. Flow diagram illustrating the fundamental pillars of the hierarchy of controls and possible recommendations.

REFERENCES

- Community Health Worker Handbook. Occupational Health and Safety Agency for Healthcare in BC.
http://control.ohsah.bc.ca/media/Community_Health_Worker_Handbook.pdf.
- Branch-Elliman, W., et al. (2015). Using the pillars of infection prevention to build an effective program for reducing the transmission of emerging and re-emerging infections. *Curr Enviro Health Rpt* **2**: 226-235.
- Canadian Centre for Occupational Health and Safety Risk Assessment.
- Carducci, A., et al. (2016). Quantitative Microbial Risk Assessment in Occupational Settings Applied to the Airborne Human Adenovirus Infection. *Int J Environ Res Public Health* **13**(7): 733 - 743.
- Dutkiewicz, J., et al. (2011). Biological agents as occupational hazards – selected issues. *Ann Agr Env Med* **18**(2): 286-293.
- MRC Hazard identification and risk assessment and risk rating. *Medical Research Council, South Africa*.
- Pérez-Rodríguez, F. and B. M. Taban (2019). A State-of-Art Review on Multi-Drug Resistant Pathogens in Foods of Animal Origin: Risk Factors and Mitigation Strategies. *Frontiers in Microbiology* **10**: 1 - 7.
- Porru, S. (2014). Risk assessment, health surveillance and fitness for work in health care workers exposed to infectious agents. This Guidance Document is a product of the Working Group on Occupational Infectious Agents (WGOIA) of the International Commission on Occupational Health (ICOH). ICOH Working Group on Occupational Infectious Agents
- Wald, P. H. and G. M. Stave (2002). *Physical and biological hazards of the workplace*. John Wileys and Sons, Inc., New York.
- WHO Laboratory biosafety manual. 3rd Edition, World Health Organization, Geneva, 2004. ISBN 9241546506.
- World Health Organisation Practical guidelines for infection control in healthcare facilities. 2004, SEARO Regional Publication, No 41.
http://www.wpro.who.int/publications/docs/practical_guidelines_infection_control.pdf (accessed: 21/05/2015).