



# Occupational Safety and Health (OSH) in COVID-19



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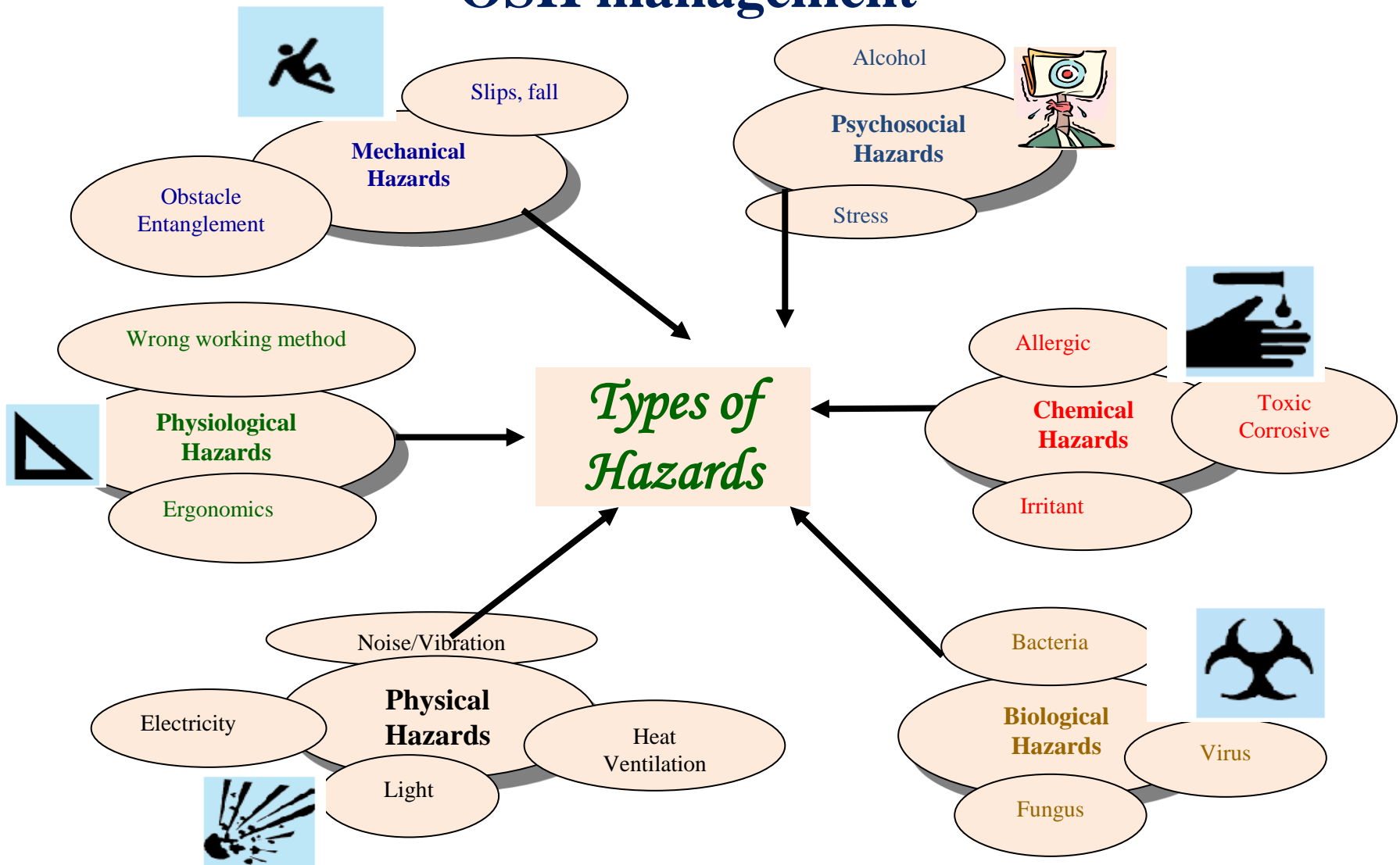
**Occupational Safety and Health (OSH) can be defined as a multidisciplinary activity aiming at:**

- ✓ the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations;
- ✓ the prevention among workers of adverse effects on health caused by their working conditions;
- ✓ the protection of workers in their employment from risks resulting from factors adverse to health;
- ✓ the placing and maintenance of workers in an occupational environment adapted to physical and mental needs;
- ✓ the adaptation of work to humans.

In other words, OSH encompasses the **social, mental and physical well-being of workers**, that is the “whole person”.



# Six types of hazards exists in the workplace. It can be prevented and controlled by doing OSH management

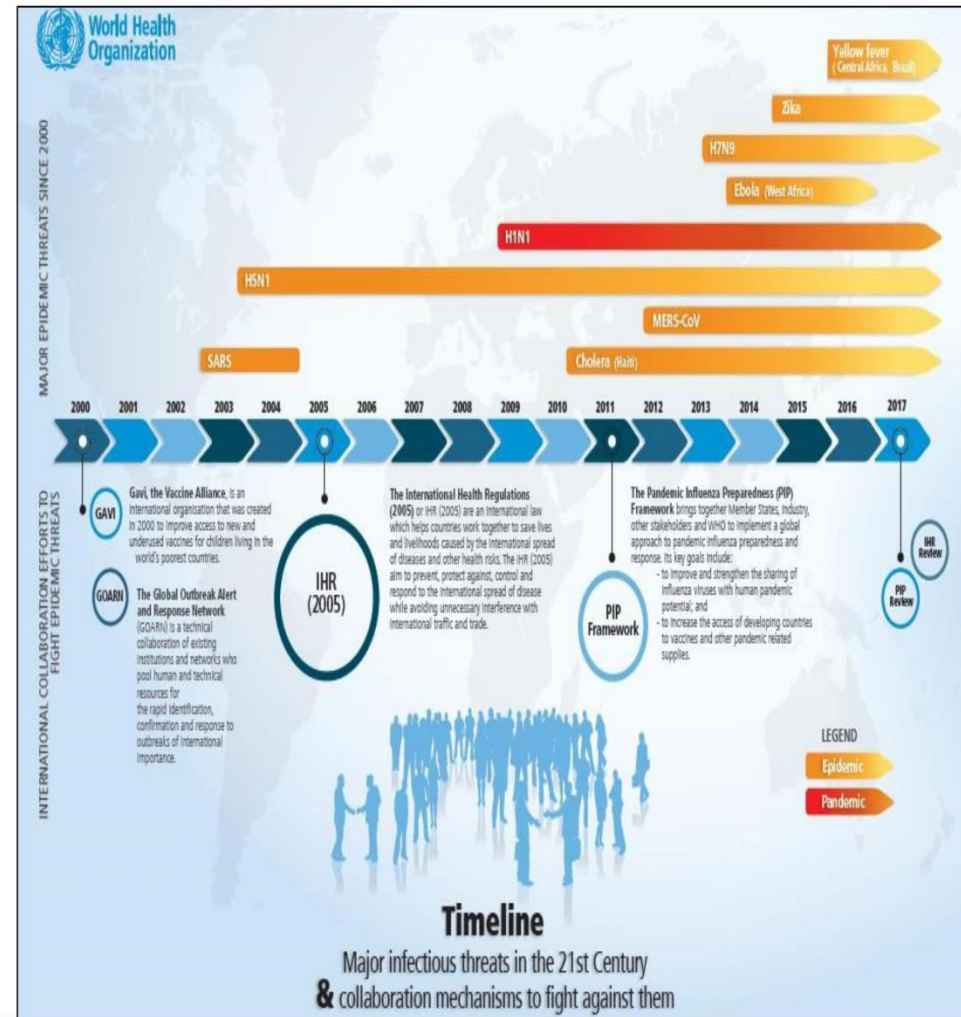


# Introduction to emerging viruses

बिश्वमा नयाँ नयाँ प्रजातिका भाइरसहरु देखापर्ने क्रम जारी छ र मानव स्वास्थ्यको लागि चुनौतिहरु उत्पन्न गर्दै आएको छ ।

श्वासप्रश्वास रोग निम्त्याउने virus का उदाहरणहरु

- **२००२** : Severe Acute Respiratory Syndrome Coronavirus (SARS- CoV)
- **२००४**: H5N1
- **२००५**: H5N7
- **२००९**: H1N1 influenza
- **२०१२**: Middle East Respiratory Syndrome coronavirus (MERS- CoV)
- **२०१८** : Nipah virus
- **२०१९** : **COVID -19**





# Why focus on safety and health at work?

- Identification of workers/ occupations /sectors at increased **risk of contagion**
- Implementation of **control and prevention measures** based on risk assessment
- Dissemination of **information** on preventive and protective measures to reduce the spread of infectious diseases, in collaboration with public health authorities



# Employers' Roles and Responsibilities

- Ensure that, so far as is reasonably practicable, the workplaces are safe and without risk to health.
- **Ensure that, so far as is reasonably practicable, the chemical, physical and biological substances and agents under their control are without risk to health when the appropriate measures of protection are taken.**
- Provide, where necessary, adequate protective clothing and protective equipment (at no cost to workers)
- **Provide, where necessary, for measures to deal with emergencies and accidents, including adequate first-aid arrangements.**
- Ensure that workers are consulted, informed, and trained on OSH

**Occupational Safety and Health Convention (No. 155)  
and Recommendation (No. 164)**





# The COVID-19 Pandemic

- **January 2020:**  
**outbreak of a new coronavirus disease in Hubei (China)**
- **11<sup>th</sup> March 2020:**  
**WHO declared Covid-19 pandemic**

- **Impact on the world of work**
  - Increased **unemployment and underemployment**
  - **Worsened OSH and working conditions**
  - Reduced access to **social protection**
  - Particularly negative effects on specific groups more **vulnerable** to adverse labour market outcomes



# High Risk Job in COVID-19

- **Health care workers**
- **Laboratory personnel**
- **Death care workers**
- **Emergency transport workers**
- **Cleaners and waste management workers in health-care and emergency facilities**
- **Others (e.g. police officers, civil protection personnel, military personnel, fire fighters)**





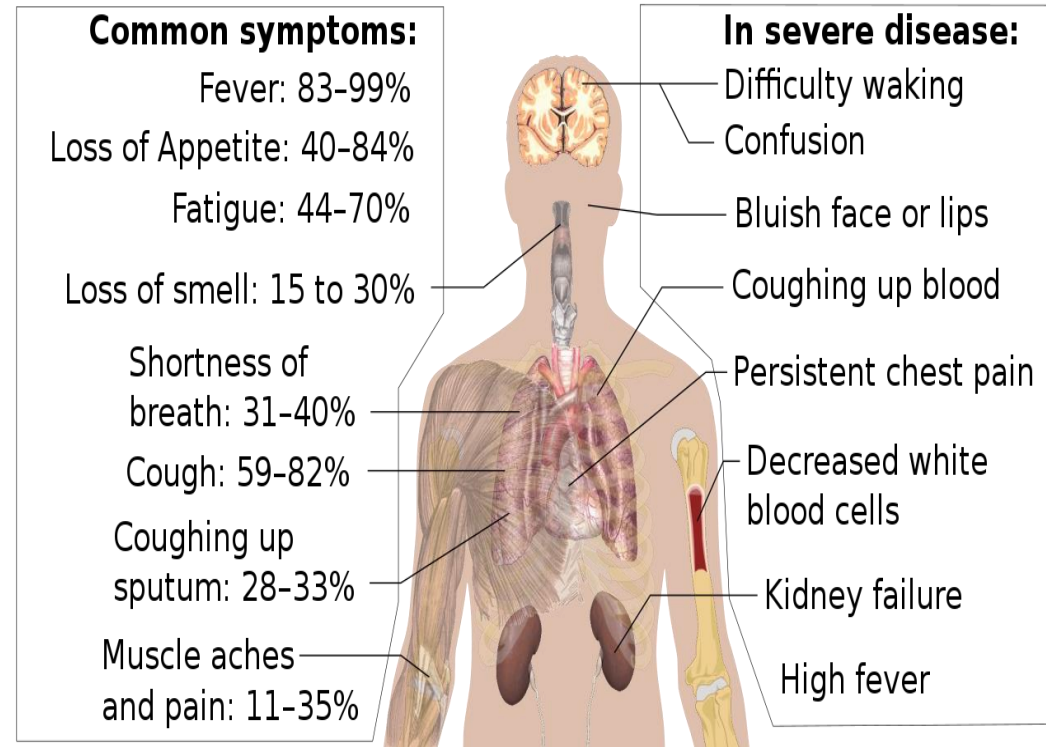
# General Information on Symptoms of COVID-19

## Common symptoms:

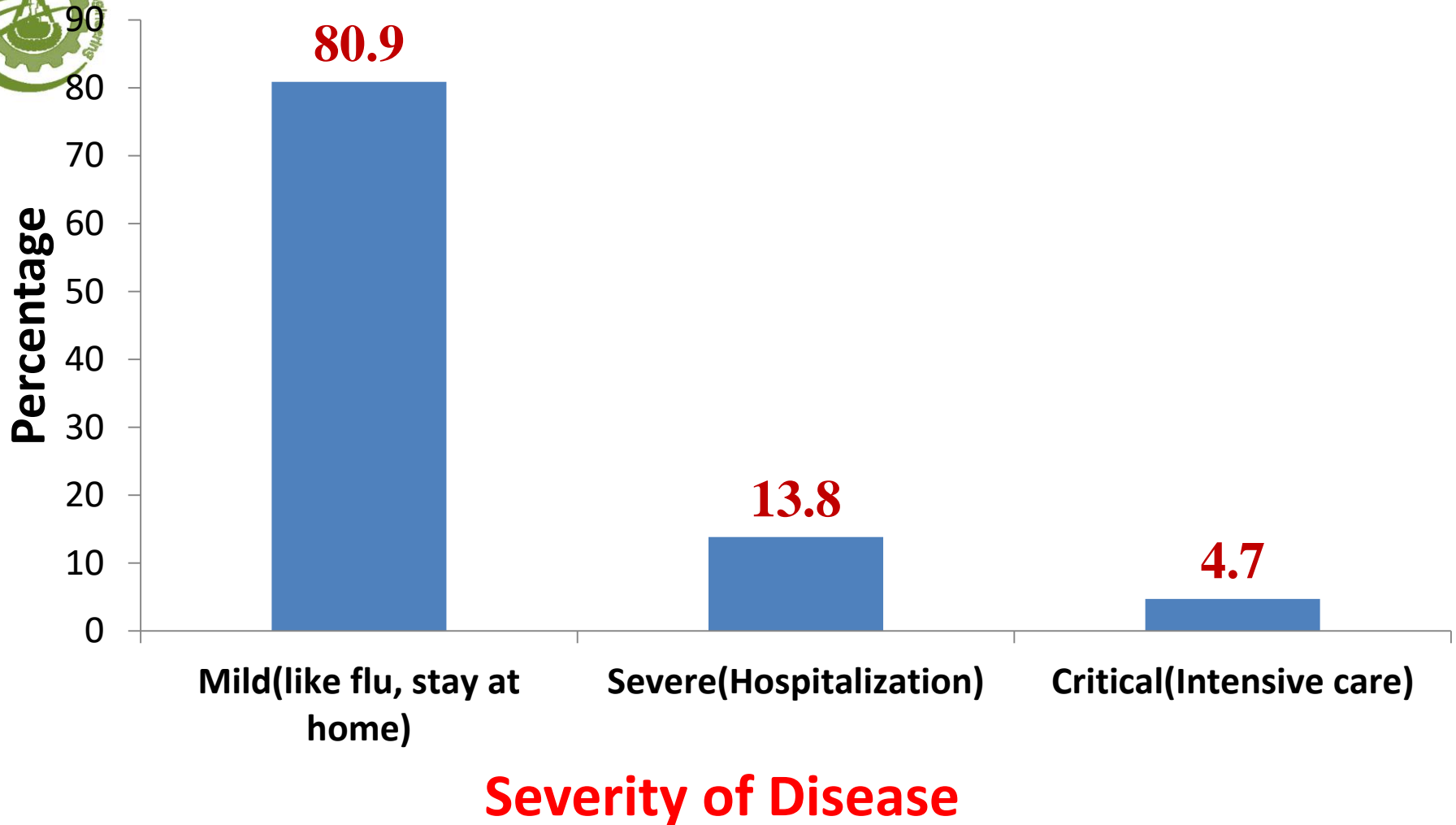
- Fever
- Tiredness
- Dry cough

## Other symptoms may include:

- Aches and pains
- Nasal congestion
- Runny nose
- Sore throat
- Diarrhoea



- On average, it takes 5-6 days for symptoms to show in infected person. However, in some cases it might even take up to 14 days.



Note: Study of 44,672 confirmed cases in China

Source: China centre for Disease Control and Prevention



# Who is at Risk ?

- COVID-19 infects people of all ages.
- **Children and elderly people over 60 years old.**
- The risk of severe disease gradually increases with age starting from around 40 years.
- **People with underlying medical conditions (such as cardiovascular disease, diabetes, chronic respiratory disease, and cancer).**



# How Does it Transmit??

- **Coughs, sneezes, or speaks.**
- Droplets can land on objects and surfaces around the person such as tables, doorknobs and handrails.



**COVID-19** is a new illness that affects your lungs and airways.

It's caused by a virus that's spread in droplets from the mouth and nose when you cough or breathe out.

You can get the virus by:

1. Touching contaminated surfaces and then touching your face.
2. Having close contact with someone with COVID-19 and breathing in droplets exhaled by them.

**COVID-19** mainly spreads from person to person

But it can also be left on objects and surfaces...

World Health Organization  
Western Pacific Region

tissue  
doorknobs  
digital devices  
pens  
laptop and mouse  
lift buttons

So if you touch something contaminated and then touch your face or another's face, you might all fall ill.



**Cover your coughs  
and sneezes.**





- Use Proper Mask (N 95, Surgical and Dust Filter mask)
- **Proper way of use and proper way of remove**
- Use Face shield when in contact with suspected person
- **Don't use PPE unnecessarily**



# साबुन पानीले हात धुने सही तरिका

साबुन पानीले हात धोऔ । रोग र किटाणुबाट बचौ ।



१ पानीले हात भिजाउने



२ हातको सबै भागमा पर्याप्त मात्रामा साबुन लगाउने



३ हत्केलाले हत्केला मिच्ने



४ दाहिने हत्केलाले देब्रे हातको हत्केला पछडीको भाग मिच्ने र देब्रे हत्केलाले दाहिने हातको हत्केला पछडीको भाग मिच्ने



५ औंलाको भित्रि भाग अर्को हातको हत्केला भित्र हाली मिच्ने



६ दुवै हातको औंलाहरुलाई अंकुसे आकारमा जोडेर मिच्ने



७ दाहिने हातको हत्केलाले देब्रे हातको बुढी औंला समातेर मिच्ने र सोही प्रक्रिया अर्को हातमा पनि दोहोर्‍याउने



८ दाहिने हातको औंलाको टुप्पोले देब्रे हातको हत्केला र पछडी भागमा घुमाउँदै मिच्ने र सोही तरिका अर्को हातमा पनि दोहोर्‍याउने



९ पानीले हात पखाल्ने



१० सफा तौलियाले हात पुछ्ने र एउटा तौलिया एक जनाले मात्र प्रयोग गर्ने



११ धारालाई बन्द गर्न तौलिया वा अन्य कुनै सफा कपडाको प्रयोग गर्ने



१२ अब तपाईंको हात सफा भयो



यो विधिबारे आफ्नो घरपरिवार, साथीभाई लगायत अरुलाई भनेर रोग र किटाणु बाट बच्न र स्वस्थ रहन ।







## Survival Days of Corona Virus on Different Materials

Materials	Survival Days
Metals	5
Wood	4
Plastic	3
Steel	3
Paper	4 hours to 5 days
Glass	5
Ceramics	5
Food and water	Transmission not known but caution is better
Urine	1
Faeces	4



# As per the Labour Act 2074 of Nepal

- Clause 80 has the provision of “Communicable Disease Control Management”



# Hierarchy of Controls based on OSH

## Hierarchy of Controls

Most  
effective



Least  
effective

**Elimination**

Physically remove  
the hazard

**Substitution**

Replace  
the hazard

**Engineering  
Controls**

Isolate people from  
the hazard

**Administrative  
Controls**

Change the way  
people work

**PPE**

Protect the worker with  
Personal Protective Equipment



# Applicable in the Context of Covid-19 Pandemic

## 1. Elimination / Substitution

- Stay home or work remotely (if possible)
- Virtual meetings, and training through online

## 2. Engineering Control

- Isolation
- Installation of physical barriers

## 3. Administrative Control

- Awareness/Training
- Posture/Sign/Symbol/Signage

## 4. PPEs

- Safety Gloves/ Mask / Goggles / Face Shield
- Safety Shoes / boots
- Apron



# Administrative Control

- Encourage online meetings, where possible instead of face to face meetings
- **Rotation of employees in workplace, where possible, to prevent gatherings**
- Rearrange the workstation for distancing, if possible
- **Maintain system of noting naming at entrance by a particular person, instead of electronic signature or signing in registers**
- Availability of handwash basins and sanitizers
- **Encourage use of PPEs and their proper disposal**
- Discourage employees from using other employees' belonging/tools/equipment
- **Include routine cleaning and disinfecting of surfaces**
- Encourage employees to inform HR in case of any symptoms of covid-19
- **Awareness through sign boards, posters and trainings**
- Prepare Emergency Response Plan



# Personal Protecting Equipment's (PPEs)

- Use proper and suitable PPEs
- Properly used, maintained and replaced when required
- Properly remove, clean and store/dispose to avoid contamination of self, others, and to the environment



- Do not touch face, mouth or any body part using gloves
- After removing PPE, always wash hands
- If there is use of apron, sanitize the aprons in 1% Bleaching Powder solution



# **Preparatory Actions Before Resuming Work Amid the Corona Virus Pandemic**

- 1. Ensure workplace is safe and free from the corona virus**
- 2. Ensure safety at entry of employees to workplace, their attendance system**
- 3. Parking of the vehicles in the premises**
- 4. Availability of safe cafeteria where social distancing can be maintained**
- 5. Availability of clean and safe washrooms**
- 6. Presence of adequate PPEs**
- 7. Safe drinking water**
- 8. Scientific management of solid waste, wastewater and sanitary water esp. water from washrooms**
- 9. Plan for clients and visitor visit to the workplace**
- 10. Emergency preparedness and Response Plan**





# Ensure Workplace is Safe and Free from the Corona Virus

- Spray disinfectant (1% Sodium Hypochlorite Solution) in the premises covering all areas prior to start of the working day





# How to prepare Sodium Hypochlorite Solution

Sodium Hypochlorite is used as disinfectant

## Requirements

1. Sodium Hypochlorite Chemical (5.25%)
2. Measuring cylinder/mug
3. Clean water
4. Spray
5. Clean cotton cloth

## How to prepare the Solution

Mix 1 part of Sodium Hypochlorite Chemical (5.25%) in 99 parts water

This solution kills virus in 3-4 hours

## Usage

Pour the solution in spraying machine and spray in the working premises

Use cotton cloth to wipe electrical board and machines and places that are in frequent contact e.g. Desk chair, computer, door locks etc.





# Ensure Safety at Entrance to workplace and Employees' Attendance System

- Compulsory hand wash with soap or use of sanitizer before entering
- Only allow to enter employees wearing mask
- Measure temperature with thermal gun
- Use social distancing circle and maintain at entrance
- Stop the use of electronic signature and signing in the register, instead ask a person to note the attendance at entrance
- Don't spray disinfectant on body of person







## Different Practices of Handwashing and Sanitizing



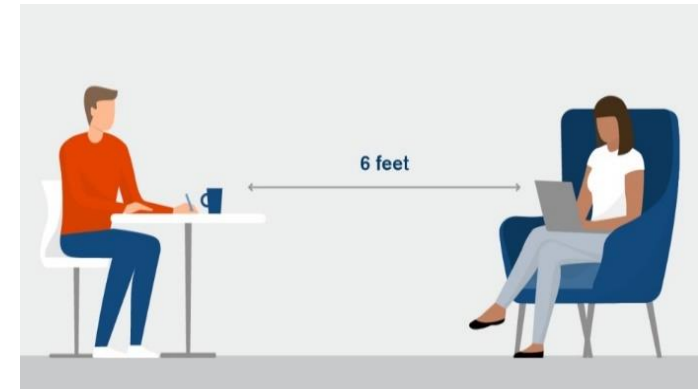
**Hand Sanitizer**  
**70% Alcohol**



**KILLS 99.99% OF GERMS & VIRUSES**



# Safe Cafeteria Maintaining Social Distancing



- Maintain at least 1 meter distance while eating
- **Use fork and spoon**
- **Avoid to eat uncooked food**
- Wash fruits/salad properly in running water or potash water before eating
- **Appropriate place for hand washing**







# Availability of Clean and Germ Free Water for Drinking

- Drink tested water or from the RO
- Do not drink normal tap water or normal filter water
- Drink boiled water and water with chlorine used for disinfecting
- Do not use same glass for drinking, instead use personal bottles



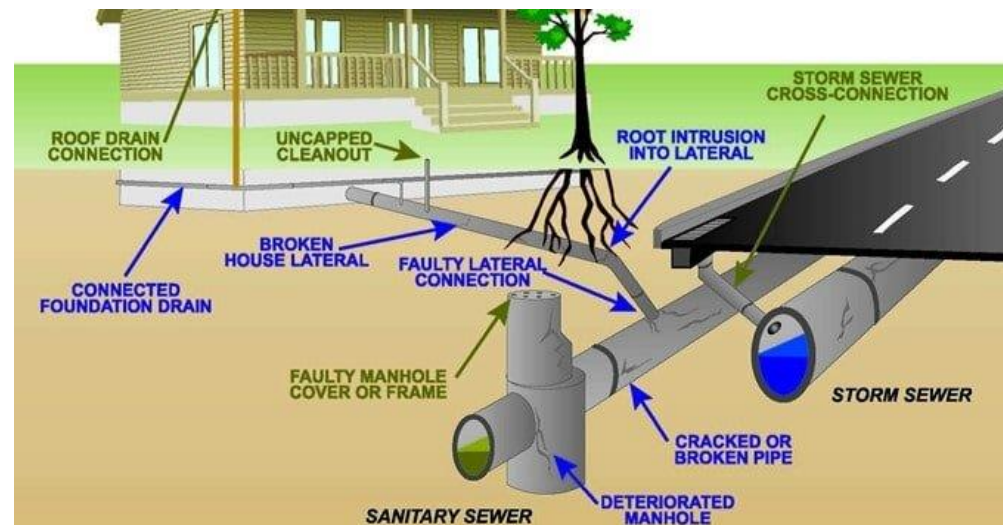
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# Scientific Management of Solid Waste and Sanitary Wastewater

- **Keep solid waste categorically in different dustbins with lids and manage on daily basis**
- Properly dispose the used mask/gloves/tissues in the appropriate dustbins
- **Unsafe disposal of these can result to spread of the corona virus, in case used by infected person**
- Sanitary wastewater should be passed in closed drainage, passed into the septic tanks and mixed into municipal drainage
- **High use of mask/gloves means more waste production and burden to the environment that eventually will effect us**







# Management of Clients and Visitors

- **Restrict the entry of unwanted clients and visitors**
- **Only allow clients/visitors who are wearing mask**
- **Use of hand wash or sanitizer at the entrance**
- **Check temperature with thermal gun at the entrance**
- **Maintain a form to keep detail information about clients/visitors**
- **Limit the access of clients and visitors to workplace**
- **Use of mask in the premises**
- **Make them maintain social distancing**
- **Restrict unnecessary entry to core workplace**



# Emergency Preparedness and Response



- **Keep contact number of hospital and ambulance**
- **If any employees show symptoms of corona virus, immediately send for PCR test and keep in isolation**
- **Prepare Response plan and practice in mock drill**





# Stress and Psychosocial Factors During the Pandemic

## Common psychosocial factors

- Fear for one's own health and well-being or that of family members and co-workers
- Lack of safety equipment for personal protection
- Isolation
- Lack of social support
- Tension between established safety protocols and the desire to care for or support individual
- Difficulty in maintaining self-care activities (e.g. exercise, good eating habits, rest, etc.)

## Common responses

- Stress
- Low mood
- Low motivation
- Anxiety and depression
- Serious effects on mental health



# Responsibility of Employer and Employees

## Employer

- Ensure attendance
- Plan work and involve as much as less number employees as possible
- Check temperature
- Spray disinfectant in workstation and entire premises including parking area, washrooms
- Availability of adequate and sufficient amount of PPEs
- Use electronic payment system
- Availability of enough water in washrooms
- Create awareness using sign boards and posters from entrance gate to different locations
- Motivational/ awareness Training to employees on working amid the pandemic

## Employee

- Follow all the rules by company
- Inform HR in case of any symptoms and go for PCR test and remain isolated
- Use PPEs
- Use tissue paper while sneezing/coughing and dispose safely in dustbin
- Maintain social distancing at 1 meter while working/talking
- Flush toilet after each use
- Exercise
- Adapt to the current working practice for prevention of the spread of the corona virus





# EVERYDAY TIPS FOR COVID-19 PREVENTION



Wash your hands with  
soap and water or  
alcohol-based hand sanitizer  
for at least 20 seconds



Stay at home if you  
are sick, except to get  
medical care



Avoid touching your  
eyes, nose and mouth,  
especially with  
unwashed hands



Cover your cough or  
sneeze with a tissue  
then throw that tissue  
in the trash



Clean and disinfect  
frequently touched objects  
and surfaces



Avoid close contact with  
people who are sick





**Not any Medicine or Vaccine invented till date but world scientists are working very hard on it**

**Be Cautious But  
Don't Panic!**

#Covid19



#CoronaVirus

**Spreading of COVID-19 is Preventable**



**Thank You**