African OS&H
Published by The Safety First Association
July/August 2020 Volume 80 No 4

Lessons learned from the 1918 Spanish flu pandemic

Beirut explosion and guidelines for AN storage

Labour Inspector initiative across Africa

Preparing for COVID-19 vaccinations

Long-term maladies of COVID-19

The safety file made easy

Shaping the future of arc protection

African OS&H
Formerly known as National Safety
Safety First Association Since 1932

July/August 2020
Volume 80 Number 4

CONTENTS

Participating associations / organisations / institutes with AFRICAN OS&H and the Safety First Association

SAIOH SAPEMA SACHASM PHP CONNECTION POINT ADAO EDUCATION OF HOPE AFRICA OSHAfrica SAQCC GAS SARACCA ergonomics SOCIETY OF SOUTH AFRICA

African OS&H is published by the Safety First Association and is the official journal of

- Southern African Protective Equipment Marketing Association (SAPEMA)
- Association of Construction Health and Safety Management (ACHASM)
- HSE Connection Point (HCESP)

African OS&H is supported by:

- Southern African Institute for Occupational Hygiene (SAIOH)
- South African Qualification and Certification Committee for Gas (SAQCC GAS)
- Ergonomics Society of South Africa (ESSA)

African OS&H incorporates:

- Occupational Safety and Health
- Personal Protective Equipment
- Corporate Risk Management
- Occupational Hygiene
- Gas Safety
- Ergonomics

Administration / Membership :
Sankie Greyling
Tel: +27 (0) 65 979-7879 **E-mail:** sankie@safety1st.co.za

Advertising & Editorial :
Delinds Publications cc
12 Delta Road, Blairgowrie, Randburg, PO Box 72366 Parkview 2122
Tel: + 27 11 886-5985 **/ Cell:** + 27 83-266-6662
E-mail: delinds@mweb.co.za

Editor's comment

Living through a pandemic is a very sobering experience with our priorities changing overnight and survival instincts kicking in. Some have managed to weather the storm very well, while others have suffered badly. One thing is for sure, we are all in it together and we are still in for a long ride, even if a vaccine does materialise within the next few months. The efficacy of the vaccine will depend on its immunity, the amount of people who get the vaccine and how long we have to wait for herd immunity to be reached before the disease is eradicated. Until that time, all safety protocols of social distancing, wearing masks and sanitising will still have to be practiced.

The last pandemic of this nature was the 1918 influenza epidemic killing between 50-100 million people. Although we have the advantages of modern medicine, technology and communications we are experiencing the same fears, emotions and economic downfall, and the same non-pharmaceutical interventions have been recommended for limiting the spread. Until recent months, the Spanish flu had been a faded memory. Now, the interest in the 1918 pandemic has been renewed and the media has been awash with comparisons. At the time it was overshadowed by the first world war and families were more concerned about burying their war dead, keeping their families well fed and trying to get back to a normal life than recording their pandemic experiences. The flu dead became the forgotten fallen, in favour of the soldiers who had lost their lives. In this issue we look at lessons we can learn from the 1918 pandemic.

The AIDs pandemic of the 1980s has taught us that community involvement is important to get a widespread understanding of the disease and buy-in of safety protocols. Timothy Zulu in his article implores governments, communities, NPOs and citizens to work together to tackle the COVID-19 challenge. He makes the case that behavioural responses from communities could help limit the trade off between the economy and public health.

The safe opening of restaurants - amongst other industries - during COVID-19 has been hotly debated and has been deemed safe provided all safety protocols are followed as laid out in this issue. While the restaurant staff are mostly compliant, this is unfortunately seldom the case with patrons who seem to think it is safe to take off their masks as soon as they are seated at their tables. It is the responsibility of management to make sure that their patrons only remove their masks while eating, to safeguard the health of other customers, restaurant staff and delivery personnel.

Labour inspectors have always played an important role in monitoring occupational health and safety compliance which is even more critical during COVID-19. Read about the new labour inspector initiative launched by OSHAfrica which will provide a platform for labour inspectors across Africa to share their experiences and learn from each other.

On a final note, the importance of PPE has been thrown into the spotlight during COVID. Unfortunately, it has also been associated with scams and more recently with corruption. This must not diminish the importance of PPE which continues to be critical in the fight to control the spread of COVID-19. Organisations worried about the quality of their PPE are advised to contact the South African Protective Equipment Marketing Association (SAPEMA), or go to https://www.sapema.org .

Lessons learned from the 1918 influenza pandemic

The last time our globe experienced a pandemic on a scale as large as COVID-19 was the Spanish flu pandemic of 1918 when over 50 million people lost their lives. Africa was severely affected. South Africa was one of the worst-hit countries in the world with about 300,000 deaths.

Both the Spanish flu of 1918 and COVID-19 are respiratory diseases largely spread through coughing or sneezing. The Spanish flu was an H1N1 influenza strain which had a very short incubation period of just 1 to 2 days. The victim's lungs would be affected straight away severely affecting their immune system resulting in acute respiratory problems. COVID-19 is a coronavirus with an incubation of upto 2 weeks and besides being spread by coughing and sneezing droplets, can also be spread by asymptomatic carriers making it extremely difficult to control. Whereas many of the victims of the 1918 pandemic were young and healthy - resulting in over 10 million orphans across Africa - COVID-19 tends to target the elderly or those with weakened immune systems.

Nothing at the time of the 1918 pandemic was known about virology, there were no antibiotics, no intravenous fluids and medical care consisted of "warehousing" the sick to keep them comfortable and isolated. Managing the spread of the virus through non-pharmaceutical interventions such as masks, social isolating and quarantine back then and now is much the same. The theory behind putting the sick into quarantine dates back to the 14th century to fight the plague when ships with sick people on board had to stay in the lagoons for 40 days without allowing any person or goods on or off.

Although the world is very different now from 102 years ago, there are still a lot of lessons that can be learned.

HOW THE VIRUS MOVED

The fact that the 1918 influenza pandemic occurred during a world war was instrumental in facilitating its rapid spread due to the movement of troops. When the pandemic broke out, attention was focused on war-time fatalities and food shortages at the expense of medical, hygienic and economic circumstances.

Modern travel has facilitated the rapid movement of COVID-19. International flights take a few hours compared to days or even weeks on steamships back in 1918, and yet, the behaviour of humans and the virus has not changed.

Once it reached Africa, the Spanish flu spread rapidly through communities. In West Africa, the virus ravaged Freetown, Sierra Leone with 4% of the population dying in just 3 weeks. In East Africa, 4-6% of Kenya's population died as a result. South Africa lost 6% of its population. Medical facilities in African countries were not prepared.

Ships transporting troops dropped them off at different ports. Infected troops spread the virus among the coastal population and those who travelled inland took the virus with them. The panicking population in the coastal towns thought they could escape the virus by moving inland or to rural areas, instead they helped its rapid spread. The flu spared no-one. The spread was rapid, and any warnings signs were ignored.

Medical facilities in Africa during COVID-19 have had the advantage of taking lessons from Europe and China where the virus first made its appearance.

BEHAVIOUR OF THE 1918 PANDEMIC

The 1918 flu pandemic came in three waves. The first wave from March through July 1918, was the mildest. During May 1918, the disease first appeared in Africa in the north mediterranean coastal cities. Only North Africa, Abyssinia (Ethiopia), South Africa, and Portuguese East Africa reported infections during this phase.

A second and more virulent wave began in August 1918 when people thinking the pandemic was under control, stopped social distancing and wearing masks. During the second wave the pandemic reached Kenya, Cameroon, Gold Coast (Ghana), The Gambia, Tanganyika (Tanzania), and Nyasaland (Malawi). It slowed down in December 1918, but was then followed by the third wave starting the beginning of 1919.

We still have a lot to learn about the behaviour of COVID-19, but with the easing of lockdowns and people becoming fatigued by restrictions many are engaging in dangerous practices such as not social distancing and not wearing masks, or wearing them incorrectly opening the way for infection surges.

PREVENTATIVE ACTIONS TAKEN BY AFRICAN COUNTRIES

During the 1918 pandemic, ships entering the ports were inspected for cases of infections before people were allowed to disembark. Strict quarantine measures were enforced for those found to be ill. Contact tracing was put into practice.

The affected African countries implemented communication and information sharing practices. Via radio and telegraph, early-warning communication alerts were sent to medical officials if incoming ships were carrying infected people.

Fearful of a mass exodus inland which would spread the virus, citizens in coastal cities were encouraged to stay where they were.

Temporary emergency hospitals were opened in schools, churches and other empty halls. Volunteers of all classes and races cleaned areas where outbreaks had occurred.

In some of the bigger towns where it was impossible to isolate the infected people and manage the spread, areas were divided into districts with doctors assigned to that particular district.

The authorities arranged door-to-door visits in search of anyone who may be infected but this wasn't successful because they didn't communicate the reasons effectively. People fearing they would be taken away if ill often went into hiding, taking the influenza with them and making any possibility of contract tracing extremely difficult.

Others tried to hide their illness for fear of being sent away. Others feared losing their properties if they were taken away. Others didn't trust the medicine and treatment they would be given in hospitals so preferred to stay at home.

Due to the lack of open communication from the authorities, suspicion and mistrust were allowed to flourish. This is an important lesson for today with fake information becoming a pandemic in itself.

Without any pharmaceutical interventions, the only way to limit the spread was through social distancing and quarantine, by closing schools, churches, markets, limiting usage of roads between cities and banning public gatherings. Cities went into lockdown. Newspapers reported on deserted streets, boarded up shops and high levels of anxiety.

The public were kept informed and educated largely through the newspapers which each had 3 - 5 editions per day, publishing information such as where help was available and requesting co-operation with the health authorities.

Newspapers covered the virus extensively, and like our 21st century social media platforms it was all the news all the time, and like today good news and bad news were amplified leading to fake news and a lack of trust in the authorities.

Many quack cures during 1918 grew enormously popular with quinine, arsenic, camphor, digitalis, strychnine, mercury, castor oil and iodine widely prescribed. Wearing tight shoes was another such cure.

During the 1918 pandemic, stigmatisation was directed at various population groups which appeared to succumb to the influenza more than others leading to violent actions. People who were ill didn't admit they were ill, didn't see physicians, so they stayed in their communities spreading the disease. The enforcement officers called for unity and cooperation to quell violence. Newspaper articles encouraged working together to conquer the influenza. Through these combined efforts, stigmatisation was eventually controlled.

Stigmatisation is unfortunately also a reality during COVID-19. If employees, or members of the public become stigmatised, they will hide the fact that they are infected and spread the virus by not self-isolating and not seeking medical care.

HEALTH CARE WORKERS IN THE FRONTLINE

Health care professionals were as dedicated during 1918 as they are today by working extended hours and putting their own lives at risk, suffering mental health strain and mortalities.

Due to close proximity to infected patients, healthcare workers suffer heavy viral loads leading to a high percent of them losing their lives.

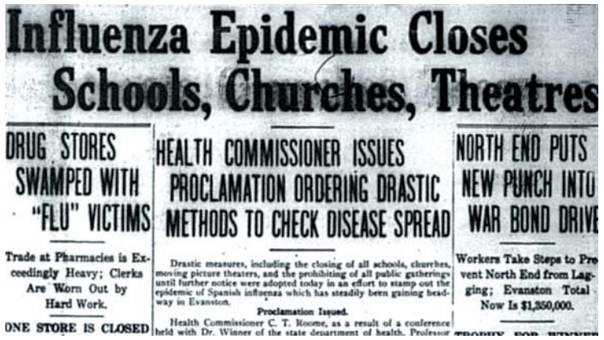
Today they have the advantage of protection with specialised PPE from head to toe, but during the 1918 pandemic their only protection was gauze masks. Unfortunately, due to the sudden surge in demand, manufacturers were not adequately prepared and these have been in short supply.

WHEN ARE MASKS EFFECTIVE

One of the main lessons we must take from the 1918 pandemic is that wearing masks will only be effective if used properly.

The lessons are clear, masks must be made properly, worn correctly and used in conjunction with non-pharmaceutical interventions such as social distancing, washing hands and sterilising. A mask will help prevent people already infected from contaminating others. This is critical during the novel coronavirus outbreak where so many asymptomatic people don't know they are infected and therefore spread the disease. Without any known cure or vaccine available yet, this is the best preventative measure we have for now.

Specialised masks (PPE) are essential for the


Influenza Epidemic Closes Schools, Churches, Theatres

DRUG STORES SWAMPED WITH "FLU" VICTIMS

Trade at Pharmacies is Exceedingly Heavy; Clerks Are Worn Out by Hard Work.

ONE STORE IS CLOSED

HEALTH COMMISSIONER ISSUES PROCLAMATION ORDERING DRASTIC METHODS TO CHECK DISEASE SPREAD

Drastic measures, including the closing of all schools, churches, moving picture theaters, and the prohibiting of all public gatherings, until further notice were adopted today in an effort to stamp out the epidemic of Spanish influenza which has steadily been gaining headway in Evanston.

Proclamation Issued.

Health Commissioner C. T. Rosme, as a result of a conference held with Dr. Winner of the state department of health. Professor

NORTH END PUTS NEW PUNCH INTO WAR BOND DRIVE

Workers Take Steps to Prevent North End from Lagging; Evanston Total Now Is $1,350,000.

safety and health of employees in certain occupations successfully guarding their health and safety. But for the purpose of this article, we are discussing the cotton mask recommended for the spread of the virus amongst the public, communities and within the work environment.

From the time it was recognised during 1918 that the inluenza was infectious through droplets, masks were recommended for anyone taking care of the sick, and were widely recognised as an effective prevention for the professions who worked closely with people such as medical staff, dentists, and barbers. To promote its usage, photos were published in newspapers with nurses wearing the masks.

During the first wave, committees appointed to determine the benefits of wearing masks for the general population concluded that masks failed to control infection, with the result wearing masks in public was not initially enforced. Over time, this was reviewed. Some cities passed laws enforcing masks in public, threatening violators with imprisonment. Newspapers published instructions on "How to Make Masks at Home". As the number of cases and deaths decreased, recommendations and regulations to wear masks were relaxed opening the doors for the second wave.

The public did not trust the authorities, and did not like being told what to do, so they wore masks in public to comply with the law, but removed them when they went indoors where there was poor air circulation and where they were in close contact with others. The masks were seldom washed, became wet with saliva, were filthy and were made of any available materials including porous cheese cloth. Citizens did not wash their hands before and after usage. Some women were even seen wearing fashionable face masks made out of chiffon.

During the 1918 pandemic, there was a shortage of the gauze fabric recommended for healthcare workers' masks, so any available was kept aside for this purpose, whereas a cheaper and porous gauze was recommended for masks that the public were told to wear.

During COVID-19, cotton masks are recommended for the general public and employees who do not need specialised PPE for their occupations, because these materials are not in short supply, and because they will not be using the PPE which should be reserved for healthcare workers.

Lessons learned from 1918 teach us that to be effective masks must be kept clean, used correctly and worn consistently while in public, fully covering the nose and mouth and with sufficient layers to prevent the release of droplets.

To be effective, 100% community buy-in is necessary. Masks are uncomfortable and inconvenient so require a great deal of discipline to wear them properly, not allowing any room for individual ill-habits. They must be used in conjunction with sanitisation, hand washing and social distancing.

Wearing masks does not guarantee immunity. However, if they are not worn, and where there is no physical distancing or hygiene practices, the chances of infections spreading increases substantially. Organisations must enforce the proper use of masks and make sure that the behaviour of employees and visitors is modified appropriately.

SCHOOL RESPONSES

Schools closed during the 1918 influenza pandemic for up to four months. Thousands of volunteers, including teachers and police helped deliver homework to children at home. Today, children have the advantage of online training facilities.

When schools reopened, many schools appointed nurses to train the children about staying healthy. Instead of sending sick students home without any medical assistance, the nurses cared for them and provided health information to their families. They made home visits, took the ill children to doctors and delivered community health talks. Families felt safe sending their children back to school with the support of medically qualified people.

Schools combined forces with public health, education officials, and political leaders to monitor infection rates and provide teachers with additional training.

Schools reopened all classes after the first wave, but closed again when the 2nd wave started. A gradual reopening after the 2nd wave proved effective in limiting infections.

Schools today have opened in gradual stages to keep control of the pandemic. Educational, PPE and sanitisation protocols are being implemented.

LESSONS TO BE LEARNED

Outbreaks challenge leaders to act and adapt to protect their communities, secure their prosperity and safeguard social harmony. The global village of today is a lot smaller than 102 years ago. Transport is quicker and easier, making the spread of a pandemic quicker and easier. Ports were a prime

means of transmission for both the Spanish flu a century ago and COVID-19. Borders and ports must be better controlled when the warning signs of a pandemic first appear.

People must take responsibility and not run away from the situation or take a "don't care" attitude. Listen to the authorities, and take all precautions that are recommended.

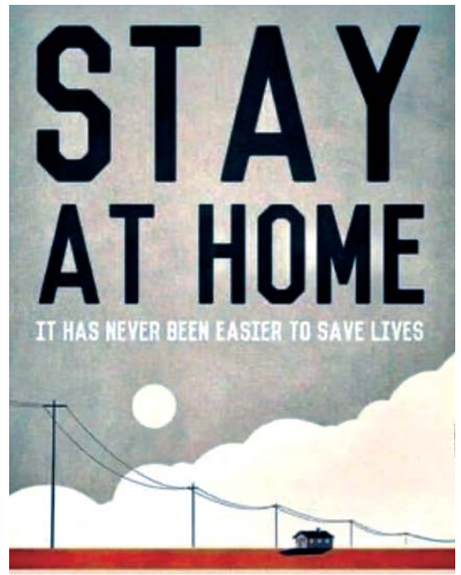
Societies during the 1918 flu pandemic that successfully implemented strict guidelines such as social distancing, restriction of movement, and personal hygiene were more successful in slowing the spread of the virus. Behaviour change does result in successful outcomes.

Authorities and cities that shared information and communicated regularly and honestly with their citizens were successful in raising awareness and reduced panic and the spread of rumours as well as controlling increases of violence. People must be aware of public health efforts. Trust, understanding and truthful information is fundamental to success.

Managers must promote communal unity and oppose stigmatisation. Levels of depression, fear and anxiety are raised when everyday life is disrupted and poverty increases through unemployment. Tensions become inflamed and people start blaming others and avoiding the sick. By reducing stigmatisation towards the diseased, the sick will more likely seek medical treatment, thereby minimising transmission.

Organisations must implement educational programmes for their employees. Lack of information leads to the danger of believing fake news which has been exacerbated by modern communications, spreading fear and mistrust.

Drop in food production in 1918 led to famine or near-famine conditions. The economy was negatively impacted with many losing their jobs and livelihoods. Survival was easier for those who took initiative and implemented new agricultural methods. Presently, those companies who have looked at diversifying, will have a greater chance of surviving the pandemic and recovering quicker.



Newspapers and runners were the main source of information dissemination during the 1918 pandemic. As we move through the various stages of our pandemic, modern communications ensure that organisations are informed as soon as regulations change. This can sometimes be a burden, so managers must implement a system allowing for changes to be revised as soon as the need arises. Modern communications has also enabled employees to work from home, keeping minimal physical contact with others.

The easing of lockdowns in 1918/1919 saw an increase in human indulgences. The same happened in South Africa after the opening of liquor sales with the surge in violence and motor vehicle accidents that followed.

In 1918 the authorities did not make predictions on how many would become infected and how many would die. Under present circumstances and the demand for faster information, the authorities have made many unfounded predictions creating a lack of confidence in bodies such as the WHO as well as a mistrust of certain regulations being enforced by governments.

The 1918 influenza pandemic witnessed three waves. It is believed that interventions were enforced too late and lifted too early. Presently, the relaxation of lockdowns could initiate a second wave in countries where infections appeared to be decreasing.

Positive outcomes have been borne out of some pandemics. Improved sanitation, hygiene, sewerage systems and safe drinking water, resulted from the cholera pandemic. Post Covid-19, organisations must take away positive lessons from this dark period.

REFERENCES

Joel Naoki Ernesto Christoph. What Lessons Can History Provide to Companies and Managers Currently Coping with the Impact of COVID-19? (Johns Hopkins University SAIS and Tsinghua University)

Africa Center for Strategic Studies. Lessons from the 1918-1919 Spanish Flu Pandemic in Africa. May 13, 2020

Gerard DeGroot. COVID-19: The Lessons We Haven't Learned From the Spanish Flu of 1918, Japan Forward, March 30, 2020

Mary Battenfeld. The Conversation. Boston University June 16, 2020

E. Thomas Ewing. Flu Masks Failed In 1918, But We Need Them Now. Health Affairs Blog. May 2020.

Mental health problems within fleets during COVID-19

John Loxton, WesBank Head of Fleet Management & Leasing

As people have been advised to stay at home to curb the spread of COVID-19, truck drivers have continued to work under added pressure, many of them without a break even during the times of strict lockdowns.

Under normal circumstances truck drivers may suffer from physical and mental health issues, however during a worldwide crisis like the coronavirus pandemic, the emotional impact on them should be given extra consideration.

Long driving shifts, disrupted sleep patterns and social isolation can lead to health issues such as sleep deprivation, obesity, diabetes, as well as drug and alcohol abuse to name a few. Added to this is working to rigorous delivery schedules and time spent away from family, all impacting on a driver's mental state. These mental health difficulties pose risk factors that can contribute towards loss of productivity, lack of motivation and loss of business.

Drivers with mental health problems are in effect distracted drivers. Not having a clear focus on driving can have an adverse effect on concentration, reaction time and judgement and can increase the chances of an accident.

Anxiety or stress from adverse or demanding circumstances can contribute to health problems such as headaches, high blood pressure, heart problems, and skin conditions. Having to meet delivery deadlines, getting stuck in traffic or knowing that a job is going to take much longer than anticipated can all be trigger points for stress.

Hopelessness or depression is one of the most common mental health problems and can interfere with the ability to work safely and recover from illness or injury. Stressful situations such as COVID-19 can increase the risk of developing depression.

Stress, depression and anxiety affects one's driving ability and fleet managers must be able to support the mental health and well-being of their drivers.

One way to do this is to ensure that all policies and procedures about the health and well-being of employees are in place and understood by everyone.

Fleet management systems could also assist drivers during these challenging times. The availability of and access to a call centre, with qualified staff, provides an element of peace-of-mind for the driver on the road.

The effective use of telematics serves as one of the most important interfaces between the company and the driver. Constant communication with the driver will go a long way to avoid the risks associated with the current operating environment.

"Wellness" days are also good mechanisms to raise awareness of mental health in the workplace. The annual World Mental Health Day on 10 October is a perfect time to participate in such an initiative. Distributing self-help information and introducing confidential counselling through company wellness structures should also be practiced.

Added to the fear of contracting COVID-19 are the significant changes to our daily lives in support of efforts to contain and slow down the spread of the virus. Faced with new realities of life, it cannot be stressed enough how important it is for the driver to feel that he is a valuable resource to the company.

Medical aids give cover to COVID-19 patients

Tony Singleton, CEO at Turnberry Management Risk Solutions

With the sharp rise in COVID-19 infections, more and more people are getting tested and it is important to understand whether medical schemes will cover COVID-19 testing, hospitalisation and treatment.

Coupled with this, many people are now experiencing financial hardships and need to stretch the benefits that their medical scheme has to offer.

COVID-19 TESTING IS A PMB

The Council for Medical Schemes has mandated medical aids to consider Covid-19 testing a Prescribed Minimum Benefit (PMB). All registered medical schemes in South Africa have to provide PMBs on all plans offered to members, regardless of plan type. In terms of the Medical Schemes Act, these PMBs are a set of defined benefits that relate to 270 categorised conditions that all medical scheme members can utilise.

WHAT IS COVERED BY PMB?

The condition "COVID-19" is defined as "an acute respiratory illness caused by a novel coronavirus"; and annexure A of the Medical Schemes Act (which lists PMBs) has been amended by the Minister of Health to include this new respiratory illness.

However, even though this is a recognised PMB, medical schemes can require that members only utilise Designated Service Providers (DSPs) that the medical scheme has appointed.

By using these providers in the medical scheme's network, members can at least rest assured that their scheme will cover those fees in full. Should a patient choose not to use a DSP, then the medical scheme is only required to cover the medical aid rates. There are certain instances in which patients can make use of a non-DSP, and where the medical scheme will cover the costs, but these extend to life-threatening emergencies.

WHAT IS AND WHAT IS NOT COVERED?

According to COVID-19 PMB guidelines, the recommended test at PMB level of care is the Reverse Transcription Polymerase Chain Reaction (RT-PCR) test.

Where a person presents with Covid-19 symptoms, but is to be treated out of hospital, they must be screened by a healthcare provider who deems the test necessary due to the suspicion that the patient may have COVID-19.

Regardless of the test results, and as long as the member was screened by a healthcare professional deemed necessary by a medical professional (who is a DSP) and the RT-PCR test is used, it must be funded from the medical aid's risk benefit as a PMB. Where the person tests negative, any follow up care is not covered.

In the case of a positive test, hospitalisation (including ventilation) and medical management of the patient's condition thereafter would be funded from the risk benefit as a PMB and not from the members day-to-day benefits.

Where patients are to be admitted to hospital for other reasons (such as elective surgical procedures) they may be requested to undergo a COVID-19 test beforehand. In these situations, it is not PMB level of care therefore medical aids do not have to fund the test from the risk benefit. Here, the cost of testing would most likely come from the member's day-to-day benefit or be self-funded.

Should a person voluntarily choose to make use of a non-DSP then, that member is likely to be exposed to a medical expense shortfall for the in-hospital treatment.

While the current focus is on COVID-19, people are still being admitted to hospital for other essential treatment such as heart attacks, fractures, cancer treatment, organ transplants.

WILL GAP COVER HELP WITH COVID-19 MEDICAL SCHEME SHORTFALLS?

Many families are facing financial hardship and gap cover will protect them from costly in-hospital medical expense shortfalls. This is the difference between what your private healthcare providers charge and the rate your medical aid pays for in-hospital treatment.

Moreover, hospital admission may not always be as a result of COVID-19, however, during the current circumstances, people need to be prepared for out of pocket medical expense shortfalls.

It is also important for consumers to understand their medical scheme coverage and even more importantly the PMB benefits for COVID-19.

Preventative benefits of good health during COVID-19

Bianca Viljoen, spokesperson for Health Squared Medical Scheme

The COVID-19 pandemic has demanded a pioneering approach to everyday life.

Organisations are being forced to find new ways of managing daily risks while attempting to keep moving forward, innovating and planning for the inescapable risks.

We have all had to assimilate face masks, sanitising and social distancing into our daily lives, but we cannot pretend that these precautions are a talisman providing complete protection from the threat of COVID-19.

At Health Squared Medical Scheme, we are focused on protecting health through early intervention and holistic support.

From a healthcare funding perspective, it makes sense to enhance healthy employees' wellness as well as assisting those at-risk to better manage existing health conditions. The employer will benefit from less absenteeism, and a healthier and therefore more productive workforce.

REMOTE HEALTHCARE DURING COVID-19

The Health Professions Council of South Africa's revision of guidelines pertaining to telehealth in response to the COVID-19 pandemic has opened up new frontiers in managing healthcare risks and resources effectively.

This means that medical consultations are now just a phone call or video consultation away, making expert care and advice more accessible than ever. This promotes earlier intervention, which usually results in better health outcomes and quicker recoveries.

SUPPORT AND ASSISTANCE

Many medical aids now cover private Covid-19 testing, irrespective of the result. This has allowed those who are infected to learn their status early, and therefore to take the appropriate measures to reduce their chances of becoming seriously ill, to self-isolate and to help limit the spread of this virus which is highly contagious.

Understanding that mental wellbeing and physical wellness are linked, all our members have free unlimited access to telephonic assistance with financial matters, psycho-social assistance and legal advice via the Agility Rewards programme.

These assist services have particular significance in light of COVID-19, and are complemented with a health assist line that offers peace of mind as members know that healthcare advice from a professional team is only a phone call away.

Individuals and employers need to keep up-to-date with their medical aids to know what services they offer and what financial coverage and support they are offering during the COVID-19 pandemic.

Frontline workers and their challenges

"*If we can't protect our healthcare workers, they can't protect the public*," C. Michael Gibson, MD

Swine flu which was rampant 11 years ago, was the last time a pandemic was declared. For most people, COVID-19 is a new and unexpected threat and experience that took us by surprise, spreading unabated across the world.

This is not the first time our healthcare professionals have seen the transmission of a serious disease. COVID-19 is a coronavirus belonging to a family of viruses that cause illnesses ranging from the common cold to severe acute respiratory syndrome (SARS).

There is no armistice. The virus is a 24-hour war machine pushing ahead to infect as quick as possible to ensure dominance.

For those working in the healthcare sector, the threat of infection is very real, and in some cases very personal. They are our frontline troops in a war against time.

Doctors in some cases are performing invasive procedures on patients positive for COVID-19 even though the recommended protection masks may not be available, leaving them no choice but to go ahead wearing a surgical mask that does not provide the appropriate level of protection against infection.

"WARTIME" HEALTHCARE

We are battle ready and we have been here before. In the 1980s the HIV/AIDS epidemic quickly spread throughout southern Africa, and to-date 36 million people have died globally from the virus. In 2002, SARS saw a global reach of an estimated 8000 infections with a 10% mortality rate.

Wartime healthcare takes a massive amount of dedication, energy and time from those on the frontlines.

Healthcare professionals have to deal with a variety of challenges ranging from equipment shortages, lack of adequate facilities to the struggle for public participation.

With adequate support and effort stemming from those in the medical field, we can reduce the spread and impact of COVID-19. To achieve this, the Allied Healthcare Association of South Africa (AHASA) is calling on the public to support healthcare professionals in the war against COVID-19.

EVERY CITIZEN MUST HELP

Over and above the health and safety advice given by our Government, below are 3 additional ways we could help healthcare professionals fight the war against COVID-19:

1. Stick to the facts

Through spreading misinformation, you are putting the lives of others in danger.

The Daily Maverick summed up public misinformation by posting an article on the 11 Myths of COVID-19 in South Africa, they are:

Myth 1: Most people who contract COVID-19 will get very sick or die

Myth 2: Since COVID-19 is less deadly than SARS, it will kill fewer people

Myth 3: You can stay safe by avoiding Chinese people

Myth 4: Only older men need to worry about COVID-19

Myth 5: All I need to protect myself from COVID-19 is a mask

Myth 6: People with COVID-19 are easy to identify

Myth 7: Government is purposefully hiding South Africa's real COVID-19 statistics

Myth 8: People who cough probably have COVID-19

Myth 9: There is a secret cure for COVID-19

Myth 10: My pet is at risk from COVID-19

Myth 11: I should avoid Chinese food until COVID-19 is forgotten.

2. Follow news from reliable sources

The World Health Organisation has a dedicated page to convey information on the virus.

Locally, our Government is leading the charge with a series of communication channels reporting back to the public on a minute by minute basis.

3. Cut back on elective surgery or medical treatment

Many hospitals are reporting a spike with the public requesting non-essential medical treatments.

With roughly 3 000 out of about 7 000 critical care beds available between the public and private healthcare sectors, any serious escalation in COVID-19 cases may lead to shortages in actual beds.

Overall be sensible in your approach to this pandemic. It is not the first and certainly not the last time we will face a threat like this.

With the right support from the public COVID-19 infection and mortality rates can be reduced.

While in isolation, think of the many people working on the frontlines to protect you and your family.

Wearing PPE prevents droplets from spreading the virus

The virus is spread through droplets - whether airborne, or from an infected person in close proximity. When people are talking close together and the one person (the source) may be infected and contagious, the persons (the receptors) nearby who are negative will then be at risk. This may depend on the concentrations of the droplets and the distance between the source and the receptor.

The source releases infected droplets that are probably lower in concentration when talking than when coughing. Wearing a mask helps capture some of the droplets, and slows down the speed of the droplets and reduces the distance that they travel.

The receptor's exposure depends on the distance they are standing to the source. The intensity will be lower if they stand further apart. The chance therefore of being infected is lowered if both source and receptor keep a safe distance and if they both wear masks.

Intensity of contact also plays a role. If the source coughs once, the chance of exposure for the receptor is lower than if the source continually coughs.

Then we look at the duration that the source and receptor spend together. The longer the time of exposure, the greater the exposure and therefore risk of infection.

Employers need to consider these 3 issues of distance, intensity, and duration when safeguarding their workers and when planning office layouts and communication strategies.

This unfortunately is impossible for certain occupations such as frontline and healthcare workers who are at greatest risk. They are in constant close contact with infected people releasing large amounts of the virus, for extended periods of time. This is the reason why the most effective PPE must be made available to healthcare workers and not used by office workers who have other sources of limiting their contact and therefore their chances of infection.

Preparing for COVID-19 vaccinations - *what you need to know*

There are over 140 potential coronavirus vaccines being tested around the world. As important as the race to develop a vaccine, is the need to convince people that the vaccinations are safe and necessary.

Unfortunately there is a lot of resistance to getting the vaccination - in some communities as many as 50% have said they won't be immunised. There are several reasons for this. Firstly, many people don't see COVID-19 as a threat, believing they will never get it, as it is still invisible to them. Secondly, misinformation and fake information about a COVID-19 vaccine is circulating on social media with conspiracy theories abounding such as blaming personalities like Bill Gates for using the coronavirus vaccine to implant tracking devices in people, or using technologies such as 5G for transmitting the virus.

It is due to the lack of credible information that many people have said they won't have a vaccine once it is available.

No vaccine gives 100% immunity, therefore the higher the amount of people who get the vaccine, the better and quicker the results will be for the pandemic to end. It is only through a vaccine and herd immunity that the virus will be brought under control. If enough people are immune then transmission of the disease is reduced or eliminated. COVID-19 has moved through populations by infecting people who are not immune to the disease. Once a high percentage of the population is vaccinated, it will be difficult for the virus to spread because there won't many people to infect so it will die out. Vaccinations protect individuals and the onward spread of viruses. This is what herd immunity is about, however, its success will largely depend on high vaccination levels.

The experts warn that people must be take the COVID-19 vaccine once it is available and employers must prepare their employees.They must know that the vaccine may have side effects, that it won't have 100% immunity, but that it is essential. People may even need 2 (or more) doses of the vaccine, and they may need to get it annually. This is important, it must be understood and it must be taken back to their homes and families as well.

Achieving herd immunity to SARS-CoV2 infection will be the most vital step towards returning social and economic activities to normal. Social distancing rules and wearing of masks will continue while the virus circulates and people continue to get sick and die. Even when an approved and effective vaccine is available, it will still take several years to get sufficient immunity to prevent another spread of COVID-19.

Preparing employees for what to expect when the vaccine does become available will help towards ensuring that they get vaccinated. If they know what to expect, there will be fewer concerns and promote a greater case for acceptance and trust.

It is important for the message to be spread that the more people that get vaccinated, the quicker life can return to normal. Post COVID-19, high vaccine coverage may have to be maintained in order to prevent the disease re-entering the population.

Long-term maladies of COVID-19 survivors - *a new reality*

COVID-19 is still a new disease, so its long-term effects are unknown, but through experience from past coronaviruses, doctors have known from the onset that some sufferers would experience illnesses for extended periods afterwards.

It will take time to know the full extent of the symptoms, how long they will last and whether they will turn into chronic illnesses.

Employers need to be aware that there are several long term effects of COVID-19 that some employees who have been infected with the virus may experience which will affect their ability to work. Some may suffer from chronic fatigue and may not be able to do a full day's work. Many survivors are complaining after 4 months of infection of still being exhausted and sleeping for extended periods at a time. Brain fog which many have complained about may prevent others from concentrating which will affect their ability to focus at work. While others may suffer from extreme fits of coughing and need a few minutes to relax and regain their energy. These are only a few of the lingering maladies, and the list stretches to about 26 reported ones which is a lot more than doctors had initially expected.

Just as the illness affects people differently, so do those long-lasting symptoms, and have nothing to do with age of the patient nor their co-morbidities. Some young and healthy survivors are complaining that months after recovery, they still can't exercise.

WHAT IS KNOWN FROM SARS AND MERS

Past coronaviruses such as Severe Acute Respiratory Syndrome (SARS) of 2003 and Middle East Respiratory Syndrome (MERS-CoV) of 2012 formed the basis for the initial research. Following infection, many survivors experienced permanent lung damage. With SARS, 40%-50% of survivors still suffered from fatigue after one year, and 20% were not able to work full day a year after recovery.

It is expected that upto 15% of sufferers from COVID-19 will not fully recover.

SUPPORT SERVICES

There are now world-wide support services, on-line chat channels and some countries have outpatient clinics for survivors who are experiencing symptoms months after recovering.

A patient may think they have fully recovered, only to find symptoms suddenly appearing a few weeks later.

Employers must allow their employees who are suffering time off, and they must be encouraged to contact their doctors and the support call centres of their medical aids.

Elevator etiquette during COVID-19

Using an elevator safely, has been an area of concern since returning to work. Workers want to know if they will be safe riding with colleagues in an elevator and employers have questioned how many employees can be allowed in an elevator at a time.

Riding an elevator is safe when considering the risk factors of intensity and duration. Most elevator rides are short, being less than a minute, whereas infections are thought to be more dangerous when people are together for periods of 15 minutes or more.

Employees should be encouraged to use the steps, firstly because it is good for exercising so improving health and secondly because it prevents people being in a confined space, probably not being able to adequately self-distance.

The following measures should be taken to ride safely:

1. Make sure employees queuing to go into the lifts are social distancing.
2. Ventilation in the lift should be checked and made to run at the highest possible speed
3. Practice social distancing in the lift as much as is possible within a small space. Never overcrowd. In a small elevator, only 2 people should be allowed - one to stand at the back and the other at the front.

   In larger elevators, the amount of people should be limited to try and keep a distance of at least 1 metre.
4. Always wash hands/sanitise before and after touching elevator buttons or handrails. If possible, have a non-touch sanitiser in easy access in all elevators - preferably near the buttons.
5. Only one person should press the buttons using knuckles and not fingers.
6. Refrain from talking which disperses droplets, remembering that this is a confined space.
7. Do not lean on walls or against the railings.
8. Do not touch the walls or railings.
9. Everyone should face the front (the same way).
10. Everyone must wear masks.
11. If anyone needs to cough or sneeze, this must be done into one's elbow and still wearing the mask.

Can restaurants operate safely during COVID-19?

After being closed around the world for months, restaurants are starting to open their doors to customers. The challenge to ensure that their staff and diners are safe and protected from COVID-19 is a heavy burden.

According to Frederic Robichon, Food and Beverage Industry Expert Advisor at Biodx, the South African food and beverage industry have always been professional and diligent in applying HAACP (Hazard Analysis and Critical Control Points) principals, so they already have health and safe requirements in place. It is a matter now of including all the following COVID-19 protocols.

SCREENING PROTOCOLS

Restaurants must conduct a screening questionnaire on guests and can refuse admission if they think the guest is a safety risk. Restaurants have committed to following this protocol, but it may not be that easy to determine if a guest is a safety risk, as they may be positive for the virus but asymptomatic therefore showing no signs of illness.

MASKS

No person can enter the restaurant without a cloth mask or other item that covers the nose and mouth. A mask that does not completely close around the nose and mouth is useless. Masks must be worn at all times in the restaurant except when eating and drinking.

SOCIAL DISTANCING

Many people go to a restaurant for sociable reasons, so this rule can be tricky, however, it should be perfectly safe for a family who live in the same environment to go and relax in a restaurant.

Tables must be spread apart according to the regulations - the distance will differ depending on whether the tables are outside or inside. But, the general rule is that when seated, customers should be at least 1,5 metres apart from customers at other tables. There must be at least 1.5 metres between the customer and the service counter as well as between queuing customers. The waiting staff must stand at least 1 metre from the table.

SANITISING

All guests must sanitise before entering the premises. Clients will feel confident about going into a restaurant if they see the staff sanitising regularly, and sanitisers placed in easy access throughout the venue. Tables and chairs must be sanitised before and after each guest. Toilet facilities must be sanitised at regular intervals. Restaurants must check the quality and safety of the sanitisers and disinfecting products they use.

MENUS

Menus should be sanitised after each use, or be replaced with non-touch options such as using a blackboard or throwaway paper menus.

BEHAVIOUR PROTOCOLS

Staff must be compliant, by wearing their masks properly, sanitising regularly and keeping their distances from each other and from clients.

RESERVATION SYSTEM

Restaurants should consider implementing a reservation system to make sure they have enough tables at a time and to limit clients having to queue.

NO SELF-SERVICE BUFFETS ARE ALLOWED

The reasons for not allowing self-service options are to alleviate the possibility of everyone using the same serving crockery and to prevent people standing close together when they queue for food.

AIRCONDITIONING & AIRFLOW

Airflow is important when people are in a closed environment. However, a virus circulates easily when air conditioning or central heating is in use.

During summer, windows should kept open instead of using air conditioning systems. If this is not possible, especially during winter, restaurants should follow all WHO guidelines.

Disposable masks increase ocean waste

The disposable masks being used to fight COVID-19 have had a negative impact on the oceans. Scientists at University College London stated that if every person in the UK uses one single-use mask each day for a year, an extra 66,000 tonnes of contaminated plastic waste would be created - and that is UK alone.

It is therefore recommended to wear reusable masks instead which will significantly reduce plastic waste.

Reusable masks will give the same protection as single use masks, if they are manufactured to recommended specifications, and used and cared for according to guidelines and kept clean by washing after each usage.

Ansell Protects™

ARE THERE ALTERNATIVES TO SINGLE USE GLOVES?

Coated mechanical gloves can be sanitised and are ideal for work in oily environments

While demand for PPE continues to increase as a result of the COVID-19 pandemic, Ansell recognises that it is important to consider temporary or alternate solutions to mitigate critical supply shortages such as those related to single use gloves. Mechanical gloves are designed to provide barrier protection against oil and liquid, but are not tested or certified to protect against viruses.

Mechanical PPE such as HyFlex® gloves and sleeves help prevent industrial workplace mechanical risks such as lacerations and abrasions, and are designed to withstand long-term use and multiple cleaning and sanitisation cycles. If you have put in place sanitary rules that require the gloves to be disinfected between laundry cycles please find some recommendations here.

There are 3 steps to properly sanitising your reusable Mechanical PPE between laundering cycles.

The below protocol is effective for most mechanically protective industrial gloves and sleeves.

Step 1:

Remove PPE using proper doffing procedure†
Rest on a clean surface after removal

Step 2:

Apply 70-75% isopropyl alcohol* thoroughly by spray bottle on both front and back of the PPE and allow at least 30 seconds of exposure per side

Do not use 90+% isopropyl alcohol as it evaporates too quickly for cleaning

IMPORTANT: Execute in a well-ventilated area far away from a flame or spark as alcohol is flammable

Step 3:

Allow at least 10 minutes of drying time before reusing PPE

REMEMBER:
- **Always wash your hands for 20 seconds with soap and water after removing PPE**
- **Inspect PPE before every use to ensure the integrity is not compromised and it is suitable for the application for which it is being used**

**Ethanol can be substituted for isopropyl alcohol. Do not substitute with methanol*
*†For more information or guidelines, visit the **Mechanical Protection Resources** section on the **Ansell Safety Resources** page*

Mechanical hand and arm protection is made using different materials and therefore, have a variety of cleansing and sanitisation processes. While it may seem easy to use every day products such as sprays and wipes, all disinfecting products are created using different formulations, so it is difficult to predict their interaction with the variety of PPE coatings and fabrics and whether or not they are sufficiently disinfecting the PPE from the COVID-19 virus.

Disclaimer:
Employers must ensure workers are trained on the hazards of the cleaning chemicals used in the workplace as well as the proper inspection and disposal of regulated waste and PPE. Since Ansell does not control the environment the PPE is stored or used, the cleansing and re-use decisions of Ansell products, whether alone or in combination with additional PPE for an application, is the final responsibility of the user.

Recommended solutions for oily environments

Multipurpose

HyFlex® 11-849

- Perfect fit for an optimal comfort - Spandex reinforcement and ergonomic design
- Thin FORTIX™ Technology foam nitrile coating allowing breathability while offering extreme durability
- Dermatologically tested

ANSELL GRIP™ Ansell Grip Technology · FORTIX™ Abrasion Resistance Technology · ERGOFORM™ Ergonomic Design Technology

EN 388:2016 4121A · OEKO-TEX® STANDARD 100

HyFlex® 11-919

- Liquid repellent against oil, grease and dirt
- The seamless nylon liner provides an optimal fit, for comfort and dexterity
- Ideal glove for use in oily and grimy work environments

EN 388:2016 4121A · OEKO-TEX® STANDARD 100

HyFlex® 11-925

- ¾ dip geometry for added protection against oil exposure & knuckle abrasion
- Double nitrile coating for increased oil protection and grip
- 18G liner extreme comfort

ANSELL GRIP™ Ansell Grip Technology · RIPEL™ Liquid Repellence Technology

EN 388 4111A · ISO 18889:2019 GR

HyFlex® 11-926

- Dark purple hides dirt in oily environments & prolongs usage
- Added protection against oil exposure & knuckle abrasion
- Provides superior ergonomic fit

ANSELL GRIP™ Ansell Grip Technology · RIPEL™ Liquid Repellence Technology

EN 388 4121A · ISO 18889:2019 GR

Cut Protection

HyFlex® 11-427

- Provides not only the protection needed in dry and slightly oily environments, but also educates workers to understand risk levels
- The color indicator system on the glove ensures the wearer of always having the appropriate cut level performance

INTERCEPT™ Cut Resistance Technology

EN 388:2016 4X32B · EN 407 XIXXXX

HyFlex® 11-927

- Industry leading oil grip, featuring ANSELL GRIP™ Technology
- Unique ¾ dip geometry provides added protection against oil
- High abrasion & cut resistance

ANSELL GRIP™ Ansell Grip Technology · INTERCEPT™ Cut Resistance Technology · RIPEL™ Liquid Repellence Technology

EN 388:2016 4342B

HyFlex® 11-939

- High comfort: Glass Fibre-free, latex-free & lightweight
- Reinforced thumb crotch: Delivering up to 12x incremental durability for extended use life*

ANSELL GRIP™ Ansell Grip Technology · FORTIX™ Abrasion Resistance Technology · RIPEL™ Liquid Repellence Technology · ZONZ™ Comfort Fit Technology · ERGOFORM™ Ergonomic Design Technology

EN 388:2016 4X42B · ISO 18889:2019 GR · OEKO-TEX® STANDARD 100

HyFlex® 11-949

- Excellent abrasion performance
- Good cut resistance & good grip properties
- Coating resistance to residual oil & greases

ANSELL GRIP™ Ansell Grip Technology · FORTIX™ Abrasion Resistance Technology · INTERCEPT™ Cut Resistance Technology

EN 388:2016 4X42B · OEKO-TEX® STANDARD 100

Definition of Re-usable versus Limited or Single-use PPE

Re-usable*	Limited or Single Use
PPE that is constructed from materials which allow it to be cleaned after repeated exposure to a hazard, such that it remains suitable for continued use.	**PPE for limited duration of use. To be worn until hygienic cleaning becomes necessary or contamination of a hazard has occurred, and disposal is required.**

*Based on CENISO/TR 11610 Protective Clothing Vocabulary
Note: For reusable PPE that is not claimed and/or certified for virus protection, proper sanitisation and laundering guidelines can be applied to help prevent the spread of viral contamination.

www.ansell.com

HyFlex®

Claims that sanitisers are SABS approved may be invalid

While SABS has certified a wide range of products such as disinfectants, sanitisers, medical equipment and masks, there are some unscrupulous manufacturers that are making false claims.

The South African Bureau of Standards (SABS) therefore has advised consumers to verify whether the producers of sanitisers, that claim to be SABS Approved or carry the SABS Mark Scheme number, are valid claims.

Certified sanitiser products are certified against South African National Standards (SANS) 490 and SANS 1853 in order to carry the SABS Approved Mark.

"The SABS has received numerous queries regarding the fraudulent use of the SABS Approved Mark on products and while we have taken legal action against the illegal use of our Mark we urge South African consumers to remain vigilant and not to use untested and uncertified products. Uncertified products could be dangerous for a number of reasons that include: adverse reactions to humans and the environment, the harmful effects of unidentified ingredients, bacterial and microbial impurities as well as simply just not being suitable for use on oneself," says Jodi Scholtz, Lead Administrator of SABS who has advised consumers to only buy SABS approved sanitisers.

"The SABS Approved sanitisers will bear the SABS Approved logo and should have one or both the SANS 490 and SANS 1853 Marks below the SABS logo.

"The Mark can be affixed onto the bottle with a sticker or be imprinted on the bottle. The product must clearly stipulate the batch number, the expiry date, the ingredients and the percentage of the alcohol used.

"SABS is also committed to work with other regulators such as the National Regulator for Compulsory Specifications, the Department of Health and the South African Health Products Regulatory Authority to ensure that safe, tested and certified products are sold within South Africa," explained Scholtz.

DEVELOPMENT OF STANDARDS

All South African National Standards (SANS) are developed by various industry experts, technical specialists, academics, practitioners, government officials and citizens.

The technical committee (TC), SABS/TC 1022 is responsible for a wide range of standards within the field of antiseptics, disinfectants and detergent disinfectants. Of the 37 standards published by the TC, the two that are relevant to hand sanitisers which are alcohol-based, are contained in SANS 490 and SANS 1853.

FRAUDULENT USAGE OF SABS MARK

The SABS is aware that there are a large number of manufacturers who are fraudulently using the SABS Approved mark on their products and have instituted legal proceedings against these infringements, however the SABS does not have the authority to instigate product recalls.

"While we regularly monitor the abuse of the Mark Scheme we appreciate the reports from the public. The SABS has been inundated with reports of fraudulent use by manufacturers.

"We have also noticed a rise in the number of fake test reports, SABS Permits and the incorrect SABS Approved logos on products." says Scholtz.

CUSTOMERS CAN TAKE PREVENTATIVE ACTION

Consumers are advised to check the certification status of companies on the SABS website. https://www.sabs.co.za/Certification/certificationfilter.asp lists all manufacturers who are currently certified with them.

ABOUT THE STANDARDS

SANS 490, published in 2013 is a specific standard that addresses alcohol-based hand rubs for the purposes of disinfecting

SANS 1853, published in 2009 and revised in 2017, provides the specifications for disinfectants, detergent-disinfectants and antiseptics for use in the food industry.

It is important to note that SANS 1853 also references SANS 490.

WHY BUY SABS APPROVED SANITISERS?

The term SABS Approved refers only to products that have been submitted for certification and have successfully attained the product certification scheme offered by the SABS.

The product would have undergone the following:

- Vigorous testing to ensure that it complies with SANS 490 or SANS 1853.
- Audited regularly over a period of time with samples being taken from the factory and/or retail stores.

  These tests ensure that the product is fit for purpose, safe for use and that the product is consistent.
- In addition to meeting the requirements of the standard/s relevant to the product, the manufacturer will have, at the very least a basic quality management system to ensure that the product is consistent throughout the production process.

Speaking C-suite OHS issues

Leighton Bennett
(Pr.CHSA)
Benrisk Consulting,
Insurance Surveyor,
and OHS and
Risk Management
Consultant

Although it might sound strange coming from an OHS professional, but speaking C-suite language is not common and speaking C-suite OHS is fairly remote in our OHS profession.

The advent of COVID--19 has changed the landscape of overall risk irrevocably, including the new risk complexities associated with the management of OHS.

Are the OHS practitioners understanding and able to provide guidance in terms of this shift in risk perspective focus, which is now more complicated and complex?

Are the OHS practitioners talking OHS C-suite language that management can understand? Many in the OHS profession are still measuring OHS performance using incident rate statistics, which are historical, where C–suite management are looking into the business going forward and surviving the business and the COVID--19 pandemic risks that business currently faces.

Many OHS practitioners lack the clarity on the full financial impact the Covid-19 pandemic and the risks and losses it has caused to business. Yes, OHS practitioners are aware of the Covid-19 Directives and Regulations around applying the health and safety measures to prevent the corona virus transmissions, in terms of mask wearing, hand washing or sanitising and social distancing, but not the full cost of the pandemic to business and its impact on the individual. A simple question: What has the COVID--19 requirements in terms of the workplace disinfecting and provision of additional PPE cost since the pandemic started? If we don't know, what are we saying to our C-suite managers about managing this exposure risk?

Furthermore, has the company baseline risk assessment and business strategy been reviewed to cover the COVID--19 risk and its impact? Was the OHS practitioner's voice included in this/these C-suite management review/s?

What should be considered to enable effective risk/OHS systems management? In 1994 R. L. Ackoff in a paper on *Systems Thinking and Thinking Systems* suggested the following way of treating messy (or complex) problems:

- **Absolution:**

  To ignore the problem or mess; to hope that it will take care of itself or go away. (i.e. Tolerate in OHS terms)
- **Resolution:**

  To do something that yields an outcome that's good enough, that suffices. (i.e. Treat in OHS terms)
- **Solution:**

  To do something that yields or comes close enough to the best possible outcome, that optimises. (i.e. Transfer in OHS terms)
- **Dissolution:**

  To redesign either the entity that has the problem or mess, or its environment, in such a way as to eliminate the problem or mess and enable the system involved to do better in the future than the best it can do today, in a word, to idealise. (i.e. Terminate in OHS terms)

In dealing with this COVID--19 problem, it is likely that the OHS practitioner has been appointed as the COVID--19 Manager/Champion with the task to monitor Covid-19 management compliance.

Is the OHS practitioner reviewing operational social distancing that the operational management is applying?

Is the workplace ventilation circulation adequate and suitable to limit viral droplets dispersion? Split air-conditioners just recycle the room's air and any virus droplets and aerosols in that room, so they must be switched off and that room may not be used if there are no windows that can be opened to to provide suitable natural ventilation conditions. Again what has the OHS practitioner done and said to their C-suite management about this possible poor ventilation as well as other Covid-19 exposure risks?

It needs to be remembered that most of the C-suite management are educated and qualified in their disciplinary speciality fields, but few have any OHS exposure, training or qualifications, so understanding the OHS field is essentially a "foreign territory" to them. They therefore consider that by appointing an OHS person, they will be absolved of their OHS responsibilities - however they are still held legally accountable.

The question is, are the OHS practitioners speaking the C-suite language which ensures they are communicating with and being understood by their C-suite management, and providing potential solutions for managing the complicated and complex workplace and system risks?

To close, if we consider the Covid-19 strategy adopted by most governments, they have considered physical contact as one facet of the complex COVID--19 problem, and issued lockdown regulations to temporarily change the environment, that has impacted on the economy, business and the individual and in so doing influenced but has not solved the complex COVID--19 problem.

REFERENCES

IRMSA Risk Chat "Dealing with Complicated and Complex Risks" 13/7/2020.

FM Global insights & impacts "Speak the language of the C-suite" 8/7/2020

Community intervention critical to the management of HIV and COVID-19 pandemics

Timothy Zulu is the Programmes Director for Education of Hope Africa (EOHA) NPO. He has over 10 years senior management experience of health programmes and projects in the HIV/AIDS, poverty alleviation, socio-economic and civil society development sectors. He is an activist & advocator of human diginity, adolescent girls & young women, children's rights and HIV/AIDS rights in the struggle to end AIDS.

Since the onset of the COVID-19 pandemic, comparisons have been made between the current crisis and world-wide efforts to tackle HIV and Aids. For decades, the global response to the Aids pandemic has been held up as a yardstick of what the world can achieve.

COVID-19 LESSONS CAN BE LEARNED FROM THE HIV RESPONSE

It may not be perfect – progress is still needed on HIV prevention and access to treatment – but the HIV response has provided a clear blueprint for how governments, international institutions, communities and citizens can work across borders, cultures and generations to tackle a challenge that, at times, seems insurmountable.

With COVID-19, the world is having to re-learn these lessons fast. Yet the urgency has sometimes made it feel like interventions are happening 'to people' not 'with people'. A key learning point from the HIV epidemic is that this approach will not be sustainable.

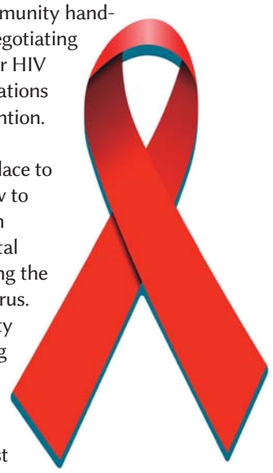
EDUCATING COMMUNITIES IS AT THE HEART OF SUCCESS

For global action on COVID-19 to have the best possible chance of success, communities must be at the heart of any response.

As we watch even the best-resourced health and social systems buckle under the unprecedented strain of this pandemic, governments have to look towards communities and civil society to reach the people as a vital part of the solution.

In the earliest days of the HIV epidemic, community-led organisations were the first responders. They stepped forward when many governments failed to act. Now, almost four decades later, we are seeing some of these same organisations – sometimes the same individuals – working at speed to protect people living with HIV and those most at risk to COVID-19.

All over the world, HIV organisations have been stepping up to the new challenges created by COVID-19, hosting information sessions on social media, setting up community hand-washing points and negotiating longer prescriptions for HIV treatments and medications essential to HIV prevention.



In Kenya, bulk SMS platforms already in place to educate people on how to prevent HIV have been repurposed to carry vital messages about limiting the spread of the coronavirus. In Vietnam, community organisations are using established networks to ensure masks and hand sanitisers are reaching even the most marginalised groups in villages, informal settlements and townships. Education of Hope Africa, in Gauteng South Africa has been providing groceries, sanitary packs, PPE and clothing to communities in need.

Communities are pulling together. As well as their knowledge and expertise, they also bring with them values that are essential to any successful epidemic response; love, compassion, dignity and respect. Communities must support each other through the current pandemic, and must be meaningfully involved in the recovery once the worst of this pandemic is over.

Government must build these values into their strategies, and keep these communities resourced as they would any other part of the health system including to ensure they have access to vital PPE to prevent infection.

Communities can fill critical gaps by working effectively with the marginalised people who are especially vulnerable to COVID-19 and help extend necessary healthcare services into harder to reach areas.

FIGHTING STIGMATISATION AND OTHER MISUNDERSTANDINGS

Communities can help tackle the stigma and prevent fake news which leads to human rights abuses that were all too familiar with the response to the HIV and AIDS pandemic.

The inequalities across communities which were apparent in the global HIV response, are equally relevant within the context of COVID-19 and will likely be exacerbated unless organisations like Education of Hope Africa are recognised and respected as equal partners.

EDUCATION OF HOPE AFRICA
"Empowering Lives | Transforming Communities"

Non-profit organisation takes charge of HIV and COVID-19

Education of Hope Africa (EOHA) is a non-profit organisation based in the community of Kagiso in Mogale City, Krugersdorp South Africa founded to tackle the high rate of HIV, AIDS, STIs, GBV, TB and abuse within the communities.

Diminishing food security is a major concern especially during times of COVID-19 where strong and healthy immune systems are necessary to help fight the disease. To survive this pandemic, HIV patients must adhere to their treatment but many people who are on ARVs and TB treatment have not been able to get their medication due to lockdown challenges and disruption of medicine supplies exacerbated by flight cancellations. With the return to work, the OHS practitioner must be aware of this problem and assist their HIV and TB workers where possible.

SUPPORTING ORGANISATIONS

Since the start of the lockdown on March 27 2020, about 1.4% of people with tuberculosis have not been able to collect their TB medicines, while about 19.6% of HIV positive people have failed to collect their antiretroviral medicines.

The NPO survives on donations, and during these times seeks help with the supply of PPEs, hand hygiene products, masks, sanitary packs etc.

Gauteng PEP stores celebrated 2020 Mandela Day at Education of Hope Africa ECD centre by donating winter clothing, face cloths, underwear and teddybears for 256 children aged 2-7 years as well as cloth masks and hand sanitisers to help the children keep safe through the COVID-19 pandemic.

Water crisis during COVID-19

Mannie Jnr. Ramos, water storage pioneer COO of Abeco Tanks

Following news from the Eastern Cape regarding health facilities and their lack of running water for basic sanitation and hygiene, government and industry players need to prioritise water on the health agenda.

Already in March 2020 I urged that water had to get back on the health agenda and required critical intervention. I called for a greater focus and consultation with industry players regarding the looming water crisis that COVID-19 would bring.

What is happening in the Eastern Cape hospitals is further proof that leaders in government must intervene now before it is too late.

In the epicentre of COVID-19 infections and deaths in the province – Nelson Mandela Bay Metro - health workers in one facility use a bath as a storage "tank" to store water where they scoop water out to flush toilets and wash their hand.

We urged, from the start of the pandemic, that government should take heed of water scarcity and supply together with the development and implementation of Coronavirus strategies. Water sanitation and hygiene is essential to reducing the spread of infection and multi resistant germs like Covid-19.

Investment and urgent delivery of water storage solutions that are properly planned and delivered can help clinics that do not have running water. These tanks have to be fit for purpose.

At the outset of the pandemic the entire supply of plastic tanks in the country was purchased, as government rushed to get water to areas without it.

But the tanks employed at the time – 5000 litre plastic water tanks - were actually meant for individual home use.

When installing water tanks, it is necessary to ensure that the solutions in place are right for the number of people working at the venue. The average consumption and usage patterns must be taken into consideration - whether healthcare facility, office or home.

As can be seen in the Eastern Cape, we are failing constitutionally regarding water infrastructure even at the level of basic supply. Water stewardship and investment in water, sanitation and health infrastructure is necessary not only during this Covid-19 crisis, but to meet the challenges of water scarcity that are predicted to worsen by 2030.

South Africa has the capabilities to deliver water storage solutions, but we just have to work together to come up with the most effective solution to saves lives.

Alcohol and Drug testing **specialists**

Industry leaders for over 40 years, find out why over 5000 businesses trust our products and expert levels support in policy development, legal advice and after sales service.

High speed testers capable of testing high volumes of people at site entrance/ exit points and portable instruments with digital readouts for use at remote sites providing immediate printed evidence.

ALCONTROL

The ALCONTROL Breathalyser is an unmanned breathalyser. Made to be tough and simple to use. The ALCONTROL can be used in any environment for operator free breathalyser testing.

In its simplest application it can be mounted to any wall, switched on and used as a voluntary testing breathalyser. Any employee can walk up to the ALCONTROL at any time before entering the work premises and test themselves to make sure that they have no alcohol present on their breath.

The ALCONTROL can also be fitted to an entrance point such as a turn style gate. In this application an employee or visitor will not be able to open the gate unless they have blown a negative sample into the ALCONTROL. If they blow a positive sample the gate will not open.

A Siren and beacon light can be added to the system to attract attention should someone blow a positive alcohol sample when trying to enter and blowing into the ALCONTROL.

In its most advanced application the ALCONTROL can be fitted with a Camera. The camera can be programmed to take a picture of every person as they blow into the breathalyser or only take pictures when a test is positive. The pictures can be stored in the internal memory and retrieved via wifi connection or sent to a folder on the company server via LAN. Ideal for controlling entrance at turnstile gates.

AlcoBlow® Rapid Test

Strongest and fastest breath alcohol tester on the market. AlcoBlow Rapid Test requires the smallest breath sample and ensures accurate results first time, every time. Results are obtained within seconds. Very economical operation, no disposable mouthpieces are required. The subject simply blows into a cone at the end of the instrument.

BREATH TEST KEY CABINET

Breathalyser key management system. Integrated key cabinet to ensure drivers take keys and return them sober. Reports are drawn automatically to show records of key movements. Solutions for 10 to over 540 keys.

LION ALCOLMETER® 600

The LION ALCOLMETER 600 and printer have a TOUCH SCREEN DISPLAY allowing for entering of the test subject name, surname and ID number. Perfect for CCMA cases.

DDS® 2 MOBILE ANALYSER

From a saliva sample it can test up to 6 drugs within 5 minutes. Gives digital readout and multiple printouts. Zero chance for operator error.

URINE TESTING

Rest accurately for between 1 - 10 drugs in a matter of minutes. The test results are available within 5 minutes.

Ensuring safer working environments for over 40 years

Help is one call away +27 12 343 8114 or visit www.alcosafe.co.za for more information

SAIOH Occupational Hygienist's role during and post the corona pandemic in South Africa (and into Africa)

Hennie Van Der Westhuizen
PhD Environmental Health (Occupational Hygiene)
Vice President: SAIOH

The COVID-19 pandemic has brought with it, new approaches to life and the workplace. This article deals with the legislative demands of the pandemic and investigates the role of occupational hygienists within specific SA legislation.

1. INTRODUCTION

A short background on COVID-19 and occupational hygiene is provided, that will serve as a foundation for the sections follows.

1.1 COVID-19 pandemic

Human Coronaviruses are common throughout the world. On 7 January 2020, 'Severe Acute Respiratory Syndrome Coronavirus 2' (SARS-CoV-2) was confirmed as the causative agent of the 'Coronavirus Disease 2019' or COVID-19.

Since 31 December 2019 when the World Health Organization (WHO) reported a cluster of pneumonia cases in Wuhan City, China, the disease has spread to more than 100 countries. As of 27 July 2020, the number of confirmed COVID-19 cases in Africa has risen to more than 847,109 and caused more than 17,767 deaths and 491,016 recoveries.

While the virus was slow to reach the continent compared to other parts of the world, infection has grown exponentially in recent weeks and continues to spread.

Africa's first COVID-19 case was recorded in Egypt on 14 February. Since then a total of 52 countries have reported cases. The top 5 countries severely burdened are South Africa with more than 445,433 cases and 6 769 deaths, Egypt (92,062), Nigeria (40,532), Algeria (27,357), and Ghana (32,969). (https://allafrica.com/stories/202007270202.html) .

Management of the disease in the workplace involves the systematic application of knowledge of the hazards and risks of the disease, within the context of the relevant legislation.

The three commonly accepted routes of transmission for the disease are via:

- Projected respiratory droplets (sneezing, coughing and talking) which is directly inhaled and spread from person to person.
- Suspended micro droplets that remain airborne. Any of the abovementioned SARS-CoV-02 droplets that is of a very small size, will remain airborne for a long time, and being spread via air movement, e.g. mechanical ventilation further afield.
- Respiratory droplets landing on surfaces surrounding the infected person, which are then transferred by physical contact.

1.2 Occupational hygiene

Occupational Hygiene (OH), is the 'science and art' that recognises, assesses and evaluates the working environment by means of scientific observation and measurements, identifying health hazards, quantifying the risks and applying preventive (control) measures, thus reducing the probability that hazards will culminate in risks.

This allows the occupational hygiene professional (OHP), to use findings and information so obtained, to implement engineering and design techniques to control occupational exposures in the workplace, and the community.

1.3 The Southern African Institute for Occupational Hygiene (SAIOH)

SAIOH is the officially recognised and accredited professional organisation responsible for the certification and registration of OH professionals in southern Africa. The International Occupational Hygiene Association (IOHA) recognise SAIOH's occupational hygiene registration and certifying of OHPs in Southern Africa. This professional institute is more than 37 years old and is also accredited and recognised by the South African Quality Authority (SAQA) and the Department of Employment and Labour (DoEL) as the only professional body registering OHPs and representing Occupational Hygiene in SA.

The aims and objectives of SAIOH are:

- The advancement of the OH discipline.
- The promotion of the activities of the Institute.
- The nurturing of the interest and status of the OH Profession and the Institute's members.
- Certifying OHPs in the different categories after successful undergoing assessments. Thereby proving competency and meeting the requirements of IOHA, the DoEL, DMR and SAQA.
- The promotion and quality of education and training in the OH discipline.

SAIOH's mission is to 'establish and provide for sustainable support systems, in ensuring excellence in Occupational Hygiene in the African context', and its vision is to 'ensure healthy working environments in Africa through excellence in Occupational Hygiene'.

2. LOCKDOWN

On 26 March 2020, the lockdown was announced in South Africa. Lockdown measures were implemented universally, and countries in Africa are in various stages of lockdown. Many guidance documents were produced by the African Union, World Health Organization, Centre for Disease Control Africa and the African Union Development Agency.

It needs to be noted new and revised legislation and guidelines are being published on a continuous basis in South Africa by the Department of Health and the DoEL. Legislation applied since the lockdown is as follows:

- Disaster Management Act: Declaration of a National State of Disaster: COVID-19 (coronavirus).
- South African Occupational Health and Safety Act (OHS Act), 1993, and its Regulations for Hazardous Biological Agents, 2001.
- Department of Employment and Labour: Covid-19 Occupational Health and Safety Measures in Workplaces (C19 OHS), 2020 Directive.
- Department of Health: Guidelines for symptom monitoring and management of essential workers for COVID-19 related infection.
- Department of Health - COVID-19 Infection Prevention and Control Guidelines for South Africa.
- Department of Health - Draft Guideline for Workplaces during Post-lockdown Period.
- Department of Mineral & Energy Resources: SOP for South African Mines: Following COVID-19 Lockdown.

Not ignoring other legislation, the lockdown necessitated a focus on the rulings of the South African HBA Regulations.

Occupational hygiene professionals are familiar, scientifically competent, and work daily with this legislation. The companies employing OHPs, are accredited by the Department of Employment and Labour as approved inspection authorities (AIAs) to perform such work. Unfortunately, occupational hygiene was not classified as an essential service when the regulations were originally promulgated in terms of the Disaster Management Act. With the support of officers of the Department of Employment and Labour, the SAIOH council lodged a successful appeal to Government to include OH as an essential service.

3. REGULATIONS FOR HAZARDOUS BIOLOGICAL AGENTS, 2001 AS APPLIED TO COVID-19

The requirements for the protection of employees against hazardous biological agents (HBAs) such as SARS-CoV-2 virus, are covered in the South African Occupational Health and Safety Act, 1993, Regulations for Hazardous Biological Agents, 2001. Some of these requirements are provided in the following paragraphs.

3.1 Risk assessment

Principles entrenched in Regulation 6(1) of the Regulations for Hazardous Biological Agents (2001) in South Africa, are universal and could be applied in other countries.

This regulation requires an employer or self-employed person to determine if any person might have been exposed to an HBA. The regulations further stipulate that consultation with the safety representative(s) or committee take place before proceeding with the risk assessment. In addition the employer must inform the relevant health and safety representative(s) or relevant health and safety committee in writing of the arrangements made for the risk assessment, give them reasonable time to comment there-on, and ensure the outcomes and findings of the risk assessments are made available to the relevant health and safety representative or relevant health and safety committee, which may comment thereon.

The employer or self-employed person must keep a record of the risk assessment and consider matters such as:

- The nature, exposure risk, and dose of the SARS-CoV-2 virus to which an employee may be exposed and the suspected route of exposure and exposure scenarios, where it may be present and in what physical form it is likely to be.
- The nature of the work, process and any reasonable deterioration, or failure of, any control measure.
- The effects the SARS-CoV-2 virus can have on an employee.
- The period of exposure.

The risk assessment that is to be conducted, should be based on all available information as far as is reasonably practicable, including:

- Classification of SARS-CoV-2 virus into the relevant risk group, according to its level of risk of infection.
- Recommending organizations, such as the World Health Organization (WHO), or a competent person regarding the control measures necessary to protect the health of employees against SARS-CoV-2 virus because of their work.
- Knowledge of diseases from which employees might be suffering that may be aggravated by conditions at the workplace.
- Knowledge of HBAs and the SARS-CoV-2 virus.

An employer must review the risk assessment if there is a reason to suspect that the previous assessment is no longer valid, or there has been a change in the process, methods, equipment or procedures in the handling, control or processing of COVID-19 samples or patients, following a suspected or confirmed case at the workplace.

The outcomes and findings of the risk assessments must inform the programme to monitor the exposure of employees to COVID-19 as well as the programme of medical surveillance.

An example of the risk assessment form that was designed by SAIOH for the National Department of Health in SA is provided below.

3.2. Risk management and control measures

Annexure 2 of the Regulations for Hazardous Biological Agents (2001) sets out a hierarchy of control measures using standard and transmission-based precautions. These are:

- Personal protective equipment should be appropriate to the route of transmission e.g. respirators, impermeable gloves, supply, selection, training, testing of protection ability, separate storage, decontamination or sterilisation.
- Testing of engineering control measures should be conducted every 24 months by an approved HBA inspection authority (retaining records for at least 3 years).

Annexure D of the Regulations for Hazardous Biological Agents (2001) sets out requirements for the labelling, packaging, transportation and storage in special containers marked with the biohazard sign.

In terms of the Environmental Conservation Act No 73 of 1989 (SA), the employer must have written procedures for disposal and decontamination or disinfection of all containers.

3.3. Competencies

The Regulations for Hazardous Biological Agents (2001) do not define any competency requirements for conduction HBA risk assessments (or for the monitoring of exposure at the workplace).

Employers and self-employed persons are advised to ensure anyone engaged to undertake an HBA risk assessment is competent in risk assessment processes and is familiar with the Regulations for Hazardous Biological Agents (2001). Knowledge of the HBA of concern (in this case SARS-CoV-2 virus) and HBA, in general, is strongly advisable.

Regulation 12.(b) of the Regulations for Hazardous Biological Agents (2001) requires that examinations and tests of engineering control measures be carried out at intervals not exceeding 24 months by an approved HBA inspection authority or by a person whose ability to do the measurements, analysis and tests is verified by such an approved HBA inspection authority.

From all the discussions above it transpires that the SAIOH registered occupational hygiene professionals are the preferred specialist for HBA work.

4. CONTROLS

Controls are aimed at preventing physical contact, airborne transmission and entails the following: avoidance engineering, personal protective equipment (PPE), administrative, ventilation, etc. Physical distancing (1m – 2 m, depending on local

Employer Risk Assessment

COVID-19 Risk Assessment Report								
Site:	Sector*:		Date:					
Department:			Risk Assessor:	Name & Surname	Signature			
Work Area/s:			Employer Representative:	Name & Surname	Signature			
Occupations in Area:			Health & Safety Representative:	Name & Surname	Signature			
Risk Assessment								
Source of Hazard	**Route of exposure**	**Activities & tasks**	**Existing Control Measures**	**Control effectiveness**	**Risk classification**	**Additional Controls Required**	**Responsible person(s)**	**Due Date/s**

Department of Employment and Labour Exposure Risk Classification			
Low Exposure Risk Low exposure risk (caution) jobs are those that do not require contact with people known to be or suspected of being infected with SARS-CoV-2, nor frequent close contact with (i.e. within 2 meter of) the general public.	**Medium Exposure Risk** Medium exposure risk jobs include those that require frequent aud/or close contact with (i.e. within 2 meters of) people who may be infected with SARS-CoV-2 but who are not known or suspected COVID-19 patients.	**High Exposure Risk** High exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19	**Very High Exposure Risk** Very high exposure risk jobs are those with high potential for exposure to known or suspected sources of COVID-19 during specific medical, postmortem, or laboratory procedures.

* Mining, Agriculture, Fishing, Forestry, Manufacturing, Service
(Document prepared by the Risk Assessment Group within the Occupational Health and Safety Workstream of the National Department of Health - Covid-19 Response)

Name and Signature of CEO/Designated Person

Date

interpretation) is one of the critical workplace controls to protect employees against COVID-19 (i.e. against exposure to respiratory droplets), the first line of defence controls are done in line with HBA regulations.

In this instance OH professionals can play a role in the selection of the proper PPE based on the risk assessment, this will include whether a workplace should be disinfected based on the virus viability in many surfaces, the selection and use of controls such as ventilation, UVG lights, HEPA filters, masks and other controls deemed necessary.

The key interventions in the management of staff may be summarised as follows:

- Distancing and de-densification. Where physical distancing cannot be achieved, respiratory protection such as FFP2 or KN95 face masks is recommended as a second line of defence.
- Personal and workplace hygiene: Regular sanitising of workplaces.
- PPE and cleaning.
- Movement restrictions.
- Screening, testing, tracking and self-isolation / targeted quarantine.
- Responding to positive results and contacts.
- The design of additional measures to protect vulnerable workers.

5. POST COVID-19

The question arises as to what will happen after the COVID-19 pandemic. In essence the underlying principles of occupational hygiene will remain the same, thus warranting the services of the occupational hygienist. However, after the lifting of the lockdown regulations, it is anticipated that the current control programmes will be maintained for an unforeseen time into the future. This would entail programmes aimed at preventing the transmission of the virus via the routes of infection and would include: Administrative controls such as testing and monitoring of the workforce and creating awareness of symptoms as well as sanitising and hand washing protocols; Engineering controls such as proper design and regular maintenance of ventilation systems; and the wearing of PPE where deemed necessary.

The possibility of future epidemics or pandemics caused by HBAs cannot be ruled out and should they arise the occupational hygienist will once again have a place alongside health and safety professionals in the workplace.

6. SUMMARY

With the advent of COVID-19, focus was renewed on the anticipation, recognition, evaluation, and control of HBAs in the workplace. The occupational hygienist is adequately qualified, competent, and authorised to deal with the management of the outbreak in terms of the HBA Regulations. As a matter of fact, the demands for managing the corona virus, confirms the need for the knowledge and systematic approach of occupational hygienists.

ACKNOWLEDGMENTS

Professor Dr Cas Badenhorst, Messrs Deon Jansen Van Vuuren and Norman Khoza, are hereby thanked for their unselfish and meaningful contributions to this article.

Message from SAIOH

A Message from the SAIOH President of 2020, Mr Norman Khoza

Norman Khoza, SAIOH President (2020)

In this Communication:

- Notable national and international days and their link to the COVID-19 situation
- Media releases and SAIOH position papers
- PCC and Council changes
- From the PCC

A focus on SAIOH: Serving our Members

- With a database of close to 900 members, SAIOH's communication channel is the perfect platform on which to advertise occupational hygiene and related jobs, workshops, symposia, and similar events, as well as to share relevant information.
- SAIOH is planning its 1st Virtual Annual Conference later this year, to continue to provide a platform for learning, information sharing, networking, and development.
- Improvements and digitalization are rapidly moving ahead within the PCC space, with regard to oral assessment methodology changes and online assessments.
- SAIOH continues to market the profession, most recently through preparing position papers on COVID-19 aspects, and subsequent media releases and a radio interview.

This is an unprecedented year indeed. We have come to recognise that the current new normal, as it is called, comes with many burdens. We have learned a few lessons about the adversities imposed on ordinary workers. The question is, what do we mean when we say work from home (wfh)? Have we thought about schoolwork, data, band width, power supply (especially on the African continent)? People might be working from home, but it looks like people are working longer hours compared to previous working schedules.

In this newsletter, we explore a bit around 2020, the year of COVID-19, as well as focus on how SAIOH serve the occupational hygiene practitioners (our members), in these trying times.

CELEBRATED NATIONAL AND INTERNATIONAL DAYS AND THEIR LINK TO THE CURRENT GLOBAL CRISIS

This year's international youth skills day was celebrated under the theme "*Skills for a Resilient Youth in the Era of COVID-19 and Beyond*" on 15 July 2020. We must acknowledge that, this year, the celebration proceeded under particularly challenging circumstances. The COVID-19 pandemic and lockdown measures had resulted in the closure of educational institutions. The World Bank, UNESCO, and ILO estimate that about 70% of the world's learners are currently affected by the school closures, and the majority might not catch-up. The question is, what can the professional bodies do to accelerate skills development on the continent?

On 12 August 2020, the world celebrated International Youth Day under the theme 'Youth engagement for Global Action'. There is need to highlight the importance of engaging young people at local, national, regional, and global levels to enrich multilateral institutions. The theme of the day resonated very well with that of International Nelson Mandela Day 2020, which was "Take Action, Inspire Change and Make Everyday a Mandela Day" on 18 July 2020.

On 9 August, South Africa celebrated National Woman's Day in commemoration of the approximately 20 000 Woman of 1956 who submitted a petition against the pass laws. Interestingly, all the above respond to the important UN international day, World Humanitarian Day (19 August) that pays tribute to aid workers who risk their lives in humanitarian service and support people affected by crises around the world.

We are amid a catastrophic crisis. We need only to look at the rate of gender-based violence (GBV) in South Africa, the world grappling the scourge of COVID-19, people losing their jobs, Ebola and bubonic outbreaks, the Black Lives Matter movement, the increasing number of farm murders in SA, crumbling economies, and psycho-social issues.

If I put myself in the shoes of someone who is categorised as COVID-19 high-risk, being 60 years or older and/or living with one or more chronic conditions - it is indeed a frightening thought. What does work from home mean? What if my job does not allow me to work from home? The biggest crises I have ever come across in the workplace are inequalities and prejudices, and the current crises add to this.

It is imperative that professional organisations comprehensively contribute to the eradication of these inequalities and injustices, by promoting inclusive participation and knowledge sharing and management.

PROFESSIONAL CERTIFICATION COMMITTEE (PCC) AND COUNCIL CHANGES

A warm welcome and congratulations to Mr Andrew Dickson, the new PCC vice-chair.

Andrew graduated from Wits University with a Bachelor of Science degree (Natural Sciences) in 1991 and completed his national service training before spending a year overseas. Following his return in 1995, he joined Geozone Environmental (then Hindoc) as an intern/assistant and was bitten by the occupational hygiene bug. From 1997 to 1999, he completed the 'British Examining Board in Occupational Hygiene and was awarded the Diploma of Professional Competence in Occupational Hygiene (Cum Laude) from the British Institute of Occupational Hygienists (BIOH) in November 2000. He is a Registered Occupational Hygienist with SAIOH and has been working for Geozone Environmental for more than 20 years, as an occupational hygiene consultant, gradually moving up to his current position as Technical Manager: Occupational Hygiene. Andrew was always keen to find a way to give something back to the profession and joined the Professional Certification Committee (PCC) in the early 2000s. He has served as a member and lead assessor, and member of the Examinations Committee, ever since.

A further warm congratulations to Mrs Naadiya Mundy (previously Nadasen) on her marriage.

The wedding took place on Saturday, 4 July 2020. Naadiya was elected onto the SAIOH National Council during last year's AGM which took place at

the African Pride Mount Grace Resort. Naadiya commented that she and her husband had a relaxed and good day celebrating with only their families. The dress that she wore (in the photo above) was, in fact, her mother's wedding dress which is now 47 years old. We wish Naadiya and her husband a long and happy life together, full of joy and happiness.

MEDIA RELEASE AND POSITION PAPERS

Mr Deon Swanepoel, the SAIOH Council member responsible for the Technical Portfolio, had an informative interview with Radio Sonder Grense (Spektrum), a South African Broadcasting Corporation (SABC) Afrikaans radio station, on the topic of SAR-CoV-2 aerosol transmission. A big thank you to our General Manager who organised the interview, and Deon Swanepoel for drafting the position paper used in the interview.

This was the second position paper released in less than a month. The first one was on disinfectant tunnels. These two position papers were preceded at a media release on the role of the occupational hygiene practitioner during the COVID-19 pandemic and during return to work. Here we must give special thanks to Prof. Cas Badenhorst and Mr Sean Chester who came up with the initial idea, and especially to Sean for drafting the media release statement.

We encourage our members to read these informative documents which can be found under https://www.saioh.co.za/page/Resources on the SAIOH Website. To listen to the radio interview, please visit the SAIOH website. The media release and position papers were circulated by Mailchimp to all the SAIOH members and stakeholders and, are also available on the SAIOH website. Many thanks to the SAIOH administrative team for a job well-done in placing the occupational hygiene profession and SAIOH on the map.

FROM THE PCC

The SAIOH PCC written assessments took place nationally, on Friday 26 June 2020, with candidates writing their assessments at nominated venues. This method posed numerous challenges to the candidates and the PCC administrative team. We would like to thank candidates and their invigilators for ensuring fair procedures and maintaining integrity.

The SAIOH PCC team has again met up with the information and communication technology company that is developing our assessments electronically. We wish to notify all future candidates that starting from 11 September 2020, all assessments (written and oral) will be electronic.

HAVE YOUR SAY

The SAIOH Council invites your feedback on how this communication is helping you as a SAIOH member and how we can improve. If you have any suggestions, inputs, or contributions, please e-mail them to our president at president@saioh.co.za for consideration.

REFERENCES

1. World Health Organization. Coronavirus disease (Covid-19) outbreak: rights, roles and responsibilities of health workers, including key considerations for occupational safety; 2020. Geneva: WHO. Available from: https://www.who.int/publications/i/item/coronavirus-disease-(covid-19)-outbreak-rights-roles-and-responsibilities-of-health-workers-including-key-considerations-for-occupational-safety-and-health (accessed on 27 Jul 2020).
2. OHTA. Basic Principles in Occupational Hygiene. Occup Hyg Training Association [Internet]. 2010;(February):1-199. Available from: http://www.ohlearning.com/Files/Student/KA02%20v3-1%2031Jul19%20Student%20Manual.pdf: Accessed on 28 July 2020
3. Spinazzè A, Cattaneo A, Cavallo DM. COVID-19 outbreak in Italy: Protecting worker health and the response of the Italian Industrial Hygienists Association. Ann Work Expo Health. 2020;64(6):559-564.
4. Semple S, Cherrie JW. Covid-19: Protecting worker health. Ann Work Expo Health. 2020;64(5):461-464.

Report by:

Norman Khoza, SAIOH President (2020)
email: nkhoza@saioh.co.za
Nico Potgieter, SAIOH Marketing and Liaison
email: n.potgieter@dundeeprecious.com
Kate Smart, SAIOH Chief Admin Officer
email: info@saioh.co.za
Deon Jansen van Vuuren, SAIOH General Manager
Email: Deon.jvvuuren@gmail.com
Lee Doolan, SAIOH PCC Administrator
Email: Lee@saioh.co.za

DuPont raising the bar for arc protection in South Africa

Each refinery worker has a family waiting for them to arrive home safely every day, and it is for this reason that over the past decade, Nomex® has become the benchmark for FR protection in high risk petrochemical environments in South Africa. It is this trust and dependability which is now being extended to electrical and utility workers locally, whereby DuPont is raising the bar in arc thermal protection by introducing its Nomex® portfolio of next generation arc fabrics.

INDUSTRY CHALLENGES

Over the past several years, industry has struggled with durability of arc rated garments, particularly in demanding sectors such as iron and steel, mining and metal processing. Lower priced solutions, certified with conforming ATPVs have been utilised, however these materials and garments do not stand up to the rigour of the environment in which electricians are operating.

It is, with this in mind, that DuPont™ Nomex® arc rated garments have been introduced, bringing its uncompromising arc flash and FR performance in conjunction with exceptionally long-lasting durability, into the South African market.

STANDARDS

Injuries due to arc flash account for **80%** of the total electrical injuries in NA Transmission and Distribution Industry

Nomex® portfolio of arc solutions is the latest innovation in electrical worker protection delivering the lightest weight inherent arc protection and conforms to the following standards:
ASTM 1959, IEC 61482-1-1, NFPA 2112, ASTM D3776, ASTM D 5034, ASTM D1424, AATCC 135, ISO 3801, ISO 13934-1, ISO13937-2, ISO 5077.

DUPONT
Nomex.

Utilities Product Portfolio

Product	Description	Weights	Colors	Certifications[1]
Nomex® Xtreme Arc	Introducing the most innovative Nomex® offering for arc flash and FR protection. Nomex® Xtreme Arc provides an ATPV of 12 to 19 cal/cm² in a single-layer, lightweight fabric. Nomex® Xtreme Arc delivers highquality,comfortable FR protection.	6.5 oz/yd² / 220 g/m²* 6.9 oz/yd² / 234 g/m² * CGSB 155.20 certification pending.	Paris blue, Sunset blue, True gray	ASTM F1506, ISO 11612, NFPA 2112, IEC 61482-2, CGSB 155.20, EN 1149
Nomex® Xtreme Arc	Nomex® Arc is a superior doublefaced fabric that provides electricians, wiremen and linemen protection against arc flash and a range of other thermal hazards. Nomex® Arc offers >8 cal/cm² ATPV arc flash protection, along with its Nomex® legacy thermal protection.	6.5 oz/yd² / 220 g/m²* 6.9 oz/yd² / 234 g/m²** ** 6.9 oz/yd² / 234 g/m² available only in khaki and medium blue. This fabric is not certified to EN 1149.	Navy, Royal blue, Medium blue, Khaki, Orange	ASTM F1506, IEC 61482-2, NFPA 2112, EN 1149, CGSB 155.20, OEKO-TEX-100, ISO 11612
Nomex® Essential Arc	Nomex® Essential Arc is engineered to provide arc flash protection for workers in the utility and electrical industries. Along with its mechanical properties, it also enhances the durability of the garments, which means less replacements.	6.5 oz/yd² / 220 g/m²* 8 oz/yd2 / 271 g/m²*** *** 8 oz/yd² / 271 g/m² available only in navy.	Navy, Medium blue, Khaki, Royal blue, Orange, Dark gray	ASTM F1506, ISO 11612, NFPA 2112, IEC 61482-2, CGSB 155.20, EN 1149

1 Nomex® fabric solutions are certified to meet the listed standards.

All fabrics in our portfolio are suitable to be used for arc flash protection as per NEC, NESC, NFPA 70E and OSHA requirements.

TECHNICAL SUPPORT

DuPont is the only fabric producer worldwide to have its own ArcMan™ testing facility, which provides significant benefits in the daily research and development of new arc protective fabrics and solutions. During these times of restricted travel, DuPont is using digital technology to conduct demonstrations of arc testing of fabrics and garments virtually, for the benefit of the electrical industry.

Click on the link below for a preview:

https://www.youtube.com/watch?v=7Hixf4oIdhs&t=3s

For further info, please contact:

Dharmesh Lakmidas: Cell Phone Number: +27(0) 72 098 0791
Email: dharmesh.lakmidas@dupont.com

Ajen Maharaj cell : +27(0)829066289
Email : ajen.maharaj@dupont.com

Patricia Ntsekhe : +27(0)823056279
Email: patricia.ntsekhe@dupont.com

DUPONT™

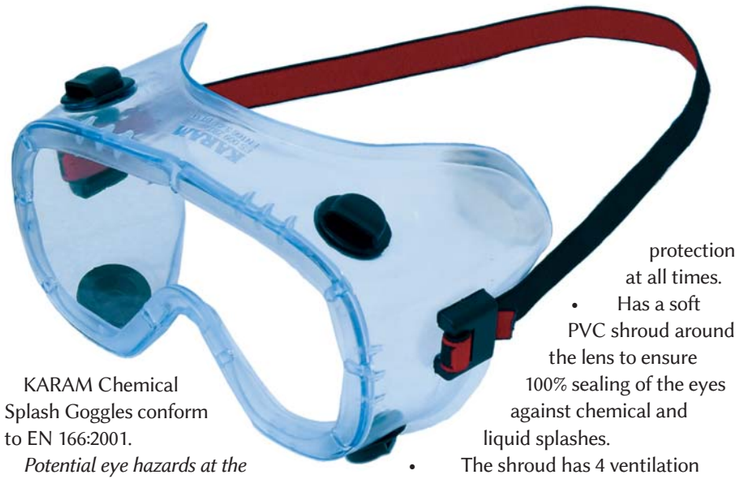
Eye protection from biochemical splash hazards

The current situation of the COVID-19 pandemic has brought out the need and significance of effective use of Personal Protective Equipment (PPE) to protect healthcare workers, patients and also the general public.

There is a potential hazard of biochemical splashes in healthcare settings that increases the risk of transmission of viruses or other bacterial pathogens while in contact with infected patients.

KARAM introduces its Chemical Splash Goggles ES 009- ECO to combat this hazard. These goggles are specially designed to provide full coverage and efficient sealing to the eye area from hazardous chemicals as well as other suspended particles and splashes. Chemical Splash Goggles are vital in any work situation that features potential eye hazards. Using the right eye protection gear is important in health care environment to protect oneself against injuries.

Chemical Splash Goggles ES 009- ECO is uniquely designed to also accommodate prescription eyewear according to user's needs. High impact resistant optical Class 1 polycarbonate lens ensures minimal distortion while working for extended hours. It also has a soft, adjustable headband to fit various sizes.



KARAM Chemical Splash Goggles conform to EN 166:2001.

Potential eye hazards at the workplace:

- Flying debris (dust, concrete, metal, wood, etc.)
- Chemicals (liquids and gases)
- Radiation (visible light, ultraviolet, heat, infrared, lasers, etc.)
- Bloodborne pathogens (viruses, bacteria, etc.)

Other features of KARAM Chemical Splash Goggles are:

- Superior anti-scratch lens property for prolonged usage without any obstruction.
- Comfortable and snug fit around the eyes to ensure full coverage and protection at all times.
- Has a soft PVC shroud around the lens to ensure 100% sealing of the eyes against chemical and liquid splashes.
- The shroud has 4 ventilation caps, 2 on the top and 2 at the bottom of the frame. These are special one-way vents which allow air movement while keeping harmful liquid-splashes out.

Personal Protective Equipment has become an important and emotive subject during the current COVID-19 pandemic. COVID-19 is predominantly caused by contact or droplet transmission attributed to relatively large respiratory particles which are subject to gravitational forces and travel only approximately one meter from the patient.

Multiple studies and practical applications have proven the fact that wearing a suitable eye protective gear reduces the risk of virus transmission by almost 60%. To avert the dangerous risk of explosive community transmission, precautions like wearing safety eyewear, face shields, masks and following a good hand hygiene should be included in our daily routine.

Tel: +27 (32) 940 0993
Email: hello@karamafrica.com
https://www.karamafrica.com

KARAM®

uvex

uvex donates 40,000 safety spectacles in the fight against COVID-19

At uvex safety South Africa protecting people is at the heart of what we do. Our mission statement is to protect people at work, sport and leisure. We are a subsidiary of the uvex safety group, a German family-owned innovative Personal Protective Equipment (PPE) manufacturer.

Our expertise is to develop and manufacture high-quality industrial safety, sport and leisure products that meet the highest standards in terms of quality and functionality. Designed with our customers' requirements in mind, our products can withstand the most demanding conditions.

Since 1926, the uvex brand has established itself as one of the most innovative companies in the sector. This year, in South Africa, we are celebrating 25 years of being a proudly South African subsidiary. Our local range comprises seven product groups which include: – Safety Eyewear – Safety Gloves – Hearing Protection – Safety Helmets – Breathing Protection – Disposable Protective Clothing – Prescription Safety Spectacles – Individual Hearing Protection.

This year, due to the COVID-19 pandemic, the world finds itself in unchartered territory. As the COVID-19 continues to escalate across the world.
In countries whose health infrastructure has been overwhelmed by the sheer volume of severe COVID-19 cases, healthcare workers have been infected at an alarming rate leading to a global demand and shortage of PPE.

On 11th June 2020, uvex safety South Africa in partnership with an industrial partner, Select PPE, handed over a donation of 40,000 safety spectacles to the National Department of Health at their headquarters in Pretoria CBD. Fighting at the frontline of the pandemic, The National Department of Health was the first of three recipients to receive part of this bold R1.68mil donation.

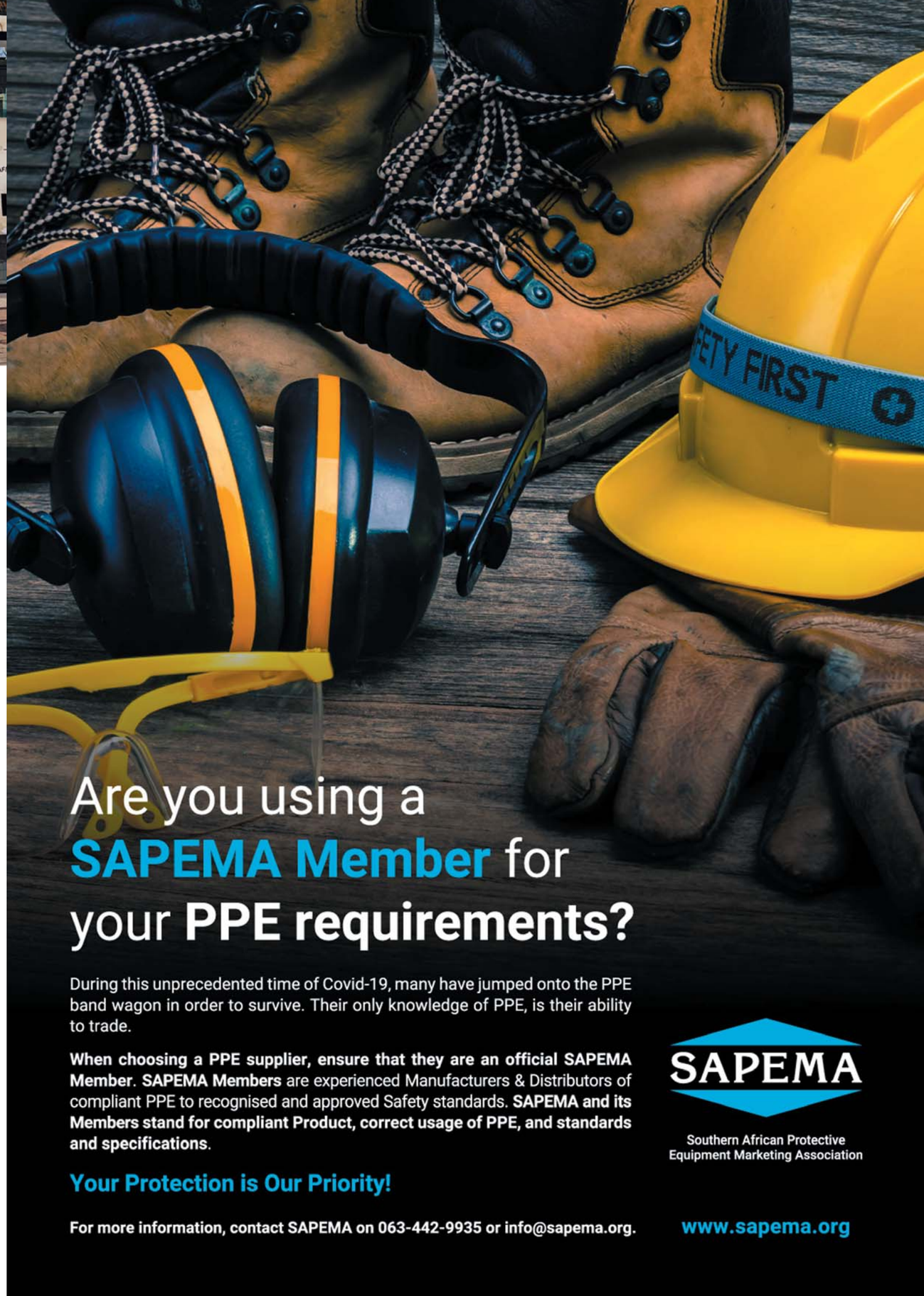
> **"The national department of health will deploy the stock to the direct frontline EMS, Rescue Personnel, Port Health and Forensic Pathology services in all 9 provinces across SA.**

We at uvex Safety South Africa are proud to be part of this initiative and to be able to act on our mission of 'Protecting People'.

In these uncertain times the one thing that remains unwavering is our focus on providing our customers with the highest level of service and support that people globally have come to expect from uvex.

Jarryd Swanepoel (uvex safety South Africa); Lena Jacobs (Department of Health); Raveen Naidoo (Department of Health); Hasina Subedar (Department of Health); Frans van der Merwe (Select PPE); Wayne Ramkrishna (Department of Health); Bernard Mohlaka (Select PPE)

Contact us for more information:
Tel: +27(0)12 345 6656 / +27(0)13 569 6780
Email: safety@uvex.co.za / info@uvex.co.za
https:\\www.uvex.co.za



Charnaud hands over head-to-foot equipment to ensure the Msunduzi fire and rescue team breath in clean air

Left to right we have Devin Amurjeeth (CHARNAUD Sales Rep) Answar Kajee and Ralph Rajah (Station officers), Robin Charnaud (Key account and technical manager) Mbongeni Mathe (General Manager Community services) and Billy Paton (Chief Fire Officer)

For over a week, the Msunduzi fire fighters put their health and lives on the line to bring under control the fire that broke out at the Pietermaritzburg's New England landfill site; while engulfed by the noxious fumes.

The head-to-foot fire-fighting equipment provided to them by CHARNAUD was essential to keep them safe as they endured extreme temperatures while also exposed to many toxic fumes.

"At CHARNAUD, in our many years of providing PPE to first respondents, we have definitely seen that there are budgetary constraints that play a role in purchasing world class equipment. We thought it prudent in these economic times, with a lot of stress on the purse of the local government, to stand up and provide these for our fire services who have been dealing with the New England fires over a number of days now, says Robin Charnaud the technical manager at CHARNAUD.

Firefighting is one of the most physically demanding jobs and has a considerably high rate of on-duty deaths. The physically demanding aspect of the job means that the firefighters must take in as much oxygen as possible to maximise the functioning of their cardiovascular system to meet the increased aerobic requirements on their bodies.

"We have provided the firefighters with a balaclava that allows them to breathe in clean air while they are in high temperate situations" says Robin about one of the equipment pieces Charnaud has given to the Umsundizi Fire and Rescue Team.

The new CHARNAUD Fire-Safe balaclava, comes with a disposable KN95 activated carbon mask, which will greatly assist the fire-fighters. This carbon filtering method will allow fire-fighters to breath in clean air while working in a situation where they are highly exposed to volatile fumes.

The balaclava itself is flame-resistant and has excellent radiant heat protection, which will help the fire-fighters stay cooler during the long treacherous hours of fire-fighting. Making sure that the air they breathe now is clean, is essential in protecting their long-term health of those who choose a career in firefighting.

"For us it is important that we support our essential services and first responders and expose them to new technology that allows them to do their jobs better", says Charnaud.

CHARNAUD®

For information on the full range of products please visit the website or contact the sales office.
Website: https://www.charnaud.net
Telephone: +27 11 794 6040

INFIELD® - Safety solutions for your protection

INFIELD Safety manufactures bespoke safety eyewear, as well as customised hearing protection.

Since the 1990s, INFIELD Safety has been a recognised specialist in the field of corrective eyewear in the workplace; and a respected manufacturer of personal protection products.

1. Prescription Safety Eyewear

When it comes to the supply of safety eyewear for spectacle wearers (prescription safety eyewear), INFIELD Safety has achieved a market-leading position in Germany.

2. Comfort and design

For more than 25 years, INFIELD Safety has placed immense emphasis on functionality and appealing design.

3. Hazards of extended eye strain

In recent years, the hazards associated with extended use of Display Screen Equipment in the screen-based workplace is coming more to the fore and here also, INFIELD Safety is providing innovative customised solutions.

INFIELD Safety is a member of the Essilor Group, the global leader in eyewear lens manufacture.

The success of the group, which is represented in more than 100 countries, is based on its strategy of continuous development - a strategy which it has followed for 160 years. From design to production, Essilor companies develop a multitude of products for supporting, correcting, and protecting people's eyes.

PRO-SAFETY™ by essilor VISUAL HEALTH AT WORK

https://www.essilorprosafety.co.za

The construction safety file made easy

Herman (Harry) Fourie has a passion for occupational health and safety and has been working in the industry for many years. He has several diplomas and certificates and continues his studies through different organisations.
He is a member of several professional organisations throughout Africa and beyond.
He is a part time consultant creating software systems.

OVERCOME THE PHOBIA

Safety officers tend to see a mountain of work when they start to compile a safety file, therefore making it seem far more difficult than it really is. They are given specifications based on the type of work and the environment at the site. Some companies will give the most difficult specifications that they can dish up, while others are more realistic and rather concentrate on the relevance of the health and safety file to their project.

The first thing you must do is take the specifications and read them thoroughly. Underline the important parts. Look out for the strange demands - some employers make demands that make you wonder if they have ever worked on a construction site.

But, you have to compile the file whether you agree with the content or not, so you do it, but you must make sure that it is done properly.

They may ask for scaffolding Safe Work Procedures (SWPs) whereas the project may not even need scaffolding. Don't just leave it there, ask questions, find out why, and get it rectified if necessary. If you don't you risk failing your first audit.

MAKE IT EASY

Start by reading through the things they want like appointments, signage, SWPs, risk assessment, personal protective equipment (PPE) etc.

Once you understand their requirements and what they want, you can start compiling your file by drawing up an index and categorising a list of what they need such as:

- She policies
- Administration
- She plan
- Acts and Regulations that are applicable
- Risk assessment
- Organogram
- Appointments
- Checklist and registers
- Emergency preparedness
- COVID-19 (I place this under emergency preparedness)
- PPE.

IMPORTANCE OF A PROPER RISK ASSESSMENT

In my experience, the only difficult part of the safety file is the risk assessment and the SWP.

Never, ever do a risk assessment if you do not know what is happening at the site or what the specifications are.

Every safety file is site specific and risk specific. Generic template risk assessments must be avoided because they take a risk with peoples' lives.

Ask the right questions to the right person. This is the only way that the safety file will get approved because you will have the right information.

Do not use registers and regulations that are not applicable to the site.

Do not include SWPs if they are not relevant to the project, for example, if they do not use ladders at the site, don't include inspections or SWPs for ladders.

I once created a huge file for a company and the specifications were extremely demanding and some completely irrelevant to the project. Under these circumstances, safety officers should discuss this with the person who set up the specifications and get clarity on its contents.

When in doubt ask the questions: Who, Which, Where, When, including what equipment is being used and what training and medicals have been done.

Prepare properly, and the file will be much easier.

Online access enabling home schooling

Salatiso Mdeni is a property entrepreneur with Environment, Health and Safety (EHS) experience. He advises companies on risk management and assists them to comply by implementing risk based solutions with legal emphasis, towards statutory compliance

As I write this article it is Sunday the 26th of July, the skies are clear and the view across the N12 is stunning from my balcony. Scenic views became a necessity as soon as I could afford it, such that currently, two of my properties are perched on the berg. Eastern Cape has its problems but growing up there I appreciated admiring the undeveloped landscapes as far as the eye can see. Somehow that made me feel free. The hardships of going to under-resourced public schools in poverty stricken villages has made me more grateful. I would rather be finishing a project with Solo in the workshop but Debbie needs my input for the next publication.

LOCKDOWN TIME NOT WASTED

Since the lockdown, we have gotten so much done. Despite being 10 years old he constructively contributes. What was overgrown with weeds has been converted to raised garden beds that will be producing vegetables next year. When my mother permanently moved inland from the Eastern Cape she missed her vegetable garden. Fortunately, the Self Sufficient Me channel from YouTube inspired a solution, Hugelkultur! Mike may be in Queensland Australia but his message is heard worldwide through the web. The lockdown presented me with an opportunity. Working from home meant the time I normally lost in traffic could be better utilised, in the process of teaching my nephew the value of hard work and self sufficiency.

The computer that was revived by Chrome OS in my previous article is now doing its duties in the workshop. He is also in charge of converting it to the Linux Operating system, a risk I can afford since if it breaks, I can fix it. Whenever we get stuck on any project there's always YouTube, Glen from DIY Creators always has a tip to share. Having invested heavily in tools in the last 5 years I now have the privilege of knowing I can make anything I want. My father was a DIY enthusiast, and naturally I am better than him, now I insist to all my kids that they become better than me. I have laid the groundwork, technology is continuously improving and political barriers were reduced so they have no excuse not to. We recently completed a stand for Google WiFi and Asus routers to clean up the cabling mess.

In-between helping me Solo is on his Chromebook or watching one of the Great Courses from the workshop computer. Professor Stephen Ressler from United States Military Academy at West Point is helping me lay the groundwork on the relevance of STEM (Science, Technology, Engineering, and Maths) courses. We are enthralled by his great course "Everyday Engineering, Understanding the Marvels of Daily Life'.

I struggled with context at school since I couldn't relate to most of the things that were taught. With the schools barely resourced to even have classrooms doing experiments was a fantasy. Without that context and lack of exposure to practical application, most of the STEM subjects were abstract. Like most in similar circumstances I resorted to memorising just so I could pass.

MY PATH TO SUCCESS CAME FROM HOME

Fortunately, my parents gradually improved the circumstances at home. Our first fridge in the early 90s was paraffin powered. It was a technological marvel that fascinated me, how could ice come from fire? Their purchase of a black and white television around the same time exposed me to another world. By the time my father died he had worked enough for my mother to ensure we'd have a home instead of renting. These incremental investments did not only provide context but were enough to lay a solid foundation I could build upon. Their dedication and discipline motivated me to study hard, whether in a classroom or under a tree. Considering how scant I was told my chances of success were due to my humble beginnings, I am convinced it was them that made the difference.

Despite the aspiration I'd later learn I didn't miss much by not going to a Model C or Private School. Granted, children that could afford this route got more exposure due to better resources. That however did not guarantee success in life as those of us that couldn't afford were made to believe. Academic performance, which these schools display with pride when they advertise, are presented as confirmation of their superiority. It is not until one scratches below the surface to see the truth. Private schools choose who they admit, often the cream of the crop or at least children who were already performing well. This is further helped by increased involvement of parents, another prerequisite for admission. Parents who are spending also want a return on their investment so they ensure their children work hard. Tertiary presented an opportunity to study with people from all types of schools, private included. Ironically the top performers in my course were from public schools, I knew since I was one of them. I went on to have a successful career and life beyond some of the private school graduates - so much for that guarantee. As an investment tool, private schooling stocks are great since parents also see them as a status symbol.

Consistent with my belief in parent's involvement, I prepared myself to teach my children myself, culminating in the decision to homeschool. This required me to have the requisite resources since formal schooling provides other benefits including nutrition, childcare while parents are at work and

Salatiso's backyard before they cleared the weeds

Salatiso's son Sazi, and niece Mila in front of the vegetable beds

teaching by competent educators. Planning for all this was not easy but once done it was worth the effort. COVID-19 helped by catalysing the process of change to home/ remote working.

I delayed having my son until I was 35 years and didn't overburden myself by having more than one biological child. Having had an uncle who helped me to manhood after my father died I planned for my nephews and nieces as well, they are just as much my children. I have enough to feed them so I don't need the feeding scheme from public schools. They also have the privilege of having 24 hour supervision from people who have a vested interest in them - their grandmother, mothers and aunts.

My career pursuits were planned to scale down past 35 years, by 2010 I had enough of reporting to affirmative action appointees and workplace politics. Enough to know I'd only pursue my career to a certain level and be content with raising my children instead frustrating myself.

SELF-SUFFICIENCY IN THE MODERN WORLD

Being actively involved in their education through home-schooling gives me control on what they are taught. Despite the mass conformance, formal schooling is far from the panacea it is assumed to be. It doesn't take a genius to see a problem with an education system that is supposed to equip graduates with tools for success yet so many sit unemployed afterwards. Now that I am more in control maybe I can equip my babies to think critically, question everything and take accountability for their actions. They will know their rights but crucially they will also know the obligations that come with them. If they want the rewards they must know there are risks. The day they think they are ready to have sex they must also know they will have to face the consequences and provide for their children. Nonsensical ideologies like equality of outcome will be taught as that, nonsense. People are different, with varying competencies. If equality between siblings from the same household is impossible how can this be achieved for society at large? If they want their children to have a better life then they must make the sacrifices, it is inconsiderate to expect people who were not party to the creation to bear the consequences. 18 years will mean adulthood thus self sufficiency will be expected, otherwise they are children irrespective of age.

I had to stand on the shoulders of giants like Leon Harmse, Debbie Myer and Dr. Cas Badenhorst to mention a few to be here today. They didn't care about my race or gender but how hard I worked thus my contribution. If that is not enough then maybe the inspirational story of Dr. Carl Sagan and Dr. Neil deGrasse Tyson will convince them of the triviality of focusing on race.

I made it through tertiary education despite only having R13000.00, because I didn't discriminate on people because they were not born in South Africa, Makoya from Namibia is the brother that helped me when it mattered the most.

ONLINE TRAINING DOESN'T FAVOUR

Online access has broken barriers that previously existed thanks to legends like Alan Mathison Turing. Through The Great Courses I can learn so that I am worthy of being a teacher to my children. Whether it is Gregory Mendel's breakthroughs on genetics or any of the 12 Scientific concepts Professor Indre Viskontas from University of California San Francisco beautifully articulates in her great course, I will be equipped to teach. The Green brothers from CrashCourse make learning anything fun while the Amoeba Sisters remind me why I loved biology at school. Maybe one day Solo, my son and their cousins will constructively contribute to the advancement of humankind instead of being consumers.

POSITIVES OUT OF COVID-19

I find it deplorable that all the things that are of relevance in my life today are either from the East or West, there is nothing of significance I can claim to have originated from Africa. I couldn't help but be grateful for COVID-19 having catalyzed the decision to home-school, in a safe home that is adequately resourced. While equality of outcome may be nonsensical, equality of opportunity through online learning is much more attainable. For those that have access it is already here!

Embracing the digital need

The concept of the Fourth Industrial Revolution (4IR) has placed great emphasis on the importance of adapting to technology which has fast become embedded within societies and industries and the virtual world.

Developing countries have conformed relatively slowly to this robotised era. However, the COVID-19 pandemic has made it crucial for all industries to embrace cyber-physical systems, the survival of the global economy depends on it.

Over the past few years, the South African Qualifications and Certification Committee for Gas (SAQCC Gas) has been gearing up to fully adapt to the 4IR, so the pandemic has not found the organisation unprepared.

The primary objective of the SAQCC Gas has always been to ensure a prolific industry for all industry players, therefore, the organisation has established a firm digital existence to ensure the continued livelihood of the gas industry and its players, even in the midst of this pandemic.

SHIFTING TRAINING ONLINE

One of the biggest restrictions brought by the Corona Virus is freedom of physical interaction. To ensure industry players remain compliant and fully skilled, online training has been made available.

The Southern African Gas Association (SAGA) and the Liquefied Petroleum Gas Safety Association of Southern Africa (LPGSASA) have introduced virtual training for individuals who are unable to physically attend these classes, and those working in remote areas. Specified courses can now be taken online.

To receive a full description of the available online courses, please contact the individual associations.

DIGITALISING THE ROADSHOWS

SAQCC Gas together with the Department of Employment and Labour (DEL) has successfully hosted a series of roadshows across South Africa. These sessions ensure that industry-related information and updates are communicated across the provinces timeously, therefore it imperative that the roadshow schedule is kept.

The roadshows will be hosted online for the rest of the 2020 and/or however long the pandemic requires. The SAQCC Gas presentations have been amended to be techno-friendly and interactive. Further information will be shared on the date and theme of the first virtual roadshow. You can keep tabs on this information by visiting the SAQCC Gas website: https://www.saqccgas.co.za and social media pages. (Facebook: SAQCC Gas and LinkedIn: SAQCC Gas)

SARACCA offers members a payment holiday

HVAC & R industry was badly affected by the national lockdown with many businesses not being able to operate to their fullest proficiencies.

The restriction on the movement of persons and services provided has had a negative impact on the ability to generate income as anticipated.

The South African Refrigeration & Air Conditioning Contractors Association (SARACCA) is extremely concerned about the livelihood of its member companies.

SARACCA's primary objective is to ensure all its members run profitable businesses. "We are not concerned about mere survival, we want our members to thrive," says SARACCA President, John Parry.

Taking into consideration all the financial constraints brought by the COVID-19 pandemic, SARACCA is offering a 6-month payment holiday to its members.

"During these 6 months, we want our members to make the most of their membership benefits to ensure their businesses stay afloat. This includes receiving contractual advice, subsidised training courses, and marketing publicity on HVAC & R projects completed.

"The association has built very close relationships with these individual businesses, we do not wish to lose any of them as members due to financial restraints."

It is important to note that only members with up-to-date levy payments will be considered.

TRAINING COURSES

As of the 17th June 2020, most of SARACCA's recognised training providers courses resumed. All COVID-19 protocols are extensively followed. Classes are kept below 5 people in each session.

If you would like to renew your SAQCC Gas registration, you are advised to register to attend the relevant training course as soon as possible.

For more information, please visit https://www.saracca.co.za

Labour inspectors network - an initiative of OSHAfrica

Ehi Iden President OSHAfrica

This new strategic project has been initiated by OSHAfrica to cater for the gap in OSH and Labour Inspection across Africa.

This part of Workplace Health and Safety in Africa is difficult to understand and organise because of the different standards being used across the 54 countries and we realised there is a need to look into the issues with the hope of bringing all actors together for the sake of sharing experiences and learning together.

AFRICAN COUNTRIES' COMMITMENT

When we refer to the ILO Labour Inspection Convention 81 of 1947 and Convention 155 of 1981 which virtually all African countries have signed and ratified, it becomes obvious how committed we should be in developing our OSH and Labour Inspection standards.

Workplace inspection processes ensure organisations implement the practices of decent and safe workplaces especially concerning the protection guaranteed to the workers by social laws and regulations.

There is also a requirement for the inspectors to report the gaps or defects within these laws and processes to government for further review and implementation.

When we look at the role of OSH and Labour Inspection from this perspective, you will realise they are not there only to inspect safe workplace practices, they are also very important with the feedback received that is needed to strengthen existing OSH and Labour legislations.

Having this in mind, we should therefore see this arm of workplace health and safety regulators as a very important component of our work without which the system may never be complete.

COMMON PROBLEMS THROUGH AFRICA

In reviewing the place of OSH and Labour Inspection in Africa, we realised there are three critical issues common amongst all actors across all countries, they are:

- Understaffing.
- Underfunding.
- Inadequacies in training.

Two of these factors are not within our immediate control, although we are able to advise different governments on improved staffing and better funding.

We realised we are able to immediately bring these inspectors together in one common platform where they can share experiences on good practices and further training which OSHAfrica and other partners can make available to them.

THE CONCERN OF UNDERSTAFFING

In trying to understand fully the level of understaffing that exists within this unit in Africa, we tried looking at the current staffing levels across five African countries and below were the outcomes.

1. Nigeria:

This country with a population of over 200 million had less than 350 inspectors until 2019 when additional appointments brought the figure to 750 inspectors. This was according to our discussions with the Director of Occupational Safety and Health of the Ministry of Labour and Employment. We see this figure as still grossly inadequate for the population.

2. Ghana:

This country's 2020 population is estimated to be 31, 072,940 according to United Nations data, but there exists only 50 inspectors currently and they are waiting for 6 more to be recruited.

3. Egypt:

With an estimated 102 million population Egypt currently has 520 inspectors.

4. Zambia:

With a population of 18.3 million, Zambia currently has only 13 inspectors with a plan in place to recruit an additional 13 inspectors.

5. South Africa:

With a population of 59 million people, there are 170 inspectors in South Africa. From all indications, this seems to be the only country where we have a reasonable number of inspectors per population.

The above information was gathered from the interaction we had with the directors of occupational safety and health, and in some cases with the factory inspectors in each of these five countries.

In OSHAfrica, we already have functional 3 Scientific Committees and we realised the only way we can create an intervention in this arm of workplace health and safety improvement will be to create an entirely new strategic forum that will bring together all OSH and Labour Inspectors. We have succeeded in doing this, we currently have over 170 of such inspectors from over 18 African countries. Western, Southern, Eastern African sub regions are already well represented, we are currently pushing Northern and Central African regional inclusion, once we achieve this in the next few weeks, we will have the formal launch of African OSH and Labour Inspectors Network.

The aim of this initiative is to be able to offer these inspectors the specific training they need to function correctly.

We will help address capacity building and competency improvement.

TRAINING FOR LABOUR INSPECTORS

Through our research, we realised that most of these people had been employed without any form of requisite training. In some cases where they had received training, this was grossly insufficient.

Unfortunately, we think that the right kind of improvement expected in workplaces may never happen until we commence the intended training and retraining programmes we are embarking on, which will be focused on OSH and labour inspection skills improvement.

All existing scientific committees of OSHAfrica will offer support to the new network in line with their mandate. An example is the OSH Legislation and Policy Improvement scientific committee bringing together their expertise in helping to work with member countries to strengthen their labour legislations. The committee on Education and Competency Improvement is offering training support, while the committee on Research, Data and Publication will be available to help them put together data for reporting.

COMMUNICATIONS AMONGST INSPECTORS

We should be able to harmonise OSH and labour inspection across Africa through this intervention and we will keep updating the needed skills of the inspectors.

Currently they are together in a Telegram group and are able to ask questions and discuss areas they are not clear about.

As a Nigerian inspector, you do not need to repeat the mistake that an inspector in Congo had already made, you just throw the issues you have into the group for discussion and at the end of the day you will have a solution. This is the whole idea.

INTERNATIONAL ORGANISATIONAL SUPPORT

We will be extending our discussions to International Association of Labour Inspectors (IALI), International Labour Organisation (ILO), DGUV Germany, European Network Education and Training in Occupational Safety and Health (ENETOSH) and others partners for support in developing the capacity of African OSH and Labour Inspectors.

Nyambari, S. T. (2005). Labour Inspection in Africa-Promoting Workers Right, Labour Education, ILO

https://www.ilo.org/wcmsp5/groups/public/@ed_protect/@protrav/@safework/documents/publication/wcms_108666.pdf

https://www.worldometers.info/world-population/ghana-population/#:~:text=The %20current %20population %20of%20Ghana,year %20according%20to%20UN%20data.

https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:51:0::NO:51:P51_CONTENT_REPOSITORY_ID:2543058:NO

https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C081

https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C155

Using measurement to optimise your safety culture

Dr. Bill Pomfret Founder & President of Safety Projects International Inc brings an unrivaled perspective on risk, regulation and liability from over 50 years of experience as a safety consultant working for leading companies around the world.
He also spent nearly a decade in the North Sea exploration and production as a safety manager.
D Bill is a passionate advocate for safety training.

What Gets Measured, Gets Done. If I had to sum up the message of this topic in one sentence, it would be this: Applying sound principles of measurement and feedback of "keeping score" is the key to improving safety performance culture.

SCORE KEEPING AND SAFETY

I'd like to start this article with a sports story. In sports, the aim is to win. We keep score not just of the game's outcome but of the kind of performance that helps achieve victory — home runs, goals, assists, blocked shots, etc. Many sports are a combination of team and individual efforts that are measured often in detail to differentiate performance levels.

I submit that sports have got it right. It reflects and is based on human nature and the desire to win and achieve recognition, both for the individual and team. Therefore, so many people care deeply about the outcome of games involving their favourite team. This applies to players as well as fans that, even though they do not physically participate, have a psychological attachment to the team.

I also submit that there's real power in scorekeeping and that we as safety professionals can and must try to harness this power to improve safety performance. If we can identify the desired outputs, that is, the actual effectiveness of our safety-related activities, we will have a clearer understanding of what should be changed, continued and prioritised. We'll understand the value of different outcomes and establish a frame of reference complete with our own version of tug and war.

We can also put managers, supervisors and employees in the position to keep score of their performance and empower them to win. At that point, when everyone in the organisation is playing the same game, using the same rules, on the same playing field and under the same understanding of how to win, we will be in a better position to achieve our safety outcomes and thereby, our safety goals. The result will be a highly motivated workforce and improved safety performance.

AN EXAMPLE OF THE PRINCIPLES IN ACTION

Let's use a concrete example to help you turn these abstract principles into a plan for action. Assume you want to use safety meetings to improve performance. The typical approach would be to measure the number of attendees for each meeting. But this is not the most appropriate measurement.

The real starting point is to measure the effectiveness of the overall meeting itself. In other words, were the meetings objectives met and executed to a satisfactory level. After all, 100% attendance won't improve safety if the substance of the meeting is devoid of any real value or was executed poorly.

One-way to measure the effectiveness of safety meetings is to give attendees a survey to fill out with yes, no or N/A answers. The survey would have all the important objectives listed. Survey results would provide a way to assess whether safety meetings are 'winning' (or improving) or not, shift by shift, month-to-month, or even supervisor-to-supervisor, if desired. The survey results would also serve to motivate the person providing the meetings to make appropriate changes or, if the results are very good, keep it as it is. The result will automatically drive continuous improvement in safety meeting performance of future meetings.

A REAL LIFE EXAMPLE

A client was recently invited to attend a one-hour safety meeting about PPE delivered by a supervisor at a large manufacturing company.

The safety manager asked me to sit in and evaluate the supervisor's effectiveness in the form of a score. We discussed and agreed on the desired outcomes. I also passed out scorecards for attendees to fill out.

The meeting was long and tedious. My evaluation resulted in a low score. The attendees did too, rating the meeting as 35% effective. Afterwards, the safety manager and I reviewed the tabulations and each objective with the supervisor. The supervisor was surprised and disappointed at how low the score was but admitted that holding meetings have never been his strong suit.

If you received a low score for something you did, wouldn't it prompt you to do something different the next time? Of course, it would. For most of us at least, the desire to do better is part of our nature. But what if after all the work you put into the next meeting you didn't get a score after the meeting? Wouldn't you feel cheated? Wouldn't you want, almost demand a score? Why? If you were like me, you would want to know how well your efforts paid off. We all have an innate desire to improve our "score".

The supervisor in my example above asked the safety manager for help in his areas of weakness and resolved to make improvement at his next month's meeting. I later found out that his next month's score rated a 68%. Not surprisingly, this feedback was very encouraging to him as he put some real effort into his next presentation and was now aware of the desired objectives ahead of time. In this situation, who were the winners?

MEASURING THE RIGHT THINGS

Get your measurement and feedback systems right and safety performance will improve due to the motivation to win. How do you do this? First, find the right things to measure. To do this, define the desired objectives for key activities and desired outcomes that will help provide a positive safety culture at your organisation, these are the principles that the 5 Star Health & Safety Management System™ are based, Elements you'll want to include in addition to activities are:

- Management, leadership and commitment to safety;
- Employee attitudes and motivation to work safely;
- Employee ownership and involvement in the safety programme;
- Communication and feedback effectiveness; and
- The effectiveness of your current safety programs and initiatives, including incentive and recognition programs, employee suggestion programmes, incident investigations, audits and inspections, management of change, work order system, committees and safety meetings.

Be sure to measure employee behaviour at all levels of the organisation including supervisors and management.

ESTABLISHING GOALS AND DELIVERING FEEDBACK

Measurement doesn't just gauge performance; it affects it. Remember the old saying: What you measure is what you get. Also remember the principles of keeping score. Give your employees a chance to win. Establish performance targets and define the desired outcomes of the programs you have established so they know how to win. Some people are self-motivated whereas others may need to have their scores posted or reviewed by others.

Goals should be defined in terms of actual vs. expected behaviour. Once the desired outputs are defined, measured and the results communicated back to the appropriate individuals, everyone will be engaged in the process of continuous improvement. This method of measurement and feedback has been instrumental in providing safety managers in many industries with insight and the capacity to allocate their resources more effectively.

CONCLUSION

Feedback and measurement can motivate or de-motivate. It all depends on the system we use. Unfortunately, the world of safety has things upside down. We measure failure (the occurrence of injuries and accidents) and deliver negative feedback (letting employees how they screwed up).

What we get for these efforts is a workforce disenchanted with the safety programme and unmotivated to behave safely.

I challenge each of you, my valued clients to turn this around. Turn safety measurement into a motivating force to your advantage. Define your desired outputs and measure the extent the objectives are being met. Provide immediate feedback to all employees, if possible, and positive encouragement to all employees, (don't forget those on graveyard or night shift). Give employees a chance to win and establish a method of keeping score so they know what it takes to be a winner. Doing these things will put you on the road to improving safety performance and building a pro-active and leading safety culture.

The potential effects of quarantine and isolation

Dr Tlhalefo Moyo is a Senior SHE Specialist at Sasol. He has a PhD in Business Management B Tech in Occupational Health (TUT), B Tech in Safety Management , B Advanced Degree in Nursing (UOFS), NADSAM (VUT), Diploma in Nursing, Psychiatry, Community Health and Midwifery (Excelsius Nursing College).
He has worked for various companies and gained a wealth of knowledge and experience in the field of Occupational Health and Safety Management, training, academic research and business management.

INTRODUCTION

The coronavirus (COVID-19) pandemic is taking its toll on the African continent and other parts of the world. The number of COVID-19 new cases and death continues to rise at an unprecedented rate. In this regard, isolation and quarantine has become tools that are used to curb the spread of the novel coronavirus. This article highlights problems of quarantine and isolation by delineating its weakness and pitfalls.

CLOSE CONTACT

Close contact is defined as being within approximately one metre for a prolonged period of time with someone who is confirmed being positive with COVID-19. In other words, it means that a person had face to face contact or was in a closed space for more than 15 minutes with a person that tested positive for coronavirus. This exposure can be caused by staying in the same close environment, having attended the same gathering, travelling in close proximity with an infectious person, or any other related situations as determined by the risk assessment. As a result of this exposure, a person may be asked to quarantine at home despite not having developed the symptoms.

DEFINITION OF QUARANTINE AND ISOLATION

Quarantine refers to the separation of persons (or communities) who have been exposed to an infectious disease or suspected to determine if they will become sick.

Isolation refers to the separation of persons who are known to be infected or are already sick, and/or have tested positive but do not require hospital admission for medical care.

LEGALITY OF QUARANTINE

The government has the legal authority to institute quarantine and isolation to protect people from contagious diseases.

It has emerged from previous studies that breaking quarantine has consequences that range from fine to imprisonment.

Despite quarantine measures being accepted as a containment strategy that is legally and ethically justifiable under particular circumstances, it requires fair measure of compassion, restraint and respect in the implementation of such measures.

QUARANTINE CHALLENGES

In the midst of an unprecedented workplace crisis due to new positive coronavirus cases, there is evidence suggesting that living in crowded spaces inherently has negative effects on quarantine compliance for people who have been exposed to coronavirus, but have not tested positive yet. This has the potential to cause disastrous consequences for employees who are subjected to quarantine and sharing accommodation. In this regard, the Department of Health has imposed an instruction that people should be quarantined at home, without putting their families at risk of contracting the virus. This is a daunting task if the people are not able to stay in separate rooms, and where they would have no contact with anyone else.

It is imperative to note that many employees are migrant workers and live in shared accommodations. Therefore, is difficult for them to adhere to the quarantine requirements.

If people don't have the facilities to self-quarantine or isolate, this is a recipe for catastrophe.

The critical aspects of combating the coronavirus is the ability to detect the positive cases early in order track and trace the contacts, and refer them for appropriate management.

Regrettably, the government does not provide quarantine accommodation for people who are suspects (waiting for results), but only cater for people who have tested positive (isolation).

IMPORTANCE OF QUARANTINE

The intention of quarantine is to monitor the symptoms of suspects and ensure early detection to prevent infecting others unknowingly.

Those who get tested and are waiting for their test results should be placed in quarantine. Research studies reveal that quarantine can prevent or minimise the impact of the infectious disease outbreak. In essence, staying at home will help prevent the possible spread of disease to most vulnerable people who are at risk of severe illness.

This really is the key to manage the pandemic by preventing health services from being overwhelmed.

However, quarantine is often an unpleasant experience because it involves the restriction of movement (travelling) of persons who are not ill but who may be exposed to an infectious agent or disease, or separated from the rest of the population.

IMPORTANCE OF ISOLATION

Isolation serves the same purpose as quarantine. It is is primarily intended to separate people who are sick with a contagious disease from those who are not sick. It is reserved for those who have tested positive for COVID-19 infections (10 days), but do not require hospital admission or medical care.

The goal is to prevent the exposure to people who may not have the contagious disease.

As with quarantine, there are some people who cannot isolate in their homes, while others are reluctant to isolate themselves. However, the government has established sites for isolation. Yet, in the transition from voluntary to mandatory isolation, conflicts have arisen about ethics, human rights and the law. Thus, in order for isolation processes to claim legitimacy in South Africa, it is important that it should conform to national laws and constitutional rights that are embedded in state action. The isolation of people should be consistent with human rights and dignity.

RECOMMENDATIONS FOR QUARANTINE AND ISOLATION FACILITIES

- The quarantine/isolation setting should have adequate food, water and hygiene provisions for the quarantine/isolation period.
- The facility should have adequate ventilation and security.
- The quarantine facilities should have adequately spacious single rooms with suitable facilities (hand hygiene and toilet facilities) and waste-management protocols.
- If single rooms are not available, beds should be placed at least 1 metre apart.
- Accommodation should provide appropriate comfort.

CONCLUSION

The debate about the lack of proper quarantine /isolation is futile if action is not taken to enhance compliance with government directives to reduce the devastating impact of COVID-19 on businesses.

Unfortunately, some employers are providing little support for their employees causing unimaginable stress and frustrations. Finding ways to significantly slow the onslaught of the novel coronavirus outbreak is imperative.

OSH practitioners and their role in OSH-land

Warren G Manning is an OSH-lander based in Durban with an interest in "Just OHS"

Imagine that a professional field, such as OHS, is a geographic territory and that the practitioners in that field are the indigenous inhabitants of that territory. Let's call the territory OHS-land. Using this analogy we can deduce a few things and make an analysis of the State of OHS in RSA.

Firstly, this territory has boundaries that, while historically determined, are essentially arbitrary.

Next, the inhabitants of OHS-land share many common characteristics and can identify each other as belonging to this territory.

Further, that there are neighbouring territories with their own indigenous inhabitants.

Next, some inhabitants of OHS-land living on the boundaries can legitimately claim residence in more than one territory and conversely, some persons may claim that they belong to OHS-land but the majority of OHS-landers will reject this claim. We also can note that different OSH-landers do different things and that there is a system of relations between all OHS-landers, a social structure.

Lastly, OSH-landers trade with a variety of foreign peoples as there are valuable natural resources found only in OHS-land.

At some point in the history of OHS-land a band of foreigners arrived at a border of OHS-land and discovered to their amazement that there was no army patrolling the border. These visitors met and negotiated with some groups of OHS-landers and after some limited trade decided to travel further into the hinterland of OSH-land. The visitors surveyed the areas they ventured into and discovered that the land was blessed with an abundance of natural resources found nowhere else. The visitors also noted that OHS-landers did not know the true value of their resources and more importantly, the visitors determined that there was no consolidated political entity governing OHS-land, there was no sovereign state of OHS-land.

What were the visitors to do? Would they inform the OHS-landers of their precarious situation visa-vis other sovereign states? Would the visitors risk another foreign group discovering OHS-land and the resulting competition for the resources of this land? Or would the visitors declare that they had found an open territory, a "terra nullis", a stateless territory and that "finders are keepers"?

History tells us that's what happened every time with only very few exceptions. Territories that are not part of recognised sovereign states are eventually and entirely absorbed into one or more competing sovereign states.

WHAT IS SOVEREIGNTY?

The Montevideo Convention on the Rights and Duties of States of 1933 has the following definition of a sovereign state:

"The state as a person of international law should possess the following qualifications: (a) a permanent population; (b) a defined territory; (c) government; and (d) capacity to enter into relations with other states."

WHAT DOES THIS MEAN FOR THE OCCUPATIONAL HEALTH AND SAFETY PROFESSION?

We need determine the "sovereign" status of OHS in RSA. Can OHS currently be likened to a sovereign state? Does OHS have (a) a permanent population of practitioners; (b) a defined professional field; (c) a government; and (d) a capacity to enter into institutional relations with other professional fields?

Questions (a) and (b) are easily answered in the affirmative. There is a large and growing number of

persons claiming to be "OHS Practitioners" in RSA and secondly, the field of OHS is well established internationally. To answer (c) we must define what a government is. A government is an institutionalised form of rule within a territory and has Legislative (law making), Executive (law implementation and enforcement) and Judicial (law interpretation) branches. OHS-land, in the analogy, does not have a government and cannot engage with other professions in a manner equivalent to international relations between sovereign states. It is therefore clear that OHS in RSA does not have sovereign status.

THE VOLUNTARY ASSOCIATIONS AND THE SACPCMP ARE THEY NOT OHS-LAND GOVERNMENTAL FORMS?

The voluntary associations are not statutory bodies as they have not been created by Acts of the Parliment of RSA and are therefore not "sovereign" in keeping with the analogy used here.

The SACPCMP on the other hand is a "sovereign state" as it has been established by an act of Parliament. But the SACPCMP belongs to a confederation of "sovereign states" called the Council of the Built Environment.

Continuing the analogy, at some point in time envoys of the SACPCMP made an expedition into OHS-land. They surveyed the territory and mapped out a region containing the resources they needed. The envoys negotiated with the traditional leaders of the local groups of that area and a treaty was signed. The region was named Construction Health and Safety-istan (CHS-istan.) The SACPCMP then formalised the treaty by annexing CHS-istan into its territorial domain.

The incorporation of CHS-istan by the SACPCMP follows established colonial rationality. A colonial state claims to be protecting public interests by extending protection of the annexed region.

They claim the inhabitants will receive many benefits in return. They will obtain citizenship of a powerful state, ie they will become "Professionals." They will receive education in the form of "continuous professional development." They will become financially secure by receiving regulated "professional fees." These are the promises of the SACPCMP to the inhabitants of CHS-istan if the inhabitants promise to be peaceful and grateful.

BUT WHAT ABOUT THE OTHER INHABITANTS OF OHS-LAND?

As long as OHS-land does not achieve sovereign status, the scramble for territory and resources will continue. In future, a MiningOHS-istan, a ShippingOHS-istan, a PetrochemOHS-istan, a ManufacturingOHS-istan and others will be carved out and annexed by established entities for their own benefit. OHS-land will be carved up and conquered.

WHAT IS TO BE DONE?

OHS-landers must recognise the need to develop their independent homeland. An OHS Practitioners Professions Act must be developed and promulgated by the Parliament of RSA.

Independent Institutions of OHS must be created for the development of the field and the practitioners. This must be done if not only for the self-determination of OHS-landers but also for the Workers of RSA who depend on OHS-landers for the health of their livelihoods.

Primary Health Promotion (PHP) in the South African construction sector

Dr Claire Deacon

John Smallwood

A synopsis of a paper presented at the Sustainability Ecology Engineering Design for Society (SEEDS) 2016 Conference, Leeds, United Kingdom, 15 September 2016 by Prof John Smallwood and Dr Claire Deacon

INTRODUCTION

The maintenance of the health of workers in industrial communities presents special problems and priorities, which are exacerbated by socio-economic realities in developing countries such as South Africa.

Lifestyle, communicable diseases, alcohol and drug abuse are issues, which extend far beyond the boundaries of society, impacting on individuals' performance in the workplace. Health issues affect the ability to work, as work affects underlying health issues. The Bangkok Charter cites health promotion as a process of enabling people to increase control over their health and its determinants, and thereby improving their health.

RESEARCH METHOD AND SAMPLE STRATUM

A self-administered, mostly closed-ended questionnaire was delivered per e-mail to the award winners of regional and national health and safety (H&S) competitions in the building sector of the construction industry.

The objectives of the study were to determine general contractors' (GCs) perceptions and practices relative to primary health promotion (PHP) in construction.

Frequencies (percentages), and due to responses to a five-point scale, a measure of central tendency in the form of a mean score (MS) between 1.00 (lower limit) and 5.00 (upper limit), were computed to discuss the findings.

CONCLUSIONS

PHP is not as important as the eight other parameters referred to in the study. The traditional project parameters, namely cost, quality, and time are more important despite the respondents' commitment to H&S confirmed by their having achieved awards in regional and or national H&S competitions. However, the high MSs relative to the parameters occupational safety, occupational health (OH), and health and wellbeing further confirm their commitment to H&S, which indicates that they are likely to be the more committed contractors in terms of H&S and also in terms of PHP, and therefore the findings are not necessarily representative of the general status in the industry.

Based upon the extent to which workers benefit or would benefit from primary health (PH) issues being addressed in the work place, it can be concluded that PHP has an important role to play, particularly with respect to the 'high profile' PHP issues, namely alcohol abuse, HIV & AIDS, drug abuse, high blood pressure (hypertension), tuberculosis (TB), and sexually transmitted infections (STIs).

However, the frequency at which respondents' organisations address PH issues with workers does not correlate with the perceived extent to which workers benefit or would benefit from PH issues being addressed in the work place.

Furthermore, given that the top three issues are alcohol abuse, drug abuse, and smoking, it can be concluded that they are thus due to their occupational safety implications i.e. alcohol and drug abuse being often linked with accidents, and smoking with fires. This is reinforced by the finding that medical screening addresses PH issues.

The finding that the majority of respondents' organisations conduct PH medicals for staff, and then at no cost (free) for the recipients, reinforces the conclusion that the respondents are likely to constitute the more committed GCs in terms of PHP.

The irony of the findings is the extent to which respondents' organisations would benefit relative to a range of performance aspects as a result of PH aspects being addressed in the work place, yet they do not address PH issues frequently. This is possibly attributable to barriers such as non-availability of training material, a lack of PHP expertise, and other resources. Furthermore, PHP is not a legal requirement.

RECOMMENDATIONS

All H&S related research should investigate the issue of PHP, and future PHP research should address the issue of 'barriers to PHP', and investigate the health status of construction workers.

PHP, as an ongoing service within the construction sector, would add enormous value to managing the underlying health issues that face workers and their families daily.

Furthermore, addressing such health issues could reduce the health risk level of projects in the construction sector, and increase the wellbeing and sustainability of the sector's human resources.

Statutory councils, industry and professional associations, clients, construction project managers, designers, quantity surveyors, and contractors should be made aware of the benefits of PHP and in turn, implement PHP, and industry H&S programmes and competitions should be amended to address the various facets of PH due to the relationship with safety and OH.

Two-Day ACHASM 2020 Construction Health and Safety (H&S) Summit

Where: Altron Conference Centre, Midrand **When:** 6 - 7 October 2020

INTRODUCTION

The first ACHASM symposium / summit was staged in 2011. The objective of the summit is to provide a forum for construction industry role players to address construction H&S related matters with specific emphasis on topical issues, the development of knowledge and skills areas, and to debate 'challenging' issues.
The summit will be of relevance to architects, construction managers, construction project managers (CPMs), Construction H&S Agents (CHSAs) / Managers (CHSMs) / Officers (CHSOs), contractors, engineers, inspectors, interior designers, landscape architects, quantity surveyors (QSs), and all interested construction role players.

THEME

The theme for the summit is 'Managing hazards and risks throughout the project'. Given the need to integrate H&S interventions across all six stages of projects, and the challenges related thereto, many of which are persistent, the summit will be 'digitalisation' oriented. Digitalisation includes the Fourth Industrial Revolution (FIR), also known as Industry 4.0, which is a collective term for technologies and value chain organisation, which draw together cyber-physical systems, the Internet of Things (IoT) and the Internet of Services (IoS), together with other emerging technologies such as cloud technology, big data, predictive analysis, artificial intelligence, augmented reality, agile and collaborative robots, and additive manufacturing. Given the emergence of Industry 4.0, and the persistence of H&S problems, the theme for the 2019 Summit will be 'The role of Industry 4.0 in Construction H&S'.

PROGRAMME

Day 1 will feature presentations addressing, among other: the role of clients, CPMs, CHSAs, designers, QSs, CMs, CHSMs, construction supervisors, and CHSOs; building information modelling (BIM); construction planning and H&S; hazard identification and risk assessment (HIRA); integrated project management of H&S; the role of digitalisation and Industry 4.0 technologies in H&S, and an SACPCMP update.

Day 2 will feature workshops, and discussion sessions.

CONTINUING PROFESSIONAL DEVELOPMENT (CPD)

The Association of South African Quantity Surveyors (ASAQS), and the South African Council for the Project and Construction Management Professions (SACPCMP) will recognise the summit.

COMMERCIAL OPPORTUNITIES

Exhibition stands, and sponsorship opportunities can be availed of.

Web Site: https://www.achasm.co.za

CONTACTS

Prof John Smallwood
Mobile No: +27 83 659 2492
E-mail: john.smallwood@mandela.ac.za

Jackie Fort
Mobile No: +27 76 263 0549
E-mail: info@achasm.co.za

Dr Claire Deacon
Mobile No: +27 83 658 5390
E-mail: claire@occumed.co.za

Beirut explosion and guidelines for AN storage

On 4 August 2020 the world watched in horror as a massive explosion rocked the seaport of Beirut, sending a giant mushroom cloud into the sky, flattening most of the city's port, damaging buildings across the capital, causing many homes to crumble, destroying silos carrying 85% of the country's grain and leaving more than 300,000 homeless. Over 160 died - including 10 firefighters - and over 6000 were injured.

It is alleged that the cause of the initial fire was related to hot work in an adjacent warehouse.

According to news reports, the Ammonium Nitrate (AN) was stored in warehouse no. 12 after being confiscated off a Russian vessel in 2014. Other combustible material in the form of fireworks were in the same storage area as the AN. The fire originally started in warehouse no. 9 where the fireworks were primarily stored. The alleged cause of the fire was welding (hot work – for which a hot work permit is required). However, it is unclear whether a Hot Work Permit was completed and approved. It is unknown at this stage as to whether there were other chemicals stored in warehouse no 12 in addition to the reported 2750 tonnes of AN and fireworks (fireworks quantity as yet undisclosed.)

The fire spread from warehouse 9 to 12 and continued to burn voraciously. AN behaves as a strong oxidizing agent, supplying more oxygen to the fire, as well as releasing its own products of decomposition, thereby it would have increased the heat release rate as well as the gas build-up in warehouse 12.

The burn rate eventually became supersonic and the AN detonated resulting in a supersonic shock throughout the city manifesting as a blast wave. The 6 years of the AN in the warehouse (bagged) would have compacted it further, thereby increasing the density and the power of the explosion.

HAZARDS OF AN WHEN CONTAMINATED

AN on its own is not dangerous and can be handled safely. When mixed with fuel oils, sulphur, grease, charcoal, combustible dusts, other contaminants or stored with combustible materials (e.g. fireworks), given a severe shock or heated under confinement, may result in detonation. AN is hygroscopic (absorbs moisture easily from air), so when a contaminant like copper (Cu) is exposed to the AN, this creates tetramine cupric nitrate which is sensitive to impact and can trigger an explosion. Acids trigger AN decomposition.

AMMONIUM NITRATE (NH_4NO_3) STORAGE

The percent concentration of the AN, together with the storage temperature has a direct impact on the decomposition of this chemical compound.

AN (in liquid and solid form) is relatively stable from an explosivity standpoint, however, detonation can occur if there are sufficient combustible materials and heat sources present as was the case with the Beirut explosion (N.B. the investigation report is yet to be released).

Each warehouse storing AN is unique and a risk analysis must always be conducted to ascertain the best (most safe) storage conditions for the AN, as well as suitable automatic and passive fire protection mechanisms given the volume and concentration of AN present.

GENERAL GUIDELINES BASED ON STUDIES BY FM GLOBAL

1. Always have a thorough analysis of the Material Safety Data Sheet (MSDS) for the compound in storage. This enables process knowledge for a Hazardous Operations Analysis.
2. Institute/ implement alarms, and automatic shutdown and isolation procedures.
3. Conditions dangerous for AN storage:
   - High acid concentrations (pH3-5);
   - Aeration due to bubble formation;
   - Organic contaminants, chloride or metal contaminants (ppm as low as 10s is sufficient) – these compounds when contaminating AN can lead to explosive scenarios;
   - High temperatures (127°C - 143 °C);
   - Confinement;
   - In the case of liquid AN, poor circulation has an adverse impact;
   - Formation of Nitrous Oxides.
4. Routine contaminant testing (weekly) by plant/ lab personnel.
5. Continuous temperature data to the plant control room.
6. In the case of liquid AN, continuous concentration measurements.
7. In the process plant, for parameters exceeding normal operating conditions, an emergency dump of contents from the neutralisation reactor to the water circulating system. Each plant is unique and will have to assess the feasibility of this, as well as alternatives.
8. Strict Standard Operating Procedure (SOP) and Management of Change (MOC) documentation.
9. Plant operator/ warehouse personnel training in the dangers of AN.

FPASA
FIRE PROTECTION ASSOCIATION OF SOUTHERN AFRICA

FIRE PROTECTION RECOMMENDATIONS

1. Automatic sprinkler protection is essential for combustible materials and combustible construction. This is applicable to the manufacturing and storage area/s.
2. Ensure where possible that the floor section where liquid AN is stored in the warehouse is of non-combustible construction.
   - Ensure no drains, traps, tunnels, pits or pockets in this storage area where molten AN can accumulate and be confined in a fire.
3. For AN (solid/ liquid > 40% concentration):
   - Quantities < 45 tonnes (SI units) – minimal detonation hazard, but fire spread must be prevented via compartmentation and sprinkler protection.
   - Quantities > 45 tonnes have the potential for detonation. Assume a detonation potential of 10% (mass range = 45-450 tonnes SI). Explosion efficiency factor of detonation potential: 33%.
4. Purpose designed storage area to minimise/ eliminate the possibility of contamination.
   - Contaminants to especially avoid:
     - Ignitable liquids;
     - Fine metals;
     - Greases, fuel oils, hydrocarbons;
     - Acids;
     - Fibres;
     - Finely divided organic material.
5. No blasting of caked storage of AN.
6. Separate AN from combustible materials and contaminants. Never store AN with explosives, blasting agents, booster charges, detonating material.
7. Materials that require blasting must not be stored in the same facility as AN.
8. Remove and dispose of contaminated AN material as soon as identified by the Lab.

GUIDE FOR BAGGED (PALLETIZED OR PILED) STORAGE OF FERTILIZER GRADE AN

1. Maximum storage height of 6.1m (according to FM Global. Apply your company's risk limit, or the lower value of the 2).
2. Where possible, store on pallets at right angles to the aisles to limit spread of fire and facilitate more efficient firefighting.
   - Where there is pallet storage maintain maximum widths of 3m from the aisle.
   - Length of each palletized channel shall not exceed 6m.
3. Piled bulk storage is limited to 4500 tonnes (max) per purpose designed building.
   - Each bagged pile shall have a maximum of 900 tonnes (N.B. this guide may change given the current explosion in Beirut).
   - Storage piles to be separated by 3m aisles.
4. Bagged storage to maintain a minimum distance of 0.75m from any walls of the AN storage building.
5. In the event of fire, use large volumes of water ASAP!
6. Eliminate all ignition sources close to the AN storage area.
7. Limestone may be added to reduce the explosion potential. Concentrations of AN <60% should not detonate. However, should there be a mix of AN and Ammonium Sulphate, concentrations as low as 40% of AN are explosive. It is critical to conduct a Hazardous Operations Analysis of the product being stored.

CONTINGENCY PLANNING RECOMMENDATION

Alert the closest fire department of the product being stored, and the associated dangers, so that they can plan strategies around fire fighting should a fire occur.

Other worldwide AN explosions

On 4th October **1918** in **Morgan** USA, a series of explosions at an ammunition plant containing 3600 tonnes of AN rocked the coastline triggering a fire and a series of explosions lasting for 3 days. Over 300 buildings were destroyed and many craters were left behind. About 100 people died at the plant, 62,000 were left homeless. The cause was never confirmed.

On 21 September **1921** an explosion took place in **Oppau** Germany when a mixture of ammonium nitrate/sulfate that was being stored in a tower silo exploded. The explosion left a deep crater, 500-600 people were killed and 2000 were injured.

On 16 April **1947** in the **Texas City** port, a devastating AN explosion began with a fire on board the **Grandcamp** steamship where 2,300 tonnes of ammonium nitrate fertilizer (wax-coated) in paper bags were contained in the hole. The detonation then caused an explosion on the **High Flyer** steamship, which was docked nearby, loaded with about 900 tonnes of bagged AN. Altogether, 581 people were killed, more than 4000 injured, 178 were missing and 2000 left homeless.

On 21 September **2001** in **Toulouse** France, an explosion at a chemical and fertilizer plant containing 300 tonnes of AN destroyed the entire factory, killing 31 people and injuring more than 2000. The factory was situated close to the city so several schools, a university and hospital had to be evacuated.

Other AN explosions:

- 1942 Belgium - 189 killed
- 1947 France - 29 killed
- 1959 Roseburg, Ore - 14 killed
- 1973 Pryor, USA - 8 injuries
- 1988 Kansas City, USA - 6 killed
- 2004 Romania - 18 killed
- 2004 North Korea - 162 killed
- 2007 Mexico - 37 killed

How to measure the success of your safety programmes during economic slowdowns and times of crises

Saide Aly Mansur is Managing Director Mansur and Associates International Consultants, and Advisor to the Strategic Centre for Consultancy & Technology (SCCT) Qatar.

The reality of budgetary pressures is not new to safety departments. Especially during economic slowdowns or in times of crises when executives focus in on cutting costs, it has always been vital for safety professionals to be able to justify their activities.

Aside from budget pressures, being able to demonstrate the value and the impact of your safety programmes is crucial to help build momentum and support for future initiatives. Without the support of executive management, supervisors, and employees, safety programmes will not reach their full wide - ranging impacts or help drive a cultural shift.

One of the most effective ways to gain this kind of company-wide buy-in is to be able to demonstrate the effectiveness of previous programmes and building upon that success.

Let's take a deeper look into the challenges that safety professionals face when trying to define success and outline best practices to help you demonstrate the value of the company's safety programmes and initiatives.

MAKING INVISIBLE SUCCESS VISIBLE – MEASURE POSITIVE IMPACTS

Every safety department faces the same challenge of figuring out how to measure their positive impacts. Oftentimes, safety teams are viewed as a cost of doing business with no tangible value, but we all know that's not the case.

Safety incidents can be costly and impact the company's bottom line if the public loses trust in the company. While injuries, illnesses, absences, and accidents are visible, and the negative effects of an unsafe environment are readily apparent to anyone in the company, it's what safety professionals do behind the scenes to prevent these things from happening that often gets overlooked.

So how do you shine a light on these efforts that prevent injuries and illnesses? Much of the work that safety professionals do results in benefits that are only apparent through careful measurement and reporting.

Being able to attribute a measurable impact to your efforts is critical to get buy-in for current and future safety programmes and initiatives.

HOW TO EVALUATE SUCCESS

Despite the complexity in justifying your safety programmes and initiatives, there are ways to define and measure the results of your work. The first step is to select an appropriate methodology.

There are many ways that the impact of a project or programme can be measured. Each is calculated and measured differently and often relates to a different stage of your safety programme.

Let's look at two examples:

EFFECTIVENESS EVALUATION – MEETING THE OBJECTIVES

An effectiveness evaluation, in its simplest terms, determines whether the results of the specific programme meet the outlined objectives. The success measurements for this method identify the impacts of a programme and look at the magnitude of its effect.

Areas that safety professions would look to measure include: injury rates, near misses, events with significant injuries, worker compensation benefits.

It's important to note that there are a number of variables that can have an impact on the perceived effectiveness of a particular programme, so safety professionals may need to dig in to learn more about why a programme wasn't as successful as they thought it would be.

Things like employee turnover, changing operations, and mergers and acquisitions can impact the results.

FINANCIAL-BASED ANALYSIS

Executive management wants to see financial-based analyses, such as cost-outcome analysis, cost-benefit analysis or cost-effective analysis. All of these analyses more or less work the same way, but one may be more appropriate to use than the others.

First, you estimate the net cost of your programme by defining how much it costs to implement, then subtracting the cost savings that can be associated to the project.

Determining the cost savings can be challenging, since these are typically considered avoided costs, so it's important to be able to demonstrate quantitatively that the programme had a direct positive impact on such things as injury rates, absenteeism, and occupational health costs.

PLANNING COMES FIRST

Demonstrating programme value should be the primary goal before designing the programme.

The requirement to provide justification for your work has numerous knock-on effects that dictate what kind of programme to implement and what to measure.

If this value calculation is not top of mind during the planning phase, then there's a good chance that you'll get to the end of the programme without the data you need demonstrate to management that the programme was a success. Typically, for every safety programme, the planning phase should cover the following:

- **Define the scope:**
  Work collaboratively – involve employees and managers to define the purpose of the programme, the main questions, identify available resources, establish goals for the project, and specify a deadline.
- **Organise a committee of stakeholders:**
  Be sure to include those who will communicate results, such as managers, worker representatives and evaluation experts.
  You should look for members who have different perspectives. Getting buy-in from different divisions, departments and disciplines will ensure that your programme benefits a wider segment of the organisation, rather than a small niche.
- **Develop models:**
  Attempt to predict how the programme will work and try to identify any outside variables that may have an impact on the validity of your results. Work done at this stage should save you time and energy. No one wants to have to redesign a programme after its been implemented.
- **Choose your evaluation criteria:**
  As already discussed, you need to determine what the goals are and how you are going to measure the programme's impact.
  Consider giving a higher weighting to certain outcomes. Be careful not to make data collection too onerous, think about scalability – this group may have buy-in but will everyone else? It's important that you understand what it is you are going to measure.
  Questions you should ask yourself and others, "Does the programme lean towards being measured in a certain way?" and "Will the results be statistically valid?". Asking these sorts of questions will help ensure that you aren't overlooking things when you are analysing the results.
- **Resources:**
  Do you have the resources to introduce experimental design elements into your evaluation, such as control groups, random selection, and accurate pre-programme measurements? Knowing the answers to these questions will help ensure that the results you get are defensible.

MEASURING RESULTS

At the end of a project, you want to be able to see whether the programme as designed is suitable for a wider application in the organisation.

If something in the data indicates that the design of the programme should be changed – test it again. Don't look at the data and see a positive effect and be lulled into thinking that the positive effect will surely be replicated in the rest of the company.

If there are indications that something might not be right, drill down into it and think about ways to improve the programme design. This is the whole point of continuous improvement.

CONCLUSION

Hopefully, it is clear by now that there is no silver bullet when it comes to proving the value of safety programmes and initiatives.

Every organisation has different priorities, so there is no standard definition of 'value' that is consistent across industries. It's because of these shifting priorities that we have such an abundance and variety of tools available to us to plan and construct a safety programme.