

TABLE OF CONTENTS

01	Message of The Minister of Public Service, Administrative and Institutional Reforms	01
02	Message From The Secretary for Public Service	02
03	An Overview of the Evolution of Occupational Safety and Health in Mauritius	03
04	Workplace Occupational Health Challenges post COVID: Rethink, Reinvent and Readapt to new world	08
05	A business perspective on resilient OSH system	12
06	Workers' Safety and Health in the Connected Age – Rights and Responsibilities	13
07	Occupational Safety & Health in the Digital World	15
08	Technology in the hierarchy of controls applicable to COVID-19 at the workplace	18
09	COVID 19 - Addressing Workplace Challenges for Safety and Health at Work	21
10	COVID-19 PANDEMIC	28
11	Work From Home: Health And Safety Implications	31
12	Introduction to Industrial Hygiene	33
13	Guidance Document on How to Consolidate Health and Safety of Health Care Personnel and Workers of Health Establishments (Frontliners)	39

Disclaimer

Articles appearing in this e-Newsletter reflect the views of the authors and not necessarily those of the Ministry of Public Service, Administrative and Institutional Reforms (MPSAIR).

The MPSAIR would like to place on record the valuable advice and support from Mr Pradeep Goburdhane, Former Principal Information Officer, Government Information Service (GIS).



Message of The Minister of Public Service, Administrative and Institutional Reforms

Hon Teeruthraj Hurdoyal

Over the past two years, the COVID-19 pandemic has developed into an unprecedented global health crisis that has prompted unparalleled global responses. Similar to many countries, Mauritius now faces various challenges as we try to eradicate the second wave of this pandemic and protect our country.

The safety and health of all workers, especially during such trying times, are of paramount importance and we are pleased to associate ourselves with the International Labour Organization to observe World Day for Safety and Health at work under the theme: "Anticipate, prepare and respond to crises - Invest Now in Resilient Occupational Safety and Health Systems."

Exposure to COVID-19 can pose significant health risks to staff as well as anyone else who comes into contact with them. It is therefore imperative that both employers and workers actively participate in the prevention of COVID-19 transmission while at work. All stakeholders must actively participate in upholding the concept of safety first, whereby emphasis is laid on prevention, in order to create a culture of safety and health at all times.

Our current legal framework underpinning safety and health encompasses the objective of ensuring that legal obligations are established and that the employer is legally bound to respect them in order to protect the safety and health of their workers. It remains a strong commitment of this Ministry to continue to develop and implement innovative policies and legal frameworks to promote secure working conditions for our officers who remain the backbone of society.

I wish to thank, in particular, all our frontline workers who continue to put their lives on the line to ensure that we defeat the virus. To our healthcare workers, I say a big thank you for the ongoing contribution they are making in caring for those infected with the virus.

My Ministry is firmly committed to work to protect all our public officers.

Be safe and protect yourselves.

A handwritten signature in blue ink, appearing to read "Teeruthraj Hurdoyal". The signature is stylized and includes a large flourish at the end.



Message From The Secretary for Public Service

Swaminathan Ragen

As Secretary for Public Service, I am delighted to contribute to this edition of the quarterly e-Newsletter elaborated by the Ministry of Public Service, Administrative and Institutional Reforms. May I recall that the theme of the last edition of the quarterly e-Newsletter was on Public Sector Transformation. This time, the focus is on an equally important area, which is, Occupational Safety and Health (OSH). In fact, the timing of this publication coincides with the *World Day for Safety and Health at Work* which is celebrated every year on the 28th of April under the watch of the International Labour Organisation. The theme chosen this year is:

Anticipate, prepare and respond to crises - Invest now in Resilient Occupational Safety and Health (OSH) Systems

Indeed, the Covid-19 pandemic has drawn the spotlight on the key role played and the challenges encountered by Safety and Health Officers in ensuring that our work place offers a conducive environment in line with established health and sanitary standards and protocols. In this context, I would like to seize this opportunity to express my deep gratitude to the Director and Staff of the Occupational Safety and Health (OSH) Division of my Ministry for their unbending determination and commitment particularly during these testing moments of the pandemic. Our staff of the OSH Division are having the daunting task of bracing confinement conditions and risks associated with the transmission of the Covid-19 virus to carry out daily site visits at the work place of our Public Officers so that Government business is carried out in a safe and healthy environment.

However, I regret to note some still have a perception that the OSH Division operates on the fringe of an auxiliary service and their valuable contribution is not always given the consideration they deserve. This is not only a very unfortunate situation but is a serious cause for concern. In fact, I regularly have echoes that recommendations made by the OSH Division regarding compliance and improvement at the workplace are not promptly attended to by Ministries and Departments. I, therefore, make an appeal for the collaboration of every one of us if we want to see our country rapidly emerging from the pandemic and to renew with economic growth and prosperity.

Despite the challenges, the increasingly vital role played by the OSH Division of the Ministry of Public Service, Administrative and Institutional Reforms cannot be overlooked. In this context, this Division has since last year embarked on a transformation journey that has seen the adoption of smart processes and work patterns that are leveraged over a digital collaborative platform, i.e., Microsoft Teams. Such an initiative has led to marked improvements in processes including the possibility to work from home, productivity, decision making, planning as well as in the formulation of evidence-based policies and strategies.

Moreover, Government has taken the bold decision to implement in the Public Service the OSH Management system which is modelled on the ISO 45001 standard. The aim is to ensure stricter compliance with the Occupational Safety and Health Act of 2005 and the recommendation of the International Labour Organisation. As part of the capacity building strategy to implement such an initiative, my Ministry provides incentives to officers of the OSH Division to join as a member of the Institution of Occupational Safety and Health of the United Kingdom which is a leading professional body in the specialised area of OSH.

In addition, the OSH Division has established a strong partnership for concerted efforts and work arrangements with the Mauritius Fire and Rescue Services to ensure that buildings hosting Government Offices strictly comply with the stringent fire protection and prevention requirements.

As Secretary for Public Service, I am extremely pleased to note our ambition to gear up the governance of the OSH function to another level is in line with the theme of the World Safety day.

Our objective is to set a gold standard in the area of Occupational Health and Safety in the Public Service and such endeavour requires a collective effort from each and every one of us. I will be pleased to receive any comment and suggestion as part of your contribution to support this Ministry in achieving the objective set.

In this edition of the quarterly e-Newsletter, you will find nine (9) articles of notable standard in the area of Safety and Health written by authors drawn from both the Public and Private Sectors. You will also find two (2) Reference Documents which have been elaborated by two distinguished professionals who have a significant contribution in the area of Safety and Health in Mauritius. The two documents can serve as useful practical guides and reference in applying best practices on Safety and Health at the workplace.

Meanwhile, let me wish you a pleasant reading!

03 An Overview of the Evolution of Occupational Safety and Health in Mauritius

The Competent Authority

The Occupational Safety and Health Division (OSHD) is a division of the Ministry of Labour, Human Resource Development and Training and is the competent authority responsible for ensuring safety and health of the working population in the Republic of Mauritius.

The Occupational Safety and Health Division (OSHD), previously known as the Factory Inspectorate, was created in the 70's for the purpose of ensuring the safety and health of the workforce through the establishment of an appropriate legislative framework and the enforcement of same, starting with only 3 Inspectors which gradually increased over the years with the coming of new legislation on occupational safety and health. Presently, the OSHD operates with 66 technical staff supported by 15 non-technical staff. It is headed by an Acting Director, Occupational Safety and Health and comprises of the following seven units:

- Enforcement Unit (North)
- Enforcement Unit (South)
- Accident and Prosecution Unit
- Employees' Lodging Accommodation Unit
- Construction Unit
- Occupational Safety and Health Training and Information Centre
- Specialist Support Services Unit

The OSHD has as mission to:

- Promote decent work,
- Protect the safety and health of any employee against any risk at his workplace; and
- Vulgarise any information on safety and health.

The main duties of the OSHD include ensuring the safety and health of the working population through the enforcement of an adequate and up-to-date legislative framework which includes ensuring decent lodging accommodations for guest workers. It is also involved in the enhancement of the national safety and health culture through training of all stakeholders and provision of information and preparation of guidelines on occupational safety and health topics.

ILO Conventions and International Collaboration

ILO Conventions

In order to show its commitment to provide decent working conditions to workers, the Government of Mauritius has ratified the following Conventions with a view to improving safety and health at workplaces:

Conventions	Date Ratified	Date in force
Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)	19.11.2012	19.11.2013
Occupational Safety and Health Convention, 1981 (No. 155)	25.07.2014	25.07.2015

National Standards on Occupational Safety and Health

The OSHD works in close collaboration with the International Labour Organisation (ILO) with a view to enhancing the national standards on OSH in the Republic of Mauritius. It has been involved in the following activities:

- drafting of the first-generation Decent Work Country Programme (DWCP). The document was signed by the tripartite constituents namely the Government, Employers and Workers' representatives on 30 November 2012 and various activities were conducted under the DWCP; and
- officers of the OSHD have benefitted from many courses organised by the International Training Centre of the ILO.

Furthermore, the OSHD is participating in the drafting of the Decent Work Country Programme (Second Generation). The drafting of the document is being coordinated by the Ministry of Labour, Human Resource Development and Training in consultation with tripartite constituents and with the collaboration

of the International Labour Organisation. Several activities have been identified under this programme to strengthen the national occupational safety and health system in the Republic of Mauritius.

Policies

In 2001, a national occupational safety and health policy was formulated, following consultation with tripartite stakeholders. The policy has been reviewed and updated in 2015.

Furthermore, a national occupational safety and health profile was prepared in 2009 in collaboration with ILO, following which a national occupational safety and health programme was implemented.

Moreover, a 'Policy on HIV/AIDS at the Workplace' has been prepared following consultation with concerned stakeholders and same was launched in February 2012. It aims at ensuring that employees are made aware of the causes, prevention and consequences of the disease and requirements for testing. It also ensures confidentiality and non-discrimination for people living with the disease.

On the other hand, in view of the changes and challenges in the world of work and associated risks, the national occupational safety and health profile will be reviewed under the Decent Work Country Programme (Second Generation) in order to determine the lacuna in existing sectors in the Republic of Mauritius and put forward strategies for improved safety and health protection at work in existing and emerging sectors. Consequently, a new national occupational safety and health policy will be formulated and a national occupational safety and health programme will be implemented.

Strategies for improving service delivery

In order to improve effectiveness and efficiency of the Occupational Safety and Health Division, the Ministry is embarking on the following projects to achieve its objectives:

- Computerization of the Occupational Safety and Health Division which will provide for a centralised system that will enable access to timely and up-to-date information, thus, ensuring a more efficient and effective response to safety and health related problems.
- With a view to providing a proximity service to our stakeholders, the Ministry is in the process of setting up an autonomous decentralised office for the Occupational Safety and Health Division in the Upper Plaine Wilhems.

Legislative framework

The occupational safety and health legislation has evolved gradually over the years.

Under the Health, Safety and Welfare Regulations 1980, emphasis has been made on safety and health following which there was the Occupational Safety, Health and Welfare Act 1988 (OSHWA 1988). In 2007, a modern piece of legislation, namely the Occupational Safety and Health Act 2005 (OSHA 2005), governing occupational safety and health, came into force leading to the OSHWA 1988 being repealed. As at date, sixteen regulations, addressing different sectors, and OSH issues (Box1) have been enacted under the OSHA 2005. Furthermore, in view of the considerable number of guest workers in Mauritius, an Occupational Safety and Health (Employees' Lodging Accommodation) Regulations have been made in force in 2011 so as to ensure decent lodging accommodations for guest workers.

The OSHA 2005 applies equally to the private and public sectors covering all categories of workers and it lays emphasis on the role of the Safety and Health Officers in advising employers on the safety and health matters at the workplace. Being given that this new law binds the State, government had the obligation to recruit Safety and Health Officers to cater for the safety and health of its employees.

This remarkable progress in the legislative framework, from one single regulation in 1980 to a bundle of legislation, has positively impacted on safety and health standards at workplaces which were visible through the reduction in the number of occupational accidents.

The Occupational Safety and Health legal framework

- 1 Occupational Safety and Health Act 2005 – Act No 28 of 2005
- 2 Occupational Safety, Health and Welfare (First-Aid) Regulations 1989 – GN No. 65 of 1989
These regulations aim at consolidating the existing provisions contained in Section 45 of the Occupational Safety and Health Act 2005.
- 3 Occupational Safety, Health and Welfare (Woodworking Machines) Regulations, 1989 – GN No. 66 of 1989
These Regulations aim at regulating the use of wood making machines at the workplace which are considered as dangerous machinery.
- 4 Occupational Safety and Health (Fees and Registration) Regulations 2007 – GN No. 123 of 2007
These regulations aim at establishing fees payable under the Act
- 5 Occupational Safety and Health (Electricity at Work) Regulations 2009 – GN No. 47 of 2009
These regulations aim at establishing norms with regards to electrical safety at the workplace
- 6 Occupational Safety and Health (Employees' Lodging Accommodation) Regulations 2011 – GN No
These regulations aim at establishing norms for employees' lodging accommodation with a view to improve the standards of living conditions in lodging accommodation. 27 of 2011
- 7 Occupational Safety and Health (Noise at Work) Regulations 2012 – GN No. 107 of 2012
These regulations aim at ensuring that only competent persons undertake risk assessment related to noise and advise on the appropriate control and protection measures.
- 8 Occupational Safety and Health (Safety of Lifts at Work) Regulations 2012 – GN No. 108 of 2012
These regulations aim at consolidating the existing provisions contained in Section 53 of the Occupational Safety and Health Act 2005
- 9 Occupational Safety and Health (Personal Protective Equipment) Regulations 2012 – GN No. 146 of 2012.
These regulations aim at regulating the standards of personal protective equipment used in Mauritius so as to ensure better protection to workers at work.
- 10 Occupational Safety and Health (Work at Height) Regulations 2013 – GN No. 190 of 2013
These regulations aim at protecting workers who are called upon to perform work in any place, including a place at or below ground level, from which a person may fall at a height exceeding two meters.
- 11 Occupational Safety and Health (Ship Construction and Ship Repairs) Regulations 2013 – GN No. 254 of 2013
These Regulations aim at protecting workers who are called upon to perform work during ship construction and repairs
- 12 Occupational Safety and Health (Safety of Scaffolds) Regulations 2013 – GN No. 16 of 2014
These regulations aim at further protecting workers who are called upon to perform work on scaffolds during construction works.
- 13 Occupational Safety and Health (Control of Asbestos at Work) Regulations 2014 – GN No. 216 of 2014
These Regulations aim at enhancing the standard of safety and health protection against asbestos found in places of work.
- 14 Occupational Safety and Health (Transportation of Employees) Regulations 2014 – GN No. 210 of 2014
These regulations aim at further ensuring the safety of workers who are transported on private roads in vehicles provided by employers.
- 15 Occupational Safety and Health (Foundries and Construction Works) 2019
These regulations aim at further protecting workers who are called upon to perform work in foundries and during construction works.
- 16 Occupational Safety and Health (Employees' Lodging Accommodation) (Amendment) Regulations 2020
These regulations enable employers to renew their Lodging Accommodation Permits, which expired during the COVID-19 period, without requiring them to pay surcharge
- 17 Occupational Safety and Health (Extension of Time During COVID-19 Period) Regulations 2020
These regulations enable employers to renew their certificates of registration of a factory and Lodging Accommodation Permits or submit report of machines which expired during the lockdown period

Safety and Health Culture

Over the decades, the OSHD has been continuously involved in the promotion and enhancement of a national safety and health culture in the Republic of Mauritius through various activities.

Training and Information

The Occupational Safety and Health Training and Information Centre which was inaugurated on 02 September 1992 is involved in providing training and information to employees, employers, trade unions, and Safety and Health Officers either at the training centre in the Ministry or on site upon request from employers. This Unit is also involved in the preparation of guidelines on occupational safety and health topics (Box 2).

World Safety and Health Day

Since 2003, the ILO observes the World Day for Safety and Health at Work on 28 April promoting globally the prevention of accidents and diseases at work. In this context, every year since 2003, the Occupational Safety and Health Division organises at national level the commemoration of the World Day for Safety and Health at Work and distributes posters on the theme chosen by the ILO to employers, trade unions and other stakeholders. Other activities such as tripartite seminars and exhibitions are also organised to sensitise all concerned stakeholders on the themes.

Promoting safety and health education

With the coming into force of the OSHA 2005 in 2007, a new dimension was given to the profession of Safety and Health Officers. The two main public universities of Mauritius, namely the University of Mauritius and the University of Technology, Mauritius, started offering degree courses in this field and several young persons embraced a career in this occupation.

Under the revised National Occupational Safety and Health Policy, safety and health education has been introduced in school curricula at vocational level to inculcate safety and health culture amongst the population, especially those who will join the labour market.

Guidelines

1 Electrical Safety at Workplaces

These guidelines aim at providing essential information to employers with regards to electrical safety

2 Safety and Health on Construction Site

These guidelines aim at providing essential information to job contractors/employers to ensure health and safety on construction sites.

3 Occupational Safety and Health Training

These guidelines aim at providing employers with appropriate, suitable and comprehensive training to their employees on Occupational Safety and Health

4 Risk Assessment Guidelines

These guidelines aim at assisting employers to conduct an effective risk assessment at their workplace

5 Guidelines for Occupational Safety and Health Management System

These guidelines aim at helping employers and employees need to establish a Safety and Health Management System in their respective enterprises.

6 Work-related Stress Guidelines

These guidelines aim at helping employers as well as employees to better manage stress and to minimise the consequences thereof for a healthier workforce and a prosperous nation

Future of OSH in the Republic of Mauritius

Occupational safety and health is a multidisciplinary and dynamic subject due to the continuous changes in the world of work. New occupational risks are arising as a result of technical innovation, patterns of work and social changes that need to be addressed proactively.

The prevalence of the COVID-19 has seriously affected almost all economies of the world with serious impacts on the world of work. Besides addressing the pandemic at the workplaces, new challenges have arisen, which include addressing safety and health issues as a result of new work patterns adopted such as

Work From Home (WFH), to ensure business continuity and also prevent propagation of the virus. These new work patterns have given rise to new risks which are still being evaluated nationally and internationally. On the other hand, the economic impact of COVID-19 will also have other consequences on workers such as stress and depression.

With a view to addressing the new risks and challenges, there is a need to take appropriate preventive measures to protect the workforce so that they have an improved quality of life. In this context, the Occupational Safety and Health Division is coming up with several additional measures which include inter-alia strengthening of the existing legal framework as well as preparing new guidelines to sensitise stakeholders on safety and health issues.

Conclusion

The government recognises that its human capital is its most valuable asset and is accordingly committed to improving the working conditions of employees and providing them with decent working conditions. This is reflected through the evolution of the national occupational safety and health system in the Republic of Mauritius over the decades including reinforcement of the OSHD, enhancement of the legislative framework, the publication of various guidelines,

adoption of various policies and implementation of different strategies. Furthermore, after the signature of the First Decent Work Country Programme, the OSHD is participating fully in formulation of the Decent Work Country Programme (Second Generation) where several activities pertaining to occupational safety and health will be implemented. It is expected that in future, the OSHD will be able to effectively achieve its mission of ensuring the safety and health of every worker in the Republic of Mauritius and making decent work for everybody a reality.

Mr K. Gunpath
Ag Director, Occupational Safety and Health,
Ministry of Labour, Human Resource
Development and Training

04 Workplace Occupational Health Challenges Post COVID: Rethink, Reinvent and Readapt to New World

More than 3 millions death; US\$220 billion revenue lost by developing countries; 800 million people deprived of basic needs; US\$2 billion global humanitarian response plan by UNDP; lost of 400 million jobs (International Labour Organization (ILO) estimates); global crisis and partial collapse of our public health system; scientists, epidemiologists and authorities still baffled by sudden spike in new cases; global pandemic and closing off of borders; total lockdown in many countries...the list can go on and on. No one ever anticipated that a microscopic virus would bring us to our knees. COVID-19 is a wake-up call for each and everyone to relook into global health scenarios and their challenges. Many countries are still crawling their way back to economic recovery. COVID knows no territorial boundaries and even a remote island such as, Mauritius, has not been spared. We are confronting the worst global health crisis of our time. This pandemic is not only a public healthcare problem. Whether it is the government, private employers, NGOs, employees or self-employed, we are all concerned.

When we analyse the epidemiological trend, morbidity and mortality rate, we can easily deduce that we our economy will be affected and we are going to face a lot of challenges (whether we are at home, at work or in any social context). There is a dire need to prepare ourselves to confront a number of unexpected social, environmental, demographic, economic, and most importantly personal troubles. In possibly 5-10 years from now, we will witness an entirely different world. But how we will adapt to it remains a challenge. Many organisations have started their transformation to align with future COVID threats. While the COVID crisis is being managed for the time being, we need to take appropriate steps and plan right now for a more resilient future, especially for those at work. Can we adapt to emerging technologies and reengineer businesses to foster productivity at workplace? We are at a point now where we will have to Rethink, Reinvent and Readapt with a more concerted focus on COVID prevention and fostering occupational health and safety. This article looks into the challenges of working from home, obesity related problems, the built environment and mental health issues following COVID.

Working from home and Ergonomics associated health problems

The impact of COVID cannot be overlooked in all spheres of our daily life. It has accelerated changes in our workplace, for instance, forcing a number of employees to work online with minimal facilities and unpreparedness. Working from Home (WFH) is one

of the most effective ways of managing the risks related to the pandemic but organisation has a duty of care pertaining to health and safety of workers. Many employers were not ready to adapt to a sudden transformation and integrate employees to shift to a full time online employment mode. Have we been trained to work online? Do we know the pros and cons? One of the prominent occupational health problems people experience with the virtual mode of working is related to Ergonomics (physical aspects of the environment, such as workstations). The practice of proper ergonomics-including correct chair height, adequate equipment spacing and good desk posture cannot be overlooked and are crucial to prevent muscular skeletal disorders or long term nervous system problems. Getting the correct home office set-up presents a challenge due to limited space at home and with ergonomically-unfriendly equipment at home, ergonomic risks can be exacerbated and one might be at a risk for future health complications.

The International Labour Organization (2020) has published guidelines with respect to WTH in response to the outbreak of COVID-19 and proposed that, employer should: 1) review the company's safety and health policy, 2) provide on-going evaluation of offsite workers' workstation and offer guidance and monitoring of ergonomic conditions and 3) offer ergonomics and safety training or resources to change work habits and improve the physical home-based work environment, 4) assess what tasks that can be

done off-site, mechanisms for connectivity and home infrastructure, the worker's situation in terms of safety and health (especially mental health concerns). On the other hand, the employees have to bear responsibilities such as: 1) co-operate in the fulfilment by their employer of the obligations placed upon him; 2) complying with the company policy or guidelines on WFH; 3) taking care of one's own safety, physical and mental health and well-being; 4) being available and accessible during work hours; 5) taking reasonable care of the company's tools and equipment, including technology, data protection, confidentiality and security.

Workers are indispensable assets to an organization and therefore early identification and early intervention of ergonomic problems and promoting good musculoskeletal health are crucial in the workplace. Employers must recognise that some workers may be more susceptible to such risks and early intervention to address problems and encouraging early reporting of problems are warranted. For any long-term WFH approach, there is a need to acclimatize the workstation. This includes avoiding tasks involving awkward postures, prolonged static postures, sedentary behavior and repetitive movements. Workstations should be ergonomically designed and simple measures (e.g integrated computer workstation, footrest, wireless headset for phone calls, special cushion to relieve pressure when sitting etc) must be put in place to allow individuals to continue working.

COVID situation and obesity- a matter of concern

With the onset of COVID pandemic, less attention has been waned to obesity, a major public health problem, largely overlooked by employers. COVID actually worsens obesity and the latter with other non-communicable diseases (NCDs) create a perfect storm for an increased risk of COVID, and they negatively impact on our respiratory physiology and immune system. Studies have demonstrated that obesity increases the risk of complications and need for critical care and invasive mechanical ventilation, as well as, is a strong and independent determinant of COVID and risk factor for hospitalization. However one important aspect that we tend to neglect is that an indirect health consequence of COVID lockdown is obesity (and

overweight associated health problems), not only for workers, but for all categories of people. A reduction in physical activities, alteration in meal patterns, more sedentary behaviour, increase in sleeping and screen time are all contributing factors to obesity and overweight during lockdown. Obesity is associated with other co-morbidities (e.g hypertension, atherosclerosis, coronary artery diseases, type 2 diabetes mellitus, cerebrovascular strokes, and osteoarthritis) as well as makes ones more susceptible to get COVID and lower vaccination effect. Social isolation (loneliness), increased anxiety and stress levels during lockdown situations can also affect body weight through biological behavioural and psychological mechanisms. No one can deny the fact there is a fear of food insecurity during a pandemic and lockdown. Consequently the probability of storing food (e.g canned foods & ultra-processed products rich in calories, sugar, sodium, and fat) increases. There is also a higher tendency of overconsumption, addictive-like behaviours and decreased activity level which contribute significantly to increasing the global burden of obesity. Work itself is a causal factor for obesity and there is an indirect association between excess body weight and workplace safety. The motto here is that obesity is a modifiable risk factor and we can avoid it during and after lockdown. Employees need to be more proactive herein when it comes to management of obesity. Appropriate lifestyle modification interventions are primordial at a very early stage. These can include adopting proper nutritional habits (e.g more green foods, reduce fat/sugar intake), cut down on screen time, adequate physical activity and sleep to boost immune system and the circadian rhythm of hormones. Employers should realise the benefits of addressing obesity in the workplace. WFH can also aggravate obesity problems and possibly government officials should cater for health care professionals dedicated to obesity management before it is too late.

Safeguarding our built environment and potential of airborne transmission

So far, many have been able to contain the virus (especially through hand washing and maintaining social distance) given that we understood the mode of transmission (predominantly through large respiratory droplets that fall quickly), but we need to be more vigilant given that coronavirus particles evolve rapidly

(novel variants) and can be much more virulent than expected. With the recent surge in new cases and superspreading events especially in countries like Brazil, France, India and USA, there is emerging and compelling scientific evidence that coronaviruses are highly infectious and might be spreading faster and not only through large respiratory droplets. Greenhalgh et al (2021) reported that such high incidence, long-range transmission and asymptomatic or pre-symptomatic transmission strongly suggest the dominance of aerosol transmission (airborne transmission of smaller aerosols with higher pathogen concentrations than droplets). Further scientific evidence also reveal that close-contact aerosol transmission through smaller aerosolized particles is likely to be combined with respiratory droplets and contact transmission in a confined, crowded, and poorly ventilated indoor environment could be contributing factors to increased risk of COVID (Azuma et al 2020). As a precautionary measure, there is a need to evaluate the building environment (especially the spatial dynamics, operational factors, surfaces, indoor environmental quality control measures- relative humidity, temperature, sunlight, ventilation) as this could be breeding grounds and reservoirs of infectious coronaviruses. This undoubtedly rings the bells of alarm to authorities concerned for implementation of unprecedentedly strict preventive measures and relook into current distancing protocols and design new ones for deep cleaning and sanitization. Japan has already started putting emphasis on avoiding the "3Cs": Crowded places, Close contact, Close conversations. Food for thought!

Post-COVID workplace: Should we promote mental health?

The importance of mental health should not be neglected. This is an important health aspect that helps each and every one to be physically healthy, cope with daily stress and above all contribute positively to the workplace. Studies have reported that there is a direct link between workers' mental health and productivity at the workplace. World Health Organization (WHO) reported that global economy loses about US\$ 1 trillion per year in productivity due to depression and anxiety and about 800,000 persons die from suicide globally each year (one death every 40 seconds) and this could represent a health burden for Mauritius, especially

from a health care and rehabilitation perspective. With the unexpected COVID pandemic situation, matter can worsen as a lot of employees are confined to work at home. The overwhelming majority of them are not prepared. Needless to mention that a proportion of employees has also lost financial incentives and this could culminate in undesirable mental health problems. WFH might be beneficial at the outset but with time an employee has to juggle between childcare and work, detach and isolate from colleagues and close ones, succumb to financial pressures and bad habits such as excess alcohol consumption as a direct consequence of anxiety, loneliness and boredom. We have yet to document a number of mental health issues in connection with the global COVID pandemic but Post-COVID Stress Disorder could be another emerging consequence, so let's get armoured. A shift in mindset is needed for those returning to their physical workplace given that they have accustomed to working remotely and need to readjust their new work schedule. Management has a duty of care to protect employee's mental health in the post-COVID workplace.

Perspectives and our priorities

We should avoid reverting to our pre-COVID bad habits. I often advise: Sanitation does not cost, it pays. Companies should be careful in this post-virus landscape as poor/bad sanitation can impact on business and people's lives. It would be a fiasco to ignore worker's safety to maintain profits. This can cause more harm than good especially in terms of fines and reputation. Employers need to be more flexible and not treat workers as athletes. Different people work at different speeds to adapt to their work preferences and with different productivity levels. Some prefer to work alone while others prefer in groups. Flexibility to a certain extent can positively impact on employee satisfaction but obviously this needs to align with performance metrics. Leaders should relook and work out strategies at workplace. Perhaps there is a need to relook at the workforce management system itself with focus on understanding the devastating effect on worker's health (e.g psychosocial, loss of partial revenue etc.). Employers need to establish proper lines of communication and update workers regularly on general safety measures and controls and what is expected of them; should be committed to transparency

when reporting any suspected COVID case; should look into the possibility of implementing physical distancing measures (encourage WFH and different work shifts); allocate more resources to manage risks (sanitisers, temperature checkpoint, proper housekeeping-[more frequent cleaning and disinfection schedules] especially with lifts, door knobs, common telephone, barriers, proper ventilation); should not compensate unprecedented loss of company's revenue from workers salary (would be more appropriate to prioritize expenditures rather than direct salary cuts and termination of contracts); conduct regular workplace risk assessment and set appropriate measures.

Knowledge and awareness play key roles in disease prevention. Employees would benefit from training and education pertaining to health hazards and risks associated (e.g measures that could be put in place during WFH to overcome ergonomics stress related factors, mental health and IT training). Employees must be encouraged to be proactive and look after their own wellbeing. The government will definitely reopen borders and revive the economy shortly but we must bear in mind that occupational health and safety is vital, perhaps much more than before. There should not be "laissez aller" in this post COVID era. We have to put health and safety first and understand that it is a moral, ethical and legal concern for all of us. COVID management and promoting occupational health and safety represent a monumental challenge but it is feasible and there is a dire need for all of us to cooperate. There will undoubtedly be future pandemic challenges ahead and we need to be prepared.

The right time to start shaping occupational health and safety is now. Let's adopt the PDCA approach (Predict-Do-Check-Act) and take preventive measures.

Dr Rajesh Jeewon (Associate Professor)
Head of Department Health Sciences
Faculty of Medicine and Health Sciences
University of Mauritius

References

-Azuma, K., Yanagi, U., Kagi, N. et al. Environmental factors involved in SARS-CoV-2 transmission: effect and role of indoor environmental quality in the strategy for COVID-19 infection control. *Environ Health Prev Med* 25, 66 (2020). <https://doi.org/10.1186/s12199-020-00904-2>

-Greenhalgh T, Jiminez JL, Prather KA, Tufekci Z, Fisman D, Schooley R. Ten scientific reasons in support of airborne transmission of SARS-CoV-2. *Lancet* 2021; Apr 15:S0140-6736(21)00869-2.

-International Labour Office, 2020. An employers' guide on working from home in response to the outbreak of COVID-19. Available at https://www.ilo.org/actemp/publications/WCMS_745024/lang--en/index.htm (Accessed on 25 April 2021).

After for over more than twelve months through the Covid-19 pandemic, countries are still facing unprecedented challenges in relation to the virus and the profound impact it has on the world of work.

This year the ILO calls for governments to focus on strategies to strengthen national occupational safety and health systems to build resilience, in order to face crises now and in the future.

Businesses reiterate their strong commitment to play their part in securing a safe and healthy working environment. The principle of prevention is at the heart of occupational safety and health.

Employers have the overall responsibility of ensuring that all practicable, preventive and protective measures are taken to minimize occupational risks. They are responsible for providing adequate information and appropriate training on OSH and providing measures to deal with emergencies.

Workers are responsible for cooperating in the fulfilment by their employer of the OSH obligations placed on them, complying with the prescribed safety measures, taking reasonable care for the safety of others including avoiding exposing others to health and safety risks and using safety devices and protective equipment correctly.

As the pandemic is unfolding in successive waves across the globe, countries are putting in place response mechanisms that are resilient. These include, fast detection of a new threat, testing deployed quickly throughout health systems and from positive tests activating containment and contact tracing mechanisms.

It is worth noting that international labour standards do not directly address the question of mandatory vaccinations at the workplace. Standards do not touch on measures of immunization; they focus on the importance of protective measures in the workplace being accessible and available.

Employers have a general obligation to ensure that workplaces are safe. Today vaccination provides a reliable means to ensure this safety. Social dialogue and consultations with workers appear to be the best means to promote vaccination as one of the preventive measures against the pandemic.

The onset of the pandemic last year has been a wake-up call for all of us. It has shattered old rigid systems and beliefs. It has made new ways of thinking necessary.

As we build our resilience, we might see the emergence of a new set of systems that recognize our interdependencies and respect our shared humanity to create a new structure for managing the complexity of our rapidly evolving world.

Pradeep Dursun
Chief Operating Officer
Business Mauritius

06 Workers' Safety and Health in the Connected Age – Rights and Responsibilities

Everyone who works has the right to safety and health.

The workplace safety sphere has seen significant changes in the past months, the hard reality of which can be troubling to workers; front-line workers are now at risk of facing health problems the world is only just learning to combat. The anxiety surrounding job security and stability spans the globe, and constant structural adjustments have been made in companies in all industries to face the COVID19 pandemic.

The pandemic has also changed the way work is performed; movement restrictions put in place by the authorities in order to stem the spread of the virus have dramatically increased the number of people working from their home, a trend that is likely to continue for some time and even beyond the pandemic itself. For many workers, the conditions of work in such situations, the stresses that accompany inadequate technological facilities at home, unsuitable work spaces, and the mental strain of balancing the home environment with responsibilities of work have led to additional strains on workers' wellbeing. We may also anticipate that the return to the physical office will be chaotic and stressful as well. We must be vigilant in these circumstances against tendencies for workplace bullying of various kinds. In addition to mental health, there is also the emotional impact of COVID-19 on workers who increasingly fear that they might no longer be able to guarantee the financial stability of their families

The World Day for Safety and Health at Work which is observed on the 28th April each year provides an opportunity to all of us to raise awareness of safety and health issues, especially in this Connected Age that has been reinforced by the global COVID-19 pandemic. Even before the pandemic, many workers were working in unsafe and unhealthy conditions, and now, with COVID-19, it becomes even more important to provide workers with not only PPE, and safe and healthy working environments, but also access to and participation in safety committees on 'COVID-SAFE' policies and practices, protection from victimisation

for raising health and safety concerns, and bullying related to vaccination-related company decisions. For all stakeholders this must trigger a renewed interest and value in keeping workers safe and well, both mentally and physically, while remaining productive and engaged.

This year's theme 'Anticipate, Prepare and Respond to Crises - Invest Now in Resilient Occupational Safety and Health Systems' should be an opportunity for all social partners to reflect on the necessity to strengthen the Occupational Safety and Health framework including OSH services both at national and enterprise levels, in both public and private spheres.

It is worth noting here that the mission of the ILO is to encourage decent employment opportunities, boost social protection and strengthen social dialogue in work related issues. The ILO Centenary Declaration also accepts that "safe and healthy working conditions are fundamental to decent work".

While the law places squarely the responsibility on employers for ensuring safe and healthy work conditions for employees, it is the responsibility of workers to work safely and to participate in the implementation of preventive and protective measures for their safety and health. Workers do have a duty to take care of their own wellbeing and that of others who may be affected by their actions at work. In the wake of the COVID-19 pandemic workers should be given the right to remove themselves from any work situation that they have reasonable justification to believe presents an imminent and serious danger to their life or health.

In a spirit of cooperation and solidarity workers must, individually and through their representatives, bring health and safety issues and concerns to the attention of the union and the employer, participate in improving safety and health for the workforce and use the PPE provided by the employer.

Wearing masks, respecting physical distancing or using sanitisers alone cannot prevent COVID-19 transmission; these must be combined with other

public health measures, environmental clean ups, regular disinfection of commonly touched surfaces and objects, and proper ventilation, among others . In other words, ensuring safety and health is an ongoing process of improvement and innovation. It is about creating a safety and wellness culture.

Such a process relies heavily on leadership quality and a willingness to prioritise health and safety and wellbeing of workers. A Safety culture refers to the importance an organisation attributes to following health and safety guidelines and how this emphasis is felt in its operational schedules and practices, with special attention to those workers who find themselves working from their home.

Noteworthy is the latest trend in industrial safety characterised by “smart” PPE, designed to monitor a worker’s health continuously by collecting important data such as blood pressure, steps walked, heart rate, blood oxygen levels, sweat levels, and vital signs. This year, some PPE gear is emerging which will also monitor workers’ fatigue and alertness. Such an initiative will demonstrate management’s commitment to creating work schedules and conditions more efficiently.

Legal provisions are necessary so that employees who have contracted the Covid19 virus through occupational exposure, out of and in the course of employment receive compensation.

The global pandemic also provides an opportunity for strengthening social partnership, as Government and employers can engage workers’ organisations in the development, implementation and monitoring of the COVID-19 Action Plan in order to prevent and mitigate its propagation as part of Business Continuity Planning for the country.

On 28 April 2021, as we commemorate the World Safety and Health Day, we send this message to one and all that health and safety protection at work must be recognised as a right for all. Whether it is COVID-19-related or occupational health hazards, workplace injuries and industrial diseases, mental and psychological stress of working from home, or ergonomic hazards of office workers, every worker should have a right to a voice and a right to protection. No worker should suffer in making a living.

Radhakrisna Sadien MSK

President

State and Other Employees Federation

Innovative Digital Technologies have profound transformative effects on how organisations interact or transact with stakeholders such as customers, staff, investors and intermediaries. Likewise, Public Services which are driven by innovative technologies offer boundless benefits to the Citizens as well as for Public Sector Organisations. Time has therefore come to make the adoption of such solutions in every sphere of socio-economic activity a top priority. Otherwise, if we do not heed the tidal waves of upcoming technological innovations and embrace the status quo to cling to old business models then we shall become the victims of digital disruption.

Innovative Digital Technologies bring several benefits to organisations, such as, the adoption of smart and lean processes, improved productivity and efficiency, enhanced monitoring and control, improved decision making and the formulation of evidence-based policies and strategies. Furthermore, work becomes possible anywhere, any time and on any device. In a nutshell, the whole “business model” is challenged and becomes obsolete when an organisation makes the bold choice to be driven by innovative technologies.

Furthermore, data, coupled with advanced analytics and Artificial Intelligence, including machine learning, can inform superior enterprise decisions—but only if organisations can deeply trust their data.

The huge challenge in the Public Service is getting digital transformation strategy right and the need to go to the drawing board and “walk the talk” should be a top priority for all Ministries and Departments.

It is in this context that the Occupational Safety and Health (OSH) Division of the Ministry of Public Service, Administrative and Institutional Reforms (MPSAIR) has embarked on a digital transformation journey since last year which was largely triggered by the need to “re-invent” a work culture imposed on us by the Covid-19 Pandemic.

This article aims to elaborate on the achievements of the OSH Division in terms of its digital transformation initiatives and provides insights on how innovative technologies can be used to improve Safety and Health at the workplace.

Digital Transformation at the OSH Division of the Ministry of Public Service, Administrative and Institutional Reforms

The Occupational Safety and Health (OSH) Division of the MPSAIR is mainly concerned with the safety, health, and welfare of our Public Officers at their workplace. The Division is manned by a Director who is assisted by the Assistant Director. Occupational Safety and Health activities across the Public Service are carried out by Safety and Health Officers who report to their respective Principal Safety and Health Officers.

In April 2020, the MPSAIR took the bold decision to adopt a cloud based and easy to deploy Digital Collaborative platform for the OSH Division, i.e., Microsoft Teams which was largely in response to the prevailing situation due to Covid-19 Pandemic.

Before the introduction of Microsoft Teams within the OSH Division, operations were carried out manually and all processes were paper intensive and time consuming. Such a situation was a challenge for Management in terms of planning, decision making, developing strategies and policy formulation.

With the harnessing of Microsoft Teams at the Division, information is now captured on online forms through mobile phones on a daily basis by Safety and Health Officers.

Such shift in work pattern has a number of advantages such as:

- No need to physically come to Head Office to submit paper-based forms;
- Better interaction between Safety and Health Officers and Principal Safety and Health Officers;
- Different reports are generated in real time;
- Decision making is made on up-to-date, accurate and real time data;
- Better monitoring, control and evaluation;
- Opportunity to Work from Home;
- Optimisation in Car Mileage cost;
- Flexibility to manage teams and staff;
- Meetings can be carried out online; and
- Evidence based planning, developing strategies and policy formulation.

As a matter of fact, last year, around 32 officers of the Division were able to carry out 1278 visits in all Government Buildings and sites and submit reports in real time for prompt decisions to be taken in preparation of the gradual and full resumption of work in the Public Service following the outbreak of Covid-19 Pandemic. It was reported that 1572 Covid-19 checklists were uploaded by OSHD from 22 May to 30 June 2020 on the Microsoft Teams platform.

Nowadays, Microsoft Teams is an essential component of the work culture of the OSH Division.

The Future - Innovative Technologies and OSH

The harnessing of innovative technologies, such as Artificial Intelligence (AI), Virtual Reality (VR), Robotics, 5G connectivity, the Internet of Things (IoT) and big data, wearables, Smart Equipment and Sensors, are changing the way business is carried out.

Here are some solutions that can be considered in the context of the OSH function:

■ Internet of things (IoT)

The IoT refers to any small, internet-connected devices which record specific data, and transmit this to a central location or device to be interpreted. These sensors might record audio, video, temperature data, location data and much more.

IoT powered fire safety can play an active role in ensuring a safe workplace. Technology like Google's Nest can already link a fire alarm or carbon monoxide detector with appliances, such as the boiler or oven. If the system detects a fire or carbon monoxide, it can automatically shut off these ignition sources. IoT in the workplace could offer more targeted firefighting capabilities, helping to put out small fires and stem the tide until emergency crews arrive. By sensing exactly where the fire is, the nature of the fire and whether there are any occupants in the room, a smart IoT enabled fire system could deploy different measures to specific rooms, minimizing damage to the broader facility.

■ Smart Equipment and Sensors

Mobile miniaturised monitoring devices embedded in personal protective equipment (PPE) allow real-time monitoring of hazards and can be used to provide early warnings of harmful exposures, stress, health problems and fatigue. Real-time advice tailored to

the individual can be provided to influence worker behaviour and improve safety and health. Information could also be collated and used by organisations to help predict potential OSH problems and spot where OSH interventions at organisational level are required. Touch and impact sensors detect when an employee is about to be injured and stop the machine before it happens. Digitalised workplaces that make use of smart sensors, for example to measure real time noise levels, can set parameters with actionable data to fully ensure that health and safety standards are met at all times.

■ Robotics

Robotics allow us to remove workers from hazardous situations and improve the quality of work by handing repetitive tasks to fast, accurate and tireless machines. Collaborative and smart robots, also called cobots, can facilitate access to work for many people (ageing workers or with disabilities) and collaborate with human workers in a shared workspace.

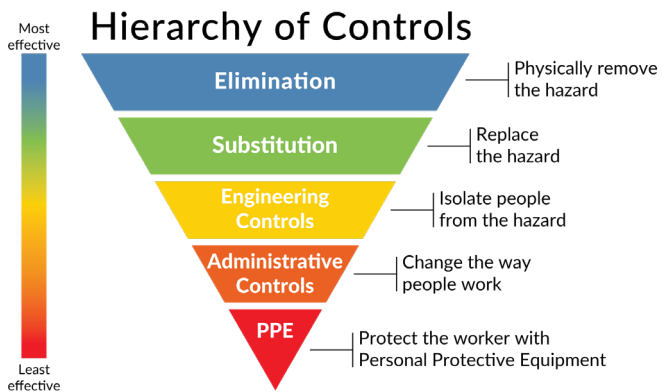
New body-worn assistive devices, also known as exoskeletons, can be introduced in some workplaces to support workers carrying out manual handling tasks while reducing the load on the muscular system. They are a complementary new tool in the ergonomics and safety toolbox that can be utilized with traditional engineering, administrative and behavioural controls.

■ Virtual Reality and Augmented Reality

Virtual Reality (VR) and Augmented Reality (AR) offer the advantage of removing many workers from hazardous environments, as they can be used for example to support maintenance tasks and for immersive training. AR could also provide contextual information on hidden hazards, such as the presence of asbestos, electricity cables or gas pipelines. But the reliability of AR is dependent on maintaining access to sources of relevant, high-quality information and on whether or not it is up to date. VR Fire Training Simulations are also possible with the creation of a realistic 3D model which is identical to the real office interior and allows for immersive and experiential training to better prepare Public Officers for eventual hazards in the workplace.

■ Management of Fire Safety Equipment

Ensuring critical safety equipment is crucial when they are most needed. Smart fire detectors and alarms can



report whether they are running low on battery for timely and efficient maintenance. IoT sensors can additionally indicate if a fire extinguisher is missing, or whether a fire door is left open and the automatic sprinkler system still functions properly – in buildings with more sophisticated safeguarding instruments. Digitized management of safety-critical assets eliminates human errors and costs associated with manual checks while providing much higher asset visibility.

Conclusion

Innovative Technologies are dramatically changing the way we work, live and interact. As we adapt to the new order, more possibilities will be uncovered that will further enhance the quality of life and create a sustainable future. However, the choice is ours. Either we become a change agent and reap the benefits of the innovation and technology or we contribute to put at risk the future of the next generation.

Mr S. Ramgolam

Assistant Director

Public Sector Business Transformation Bureau



08 Technology in the Hierarchy of Controls Applicable to COVID-19 at the Workplace

Workers in Kunming City, Yunnan Province, China refill a drone with disinfectant. The city is using drones to spray disinfectant in some public areas.
Image: Xinhua News Agency/Yang Zongyou via Getty Images



Robot nurse delivering medical documents in a hospital in Bangkok (REUTERS-AthitPerawongmetha)

Looking back when COVID-19 emerged as a global crisis in early 2020; we come to realise that we did not know much about social distancing, lockdowns, self-isolation or even good hand washing etiquette. Who would have imagined that we must refrain from shaking hands, stand two metres apart, wear a face mask in the office or abandon going to office?

The pandemic tested organisations regardless of size and sector and raised significant operational challenges. At the same time businesses had to adapt rapidly to new health and safety guidelines to keep employees safe and healthy.

The World Day for Safety and Health at Work theme for 2021 as set by the International Labour Organization

(ILO) is **Anticipate, prepare and respond to crises and invest now in resilient OHS systems.**

Technology is the application of scientific knowledge for practical purposes and fits well in this theme, more so that it had to adapt and innovate to keep pace with this ever-changing pandemic environment.

The COVID-19 pandemic has put forward the role of technology in improving both productivity and workplace safety. Low hanging branches of technology that are easily available such as digitisation that leads to digitalisation are finding natural ways to enter our lives at the workplace and at home. Other existing technology such as e-commerce, home delivery, virtual tours and exhibitions and online training have witnessed a consequent rise in demand. And new and innovative technologies such as robotics and AI (Artificial Intelligence) are being tried and tested, waiting to be more fully exploited

Tech and other manufacturing companies have responded quickly in finding solutions for limiting the spread of COVID-19. Businesses and governments have also been quick to make use of any innovative technology to reduce infection and create awareness of the dangers of COVID-19.

For OH&S professionals, the hierarchy of controls is a framework used in occupational health for controlling risks in the workplace. It is a step-by-step approach to eliminating or reducing risks and it ranks risk controls



Image: PCMag

from the highest level of protection and reliability through to the lowest and least reliable protection.

This framework also applies well for controlling exposures to COVID-19 and helps make better risk assessments. We see that there are a number of examples where technology is playing a part at the different levels of these controls.

Elimination

Elimination (physically removing the hazard) is the most effective way to prevent exposures to COVID-19. While you cannot completely eliminate a virus's ability to spread, social isolation is the best tool at this level. Social isolation works at different levels:

- closing our national borders to prevent importing the virus into the country
- national lockdowns to prevent the spread of the virus within the community
- quarantine
- self-isolation / stay at home

Countries are using apps and data networks to keep tabs on the pandemic. They are using technology for people's location, where they have been or their disease status through contact tracing apps. However, there are certain side-effects with the obvious one being privacy and civil liberties. Drones are providing thermal imagery to help identify infected citizens and enforce quarantines and social distancing restrictions.

Substitution

The next level is substitution – replacing a hazardous exposure with something less hazardous. In the case of COVID-19, this is not applicable.

Engineering Controls

Engineering controls can be used to isolate people from a hazard. Engineering controls can be done in hospitals with a high ventilation rate that removes the air from a room where virus may be found. Some businesses have installed extra barriers between workers and consumers such as Plexiglas shields.

GUV (Germicidal UV) which draws on a century-old technology is used to disinfect public transport systems, hospitals and some other places in some countries. It is also used to disinfect N95 masks for reuse. But it is important to note that GUV does not replace other cleaning measures like dusting off surfaces. In fact,

GUV products cannot penetrate particles like dust, so dirty surfaces will cause effectiveness to drop.

On this subject of disinfection, the robotic industry has responded well to COVID-19 in developing autonomous or semi-autonomous mobile disinfection robots into an area to work. Disinfection robots can use UV light or chemicals to disinfect areas, but like UV some chemical disinfectants pose a risk to people. The robots need to detect when humans are nearby and shut down for safety.

Some companies are developing aerial drones to disinfect large areas. Agricultural drones designed for spraying pesticides in open fields have in some countries been adapted for spraying disinfectants.

And on the subject of robots, they are already being used to greet and assist patients / clients, provide information, and deliver medical documents, meals or prescriptions and take temperature measurement. They can be engineered to disinfect hands, distribute masks and carry other tasks so as to limit human-to-human contact and prevent the spread of the virus.

Robots paired with AI could also determine areas of high people movement and design plans for traffic control, zone control such as red and green zones and high traffic disinfection.

Administrative Controls

The fourth level is administrative controls – changing the way work is performed. The most common and widely talked example is work from home (WFH) for non-essential personnel and putting in place work from home policies and enacting regulations as here on the local scene with the Workers' Rights (Working from Home) Regulations 2020.

WFH is defined in our legislation as work performed through teleworking, online platform or electronic device on a full-time or part-time basis. The work can be performed permanently, temporarily or occasionally and the work may be split between home, office or a place of business of the client. WFH has enabled amounts of productive activity to continue with little interruption despite the shutting of many offices.

Here again, the low and medium hanging technology readily available have helped. Generally speaking, work from home, telecommuting, remote work, flex work and telework are all fairly synonymous. The term "telecommuting" was first coined in 1972 by Jack Nilles, when he was working remotely on a complex NASA communication system.

IT (Information Technology) equipment such as laptops and easy access to the internet, cloud computing, the telephone, mobile devices and digital applications such as the popular WhatsApp have simplified the transition from office to home. Add to that, the marked increase of virtual meetings through platforms such as Zoom and Microsoft Teams that have enabled many businesses to continue to operate through virtual meetings and updates as well as general communication.

Launched in 2013, Zoom is perhaps the world's most-used web conferencing platform and growth surged during the COVID-19 pandemic. According to the authoritative SEO (Search Engine Optimisation) internet blog Backlinko, Zoom reached the milestone of 300 million daily meeting participants in April 2020. This increase in time spent in virtual meetings and chats is leading to a digital overload.

According to Dr. Mary Donohue, Founder of The Digital Wellness Center, the exhaustion we're feeling can be blamed on the speed and urgency of virtual work. In-person conversations give our brains a chance to assess things like tone, social cues, and body language to make meaning. But technology can create digital static: "the gap between what you try to communicate online and what the person receiving the message understands." And as that digital static increases, so does employee fatigue, anxiety, and burnout rates — while motivation and engagement decline.¹

Professor Jeremy Bailenson, founding director of the Stanford Virtual Human Interaction Lab (VHIL), examined the psychological health consequences of spending hours per day on platforms like Zoom. He has identified four consequences of prolonged video chats that he says contribute to the feeling commonly known as "Zoom fatigue."²

Another widely disseminated control in the fight against COVID-19 is social / physical distancing which is an administrative tool for controlling the spread of the virus. In here comes wearable technology, also known

as wearables in the form of badges, tags and watches. They can track the proximity of employees to each other and ensure adherence to the social distancing guidelines. The wearables can trigger alerts and real-time feedback via a cloud platform.

Personal Protective Equipment (PPE)

The final, and LEAST effective control strategy is Personal Protective Equipment (PPE) – protecting workers with face shields, respiratory masks, PAPR (Powered Air Purifying Respirator) gloves and other protective equipment. It is tempting to use PPE as the first line of defense, because it is the easiest solution, readily available and inexpensive. But PPE is the least effective strategy because it relies heavily on the person to continuously wear the PPE even though it may cause wearer discomfort and this without proper education and training is not easy to achieve.

During the pandemic, due to a lack of PPE supply worldwide many manufacturing enterprises shifted / converted their production line to help produce PPE especially for the healthcare sector.

The above cited examples of technology use during this pandemic are not exhaustive. But it shows how technology can help, though there are side effects as pointed out.

Reference

1. Microsoft 2021 Work Trend Index - Annual Report (The Next Great Disruption Is Hybrid Work – Are We Ready)
2. Bailenson, Jeremy (2021). Nonverbal Overload: A Theoretical Argument for the Causes of Zoom Fatigue

Philippe Lai Choo

President

Institution of Occupational Safety & Health Management



COVID 19 - Addressing Workplace Challenges for Safety and Health at Work

On the 30th January 2020, the World Health Organization declared the COVID-19 (or Novel Coronavirus) outbreak at the level of international concern and viewed it as a public health emergency crisis situation. With such an unprecedented advent of COVID 19, the world of work has been shattered and violently thrown with bold defies to keep organisational businesses and services alive and as well as managing safety and security at both within the community and at work. Worldwide, 111 million persons had been infected with COVID-19 and 2.46 million died. Since 15 April 2021, in Mauritius there has been 1201 cases of infection out of which 15 Mauritians died. These statistics has raised alarming concern at the level of government and also at the top management of each organisation, who has been forced to establish protocol, as a leader and also as a caring employer, so as to ensure that not only the front liners but all the workers are protected against this threat known as the COVID-19. No job should take away a worker's life and to achieve this, a series of arrangement has had to be instilled.

Conventions

There have been several convention to address this pandemic such as Tokyo convention, with regard to various field and in conformity to the Demings cycle, basic principles of plan, do, check and act which have been developed and adopted to tackle this problem. These conditions cry out for the community, government and companies to improve occupational health and safety to build a dependable safety routes to lead the way to create safety cultures.

In response to the global threat of COVID-19 pandemic and the associated risk it represents, this disease represents to the safety and well-being of people at all workplaces, including those operating from home or outstations, this Governments had started to draft policies and to publish guidelines on operating without any risk to their health at a time of COVID-19 pandemic. These article portrays a series of action plans which can be adopted that complements information and supports reasonable steps to better manage the risks arising from the disease of COVID-19 so as to implement and also ensure the protection of workers and other relevant interested parties. Otherwise, workers would be required to work unless these measures have been implemented.

To address to the issue of safety and health, the aim of the government was not only to adopt effective action to protect workers and other relevant stake holders from the risks related to COVID-19 but to also validate that it is addressing risks related to COVID-19 using a systematic approach through a different framework,

such as reengineering its management style to enable effective and prompt adaptation to this challenging situation so as ensure business continuity for a quality service delivery to the population.

Understanding and assessing the severity of the situation

It was thus very important to understand the context of the problem and the various risks to which workers and other people may be affected by the ministries/companies activities, thereby affecting not only the ability of individuals to work but also their health security and that of their family and ultimately to the whole population. In parallel both the external and internal issues need to be considered and this includes operations which should change to address the increased risk and also the availability of clinical services, testing, treatments and vaccines as well as other supplies (e.g. personal protective equipment(PPE), masks, hand sanitizer, thermometers, cleaning and disinfection materials). Logistical features such how employees travel to and from work (e.g. bus, metro, taxi, car, bicycle, walking); how they reach to childcare and schooling for their children and the appropriateness of a worker's home for remote working should be envisaged. Internal issues includes prevalence of COVID-19 within the workplace and the society. Aspects which should be analysed are: number and types of workplaces/workers (e.g. employed, consultants, contractors, youth employment program employees, freelance and part-time officers, shift workers, or remote workers) and the cultural values

therein that can affect risk control measures and the degree to which staff are knowledgeable to the ability to gain up-to-date knowledge about COVID-19. Based on the severity of the situation, implementation of physical distancing measures would not be an option but a national obligation to ensure health security and avoidance for unnecessary propagation of the disease. Moreover specific needs of workers needs to be assessed for people more at risk contracting COVID-19 and those workers whose responsibilities are to provide care themselves and also, disabled workers, pregnant women, new mothers and older workers amongst others.

Redefining management objectives at the level of the parent ministry of public service, administrative and institutional reforms.

Based on the various immediate threats COVID-19 represents to the workers of the government as well as the private sectors, the government had to take a series of decision to address this issue so as to ensure that its working population and its related/authorised stake holders are safe from this disease.

Various protocol had to be drafted for immediate actions to be taken to control workers behaviour at the workplace and the basic precautions to be taken to prevent the spread of the disease. Lock down had to be imposed to contain the disease and only a skeletal staff were allowed to represent the ministry under strict sanitary conditions. The established protocols includes deep cleaning of the workplaces, ensuring safe use of lift, monitoring entry of staff through temperature control and maintaining social distancing not only at the workplaces but even in schools, thereby educating the employees about the importance of social distancing amongst others. Furthermore a daily reporting of the current situation to top is crucial to enable effective decision to be taken for better management towards the eradication of this disease.

Establishing policies

Thus, taking into account the various considerations warranted by the urgency of situation, and to help in the facilitation for the implementation for the different remedial measures needed, it is vital to draft, adopt and make use of approved policy which needs to be prominently publicized so openly as circumstances demand, to deal with the threat of COVID-19. Good

practice dictates that such policy statement should be not only in conformity with international and national health authorities such as World Health Organisation, but clear and communicated to the population. To give effect and to tackle the problem COVID-19 so as it is eradicated and does not propagate further, the government was compelled to have effective planning strategies in a prioritized manner which should empower the Ministries and organizations to identify and ultimately to eliminate any potential risks which may arise from the pandemic that may paralyse the well being, health, safety of employees.

Planning phase

To give effect to the objectives as set out in the policy, planning forms an integral part to which the ministries/ organization should take into account the bearing effect of the pandemic on the physical and psychological state and well-being of its employees so as to design and adopt a logistical approach taking into account both its qualitative and quantitative aspects to address the risks related to COVID-19. Prioritization of task would be the backbone of this exercise and for many organizations, the most effective way to minimise work-related risks from COVID-19 is to empower and support workers to work from home and minimisation of the number of workers in a physical workplace, and to provide enhanced protection through reduced contact with other people. Organization should take into account and assess if existing health and safety measures and controls need to be adjusted, taking into account any changes to work processes. The plans for different types of situation should address how to agree and communicate which workers will be required to be either on-site or to work from home or even will not be able to work at all.

Leadership

Complementary to the planning phase, it imperative that Government needs to demonstrate strong leadership and commitment to constantly communicate, comply with the policy so as collectively to assume responsibility and safe working practices at all level. There needs to have instant reporting followed by effective management of suspected and confirmed cases of COVID-19 and also to ensure prompt and adequate resources are provided in the most effective way for any incidence. Interaction must be encouraged in terms of workers

participation/consultation and in decision making wherever it affects work-related health, safety and well-beings and this is likely to result in better outcomes taking into consideration factors like the diversity of the workforce and their specificities, views and needs. Disabled workers with disabilities should also be taken into consideration as well as women, workers from different ethnic groups and ages. Transparency and clear policy on the financial implications for workers unable to work due to operational restrictions, or who are required to self-isolate or quarantine should be accounted for. To lubricate all these measures, the government has a duty of care to ensure coordination and proper communication on how the organization/department is managing risks from COVID-19 across all parts of Ministries/organization during its implementation so as to minimise the risks associated to COVID-19, and what is expected from them and also from the organisation, followed by appropriate feedback on action taken.

Ensuring competency

In addition, competent advices and information on managing risks related to COVID-19 should be accessible or be sought either locally or internationally for every unsolved complication, if necessary. Communication may either be formal or informal. Constant communications/consultation and reporting should be provided and ensured on changes to work activities/processes, supervision with respect to the degree of risk associated to COVID-19. Accountability, accessibility and usability by all workers as well as daily operation and safety measures. In short, at each level of the ministry there should be a leader who is competent in the daily of management of their domain vis a vis | COVID-19.

Ensuring hygiene and disinfection

Complementarily, as regard the workplaces, organization should provide the guarantee that all workplaces including the outstations and other workplaces, which includes the outside of a building and those facilities within the workplaces, should imperatively be clean and safe to use through appropriate assessment. Furthermore, there needs to be arrangement to prevent potentially infectious people from entering the workplace (e.g. posters) and to establish frequent cleaning/disinfection programmes,

promotion of personal hygiene, which may include more handwashing stations where possible and provision of hand sanitizer points where this is not possible. Furthermore, deep cleaning, disinfection of workplaces and equipment, maximizing room air changes through ventilation, placement of signs and floor and/or wall markings to encourage and ensure physical distancing (physical barriers), ensuring markings are simple, clear and large enough to be seen by visually impaired people, keeping doors permanently opened to minimise touching of door handles. Safe use of lift should also be taken into consideration and signage on safe use be communicated both inside and outside of lifts/elevators. Wherever working at home is opted this is one of the most logical manner of managing the risks related to the pandemic.

Communication

The organization should provide workers with adequate and suitable guidance on what to do if the worker or any member of the worker's household is exposed and consequently get contracted to COVID-19 whereby he or she is required to self-isolate or to go for quarantine. Communications and guidance should be up-to-date without any ambiguity with regards to physical distancing, hygiene and the required behaviours prior to the arrival to the workplace (e.g. Signs, posters, screens, announcements) or at first entry into a workplace. Information must be communicated about associated hazards that can be managed and minimised if not mitigated should numbers of workers be reduced to the minimum or the number of workers be limited to the workplace at one time to enable physical distancing.

Prioritization

Ministries/department as well as organizations should take on board during their planning phase who are considered to be at higher risk of acquiring the virus of COVID-19 or getting severe illness from COVID-19. In addition caring for someone who is considered to be at higher risk of contracting COVID-19 and also who are in a household with someone who is considered to be at higher risk of contracting COVID-19 should also be taken into consideration. Thus it is important to monitor, provide support and maintain the well-being of workers who are connected to other workers who are at risk, including those working on-site. Clarity is

crucial about what is expected from workers working at home, which is critical for operational continuity. Next is to spot employees who have determinant roles and who are unable to work from home due to home circumstances. Thus the minimum number of workers needs to be determined in a physical workplace at any one time to operate safely and effectively.

The organization should offer priority in protecting workers who are considered to be at higher probability of contracting COVID-19, and who cannot work from home. As such, the roles of workers should be to maintain physical distancing through adequate supervision and guidelines at all times and also to assign specific workers (or a single worker, in a small organization) the responsibility for ensuring COVID-19 safety measures. All these should be backed by appropriate clear training to ensure competency and maintenance for reporting issues to top management on a daily basis so as to enable immediate change in management where need be.

In case physical distancing guidelines cannot be ensured for critical areas such as area such as main operation theatres in hospital, the Ministry/department or organization should take all possible measures to minimise the risk of transmission of COVID-19 between employees or through consultations with other people in the different workplaces either through placement of limited number of employees or making use of screens or barriers to separate people, using alternate measures of back-to-back or side-to-side working instead of face-to-face

Establishing emergency preparedness plan

Emergency preparedness and response is another parameter which cannot be left out since the concerned Ministry/organization should prepare for foreseeable emergencies and unforeseeable situation, to assess, reevaluate and the need to modify existing processes as necessary in respect to the context of the severity of the situation.

There needs to be guidance to prevent close contact to others, bringing modification to the administration of how workers and other relevant interested parties should operate to improve and maintain physical distancing between teams. Training is important for additional people to respond to emergencies, in case of illness, needs for self-isolation or quarantine. There

must be provision for concise guidance for action to be taken to manage with aggressive or violent people and in cases of suspected cases of COVID-19, may it be from internal or external parties that is Eg. Occupational health professionals or from the World Health Organisation.

Applying restriction

Planning should also take into consideration for changes to apply restrictions to the organization to determine actions it can take to enable a rapid and effective response to changes in restrictions so as to continue operations as far as possible. Organization should consider measures to reduce movement within buildings and to and from sites or installing barriers to avoid contact between workers performing health screening and the person who is being screened. Moreover, introduction of one-way circulation through buildings, especially in attention to long or narrow corridors, which could be encouraged as well as the use of stairways as an alternate means to reducing maximum occupancy for lifts/elevators. Provision of hand sanitizers for their operation, ensuring regular cleaning and disinfection of commonly touched areas such as handrails, buttons are complementary measures to ensure health and safety against COVID-19. Planning should take into account different potential situations, including increased or different restrictions, or the lifting of restrictions and how individual workers can be impacted by different locational restrictions (e.g. workers who need to cross local, regional, national or international boundaries) and the potential impacts on the supply chain and actions necessary to manage these and also the need for cooperation and communication with different partner organizations.

Precautionary measures for suspected cases

As regard to suspected or confirmed cases of COVID-19, ministries/department and organisation should devise, establish and disseminate information with regard to the appropriate and new measures to manage suspected and confirmed cases of COVID-19 effectively without jeopardizing the health of those workers involved in. To limit possible introduction of COVID-19 into the workplace or even the country, the organization should implement measures to assess people entering the building and

prevent entry by those who have symptoms, who have recently travelled abroad or from areas with significant community spread of the disease, or who have been exposed to individuals infected with COVID-19.

Top management and middle managers at all levels should support employees to take immediate action to isolate persons who are unwell either through quarantine or self-isolate wherever symptoms of COVID-19 are detected, and apply the processes as established as expected from them. Should the situation warrant, the affected person may be required to leave the workplace and their health status be monitored by the concerned authority while ensuring that regulations are being followed through regular communication. Therefore exercises such as testing, contact tracing and quarantine must be established including record of visitor details to enable contact tracing. Prior to anyone entering the workplace, such as visitors, contractors, service providers amongst others, there must be a system of health screening which must be established for employees as well and can include self-reporting and/or temperature checks. All of which can be ensured only through a campaign of raising awareness of measures to be taken to reduce any risk of contracting COVID-19.

More so, department and organization should avoid all unnecessary work travel to ensure appropriate controls measures are in place to keep workers safe when they do need to travel or when making or receiving deliveries. Thus re-engineering of administrative control measures such as introduction of flexibility of travel times to avoid peak times on public transport is another measure which should enormously help to contain the problem.

Inclusivity

In parallel, there may be cases where Ministry/organization should ponder on the side effects of the pandemic and carry studies to implement appropriate measures to manage those impact of the pandemic on workers' psychological health and their well-being. Consideration should be taken with regard to uncertainty, role ambiguity, lack of social support, consequences of excessive and prolonged isolation or remote working, job insecurity, difficulties in balancing work and home life, amongst others.

Thus inclusivity should take into consideration the associated impacts on any different strata of employees as well as relevant stake holders, for example to ensure that any pertinent issues or anxieties raised, these should be identified, heard, recorded, not ignored, cross examined, evaluated, and specially respected besides being recognised and ultimately any requests should be entertained wherever found to be justified. Provision of training to raise awareness amongst workers in order to meet the needs of people specially with disabilities should be ensured through appropriate means of communications, which includes the latest technologies which are now accessible.

Resources

To achieve all the above mentioned measures the Ministry/organization should identify and quantify which type of resources would be needed in such a crisis situation so as to manage the risks in the most effective manner, in relation to COVID-19, without giving rise to any social havoc. It should be ensured that sufficient resources are in place and maintained. Workers who have been elected with responsibility to managing those resources so as to mitigate all risks related to COVID-19, should be clearly recognised and communicated to all workers or even to public members as the need arise. Thus organization should consider human resources with required competency, financial resources, appropriate personal protective equipment, handwashing, hand sanitizing, cleaning and disinfection including that of toilets, new technologies required

Personal protective equipment

To ensure an effective management of COVID 19, the aspect of personal protective equipment (PPE) is one key element which ensure the user health and safety against the corresponding risks at work and these includes respiratory equipment, compulsory wearing of face shields, gloves amongst others. There is increasing evidence that face masks or appropriate coverings, and these may include homemade textile face coverings, which could provide some additional protection against the contraction of the COVID-19 virus by capturing droplets released through breathing, coughing, sneezing and talking. Thus face coverings, used in conjunction with physical distancing, handwashing and other hygiene measures are effective measures in

mitigating the risks associated to COVID-19. However, personal protective equipment and medical devices (e.g. respirators, masks to protect workers from dust and other industrial airborne hazards) should be reserved for those who need them as the situation may arise

Working with the public

Ministries/departments and all other organization should ensure that controls are in place to maintain physical distancing and to minimize any risks of cross infection among workers either among themselves or through interaction with public members and this includes customers that are service receivers, clients, contractors, and other relevant stake holders, taking account that it can be both indoor and outdoor workplaces. Therefore establishment of actions such as training, posters, signs, regular announcements, using safe outdoor spaces for queuing, provision of hand sanitizer at entrances, monitoring the use of masks or face coverings where this is mandatory, ensuring cleaning and disinfection of frequently touched areas and shared resources, providing physical barriers, minimising frequencies of encounters with clients, encouraging of contactless payment and refunds, staggering collection times and establish of booking system; all these are measures which can be implemented to deal with the threat COVID 19 represents.

Arrangement for first return to work

Once the pandemic is under control, the government/organization may decide for first entry to the workplace under priority list, and to enable this redeployment of the working population, there needs to develop communication, training materials and provision of awareness program on accessing and regressing to the site of work. This may include measures like encouraging walking, cycling, making use of own personal vehicles instead of carpooling where possible. As regard to public transport it should be ensured that there is adequate physical distancing, hygiene and masks or face coverings and also staggered start and finish times, flexible working hours, shifts or any other altered working patterns. Management should devise and develop new work processes and bring in new communication system which does not need physical interaction at any level of operation at

the workplace. Changes should also be brought in the workstyle for all workers on the first arrival and to ensure that this is regularly reviewed and updated as circumstances change through appropriate guidance, instructions and information. It must be ensured that all workers signing out a workplace, or signing in a different workplace or site, have been fully trained with full instructions and information and aware of the different biological threat they are confronted to in the performance of their daily activities with people. Thus there needs to be modification to the whole work prior to entering the workplaces, to start the work and during taking into account the use of common areas (e.g. toilets lifts/elevators, corridors stairways, kitchens and also to review and bring improvement for the validation of emergency procedures. There needs to be provision of adequate and suitable personal protective equipment free of charge and to instill a safe culture through appropriate training/ guidelines as to when and how personal protective equipment, masks and/or face coverings have to be used for its proper utilisation.

Monitoring and evaluation

Once a new framework has been established to achieve the organization goals and without jeopardizing the safety and wellbeing of its workers, this very new mechanism should be evaluated and assessed of its soundness in preventing any negative impact on any existing security measures. Questions have to be raised as to whether there needs to be introduction of new security checks vis a vis these new emerging biological risks, and whether further remedial measures should be adopted to address those newly cropped risks vis a vis COVID-19. Thus to address these challenges, ministries/department, organizations and managers should hammer in raising awareness of COVID-19 symptoms for its potential risks. The system of risk detection should be re-evaluated through established appropriate processes of health screening of workers and other people prior to anyone entering the workplaces, during operation and also monitoring the social behaviour of employees to ensure that any worker had not been in contact with any infected person outside normal working time. This can include inquiries and self-reporting and/or temperature checks. Sound advice and recommendation may further be tendered by occupational health professionals, either through the organization's internal resources or through

consultation with external services or professional bodies. Those various preventative approaches as implemented to minimise the spread of the disease should unconditionally be imposed, evaluated and reinforced according to the severity of the situation and this may warrant the prompt intervention of even top managers should the need arises to.

Moreover, it must be evaluated how effectively safety measures and controls protect workers and what is the rate of infection among workers or whether it has any effect on levels of worker absence and the impact on available workers. This will give an indication as to degree of understanding that guidance has been useful to or being is complied with or is it that control measures need to be enhanced or is it creating any new risks which needs to be addressed. The possibility of implementing increased supervision of activities to ensure safety measures should thus be envisaged if need be.

In short, this approach to address those biological threat as represented by COVID 19, is to understand its severity first and generally to promptly forecast what needs to be done for the organization to work safely by anticipating the risks followed by preventative actions to implement what the organization has planned to do. There needs to be appropriate resource, competencies and checks to ensure how well the controlled measures as planned, have been effective in eventually fixing those identified problems to make what the organization is doing even more effective. Complementarily, there needs to have appropriate regular monitoring and timely corrective action through sharp decision taking.

Workplace health, however, has never been such a subject limited to the well-being of the worker or his physical safety only. It should not be denied that if a worker contract this disease at work, he is undeniably not the only person to be affected but may highly entails the physical/mental health of his/her whole family and eventually that his surrounding, thus his community at a whole. Inversely, this disease has presently compelled managers in certain cases, to even monitor workers behaviour outside their working time to ensure that they may not be potential vectors of the virus to the workplaces. Thus, to conclude, rigid imposition needs to be taken as and when required since the stresses and fears that this period has impacted on us all has forcibly induced a cold fear in our blood of how life

can be vulnerable and how our health can be fragile at time, that any employee, everywhere along the organization, irrespective of his or her work status, can be potentially and fatally affected by this unprecedented and prevailing uncertainty, and that their working habit and environment, plays a vital role in reducing this nightmare.

"This is the time for facts, not fear. This is the time for science, not rumors. This is the time for solidarity, not stigma. We are all in this together."

- Dr. Tedros Adhanom Ghebreyesus, Director-General of the World Health Organization

Mr R. Jaunkeepsad

Principal Safety and Health Officer

Ministry of Public Service, Administrative and Institutional Reforms

The Mauritius Fire and Rescue Service (MFRS) under the MFRS Act 2013 has been restructured and reorganised to fulfill its mission efficiently and effectively as an all-hazard response Agency. As First Responder the MFRS has various critical roles during emergencies and must continue to provide essential services to fulfill multiple emergency response roles in the community.

Role of the MFRS

Our role to serve the community includes: response to fire situations, law enforcement, emergency command and control, road traffic accidents, flood interventions and communicating with the public through hotline 115. During a severe pandemic such as Covid -19, our strategy has been to re-adapt ourselves to the given situation. Our workloads have drastically increased, and the environment where we operate is dynamic. The role of the MFRS staff also involves protecting their families as firefighters who may become carriers of the virus if proper care is not taken. In case the illness hit families and staff, our operating capability can also be affected. Contingency planning can help to reduce the impact and as such a smart planning can maintain our efficiency and better protect our first responders.

Capability

Currently the firefighter cadre consists of more than eleven hundred officers. Eighty percent of the workforce operates in shifts system manning eleven (11) fire stations, Main Control Room, Special Operations Division and Fire Investigation Unit.

Furthermore, the Fire Safety Division of the MFRS is mandated to protect the citizens of Mauritius against the loss of life and property through enforcement of the fire safety requirements as per the relevant legislations and code of practices (Mauritius Fire Code and Fire Safety Guidelines).

The Training Division which is responsible for organizational development and learning for internal and external customers has established new approaches in training methodologies and operational standards by optimizing the virtual platforms like Zoom and Team.

Actions

The MFRS is playing a key role in building a safer and more resilient community through better emphasis on

preparedness during the last year Covid-19 lockdown as well as the present one.

As we all endured the National lockdown since 5th of March 2021, the Mauritius Fire and Rescue Service has stepped up and took on new roles, adapting to new ways of working to meet the needs of local communities.

Risk for firefighters to be exposed to viruses during a pandemic may vary widely. The level of risk depends in part on the severity of the virus, whether jobs require proximity to people actually or potentially infected with the pandemic virus, or whether the employees are required to have either repeated or extended contact with known or suspected virus sources.

The Covid 19 March 2020 lock down taught us the lessons as how to deal in such a situation. The MFRS initiated actions for procurement of medical PPE for firefighters proactively. Items such as medical gloves, medical gown, facemasks, sanitizer and other items were procured prior to March 2020 lockdown. As our Republic of Mauritius never experienced such a calamity, we also re-invent our way of thinking differently as compared to the conventional way of doing things. Our trained personnel adapted towards new approaches without endangering their life.

As a Discipline Force Firefighting personnel were instructed through Special Orders in line with Government Protocols how to deal during the prevailing pandemic. As per MFRS Act our staff were required to attend to patient removal from their residence and handing over to medical personnel. Our assistance was also required to help Police Officers in their duties at supermarkets. Our officers assisted the Police Officers diligently. The MFRS acted in such a way that its personnel were neither infected nor quarantined during the first wave despite some minor alert.

Staff at management level attended duty on a roster basis so as to ensure the continuity of essential

administrative duties. The procurement section also plays a vital role by procuring deficient items. Additional Personal Protective Equipment, hand sanitizers, medical gloves and gowns were procured and issued to all staff.

The Management used virtual platforms such as Zoom or Team for conducting meetings with external stakeholders for conducting meetings.

In the wake of this second wave of COVID-19 infections in march 2021, the MFRS is more confident to act in a proactive way. We implemented a hybrid approach whereby some administrative work would take place at home, however, for specific essential activities only a minimum staff attending office. This helps to minimize infection exposure without disruption in service.

First responders adapted themselves to meet the new normal. New controls like temperature monitoring, social distancing among staff and general public and wearing of face masks were introduced. Routines cleaning of offices, fire stations premises and fire appliances, increased ventilation in all emergency vehicles by operating the system in non-recirculation mode and bringing in as much outdoor air as possible by opening windows. Any suspected case or reported case is segregated to an isolation room which has meant for that purpose and case referred to the nearest Government Health Centre.

The number of firefighters riding appliances are reduced so as to maintain physical distancing norms and all temporary Firefighters who were on day shift were posted on shift system.

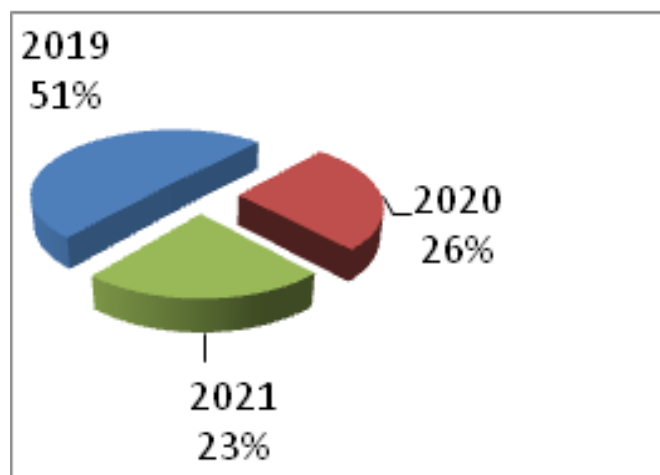
In these unusual circumstances, the MFRS maintained a satisfactory level of standard to respond to fires and other emergencies including assistance to patients which is considered far beyond the statutory duties of the MFRS. On receipt of a call, the watch room operator shall gather maximum relevant information regarding the incident and a minimum staff is committed to handle such incident. A register was opened at the MCR to record all staff providing such assistance. The objective is to easily trace those staff who might come into contact with a patient suspected to be Covid 19 infected.

PCR Test and Vaccination

Resilience among operational staff was managed by encouraging officers at all levels to undergo Polymerase

Chain Reaction (PCR) test and Vaccination. All facilities in terms of nearest vaccination centers and transport were put at the disposal of the personnel.

Year	No. of calls for structural fires in the month of March
2019	42
2020	22
2021	19



Statistics of Fire during Lockdown period.

A comparison of the number of interventions in normal situation and in the lockdown period:

Table 1 illustrates the number of structural fires for the months of March

Table 1 provides an indication of the number of calls regarding structural fire in 2019 where Mauritians were living a normal lifestyle and the number of fire calls for the same period in 2020 and 2021 where the Government of Mauritius took the executive decision to lockdown the country due to the Covid 19 pandemic.

During that particular period, it was concluded that the number of interventions for structural fires decreased drastically due to the fact that people were staying at home and even working from home. It can also be deduced that people were more alert of the household activities and hence more fire conscious.

Nevertheless, the few cases of structural fires that the MFRS responded to were mostly accidental and the main causes of fire were electrical fans, electric mains

The main areas to consider are:

Means of Escape: Keep all available means of escape free from obstruction`

Electricals:	Electrical appliances should be turned off when not in use. Sockets should not be overloaded as they can easily overheat; plug out all electrical appliances not in use; ensure the vents of the electrical equipment are not covered as blocking the air is the major cause of overheating.
Smoking:	Make use of astray to dispose cigarette ends and always making sure you extinguish cigarettes.
LPG Safety:	Shut off the gas at the main cylinder valve after each use.
Means for fighting fires:	Ensure all firefighting equipment is maintained in good operational order at all materials time.
Disposing Combustible Material:	Combustible material should be properly disposed of. If there is some flammable material, try to keep it away from your building; Always observe good housekeeping.
Kitchen safety:	ensure you are not distracted and do not leave cooking unattended; Never leave children, especially young children, alone in the kitchen where food is being cooked.
Candles:	never leave lighted candles unattended, place them on appropriate surfaces and keep them out of reach of children and pets
Bedtime routine:	Close all doors turn, everything off and make sure you know how to exit your house quickly and safely.
Escape plans:	Ensuring you know your escape routes.

due to short-circuiting, cigarette and candle. The damages sustained to the property were very low, and in most cases, and 50% of the fires were extinguished before the arrival of the fire brigade.

Every outbreak of fire where life and property are at stake is considered as too much.

Advice for Fire safety Precautions:

In this current situation and for the future, the Mauritius Fire and Rescue Service strongly advise the general public to stay very vigilant by taking the following fire safety precautionary measures.

PEOPLE STAYING HOME, IT'S NOW MORE IMPORTANT THAN EVER FOR EVERYONE TO BE FIRE-SAFE.

REMEMBER, IN CASE OF FIRE, CALL 115.

Stay Home and Stay Safe

Mr A. K Kehlary

Chief Fire Officer

Mauritius Fire and Rescue Service



Work from Home: Health and Safety Implications

As part of our efforts to delay the progression of COVID-19 by social distancing, working from home has become the “new normal” for many organisations, public and private alike. New health and safety challenges have cropped up for both employers and employees.

In many jurisdictions, an employee’s home can be considered an extension of the workplace if the employee is working for his or her employer from there. Occupational health and safety laws can apply in those jurisdictions, including general duty provisions that require employers to take all appropriate precautions to protect employees.

In all forms of jurisdictions, employers should take appropriate measures to ensure the health and safety of employees who work from home. Implementing a “Work from Home” Policy that involves the following measures and procedures may be a reasonable move.

An Evaluation of the “Workplace” at home.

A Safety Checklist for employees to evaluate the health and safety risks in their work environment at home need to be prepared so that the employees can assess their own work environment at home. Once completed this checklist need to be submitted to management. Any risks or issues discovered during the evaluation should be discussed and measures to minimise or eliminate the risks put in place.

Advice to homeworkers.

Some advice to workers from home could include¹:

- Employees need to avoid working on couches or other soft surfaces without proper lumbar support.
- To prevent glare on computer monitors, it must be placed at right angles to windows. Blinds or curtains helps prevent glare and resulting eyestrain.
- To minimize the risk of common household and workplace accidents and illnesses, good housekeeping practices such as keeping surfaces clean and clutter-free, keeping electrical cords in good working order and correctly installed, and safely storing heavy or sharp objects, need to be observed.
- Frequent short breaks are beneficial to both physical and mental health when taken often during the day.

- An adjustable chair to fit your back, thighs, and to be at a comfortable height is ideal, otherwise extra padding and back support with folded towels or cushions could be used.
- Placing screens at approximately 1 metre distance helps prevent eye strain and computer eye syndrome.
- Feet need to be placed firmly on the floor. If for any reason this is not possible, for instance the table is too high or the worker is of short stature, placing the feet on a footrest, or something solid helps.

Accident Reporting

Workers should be instructed to promptly report to management, any event or other occurrence occurring during or in connection with their job that has caused or is likely to cause an injury.

Duties of Employers

Health and safety legislations require employers to provide and maintain a secure and healthy working environment for employees. This involves the responsibility to detect hazards and eliminate or minimise associated risks.

Although it is not possible to provide to homeworkers the same working conditions they are used to at the office, yet risk assessments need to carry out to identify hazards so that corrective measures can be implemented whenever possible to prevent work related injuries and ill-health.

Employers would have to decide whether conducting home inspections is reasonable in the future. Employees, on the other hand, are also responsible for their own health and safety, as well as the health and safety of those in the workplace. This involves the responsibility to work cooperatively with the employer by adhering to any health and safety practices or protocols enforced by the employer in relation to remote work.

Risk assessment exercises need to consider factors such as the ventilation, temperature, lighting, room, chair,

1. Working From Home: Occupational Health And Safety Implications - Employment and HR - Canada (mondaq.com)

desk, and machine, electrical cords and supplies, or any other type of workstation.

Employers need to think about what kind of work the employee will be doing and whether it can be done comfortably at home. In most cases, an employer may perform a physical inspection of an employee's home to conduct a risk assessment before allowing them to operate from home.

If an inspection is not feasible, the employer must consider other methods of evaluating the environment in which an employee would be working. Alternatively, the workers can be taught how to perform their own risk assessments in their respective home working conditions and ensure that the information is forwarded to the employer for review.

Employees should be advised to only work at workstations that have been inspected and assessed by the employer where employers are able to perform these risk assessments.

It is best to perform the risk assessment as part of a structured work from home policy. Employers who have not yet adopted a work from home strategy should consider doing so, given the possible effect of Covid-19 on the workplace.

Following the completion of the appropriate risk assessments, the employer must ensure that all defined health and safety threats, as well as the potential steps to eliminate or minimize these risks, are communicated to the workers.

Employers must ensure that their workers are able to work under environments and procedures that protect their physical and mental health. Employers may need to provide workers with advice and guidance on a variety of issues to accomplish this, including the importance of:

- maintaining daily interaction with friends, family, and co-workers to avoid feelings of isolation, anxiety, or depression.
- ergonomics, such as comfortable workstations, adequate ventilation, safe posture, appropriate screen positions, and avoidance of eye fatigue.
- only using employer-approved equipment.
- fire-fighting equipment and a first aid kit.
- protocols to follow in the event of an emergency.
- taking daily breaks and getting some basic exercise; and
- ensuring personal hygiene and cleanliness

Employers will be expected to provide workers with any equipment needed for the job. Training, instructions and imparting any knowledge necessary to promote safe work practices to homeworkers need to be ensured.

Since proper health and safety supervision will not be possible, regular communication between supervisors and employees need to be encouraged. Provision of guidelines, safe operating procedures for homeworking also helps.

It looks like the Covid-19 pandemic is here to stay, at least for a long time. Employers who have correctly analysed and established health and safety controls for remote work arrangements would, as a result, be better able to adjust to the future of the 'workplace.'²

The actual risks associated with working from home can vary depending on the nature of the job. Some of the most common dangers associated with working from home include³:

- Musculo-skeletal injuries.
- lone working.
- hazardous chemicals.
- display screen equipment.
- trips, slips and falls.
- stress.
- electrical equipment.

The employer is responsible for the upkeep and inspection of any electrical equipment provided to workers for use at home. The homeowner is responsible for parts of the home worker's domestic electrical system, such as electrical sockets and the system itself.

Working from home can necessitate a special evaluation and guarantees for the employer that work can be done safely because homes are not built to be workplaces. It will be necessary to determine if the job and the employee are appropriate for working from home.

A risk assessment of work activities and necessary risk mitigation measures can necessitate a visit to the employee's home. This will be accomplished with the help of the home worker.

What is Industrial Hygiene?

Introduction

Also known as Occupational Hygiene, the layman may think that Industrial Hygiene is about washing our hands properly at the workplace, particularly in the context of the Covid-19 pandemic! But, this science-based discipline forms an integral part of the occupational health and safety field.

In fact, Industrial Hygiene is the science and art devoted to the anticipation, recognition, evaluation, control and management of chemical, physical, microbiological, ergonomic and other hazards capable of affecting the health, safety and welfare of personnel in the working environment. It also helps in maintaining worker well-being and safeguarding the community at large.

Agents or factors encountered in the working environment that may cause health problems, illnesses or human injuries may be classified as follows:-

Physical Factors:

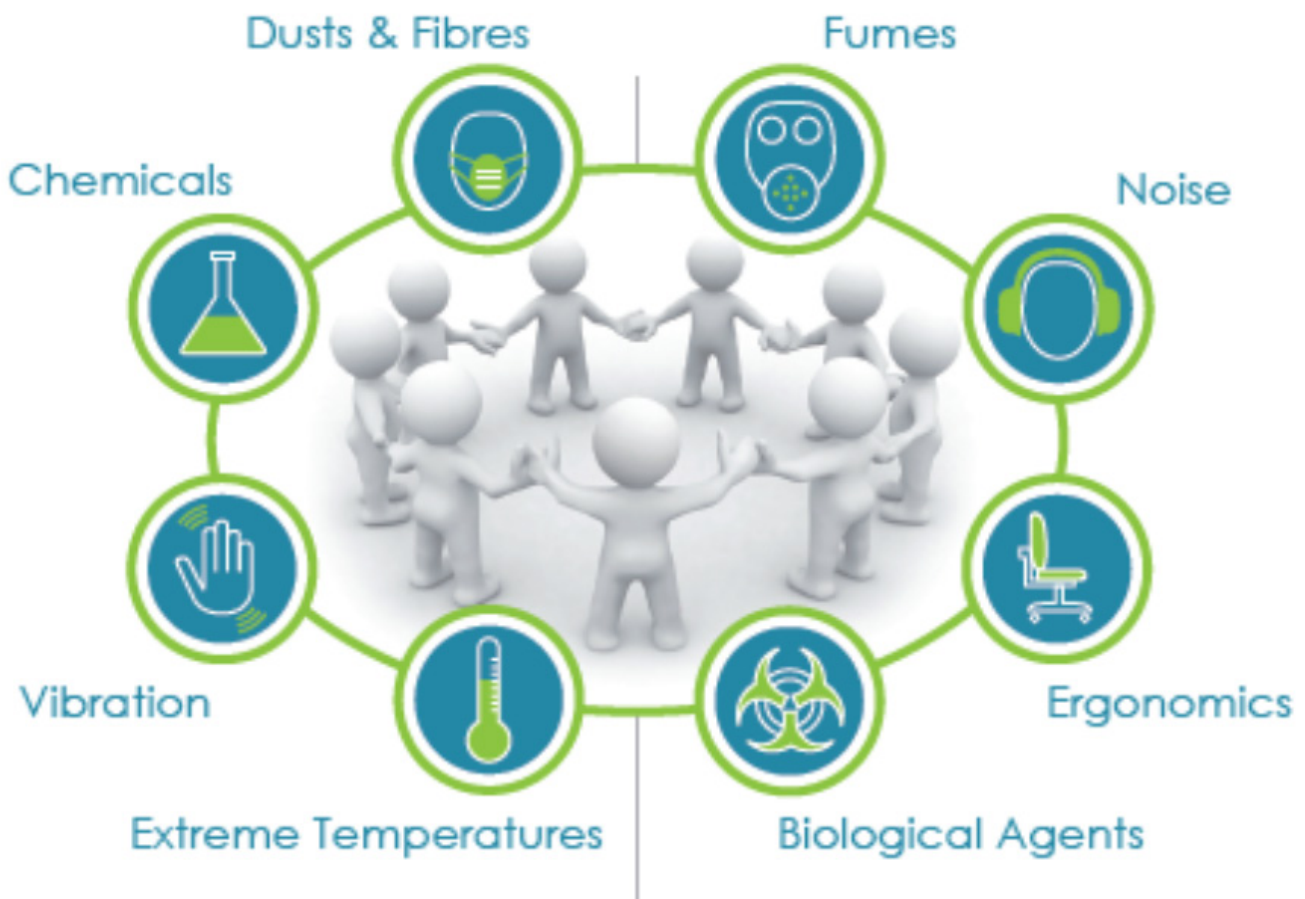
- extremes of barometric pressure
- extremes of thermal environment
- ionising and non-ionising radiation such as microwave and lasers
- vibration, noise and ultrasound.

Chemical factors:

Chemical substances which can be in the form of:-

- solids
- liquids
- gases, vapours, mists, fumes, and
- dusts,

which could be with any one or almost any combination of toxic, narcotic, corrosive, irritant, allergenic, fibrogenic, carcinogenic, mutagenic, teratogenic properties or simply of a nuisance nature.



Microbiological factors

In the form of insects, mites, moulds, yeasts, fungi, bacteria and viruses (e.g, Coronavirus).

Psychosocial/Ergonomic

- Stress
- Badly designed machines and work stations
- Monotony
- Repetitive movements
- Anxiety and
- Fatigue.

Recognition involves the identification of possible hazardous factors based on the knowledge of the materials and substances used in a process at the workplace.

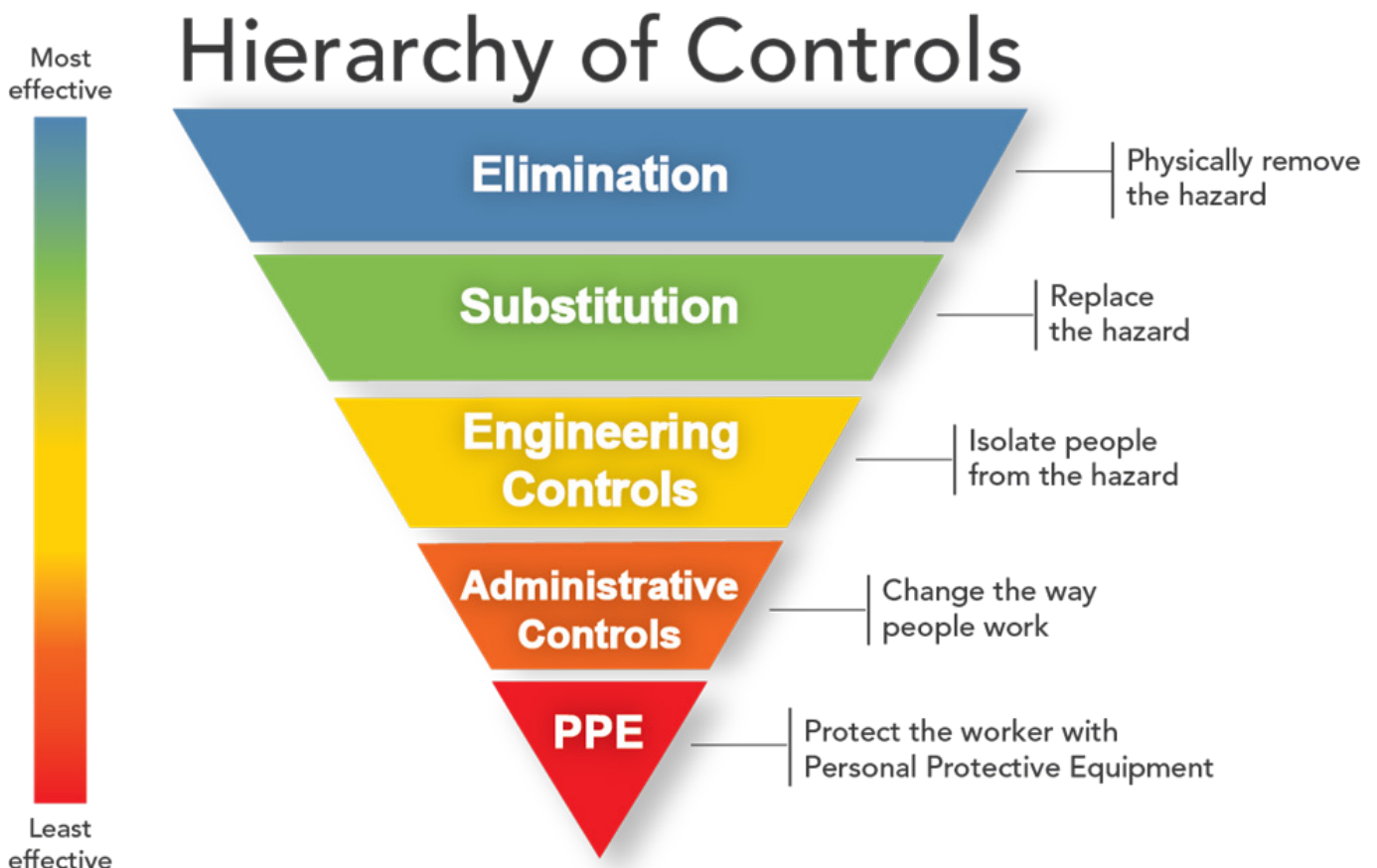
Evaluation of the risks to health is an assessment of the magnitude of the hazards of the process and is normally achieved by comparing the findings of either environmental or biological investigations or both against approved national or international standards.

Control measures include administrative and engineering methods based on the famous principle on the Hierarchy of Controls, i.e, the elimination of the offending factory, substitution of less dangerous for dangerous substances, segregation of the work, change of work practices, implementation of good housekeeping, the provision of adequate local and / or general ventilation or personal protection and appropriate training and education.

Periodic inspections and measurements are needed to ensure continued effectiveness of the overall control system.

The overall aim of **industrial hygiene** is to prevent, rather than cure, **occupational diseases** arising from exposure to hazards at work and to reach that objective an **industrial hygienist** needs competence in a variety of scientific fields – particularly in chemistry, engineering, physics, toxicology and medicine.

Those trained in the discipline may work as a member of a team including medical and safety & health officers and provide a unique perspective to the work operations and offer specialised solutions to many health hazards.



Routes of Entry and Health Effects

When considering exposure to hazards in the working environment, the most common **routes of entry** are through the lungs by **inhalation**, through the skin by **absorption** and through the digestive tract by **ingestion**. Suffice to mention that chemicals which have entered by one of these routes may cause damage to different tissues or **target organs**.

The greatest exposure to potential hazards occurs through the lungs. But absorption through the skin is also common. The risk to ingest harmful chemicals exists when personal hygiene is poor or if there is lack of knowledge on the toxic effects of the chemicals in use at work.

Hazardous substances can have local **health effects** (e.g, irritation, dermatitis, burn) and /or systemic effects (e.g, anaemia, hepatitis, cancer).

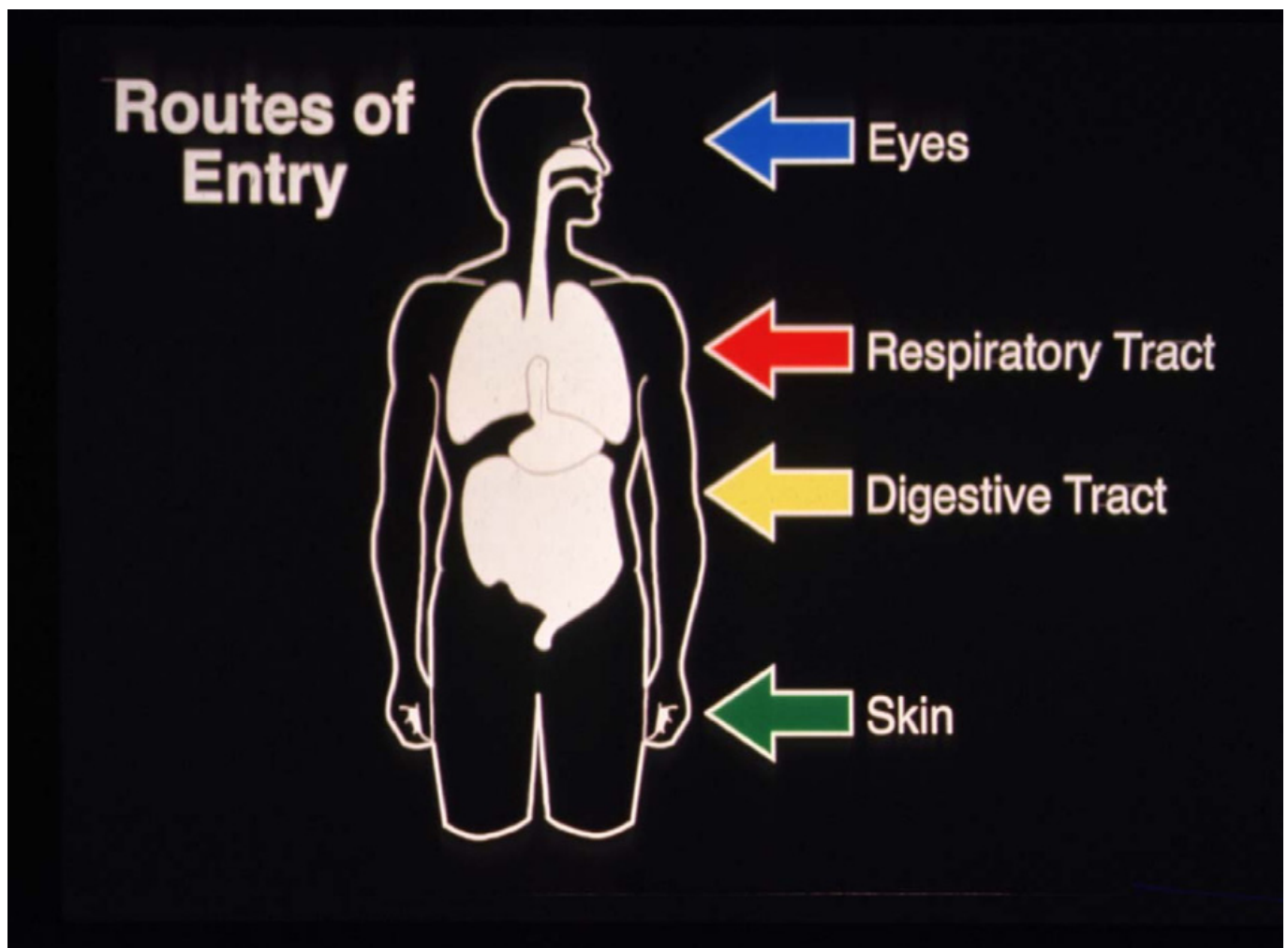
The degree of health risks to an individual arising from exposure to occupational hazards depends on four factors:-

- nature of the hazard
- intensity of exposure
- duration of exposure and
- human variability or personal susceptibility

Occupational Exposure Limits & Biological Exposure Indices

The term "**exposure limit**" refers to the concentration of a gas/vapour/aerosol or the intensity of noise/vibration/radiation in the working environment, to which according to current knowledge, employees may be exposed without health impairment.

In most developed countries different exposure limits have been set up for dangerous chemicals. They normally take into account the exposure through inhalation only. **Biological exposure indices** have also been set for some compounds. Here, the worker's exposure is evaluated from blood, urine, faeces or exhaled air. This approach for evaluating the worker's



exposure is called **biological monitoring**. The **biological monitoring** takes into account all routes of entry, but as yet reliable methods only exist for certain compounds, e.g, lead.

Industrial Hygiene Standards

These vary from country to country. In some countries they are legally binding, but in others they are only recommendations. **Exposure limits** have different names in different countries. In USA, they are known as **Threshold Limit Values (TLVs)** while in Russia and Germany they are called **Maximum Allowable Concentrations (MACs)**. They are now referred to as **Workplace Exposure Limits (WEL)** in England.

If more than one chemical occurs in the workplace air simultaneously their effects are considered as additive. In **occupational hygiene**, the concentration of air pollutants is usually expressed in the following units:-

- mg/m³** - milligrammes of substance per cubic metre of air
- ppm** - cubic centimetre of a gas or a vapour per cubic metre of air,
cm³ /m³ = ppm, parts per million
- ppb** - **parts per billion**
- fibres/cm³** - fibres per cubic centimetre, mainly used for **asbestos**.

Industrial Hygiene Survey

The objectives of the **occupational hygiene** survey are:

- to determine whether or not a health hazard exists for the workers due to exposure to certain physical or chemical factors, or to check compliance with standards and regulations. Considering the air concentration of the agent, as well as the possible routes of entry and exposure time, the workers' exposure can be determined and compared to available toxicological data, recommended permissible levels of exposure, or existing standards and regulations to determine the need for control measures;
- to evaluate the adequacy and efficiency of the design and implementation of control measures, as well as their proper maintenance;
- to establish information to be used in developing uptake-response relationships between environmental conditions and health effects.

Since **industrial hygiene** deals with the **recognition, evaluation** and **control** of occupational hazards, the logical steps to be followed in its applications are :

- preliminary and observational survey
- **occupational hygiene** survey
- design and implementation of control measures
- evaluation of the effectiveness of control measures
- exposure monitoring.

In order to carry out these surveys effectively, Hygienists would require a variety of specific tools, equipment and instruments. As with all measuring equipment, these have to be properly calibrated prior to any sampling exercise or taking of measurements. A few of these monitoring devices are shown later for the readers. A full article could be devoted to these if requested.

Role of Industrial Hygienists

Often the risk from health hazards present in the workplace is not readily apparent, recognised or understood. They can cause serious ill-health over the longer term from repeated relatively low levels of exposure if appropriate controls have not been applied.

The goal of the industrial hygienist is to keep workers, their families, and the community healthy and safe. They play a vital part in ensuring that national legislation and regulations, occupational standards and best practices are followed in the work environment.

Therefore, the work performed by occupational hygienists could include the following:

- Workplace Exposure Monitoring to Hazardous substances
- Noise and Vibration Exposure Monitoring
- Heat/Cold Stress and Office Comfort and Thermal Environment Surveying
- Indoor Air Quality Monitoring (including Sick Building Syndrome)
- Display Screen Equipment Assessment
- Asbestos Air Monitoring and Analysis
- Expert Witness in Hygiene Survey Assessments
- Legionella Risk Assessment
- Local Exhaust Ventilation Examination, Testing and Appraisal
- Workplace Lighting Appraisal and Investigation

Some Monitoring Equipment and Instruments Used by Industrial Hygienists



- Colorimetric Gas Detector Tubes with Hand Pump
- Sound Level Meter
- Personal air sampling Pump with Accessories
- Air flow Measurement Equipment and sensors

Indoor Air Quality Monitoring

The important contribution of the Industrial hygienist in improving the work environment could be illustrated by one major of the core activities in which he is highly involved.

Understanding and controlling building ventilation can improve the quality of the air we breathe and reduce the risk of indoor health concerns including the prevention of COVID-19 from spreading indoors. The **World Health Organization (WHO)** released a long-awaited guidance on better ventilation which sets out specific targets and measures that businesses and other places can improve ventilation and make buildings safer.

Thus, the Industrial Hygienist could assess and measure indoor ventilation and the major steps needed to reach recommended ventilation levels or simply improve indoor air quality (IAQ) in order to reduce the risks of Legionnaires' Disease and Sick Building Syndrome.

Harold LEE, CMIOSH (UK)

Chartered Safety & Health Practitioner

References:

American Industrial Hygiene Association (AIHA),
Virginia, USA – aiha.org/education

British Occupational Hygiene Society (BOHS),
Derby, UK – bohs.org/

13 Guidance Document on How to Consolidate Health and Safety of Health Care Personnel and Workers of Health Establishments (Frontliners)

JOB GROUPS

1. Health Care Personnel (HCP) includes doctors, nursing officers, health care assistants, lab workers, radiology technicians, pharmacists and pharmacy dispensers, dentists, operating room technicians.
2. Housekeeping staff
3. Scavengers
4. Drivers including SAMU Drivers
5. Food handlers
6. Office staff
7. Contractual workers

HAZARDS

1. Biological
2. Chemical
3. Physical
4. Ergonomical
5. Psychological
6. Fire
7. Electrical
8. Slip and trip

HEALTH CARE PERSONNEL

Health Risk Assessment (Proposed Template Annex 1)

BIOLOGICAL HAZARDS

Seasonal flu, H1N1, Avian flu etc, measles, mumps, rubella, varicella, Hep B, Hep C, HIV, TB, Infective conjunctivitis, Herpes Simplex Infection on hands, orofacial Herpes Simplex, Scabies, Staphylococcus infection of the skin, Tetanus, Typhoid, Hep A, Leptospirosis and Coronavirus.

EXISTING CONTROL MEASURES:

1. Substitution
 - Use of safer medical devices.
2. Engineering Control
 - Use of laminar flow cabinets – Class I and Class II in Laboratories.
 - The proper Ventilation system and testing of the same on a yearly basis by a ventilation engineer. (Section 67, OSHA 2005)

3. Procedural Controls
 - Training programs on safe work practices, at the employment stage and on a yearly basis.
 - Effective supervision.
 - Early reporting of contamination.
4. Use of PPE
 - Gloves, gowns and respiratory masks.
5. Health Surveillance by an Occupational Health Physician
 - At pre-employment stage and on a yearly basis (as per section 77 of OSHA 2005)

OTHER CONTROL MEASURES:

- Immunisation of personnel against seasonal flu, Hepatitis B and Covid-19 Vaccine on a regular basis. Vaccination cards to be kept
- Hand washing
- Proper disposal of sharps in appropriate containers. Educational programs about needle safety
- Regular cleaning of work surfaces, handrails and door handles with appropriate detergents
- Use of antiretroviral prophylactic medication. (To be discussed with specialists – HIV)
- Provision of Respiratory Protective Equipment such as KN 95 to all personnel (P2 and P3).
- Social Distancing of minimum 1.5 m

RECOVERY MEASURES:

- First aid
- MERP
- Post Exposure Prophylaxis (PEP) Medication – HIV Contaminated cases

CHEMICAL HAZARDS

- Nitrous oxide, cytotoxic drugs, glutaraldehyde, formaldehyde, Ethylene Oxide, Chloroform.

EXISTING CONTROL MEASURES:

- Engineering control where practical.
- Procedural
 - Written Hazardous drug safety and health policy.
 - Training at induction and on a regular basis on safe work practices.

- PPE
 - Chemical Resistant gloves (blue nitrile), Respiratory masks, impervious chemical resistant gowns (Specially for mortuary attendants).
 - Health surveillance at pre-employment, on a yearly basis and on a six-monthly basis for specific categories.
- Recovery measures
 - Availability of eyewash stations (splash from glutaraldehyde).
 - First Aid - MERP

ADDENDUM:

Exposure to airborne asbestos fibres. (Victoria Hospital Wards A8, B9, C12, D4, E5)

Roofs of the above wards are of asbestos cement type. The buildings date back for a long time and have been submitted to cyclonic conditions over the years. Risk of having asbestos airborne fibres exists.

The RAP should tackle this issue on an urgent basis.

PHYSICAL HAZARDS

- X-Rays
- Lasers
- Noise

EXISTING CONTROL MEASURES:

X-rays

- Aprons containing 0.5 mm of lead.
- 0.5mm leaded gloves.
- Shielded barrier with 0.5 mm of lead.
- Wearing of dosimeter badge.
- Health Surveillance at the pre-employment stage and on a 6 monthly basis as per the Radiation Protection Act.

Lasers

- Local exhaust ventilation.
- Appropriate Operating Suits.
- Health Surveillance including evaluation of visual acuity & macular vision and fundoscopic exam if necessary.

Noise

- A noise survey has to be carried out in noisy sections and noise burden evaluated. The elements of a Hearing Conservation Programme (HCP) as per Noise at Work Regulations 2012 have to be complied with.

ERGONOMIC HAZARDS

- Manual Handling

EXISTING CONTROL MEASURES:

- Section 84 of OSHA 2005: Engineering – Provide sufficient training to workers who manual handle loads exceeding 18 kgs including a back management programme
- Health Surveillance at Pre-employment stage and on a yearly basis.

RECOVERY MEASURES:

- Provide to HP who have incidents of backache at work appropriate support to recover

PSYCHOLOGICAL HAZARDS

- Sensitive issue but anyway Health Care Personnel work in stressful conditions. A psychological health risk assessment is most warranted by a competent person to categorise the severity of the risk and appropriate remedial actions to be taken.
- Issues to be addressed are amongst all namely:
 - Conditions of work,
 - Shift issues,
 - Work environment comfort, security, bullying from senior colleagues and members of the public.
 - No proper dialogue from health care personnel and management.
 - No proper career development, no support given to young doctors, transfer of doctors without adequate notice to other sites of work and Rodrigues etc.

Only a proper psychological health risk assessment can bring about relevant remedial measures.

HOUSEKEEPING STAFF

(Proper Health Risk Assessment to be done as per the template for Health Care Personnel)

- Biological hazards: Influenza, H1N1, Asian flu etc, measles, mumps, rubella and TB,
- Chemical Hazards: Handling of detergents,
- Ergonomic Hazards: Cramped postures and manual handling.

CONTROL MEASURES:

Procedural:

- Training in the safe use of chemicals and in manual handling
- PPE
 - Chemical resistant gloves
 - Chemical Resistant and anti-slippery boots
- Health surveillance
- Immunisation against seasonal flu

SCAVENGERS

(Proper Health Risk Assessment to be done as per the template for Health Care Personnel)

BIOLOGICAL HAZARDS

- Hepatitis A
- Tetanus
- Typhoid
- Leptospirosis

CONTROL MEASURES:

- Immunisation against Hepatitis A, Typhoid and Tetanus.
- PPE.
- Gloves and Boots.

DRIVERS

(Proper Health Risk Assessment to be done as per the template for Health Care Personnel)

- Ideally, drivers should be under a Health Surveillance programme as defined by the Swansea Protocol.

- Pre-employment Medical exams. Depending on results of the complete medical examination, drivers may need to have a blood profile test, Cardiac evaluation and eye check-up.
- Regular medical exams by an OHP on a yearly basis as from the age of 40 years with blood tests, CV evaluation and eye check-up and yearly as from 60 years of age.

CONTROL MEASURES

Procedural

- Defensive driving courses

FOOD HANDLERS

(Proper Health Risk Assessment to be done as per the template for Health Care Personnel)

Food handlers must be in possession of a valid food handler's certificate from the MOH (as per Food Act 2000). Other provisions of the Food Act must be complied with.

OFFICE STAFF

(Proper Health Risk Assessment to be done as per the template for Health Care Personnel)

HAZARDS:

- Chemicals: Use of toners, exposure to ozone from photocopying machines.
- Biological: Exposure to legionella bacteria if the central air conditioning system is in place.
- Ergonomics:
 - Poor design of work stations and seating accommodations.
 - Use of VDTs.
 - Improper lighting
 - Bad ventilation
 - Cramped work situations
 - Manual Handling
 - Overstretching to reach files on shelves
 - No footrests for pregnant ladies etc.

- Psychological:
Sensitive issue but anyway office work in stressful conditions. A psychological health risk assessment is most warranted by a competent person to categorise the severity of the risk and appropriate remedial actions to be taken.
Issues to be addressed are amongst all namely:
 - Conditions of work,
 - Shift issues,
 - Work environment comfort, security, bullying from senior colleagues and members of the public.
 - No proper dialogue from office staff and management.
 - No proper career development.
 Only a proper psychological health risk assessment can bring about relevant remedial measures.

HRA is to be reviewed on a yearly basis. External auditing of the HRA is most warranted.

FIRE AND ELECTRICAL SAFETY

Ensure that fire certificates are valid and that the electrical network is checked regularly by a competent person

All the health care personnel should be vaccinated against the Covid-19. By doing so, their chance to be infected will decrease and if infected, they will not need hospitalisation.

Dr V. (Ben) Veeraragoo
Occupational Health Physician

CONTRACTUAL WORKERS

Contractors should be bound by a Contractors Safety Policy

Dr Shahil Dawreeawoo
M.D, MSc OH (UK)
Occupational Health Physician

REMEDIAL ACTION PLAN (RAP)

A RAP has to be defined to see to it that all remedial actions are implemented within set target dates. A monitoring committee has to be set up to follow up on the implementation of the RAP.

Dr Yanouj Seetohul
Occupational Health Physician

MINISTRY OF PUBLIC SERVICE, ADMINISTRATIVE AND INSTITUTIONAL REFORMS

SICOM Building 2, Corner Chevreau & Rev Jean Lebrun Streets,
Port Louis, Republic of Mauritius
Tel: PABX (230) 405 4100, Fax: (230) 212 4160
Email: civser@govmu.org
Website: <http://civilservice.govmu.org>