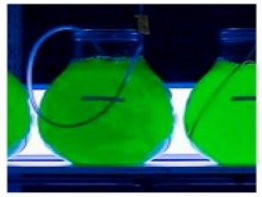
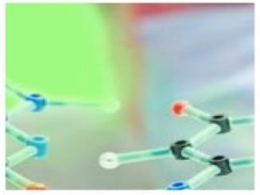
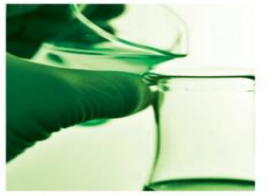
NATIONAL HEALTH LABORATORY SERVICE

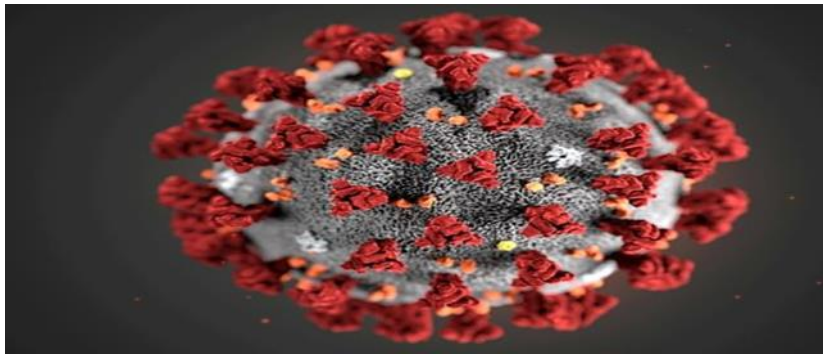
NATIONAL INSTITUTE FOR OCCUPATIONAL HEALTH
Division of the National Health Laboratory Service

NATIONAL INSTITUTE FOR COMMUNICABLE DISEASES
Division of the National Health Laboratory Service


Available Control Measures in the Workplace: for COVID-19

23 &30 /06/2020



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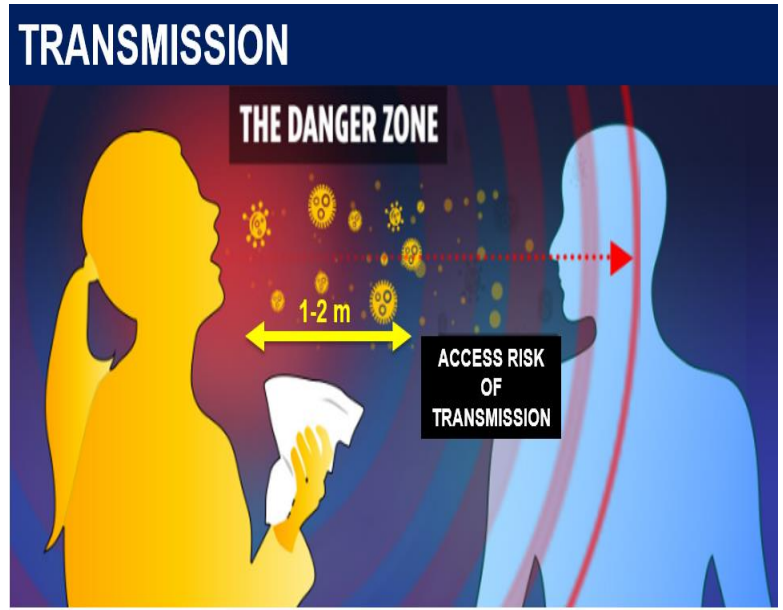
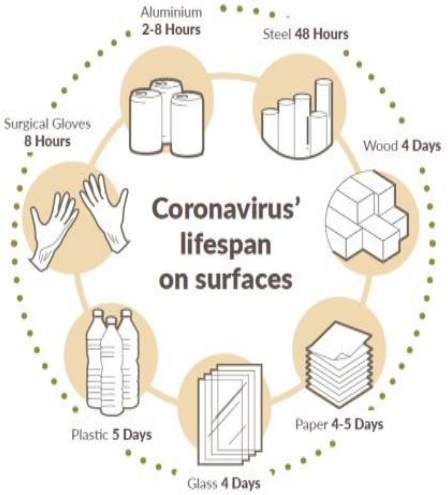
Background : Workplace Risk Assessment

- Hazard identification RSV-COV2
- Risk assessment(infection -→covid19disease)
- Transmission (droplet spread and contact with infected person or contaminated surface)
- Symptoms…..asymptomatic but infective carriers
- +/-85% infected have mild disease

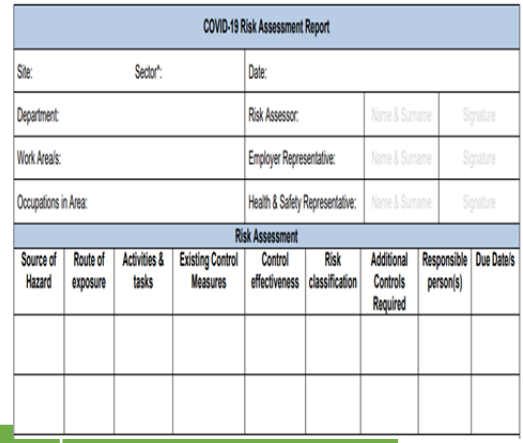


Workplace Risk assessment

- Identify health and safety hazards associated with any work which is performed at the workplace and risk associated with (including the risk of transmission for Novel Coronavirus infection)
- Determine the risks associated with the identified hazards
- Put in place mitigation and precautionary control measures associated with the risks determined
- Monitor and review the control measures to determine effectiveness thereof
- Review the risk assessment
  - when required to ensure improved and or continued effectiveness.
  - employer to review risk assessment when he/she receive comments and advice from the health and safety committee



Workplace Risk Assessment for COVID-19



COVID-19 Risk Assessment Report

Site:	Sector*:	Date:			
Department:		Risk Assessor:	Name & Surname	Signature	
Work Area/s:		Employer Representative:	Name & Surname	Signature	
Occupations in Area:		Health & Safety Representative:	Name & Surname	Signature	

Risk Assessment

Source of Hazard	Route of exposure	Activities & tasks	Existing Control Measures	Control effectiveness	Risk classification	Additional Controls Required	Responsible person(s)	Due Date/s

What are the hazards ? Transmission route	Who might be harmed	Specific areas or activities	What controls are in place	Additional controls required	Action required	By whom? Time frame
RSV-COV2 (Hazardous **Biological Agent)**	Staff/workers Visitors Public Contractors Vulnerable workers	Area 1/ Activity	Facilities Rotation- rest periods	Yes. Engineering controls Admin controls	Review ? Maintenance of existing engineering controls	Person responsible, time etc.

Workplaces health risk assessment guide

Very High risk exposure	High Exposure Risk Jobs	Medium risk	Low risk
High potential for exposure to known or suspected sources of COVID19 during specific medical, post-mortem, or laboratory procedures.	Those with high potential for exposure to known or suspected sources of COVID-19.	Require frequent and/or close contact with (i.e. within 2 meters of) people who may be infected with SARS-CoV-2, but who are not known or suspected COVID-19 patients.	No contact with people known to be or suspected of being infected with SARS-CoV-2, nor frequent close contact with (i.e. within 2 meter of) the general public.
Example: Health workers Emergency Personnel Laboratory workers Mortuary workers	Workplace entry points Change house facilities On-site canteens Waiting areas Gathering places (retail, public service etc)	Workers in this risk group may have frequent contact with workers who may return from other provinces/ high alert areas (workers sharing workspace etc)	Workers in this category have minimal occupational contact with the public & other co-workers. E.g: . Remote workers (working from home) • Office workers with no frequent close contact with other workers, customers and public

The four exposure represent the probable distribution of risk.

Most employees will likely fall in the medium exposure or low exposure risk (caution) categories .

The level of risk depends in part on the type of work being undertaken.

Mitigation of risk in the workplace

Primary prevention

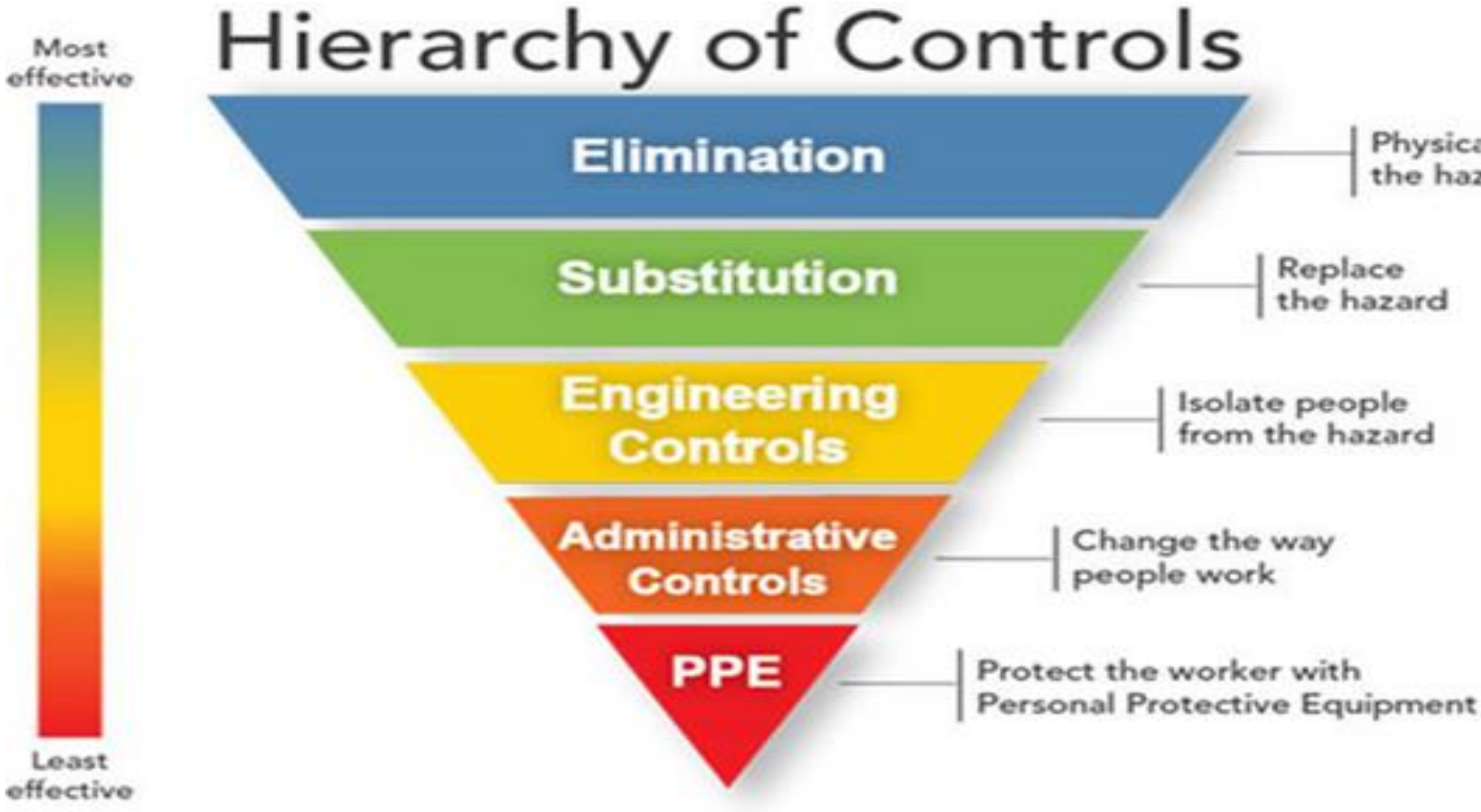
- Minimise risks of transmission in the workplace. HRA including controls (Engineering, Administrative and PPE)
- Business continuity and pandemic preparedness - Policies
- Education and Training /HP (risk communication)

Secondary Prevention

- Identify persons at risk early and respond appropriately
- Medical Surveillance

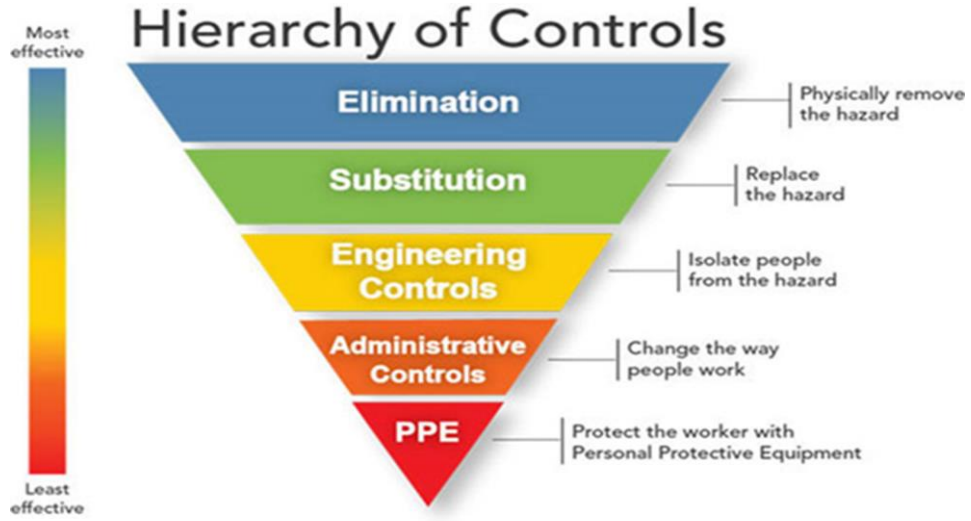
Tertiary prevention

- Rehabilitation
- Respond appropriately to a case of COVID amongst staff- incident investigation and contact tracing
- Compensation/COIDA
- Leave



- Reduce or eliminate worker exposure ……. To change risk but not hazard
- Key principle in the workplace: to use a combination of strategies starting with the most effective
- Hierarchy of controls: an approach moving from most effective to least effective protective measures

Elimination



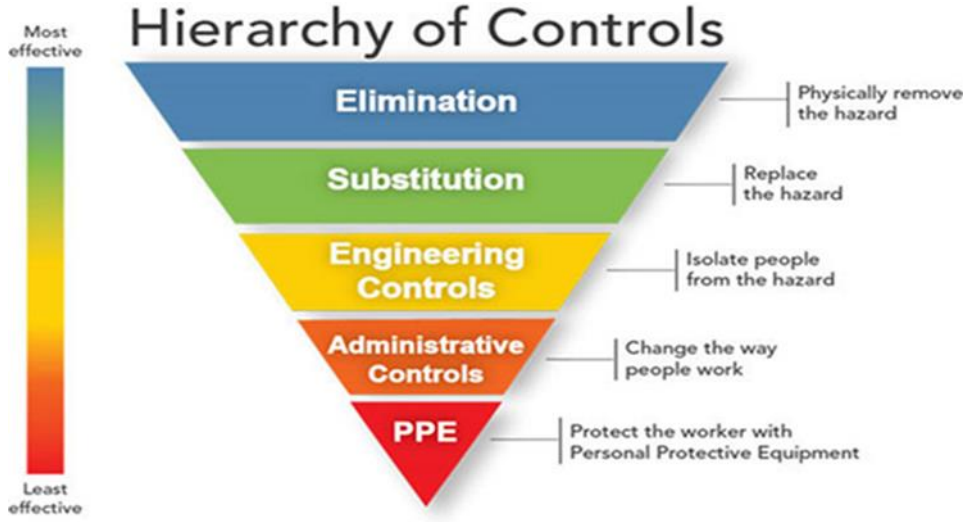
Not always feasible in most workplaces

- Lock down, working from home…. Other environments
- Health care sector, emergency personnel….not always feasible (private medical practitioners closing…. Eliminating from their rooms)

Substitution

Not applicable in the covid-19 era

Engineering controls



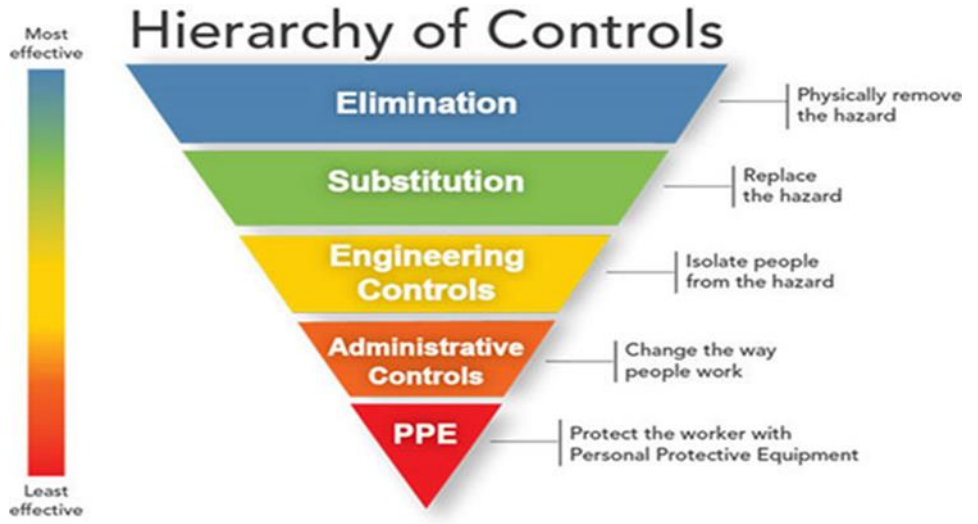
- Isolate people from the hazard
- Not dependent on workers' compliance

Examples

Increasing the flow of outside air using portable air purifiers

Reviewing and changing existing filters in air circulating systems for ones that can capture smaller particles

Engineering controls

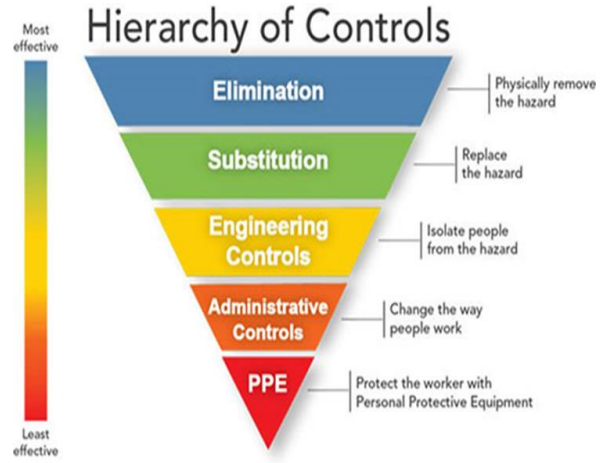


- Using specialized ventilation to remove hazards from the air
- Installing physical barriers, such as clear plastic guards
- Installing a drive-through window for customer service

Engineering Controls- Physical barriers

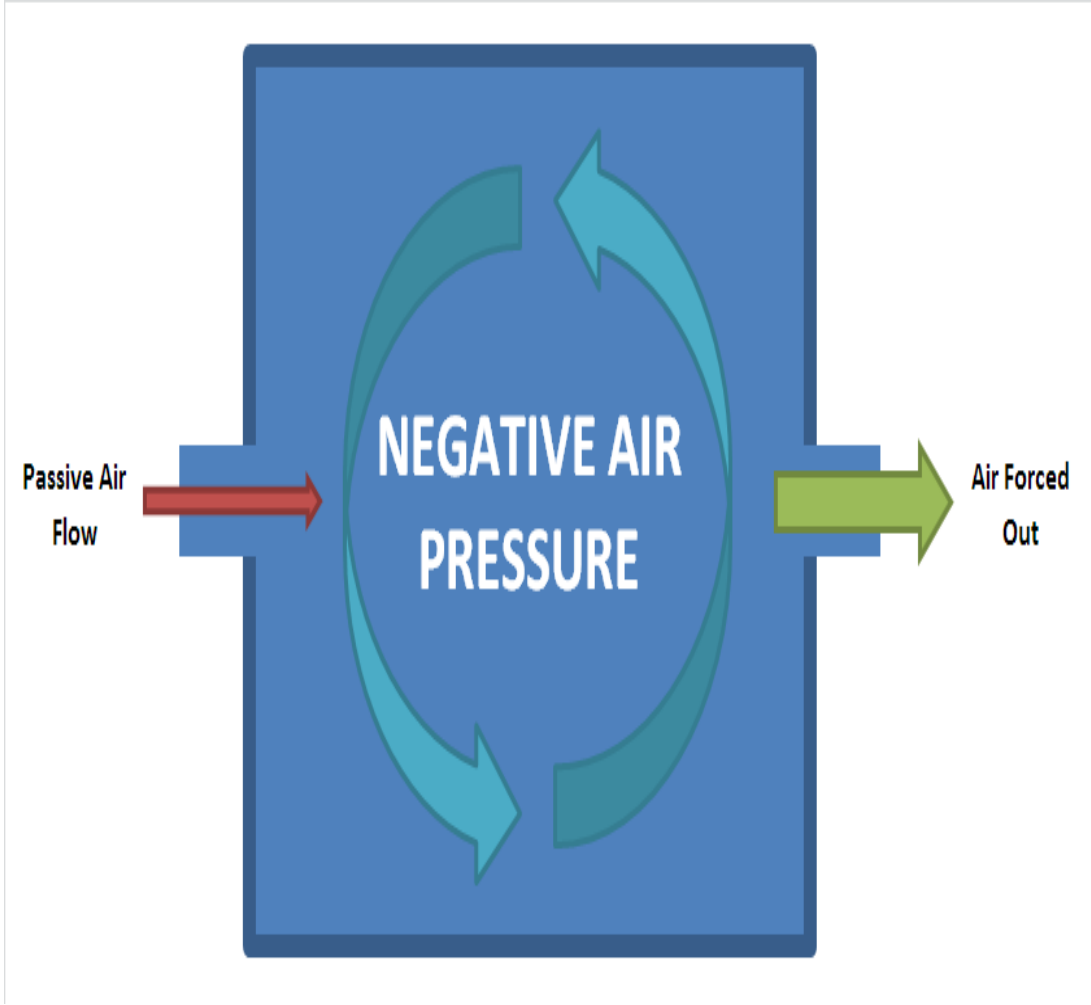
- Closed doors and walls : separate individuals under quarantine or isolation

- Plastic sheeting- when workers need to occupy specific areas for an extended period. That are also occupied by potentially infectious individuals



Engineering controls- Ventilation

E.g. negative pressure room: prevents cross-contamination of airborne pathogens, and other airborne particles, chemicals, and contaminants that may be injurious to human health

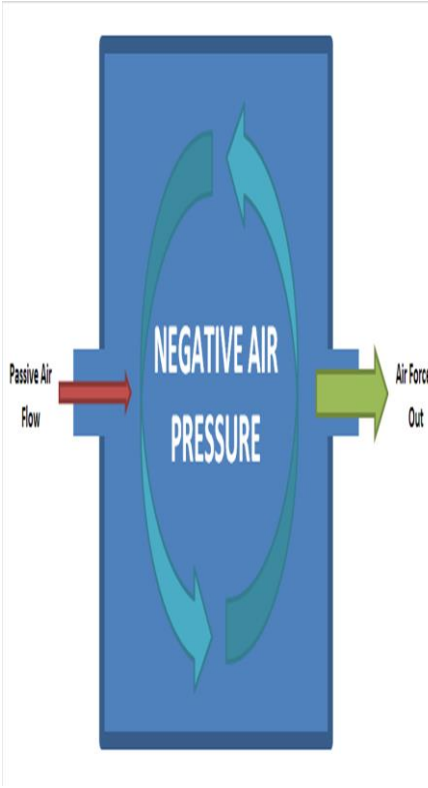


Ventilation

- Negative pressure rooms

Requirements:

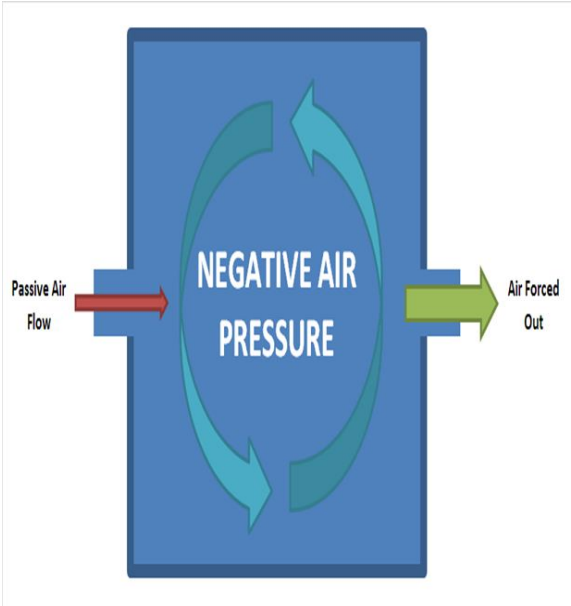
- High-Efficiency Particulate arrestance (HEPA) air filter to remove airborne contaminants
- Self-closing doors & Thoroughly sealed floors, doors, ceilings, walls, windows, electrical, outlets, lighting fixtures, and wall-mounted equipment
- 100% outside air ventilation (no return air)
- Fans and low-level exhaust ducts to direct the air in and out of the room
- Supply air ducts and exhaust air ducts independent of the building's air supply system
- A monitoring system to adjust pressure
- An intermediate room or anteroom between the negative pressure room and adjoining spaces.
- Differential air pressure instrumentation panels outside the negative pressure room



Ventilation

- Airborne infection isolation rooms (AIIRs) with proper ventilation
- AIIRs are single-patient rooms with negative pressure that provide a minimum of 6/12 air exchanges per hour

- Workplaces: infectious areas- room pressure critical for the safety of the occupants and the entire building
- Hospitals isolation of infected patients, emergency departments waiting areas, triage areas, bathrooms, pharmacies and other high risk areas
- Laboratories, clean rooms, research facilities, tissue culture rooms, industrial applications, pharmaceutical compounding rooms
- Postal and border control- customs inspection facilities



Aerosol generating procedures (intubation, nebulization, swabs, etc.) and activities (coughing, sneezing, etc.)

Air conditioners only circulate air thus ↑ risk of spreading contaminants

Physical barriers

Separate workers from

- ✓Each other
- ✓Customers/travelers

E.g.

- Clear plastic shielding
- Dedicated private rooms with closeable doors : e.g. isolate travelers from countries with COVID19
- Use **airborne infection isolation rooms** (AIIRs) if available in the facility

Contactless thermal sensor thermometers : workers screening

- ✓other workers
- ✓passengers
- ✓visitors
- ✓travelers
- ✓customers for symptoms

Physical barriers

Plastic shields and other barriers e.g. screens on the desks

- Retail areas
- Workplaces: workers constantly in high contact with customers- high flow or volume of customers

- Sneeze guards/ shields

Communal work environments

Break rooms & frequently used areas

Common rooms, tea rooms, conference rooms, bathrooms, waiting areas, etc.

- Configure so that workers are spaced at least six feet apart, physical distancing
- Remove or rearrange chairs and tables/ add partitions to tables
- Training & conference rooms- identify alternative areas to accommodate overflow volume or using outside tents for break and lunch areas
- Handwashing stations or hand sanitizers with at least 60% alcohol
- Additional clock in/out stations: spaced apart, to reduce crowding in clocking stations
- Touch-free clocking methods

Processing workstations

Food Preparation areas

- Modify the alignment of workstations (along processing lines)
  - 2m apart in all directions (e.g., side-to-side and when facing one another)
  - workers do not face one another.
- Markings and signs to remind workers to maintain their physical distance & location at their station

- Physical barriers: strip curtains, plexiglass, other impermeable dividers or partitions- SEPARATE WORKERS
- Ensure adequate ventilation in work areas to help minimize workers' potential exposures
- Minimize air from fans blowing from one worker directly at another worker

- Personal cooling fans should be removed from the workplace to reduce the potential spread of any airborne or aerosolized viruses (but prevent heat hazard)

- Handwashing stations or hand sanitizers with at least 60% alcohol in multiple locations to encourage hand hygiene: Touch-free hand sanitizer stations that are touch-free

Public service- Drive-thru service

Service delivery/offering rearrangement

- Public service areas that tend to be overcrowded e.g. licensing departments requiring short duration at the station e.g. picking up or collecting
- Food outlet services
- Health care- procedures
- Pick up spots
- Testing sites

ACKNOWLEDGEMENTS

- NHLS Management
- NIOH Outbreak Response Team
- NICD

Questions

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NIOH 24hr- hotline

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